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MEDICAL LATIN IN THE ROMAN EMPIRE

D. R. LANGSLOW

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for my teachers past and present

PREFACE

This book presents a linguistic profile of Latin medical terminology in the Roman Empire, with special reference to A. Cornelius Celsus, Scribonius Largus, Theodorus Priscianus, and Cassius Felix. Its principal concern is with patterns of vocabulary and forms of expression in Latin medical texts of the first five centuries AD, but, in characterizing medical language with reference to both literary and non-literary, elite and sub-elite, varieties of Latin, it ranges quite widely over the Latin language in its various styles and registers during this period. While it touches on many points which have more to do with medical or social and cultural history than with language and (socio)linguistics, it is intended primarily as a contribution to the history and the description of the Latin language in antiquity.

The present work represents a substantial revision of my thesis, which offered a systematic account and comparison of the terminology of two of the surviving Latin medical writers, Celsus (1st cent. AD) and Cassius Felix (5th cent. AD). To the study of these two authors I have added here, on the basis of research done since 1991, large amounts of data on the language of other medical writers, notably two near-contemporaries of Celsus and Cassius Felix, namely Scribonius Largus (1st cent., slightly after Celsus) and Theodorus Priscianus (4th–5th cent., slightly before Cassius).

In recent decades, and especially since the early 1980s, the history of the texts, ideas, practices, and artefacts of ancient healing has attracted considerable interest, within classical studies and elsewhere. There is still, however, no systematic treatment of the language of the associated texts. On the face of it, this is perhaps surprising, given that, in the absence of external evidence, the language of a medical text (or any text at all, for that matter) is the most precious source for answering the fundamental historical questions about the text and its background and context (who? where? when? why?), and in view of the fact that comparison of technical and non-technical texts has much to teach us about the corresponding registers of the language. On the other hand, the size and nature of the extant corpus of Greek and Latin medical texts should temper our amazement that full socio-historical accounts of 'medical Greek' and 'medical Latin' are still outstanding. The present work does not pretend to supply this missing full account—it must stand to some extent as a pilot study—but it does characterize in some detail the 'medical Latin' of four long and

important texts, which shed light in different ways on aspects both of the history of the Latin language and of the healing profession at the beginning and end of the Empire. Moreover, the descriptive framework developed and applied here will, it is hoped, lend itself to the study of other texts, medical or not, both in Latin and in other languages.

In accord with modern practice (cf. e.g. Wüster (1966: 255) and Fluck (1980: 16)), three principal lexical fields of medicine are distinguished and investigated in this study, namely anatomy and physiology, pathology, and therapeutics. From the last the terminologies of botany, mineralogy, and food and drink are excluded from formal systematic study (although included frequently in more informal remarks), partly on grounds of space, partly because they are marginal as specifically medical subjects, and partly because they are already treated in accessible works of reference (respectively André (1956*b*) and (1985*b*) on botany, André (1961) on food and drink, Goltz (1972) on mineralogy). That is to say, the focus throughout is on what Innocenzo Mazzini has called (1991*a*: 178) 'medicismi diretti', words naming or describing objects directly and essentially related to medicine.

Of the six chapters that follow, *Chapter 1* sets out the aims and background of the whole. It suggests why the field of technical language in general—and of medical language in particular—may be of interest and importance for general linguists, philologists, and historians alike. With reference to the modern world, it considers the nature and characteristics of technical language—including the similarities, differences, and problems to be encountered in studying technical terminology in a corpus language—and addresses the questions of defining and drawing the limits of the medical terminology to be considered in the body of the book. With reference to the ancient world, it reviews the notion of 'medical Latin', especially arguments for and against the existence of such a variety of Latin. Chapter 1 concludes with a fuller introduction to the four texts which constitute the focus of this monograph and a brief catalogue of surviving Latin medical literature to the end of the sixth century AD.

Chapters 2–5 deal each in some detail with aspects of a particular type of 'term-formation' that is of evident importance in the terminology of our medical authors. (My term 'term-formation' differs in content from the superficially parallel 'word-formation' in embracing all linguistic processes that lead to the creation of new terms in Latin.) From the available literature (notably Fluck (1980: 47–55), Sager, Dungworth, and McDonald (1980: 251–87), and Untermann (1978)), it emerges that just seven means of term-formation will account for all modern technical terms. These are:

(1) borrowing;
(2) the use of proper names;
(3) semantic extension, esp. of non-technical words in technical usage;
(4) compounding and suffixal derivation;
(5) the formation of lexicalized phrases;
(6) Greek- and Latin-based neologisms;
(7) the use of abbreviations and formulae.

Each of these linguistic means of term-formation, with the probable exception of those numbered (6) and (7), plays a part in the formation of Latin medical terms. (Derivatives made to a Latin stem with a Greek suffix (e.g. *iecoriticus* 'a sufferer from a disease of the liver', *uaporizare* 'to apply, treat with, steam') are, I think, the closest our texts have to offer to (6); as for (7), there are, of course, abbreviations in the manuscripts but none that we have reason to believe were vocalized.)

Of the listed types of term-formation, *borrowing*, and especially the status of foreign words within the medical terminology, is the concern of *Chapter 2*, which has an appendix on the use of *proper names* as medical terms. *Chapter 3* discusses prominent types of *semantic extension*, or the use of familiar words in an unfamiliar sense, especially specialization or extension of sense, abstract and concrete senses, and metaphor. *Chapter 4* deals with the formation of *lexicalized phrases* (here called 'phrasal terms'), paying particular attention to the problem of word-order within the noun phrase in classical Latin generally. *Chapter 5* considers the very small part played in Latin medical terminology by *compounding*, the conversely central role played by *suffixal derivation*, and in particular the apparent favouring of particular suffixes in well-defined lexical or semantic fields. *Chapter 6*, finally, moves beyond morphology and the lexicon to address some features of syntax and style that arise in connection with the choice of medical referring-expressions. It depicts certain aspects of prose-style relevant to medical writing as constituting a scale or continuum running between two poles, the one (here called 'diffuse') relatively long-winded and varied in its syntactic structure and based on verbs and adjectives as much as on nouns, the other ('compact') more compressed, much less variable, and dominated by nouns and nominalizations. By way of conclusion and summary, several striking parallels and one or two contrasts are drawn between ancient Latin and modern English medical prose, with regard to nominalization and syntax in the 'nominal' style, the prevalence of nouns and nominalized forms in the terminology, and other formal, semantic, and distributional properties of ancient medical terms which have emerged in earlier chapters.

Whatever its remaining shortcomings, which are entirely my responsi-

bility, this book would have been much inferior without the learned guidance and constructive criticism of various colleagues and friends over the past seven years, and it is a pleasure to record my deep gratitude in particular to my supervisor, Anna Morpurgo Davies, to my examiners, Bob Coleman and Jürgen Untermann, and also to Jim Adams and Klaus-Dietrich Fischer. Cloudy Fischer has been of enormous assistance throughout with medical bibliography, ancient and modern (including many unpublished articles of his own), and he suggested numerous improvements to the catalogue of Latin medical texts (1. 4. 5), in particular. Jim Adams very generously read a near-final version of Chapters 1–5 and improved them greatly with numerous and penetrating comments and questions. I owe a further immense debt of gratitude to the Alexander von Humboldt Foundation for the research award which allowed me to do the groundwork for the thesis in Cologne in 1986/7, under the stimulating guidance of Jürgen Untermann, and, appropriately enough, to correct the present work in Mainz in 1998 while launching, with the generous and learned assistance of Cloudy Fischer, a new project on medical Latin arising directly from this monograph (cf. Adams and Langslow, forthcoming). I am indebted and grateful also to the British Academy and the Fonds National Suisse de la Recherche Scientifique for funding, between 1992 and 1998, a total of four visits to the Fondation Hardt in Vandœuvres, Geneva, each of which enabled further progress to be made on the monograph, and to the permanent staff and my accidental fellow-guests at the Fondation for making so enjoyable those intense but peaceful periods of study. My thanks go also to the President and Fellows of Wolfson College, Oxford, and to successive Boards of the Faculty of Literae Humaniores for granting me terms of sabbatical leave in 1992, 1996, and 1998, which allowed periods of sustained work on the revision of the thesis. The final version of the book has benefited greatly in the course of production from the friendly and cheerful encouragement and high professional competence of Hilary O'Shea and Georga Godwin at OUP and of Angela Blackburn and Andrea Purvis at Invisible Ink Publishing Services. There are other debts, too, of course, ranging from the more or less academic-related to the purely personal. These I feel very keenly indeed, but they are impossible to acknowledge adequately in words. I must simply ask my wife, children, parents, and families, my friends, my teachers, my colleagues, and my students, all past and all present, to believe that I am constantly aware of, enriched by, and profoundly thankful for all that you have given and taught me and give and teach me still.

DRL

Oxford, June 1999

CONTENTS

ABBREVIATIONS, SIGNS, AND CONVENTIONS

References to Scribonius Largus (Scrib.), Theodorus Priscianus (Theod.), and Cassius Felix (Cass.) are to *page. line* of the editions of respectively Sconocchia (1983), Rose (1894), and Rose (1879); in these authors 't.' before the reference means 'in a title'; in Scribonius 'ind.' before the reference means 'in the index'. References to all other Latin texts are abbreviated as in the *OLD*, or, for the later period, the *ThLL*, or more explicitly. Greek authors and works are cited according to the conventions of LSJ.

The titles of periodicals and journals are abbreviated after the manner of *L'Année philologique* (Paris 1928–). In addition the following abbreviations are used:

ANRW	H. Temporini and W. Haase (eds.), *Aufstieg und Niedergang der römischen Welt* (Berlin and New York, 1972–).
CIL	*Corpus Inscriptionum Latinarum* (Berlin, 1863–).
CMG	*Corpus Medicorum Graecorum* (Leipzig and Berlin, 1923–).
CML	*Corpus Medicorum Latinorum* (Leipzig and Berlin, 1915–).
Du Cange	Ch. Du Fresne dom. Du Cange, *Glossarium ad scriptores mediae et infimae latinitatis* (revised by L. Favre) (Niort, 1883–7).
Ernout–Meillet	A. Ernout and A. Meillet, *Dictionnaire étymologique de la langue latine: Histoire des mots* (4th edn., revised by J. André) (Paris, 1985).
Forcellini	Ae. Forcellini, *Totius latinitatis lexicon* (Prati, 1858–70).
Georges	K. E. Georges, *Ausführliches lateinisch–deutsches Handwörterbuch* (8th edn., revised by H. Georges) (Hanover, 1913–19).
HLL	R. Herzog and P. L. Schmidt (eds.), *Handbuch der lateinischen Literatur der Antike*, vol. 4: *Die Literatur des Umbruchs von der römischen zur christlichen Literatur, 117 bis 284 n.Chr.*, ed. K. Sallmann (Munich, 1997); vol. 5: *Restauration und Erneuerung. Die lateinische Literatur*

	von 284 bis 374 n. Chr., ed. R. Herzog (Munich, 1989); vol. 6: *Das Zeitalter des Theodosius, 374 bis 430 n. Chr.*, ed. J. Fontaine (Munich, 2000). References to vol. 6, with '§', are to numbered paragraphs.
ILS	H. Dessau (ed.), *Inscriptiones Latinae selectae* (Berlin, 1892–1916).
LexMA	*Lexicon des Mittelalters*, 9 vols. (vols. 1–6 Munich and Zürich, 1980–93; vols. 7–9 Munich, 1995–).
LSJ	H. G. Liddell, R. Scott, and H. S. Jones, *A Greek–English Lexicon* (9th edn.) (Oxford, 1940, with the Revised Supplement edited by P. G. W. Glare, 1996).
OLD	P. G. W. Glare (ed.), *Oxford Latin Dictionary* (Oxford, 1968–82).
PL	J.-P. Migne and others (eds.), *Patrologiae cursus completus: Series Latina* (Paris, 1844–1900).
PWRE	A. Pauly, G. Wissowa, and W. Kroll, *Real-Encyclopädie der classischen Altertumswissenschaft* (Stuttgart, 1893–).
REW	W. Meyer-Lübke, *Romanisches etymologisches Wörterbuch* (3rd edn.) (Heidelberg, 1935).
Tab. Vind.	A. K. Bowman and J. D. Thomas, *The Vindolanda Writing-Tablets (Tabulae Vindolandenses II)* (London, 1994).
ThLL	*Thesaurus Linguae Latinae* (Leipzig, 1900–).
Walde-Hofmann	A. Walde and J. B. Hofmann, *Lateinisches etymologisches Wörterbuch* (5th edn.) (Heidelberg, 1982).

'Anat.', 'Path.', and 'Ther.' refer to the lexical fields of respectively anatomy and physiology, pathology, and therapeutics.

+ after an author's name in square brackets (e.g. [Cels.+]) means 'attested first in' (e.g. Celsus).

< between linguistic forms means 'by regular sound-change from'.

> between linguistic forms means 'by regular sound-change becoming'.

← means in Chapter 3 'by semantic extension from', in Chapter 6 'by nominalization from'.

→ means in Chapter 3 'by semantic extension becoming', in Chapter 6 'by nominalization becoming'.

‖ means 'with a semantic parallel in'.

Greek words are normally transliterated and Latinized if they occur in a discussion of their use in a Latin medical text. In quotations from Latin texts, they appear in the form used in the edition of the text. They are listed in Latin form and in Latin alphabetical order in the Index & Glossary of Greek words.

In Latin quotations, [ ] enclose Latin or English material *in italics* if it is supplied from the context in order to clarify the quotation, in roman if it is bracketed by the editor or if it is information supplied from the apparatus criticus.

In references to Cels. 4. 27. 1D, 'Tol. *xx*' refers to *line(s)* of the edition of the new material from Toledo by Capitani (1974: 170–2).

1

'Medical Latin'

1. 1 Background and Aims of the Present Work

In 1931 the great French Latinist Jules Marouzeau observed (1931: 32) that one of the least-studied aspects of Latin vocabulary was that of technical language, 'la langue technique'.[1] Technical authors had even then long been recognized as being of great importance for the study of the later Latin language, but they had been, and were still, treated chiefly as evidence for popular, or 'vulgar', Latin; to be sure, this tradition was not without excellent results, which continue to emerge.[2] Neglect of the technical languages per se had been based on the implicit, sometimes explicit, assumptions that it was impossible to separate 'technical' Latin from 'Vulgar' Latin and that the 'Fachsprache', or 'Sondersprache', consisted of nothing more than a number of 'Fachausdrücke',[3] so that until recently the possibility was not explored of characterizing the language of Latin technical writers as other than popular or vulgar. Among the medical writers, those not noted for their popular language had been especially neglected. While the popular elements in texts such as Marcellus and the Latin versions of Oribasius had attracted some attention, writers of a more classical form of Latin, such as Celsus, Scribonius Largus, or the Africans Theodorus Priscianus, Caelius Aurelianus, and Cassius Felix had been earlier by and large ignored.[4]

[1] Marouzeau was writing under the heading 'Suggestions de travaux' (part IV of the annual 'Chronique' in *REL*); he refers to Stéphanidès (1925), who is still worth consulting. On defining and characterizing technical language, see 1. 2 below.

[2] From the earlier part of this century note e.g. Ahlquist (1909); Niedermann (1912); Grevander (1926); Mørland (1932); Svennung (1932), and cf. Svennung (1935: viii–x). Among more recent work I would draw attention, by way of example, to Adams (1991) reporting from the language of the grammarian Pompeius important new evidence for the late Latin antecedents of the Romance synthetic future.

[3] For these assumptions made explicit, see Brandt (1927: 17) and Svennung (1935: ix with n. 1), and much more recently André (1986: 9).

[4] See on Chiron, Marcellus, Anthimus, the Latin Oribasius, and the Latin Dioscorides: Niedermann (1912), (1923); on Marcellus: Liechtenhan (1917); on the Latin Oribasius: Mørland (1932) and Svennung (1932). Early studies of the language of Celsus, such as Brolén (1872) and Jones (1929), focused on its departures from the standards of the orators. Wölfflin

Since 1931, progress in philological studies of Latin technical writers in general and of the medical writers in particular has been considerable and at times rapid and intense. Important work has appeared in the form of investigations of the vocabulary of particular special or technical subjects;[5] textual and grammatical studies of individual authors or texts;[6] surveys of, including conferences on, the range of Latin technical languages.[7] In the field of medicine, the 1930s saw a good deal of work (e.g. by Mørland, Svennung, Sundelin, Junel) building on the pioneering critical editions of the late nineteenth and early twentieth centuries, including those of the *Corpus Medicorum Latinorum*.[8] Basic philological work continued sporadically over the next four decades and then both intensified and diversified from the beginning of the 1980s, as Graeco-Roman medicine began suddenly to attract interest among classicists in almost every field, from archaeology and social history to philosophy and women's studies, and rapidly became first a growth and then a boom industry.[9] Since 1984 there exists a regular (biennial or triennial) international conference devoted to Latin medical texts, and also of special note are the collaborative studies pursued and published under the auspices of the Centre Jean Palerne in Saint-Étienne, under the direction of Guy Sabbah.[10] For a while, then, the Latin medical writers have been read not mainly as sources of Vulgar Latin

(1880) considers Cassius Felix not for his technical language but for his *Africitas*. Junel regards Cassius Felix as of interest chiefly as a writer of Vulgar Latin (cf. Junel 1936: 24, 35, 36); on Cassius Felix, see Sabbah (1985: 305–6).

[5] Above all by Marouzeau's greatest pupil, Jacques André, on botany (1956*b*) and (1985*b*), on food and its preparation (1961), on birds (1967), on anatomy (1991). Note also (e.g.) Bruno (1969) and Andrei (1981) on agriculture, Callebat (1974) on hydraulics, and now Adams (1995) on veterinary medicine.

[6] Such as Önnerfors (1956) and Leitner (1972) on Pliny the Elder, Bendz (1964) on Caelius Aurelianus, Till (1935) and Boscherini (1970) on Cato the Elder, Adams (1995) on Pelagonius.

[7] Especially Cousin (1943), de Saint-Denis (1943), De Meo (1986), André (1986). Among interdisciplinary conferences notice Radici Colace and Caccamo Caltabiano (1991), Sconocchia and Toneatto (1993), Nicolet (1996), his introduction and that whole volume on Roman technical literature (Fondation Hardt, Entretiens sur l'antiquité classique, 42).

[8] *CML* 1 Celsus (Marx 1915); *CML* 3 *Medicina Plinii* (Önnerfors 1964); *CML* 4 Antonius Musa, Pseudo-Apuleius, Sextus Placitus, etc. (Howald and Sigerist 1927); *CML* 5 Marcellus (Niedermann and Liechtenhan 1968); *CML* 6. 1 Caelius Aurelianus (Bendz 1990–3); *CML* 8. 1 Anthimus (Liechtenhan 1963). On the *CML* and the *CMG* (*Corpus Medicorum Graecorum*), see Kollesch (1989).

[9] Witness the size and range of interests of papers of the 1992 Leiden Congress, 'Ancient Medicine in its Socio-cultural Context', published in two volumes by van der Eijk, Horstmanshoff and Schrijvers (1995). Notice also *Médecine et morale dans l'antiquité* (Fondation Hardt, Entretiens sur l'antiquité classique, 43), for which see Mudry (1997).

[10] See Sabbah (1982), (1984*b*), (1988), (1991); Sabbah, Corsetti, and Fischer (1987); Sabbah and Mudry (1994); Debru and Sabbah (1998), the last containing a bibliography of work on Latin vocabulary relating to disease (Gourevitch 1998).

but as medical texts of interest in their own right, as evidence for social, cultural, and intellectual history, and even as literary texts.[11] There is as yet nothing approaching a systematic account of the language of the Latin medical texts, although large-scale lexicographical projects are under way,[12] and Önnerfors' massive article in *ANRW* 2.37.1 (Önnerfors 1993) provides an extremely useful survey and collection of bibliography and material, together with countless detailed observations, on grammar and style as well as vocabulary. To do for the language of human medicine in Latin what J. N. Adams (1995) has accomplished for veterinary medicine is a large—perhaps impossibly large—undertaking,[13] of which the present work is only a beginning.[14]

While significant progress has been and continues to be made in the philological study of the Latin technical writers, more general linguistic questions concerning technical languages in Latin have remained unanswered because they are largely unasked.[15] This neglect reflects a wider reluctance to take technical languages into account in other areas of linguistics. There is a substantial literature devoted to technical languages in isolation, especially to the practical problems of communication in technical contexts, of teaching, translating, and standardizing technical languages, but coherent treatment of technical words and technical languages in the context of the lexicon or the language as a whole is almost entirely lacking in the standard works on word-formation and semantics,[16]

[11] Note (e.g.) Römer (1987), Parroni (1989). The last (6th) conference on Latin medical texts (Nantes, September 1998) took as its theme 'Les textes médicaux comme littérature'.

[12] Note especially those announced in Sconocchia's intervention in Radici Colace and Caccamo Caltabiano (1991: 311 ff.), and in Debru and Sabbah (1998). These have occasioned the recent welter of computer-generated concordances to Latin medical and veterinary texts, including Marcellus, the *Medicina Plinii*, the *Mulomedicina Chironis*, Mustio, Pelagonius, Pliny the Elder, Scribonius Largus, Q. Serenus, Soranus, Pseudo-Soranus, and Vegetius (all published by Olms–Weidmann, Hildesheim, in the Alpha–Omega, A series). On the new wave of linguistic interest in all these writers, see De Meo (1986), André (1986), Mazzini (1991*a*) and (1991*c*).

[13] Even Adams (1995) gives a systematic account of only one veterinary text (that of Pelagonius), together with the veterinary sections of Columella, partly because of the state of the text of Chiron and Vegetius.

[14] Fischer (1994*b*) gives a useful overview of recent work on medical Latin. For further bibliography relating to Latin medical texts, see the beginning of 1. 4. 5 below.

[15] Cf. Mazzini (1978: 543) speaking of 'una . . . grave lacuna nel campo della linguistica latina, cioè la pressoché totale assenza di studi complessivi tendenti ad individuare e definire i caratteri delle lingue tecniche e scientifiche'.

[16] One looks in vain for any account of technical languages in e.g. Stern (1931), Kronasser (1952), Ullmann (1962), V. Adams (1973), Brekle (1974), Lyons (1977), Kastovsky (1982), Bauer (1983). Bloomfield (1939) was misunderstood and had very little impact (cf. Hockett 1970: 363; Sager, Dungworth, and McDonald 1980: xv). Bloomfield destroyed a 300-page manuscript entitled 'The Language of Science' (cf. Hockett 1970: 333–8). No school of linguistics has considered technical languages (cf. Sager, Dungworth, and McDonald 1980:

and, perhaps more surprisingly, in sociolinguistic studies of languages in contact and bilingualism.[17]

In view of this general neglect, it is perhaps worthwhile first to make clear what one can hope to gain from a study of technical languages in general, at the same time highlighting the specific case of Latin.

First, there is a broad linguistic question to be posed: do technical languages have any general, even universal, features which need to be taken into account in any linguistic description? Of course, an answer to this can come only from a multitude of descriptive studies. But it deserves to be stressed that such studies should include well-attested ancient languages, such as Latin and Greek, or the languages of ancient India and Iran,[18] which can show us also the beginnings and the development of traditions of technical writing.

Secondly, there is a question concerned with the theory of historical linguistics. It has been accepted ever since the appearance of Antoine Meillet's 'Comment les mots changent de sens'[19] that the so-called 'langues spéciales' play an important part in language change, and especially in semantic change. Technical languages offer perhaps our best—from the ancient world our only well-documented—examples of 'special languages' and it is likely that a study of the technical varieties of a language will yield insights into the live productive forces at work within the language as a whole in the formation of words and in the determination of their meaning.

This applies with equal if not greater force to Latin, as a well-attested ancient language which has, as far as we can tell, at least in the earliest phase of our evidence, no fully formed technical language. For, especially

xxiii). Good introductions to the study of technical languages in the context of applied linguistics are Sager, Dungworth, and McDonald (1980) and Fluck (1980), both with extensive bibliographies. Note also the collection of articles and select bibliography for the years 1970–8 in von Hahn (1981). It is in eastern Europe that technical languages have been most fully explored, esp. in German, Czech, and Russian. This is reflected in the fact that in Schippan (1984), for example, a textbook on lexicology from (what was) the GDR, a whole chapter (ch. 6) is devoted to special and technical vocabularies. Note, however, the chiefly practical, pedagogical, concerns of much of the literature, including Reinhardt (1964); Beneš (1966); Drozd (1966); Sager, Dungworth, and McDonald (1980: xiii–xxii).

[17] See e.g. Mackey (1972), Bratt Paulston (1988), Milroy and Muysken (1995).

[18] For an orientation on Sanskrit medical texts, terminology, and bibliography, see Meulenfeld (1974), esp. the introduction and appendices 2 and 3. For Avestan and Middle Persian medical literature and language, see e.g. Brandenburg (1969) and Sohn (1996). Note also Goltz (1974).

[19] In *L'Année sociologique* 1905–6, reprinted in Meillet (1921: 230–71). Note esp. pp. 243–57, and the conclusion on p. 257: 'Il apparaît donc que le principe essentiel du changement de sens est dans l'existence de groupements sociaux à l'intérieur du milieu où une langue est parlée, c'est-à-dire dans un fait de structure sociale.' I owe this reference to Professor Morpurgo Davies.

at the beginning of a tradition of writing on special subjects, technical languages offer an ideal arena in which to study the linguistic responses of Latin writers to the need to expand the lexicon in order to provide names for new objects, practices, techniques, and ideas. On the one side is the subject matter, on the other, the Latin language, the writers' knowledge of the Latin language, their implicit knowledge of the resources of Latin for labelling and talking about new things. How will they use the Latin that they know to name and discuss technical matters?

Thirdly, there is the straightforward requirement for all linguists to produce a description—synchronic or diachronic—of their language that is as complete as sources and resources permit. Technical languages may be seen as *varieties* of a language,[20] with their own history and areas of overlap with non-technical varieties which may have influenced them and have been influenced by them. Beside geographically based dialectal variation within a language, we recognize sociolinguistic variation along several parameters, including age, class, sex, level of education, and so forth. Another such parameter is surely *occupation*, each occupation or profession bringing with it its own technical language and influencing the general speech-habits of its practitioners to a greater or lesser extent.

Like an age-, sex-, or class-related variety, a technical language will be limited in use not only to certain interlocutors but also to fixed topics, namely the relevant technical matters. Like other sociolinguistic varieties, or sociolects, a technical language may have considerable overlap with the standard language. It will have, typically, non-standard features at all levels of the grammar, including even pronunciation and spelling (Sager, Dungworth, and McDonald 1980: 301–13). But the speaker/writer of the technical variety will be also a speaker/writer of at least one other variety of the language, thus belonging simultaneously to at least two linguistic groups, each of which may be reasonably expected to influence the other(s).

Fourthly—a point related to the last—the study of technical languages may be indispensable for a more banal but no less essential purpose: that of understanding what is said or written in the language. When this language is known only through written documents—as is the case for Latin—our aim, which must be in the first instance to understand the transmitted texts, is served best by a specialized study of those varieties of the language which are otherwise not immediately accessible. Only on this basis, furthermore, is it possible to identify and evaluate accurately the use of technical language in non-technical writings.[21]

Reverting to the Roman world, then, we can say that the Latin *artium*

[20] On technical languages as varieties of a language, see esp. Möhn (1968) and Sager, Dungworth, and McDonald (1980: 63–5).

[21] On this last point, see Stéphanidès (1925: 477), de Saint-Denis (1943: 65–6), and note now the work of Mazzini (1988*b*), (1990), (1991*b*), (1992*c*), and Migliorini (1988), (1997).

scriptores merit the attention of philologists and (socio)linguists for at least the following purposes: as part of a complete account of what we call 'Latin'; for interpreting and evaluating the use of technical language and terminology in non-technical writings; as case studies of the possible and the preferred means of expanding the Latin lexicon in response to the need to name a multitude of new objects; to discover whether Latin technical languages have formal or semantic characteristics of their own, distinguishing them from the general language, and to identify mutual influences between the technical and general language or between different technical varieties;[22] and to compare Latin with other languages, with a view to identifying cross-linguistic similarities, conceivably even universals,[23] of technical languages and terminologies. All this is quite apart from the obvious contributions that such study may make to the history of science and technology, both in detail and at the most general level.

So much by way of introduction to the relevance and potential interest of this field within (Latin) philology and linguistics, on the one hand, and within classical studies quite generally, on the other. I turn now to introduce our objects of study themselves. I begin with technical language, focusing first (1.2) on the more formal side, in particular on the definition and characteristics of technical terminology, and secondly (1.3) on the sociolinguistic background and on the notion of technical (especially medical) language in both modern and ancient times: special attention is paid in this latter part to the problematic notion of 'medical Latin' in the Roman world.

1. 2 On Defining and Characterizing Technical Language

1. 2. 1 TECHNICAL LANGUAGE AND TECHNICAL VOCABULARY

I have spoken thus far of technical *language*, and deliberately so. Some linguists have emphasized that, if we are to use the label 'technical language' sensibly, we should characterize a technical variety at all levels of the grammar, and not just as a special lexicon.[24]

The fact remains, however, that the lexicon is much the most prominent and best-documented aspect of technical languages.[25] While it is, of course,

[22] See e.g. on the influence of the Christian language on medical Latin, Mazzini (1991*d*).

[23] On this point one must, of course, remain sensitive to potentially relevant differences between the cultural settings in which technical languages arise.

[24] On Latin, Cousin (1943) is a good example. Cf. more recently Fischer (1994*b*: 154 with nn.).

[25] On the prominence of the lexicon of technical languages, see Bloomfield (1935: 516–17), Vendryes (1939: 296), Jumpelt (1961: 3), Reinhardt (1964: 452–3), Drozd (1966: 441–3), Porzig (1971: 259), Fluck (1980: 47), André (1986: 9); cf. p. 377 below.

of great interest and importance to characterize a technical language in point of inflection, syntax, and stylistics, as well as word-formation and vocabulary, it is in the lexicon that technical varieties—indeed, all special languages—differ most obviously from other, non-technical varieties. This is because the essence of a technical discipline is a structured set of objects and methods, some of which—in the modern world nearly all of which—are unfamiliar to the layman. These acquire names whose correct use depends on sharing at least part of the specialist's knowledge of the discipline. Because it names things which are not named in the language of every day, the lexicon of a technical language must be peculiar, but there is no corresponding functional need for the technical language to develop non-standard features in spelling, pronunciation, inflection, syntax, or style. Such features do occur, and, although strictly incidental to the functioning of the technical language, are of great interest from a stylistic and sociolinguistic point of view: in Chapter 6, I consider some aspects of the syntax and style of medical language.[26] In the meantime, however, this study is concerned mainly with derivational morphology and lexicology, and accordingly for the remainder of section 1. 2, I shall confine my remarks to technical terms and terminology (as opposed to technical languages).

1. 2. 2 THE NATURE OF TECHNICAL TERMINOLOGY

In acknowledging that the essence of a technical language lies in its vocabulary we are closer to understanding the concepts 'term' and 'terminology'.[27] Technical terms—and their collectivity, terminology—are referring expressions which label the objects of a classification within the relevant *techne*. They are not in themselves abnormally precise expressions,[28] but the items that they label are more precisely defined and classified than is usual in everyday language. The language supplies not the classification but merely the nomenclature for the things classified. The elements of this nomenclature are technical terms and their sum is the technical terminology.[29] The boundaries implied by the names 'term' and 'terminology' (Latin *termen* 'a boundary-stone') are features not of the

[26] On syntax and style in special languages, see e.g. Beneš (1966); Gopnik (1972); Möslein (1974); Sager, Dungworth, and McDonald (1980: 182–228); Fluck (1980: 55–6, with bibl., 200–1, 227); Hoffmann (1986); Reinhardt and Köhler (1986).

[27] In what follows the examples are drawn almost exclusively from a branch of medicine. This is my particular starting-point but it may be inferred from the general literature on technical languages, to which reference is made in the text and notes, that the broad observations made in this chapter apply more generally than to the language of medicine alone.

[28] The 'Genauigkeit' ascribed by e.g. Schippan (1984: 246) to a *Terminus* is a property of the classification, rather than of its labels.

[29] Cf. Kocourek (1968: 131); Untermann (1978).

linguistic forms but of their references, which have been established by those investigating and classifying the technical phenomena. An essential feature of the classification is the drawing of clear and firmly fixed lines so as to divide the phenomena into classes and subclasses of ever-decreasing size until every discrete item has its own label and defined position within the set.

Consider, by way of illustration, the following medical classification drawn from Read, Barritt, and Langton Hewer (1984). The chapter is entitled 'Diseases of the Skin'; top-level headings within the chapter include *bacterial skin infections*, *viral skin infections*, and *fungal skin infections*. *Bacterial skin infections* is divided into sections on *staphylococcal infections*, *streptococcal infections*, and *other bacterial infections*. *Staphylococcal infections* includes sections on *impetigo* and *furuncles*; *streptococcal infections* embraces treatments of *erysipelas* and *cellulitis*; *other bacterial infections* includes *syphilis*, *tuberculosis*, and *leprosy*.

The one essential function of a technical term is to refer unambiguously to a class, a subclass, or an individual item in the technical classification. To take a case from the example of skin-diseases, the modern term *impetigo* stands effectively as a label for the following: 'When staphylococcal infection involves the surface of the skin it gives rise to blisters which last 1 or 2 days and then dry up, leaving a crust' (Read, Barritt, and Langton Hewer 1984: 167), together with an accompanying photograph of a child with a bad case of impetigo. The description of the cause, location, symptoms, duration, and after-effects of the infection, which looks like this (the photograph is a means of deixis), is altogether a single item, one of the class called *staphylococcal infections*, which is one of three types of *bacterial infections*, which constitute one of a number of different types of *diseases of the skin*. The term *impetigo* provides a short and handy means of referring to this item and to its place within the classification of *diseases*.[30]

While the form of a technical term is, in principle, a matter of little or no consequence to the functioning of the terminology[31]—in particular there is no need for it to be short and handy (but see 1. 2. 6 and 1. 2. 7 below)—one further standard requirement of a linguistic form as technical term is monosemy, that is, that it should occur only once in the terminology, or at least in each well-defined branch of the terminology (Sager, Dungworth, and McDonald 1980: 67). That is to say, a terminology should not include any instances of polysemy. It would lead to disabling ambiguity among skin-specialists if, say, *impetigo* were the term also for a species of viral

[30] On the functioning of technical terms in this way, see Sager, Dungworth, and McDonald (1980), 75 (on words and terms); 76–7 (on the process of designation); 79–80 (on the creation of terminological systems).

[31] Any word of the general language can be terminologized; cf. Fluck (1980: 50).

skin infection, since its contexts would be so similar to those of *impetigo* the bacterial infection.

An ideal technical terminology, then, may be said to consist of a set of referring expressions, each occurring once only, each labelling an item or class of items that has a well-defined place within a classification of the set of objects of study of the technical discipline. An account of such a terminology, in addition to listing and defining the terms, would also indicate the semantic connections that link them.[32]

Such an account is straightforward in the abstract. Can it be applied in practice to technical terminologies in corpus languages? Let us take the case of Latin. Here we must expect to face, apart from the familiar problems of interpretation which beset attempts to write any part of the grammar of a corpus language, also problems peculiar to technical terminology in a corpus language.

An obvious concern is that our knowledge of Latin medical terminology is incomplete. It is clear, for example, that we lack many of the anatomical and surgical terms of Scribonius, Theodorus, and Cassius Felix, since they give no systematic account of these areas. Even the terminology of Celsus, which is much fuller on both these subjects, may not be assumed to be complete; no amount of importation of terms from near-contemporary authors will render it complete. We must reckon in principle also with the converse danger that some Latin words which a contemporary would have taken to be technical medical terms may now not be identifiable as such, especially if they are not explicitly linked to Greek terms. Then there is the problem of establishing for many words their status within the terminology. This applies especially to words which occur just once in an author's work, or, worse, once only in extant Latin. In Cassius Felix, for instance, there are a few cases, such as *fossula* or *rotula*,[33] which are made to translate Greek terms (respectively *bothrium*, a type of ulcer, and *trochiscus*, a round tablet), but which occur as medical terms nowhere else in Latin and give rise to the suspicion that they are nonce-formations, rather than Latin terms of any currency.

Let us take it, though, that such problems are not unduly disabling of our purpose; there is, after all, a great deal of technical material to be described and accounted for. On the positive side, we can observe straightaway that the presence of certain general features is assured in ancient terminology, however incomplete it may be.

To begin with, it is clear that there was widespread concern in the

[32] One could add that individual terms tend, much more strongly than ordinary words, to stylistic neutrality, to avoidance of connotative features; cf. Schippan (1984: 246). On the 'objective' nature of 'scientific discourse', see Bloomfield (1935: 501–3), (1939: 42–3).

[33] See 3. 6. 2. 1d below.

ancient world to tie a technical terminology to a systematic classification of the technical subject.[34] Let me illustrate this again with reference to skin-diseases (as in the modern example above), drawing on the arrangement of Celsus. Celsus uses a quite different system of classification, but one that is no less clear and structured. At the beginning of 5. 26, Celsus sets out five classes of disease with which he will deal in turn in subsequent chapters:

> 5. 26. 1A genera in quibus noxa corpori est proponam.

These classes are:

(1) cum quid extrinsecus laesit, ut in uulneribus (wounds occupy the rest of 5. 26, animal-bites the whole of 5. 27);
(2) cum quid intra se ipsum corruptum est, ut in cancro (skin-diseases thought to arise from internal corruption are discussed in 5. 28);
(3) cum quid innatum est, ut in uesica calculus;
(4) cum quid increuit, ut uena quae intumescens in uaricem conuertitur;
(5) cum quid deest, ut cum curta pars aliqua.

He divides each class into those diseases which call for treatment by medicaments (which he will discuss now), and those which require surgical treatment (which he postpones to book 7). He makes one further high-level division:

> 5. 26. 1B diuidam autem hanc quoque curandi partem sicut priorem et ante dicam de *iis quae in quamlibet partem corporis incidunt*, tum de *iis quae certas partes infestant*.

At the opening of 5. 28, he passes from class (1) to class (2) with the words:

> 5. 28. 1A ab *his quae extrinsecus incidunt* ad ea ueniendum est *quae interius, corrupta aliqua corporum parte, nascuntur*.

In 5. 28, he devotes one section to each of eighteen different members of this class, to some of which he ascribes more than one species. Section 17 is a case in point. It concerns something called *impetigo* (cf. the modern terminology above) and begins with the words:

> 5. 28. 17A inpetiginis uero species sunt quattuor.

Each of the four types is described carefully in turn, in ascending order of seriousness. The first, and mildest, is compared with and distinguished from *scabies*. The second resembles *papula* but is again carefully dis-

[34] It is a central concern at Cic. *Acad.* 1. 5, with reference to rhetoric and logic. (Varro is speaking about the desirability of leaving writing on philosophy to the Greeks.)

tinguished. The third is even more serious, being thicker and harder and accompanied by greater swelling. The fourth, untreatable, receives a description which I quote in full, in order to exemplify the sort of detail that Celsus devotes to the 'ultimate constituents' of his terminology:

> 5. 28. 17C quartum genus est, quod curationem omnino non recipit, distans colore: nam subalbidum est et recenti cicatrici simile; squamulasque habet pallidas, quasdam subalbidas, quasdam lenticulae similes, quibus demptis nonnumquam profluit sanguis. alioqui uero umor eius albidus est, cutis dura atque fissa est; proceditque latius.

Again, as we saw in the modern terminology of skin-diseases, a term is defined not only by the physical characteristics of the object it names but also by its place within the 'matrix' of the classification. This was exemplified above with English *impetigo*; the same applies, *mutatis mutandis*, to Celsus' term *impetigo*: it is one of the class of diseases which arise as a result of corruption within the body, and which require treatment by medicaments (as opposed to surgery or dietetics), and which affect any part of the body (as opposed to one particular part).

There is, however, an important difference that we note at this point in our comparison of English and Latin terminology: unlike English *impetigo*, Latin *impetigo* in Celsus names four distinct conditions, of which, though each has its own characteristic features, only two ([*impetigo*] *rubrica* and [*impetigo*] *nigra*) have shorthand labels. This is perhaps the most striking superficial difference between the modern terminology and that of Celsus: there are items defined by Celsus which are not named with a usable term. Of the four types of *impetigo*, Celsus mentions that the second and third are called respectively *rubrica* and *nigra*; the first and the last (the latter quoted above) receive a full description but no short, usable name that we could call a technical term. Such unnamed items do not occur in the modern terminology.[35]

There may be another important difference between Celsus and modern medical texts, concerning polysemy within the terminology. While polysemy is conspicuously absent from modern technical terminology, there is a striking case of it in Celsus, involving the word *fistula*. Celsus uses *fistula* to denote: (1) (in anatomy) the urethra (in full, *fistula urinae*); (2) (in pathology) a sort of ulcer; (3) (in therapeutics) a tube or pipe put to various medical uses. Normally, these meanings are in complementary distribution, so to speak, and the risk of ambiguity does not arise. On two occasions, however, two of the three meanings occur in the same context:

[35] Another striking example is Celsus' lack of a term for hysteria described at 4. 27. 1A. Cf. his observations of the failure of Latin terminology to distinguish species of *cancer* (5. 26. 31B) and *hirnea* (7. 18. 3, 7).

first when a pipe is used as a catheter and inserted into the urethra (7. 26. 1B–C); secondly when, in the surgical removal of a bladder-stone by way of the urethra, there is fear of a *fistula* (the ulcer) arising in that place (7. 26. 2I). This instance of polysemy in Celsus is of interest from a historical point of view both because it would not (I guess) be tolerated today and because, to judge from their texts, it was eliminated by two later Latin technical authors.[36] It raises important questions about the status as technical terms in Latin medical terminology generally of *fistula* (1), (2), and (3). Is any of them more a technical term than the others, and if so why? Should one or more be excluded from our account of the terminology and, if so, on what grounds? For example, is *fistula* 'pipe' less of a technical term because it is an everyday word with an everyday meaning? Is *fistula* 'ulcer' more of a technical term because of its meaning and widespread attestation (from Cato *Agr.* to Rufinus)? No matter the details of this small example, it obliges us to confront a general and very important question of principle: in the lexicography of a corpus language, how is one to maximize the chances of collecting all and only the technical terms from a text? To be sure, one will have intuitions about many words, that some are technical and others not, but intuition will not do: for one thing there will inevitably be a host of uncertain cases; for another, our 'experiments' here, although outside the exact sciences, will be infinitely more valuable if they are defined so as to be repeatable by other scholars working on other texts or languages: in writing on terms the very least I can do is to define my terms! How, then, are we to distinguish systematically between a technical term and a non-technical word?

I. 2. 3 ON DRAWING THE LIMITS OF A TECHNICAL TERMINOLOGY

A technical terminology forms a part of the whole lexicon of the language. Different types of relation may exist between different parts of the whole. Several parameters have been proposed against which to plot the position, so to speak, of a given word, technical or non-technical, within the lexicon as a whole. These have been helpfully reviewed by Heller (1970).[37] Three stand out as being of potential use for our purposes:

[36] According to the *ThLL*, s.v., these three meanings of *fistula* are found together in only four Latin texts, namely Celsus, Pliny, Chiron, and Vegetius; polysemy is avoided by those late medical writers who use the word, Caelius Aurelianus (only 'pipe') and Cassius Felix (only 'ulcer'). I return to the question of polysemy in more general terms at the end of 3. 7 below.

[37] See also Drozd (1966: 441–3); Dubois (1966); Fluck (1980: 16–23); Schippan (1984: 243–4); Wichter (1994).

(1) the extent to which a word is generally understood in the linguistic community as a whole ('Allgemeinverständlichkeit');
(2) the extent to which a word is related to a particular specialist or technical discipline ('Fachbezogenheit');
(3) the extent to which a word is normalized or standardized in its usage ('Normung').

These are reported by Heller as parameters, but they could of course be used as candidate criteria for identifying technical terms. They could be rewritten to serve as criteria as follows: a word is counted as a technical term if:

(1) it is not generally understood in the linguistic community as a whole;
(2) it is proper to a given specialist or technical discipline;
(3) it is normalized or standardized in its usage in the discipline.

Let us, in a rather informal manner,[38] see if these criteria give intuitively satisfactory results when tested against words taken from some examples of technical and non-technical modern English medical texts.

There follow two pairs of extracts from two different versions of the same two medical cases, the first in each pair from the *British Medical Journal* (an example of a scientific periodical produced by specialists for specialists in technical medical English), the second in each from the 'Health' page of the *Independent* (an example of a high-quality daily newspaper), this page intended for educated readers who may have no more than the most casual interest in medicine and who are certainly not assumed to have any medical knowledge.

(1a) Anaphylactic reaction after eating a mango

A 32 year old fruiterer presented with periorbital oedema, facial erythema, widespread urticaria, and dyspnoea 20 minutes after eating a fresh mango . . . . On examination he had considerable periorbital oedema, a swollen tongue, an urticarial rash over the arms and trunk, and tachypnoea . . . . Anaphylaxis was diagnosed; he . . . made an uneventful recovery over the next few hours. (*BMJ*, 297 (24–31 Dec. 1988), 1634)

(1b) Forbidding fruit

A fruiterer in Plymouth had a nasty shock when he ate a mango recently . . . . Within 20 minutes his face puffed up, his skin became red and blotchy and he found it difficult to breathe. When he was examined in hospital his tongue had swollen and his body was covered with an itchy rash. An acute allergic reaction was

[38] Obviously, if we wish to 'score' words against these criteria otherwise than in a binary (+/–) fashion, we must agree scales and limits.

diagnosed but he made a complete recovery over the following three days. (*Independent*, 2 Jan. 1989, 11)

(2a) We report a case of recurrent bilateral periareolar abscesses. (BMJ, 297 (24–31 Dec. 1988), 1641)

(2b) A hairdresser suddenly began to suffer from abscesses on her nipples. . . . She suffered from frequent abscesses affecting both breasts. (*Independent*, 2 Jan. 1989, 11)

When we apply our candidate criteria in binary fashion to these passages, we find easily words that count as technical by all three. Take *dyspnoea* as an example: it is not generally understood (the *Independent* version uses a paraphrase in order to make the meaning clear to the layman: 'he found it difficult to breathe'); it is proper to pathology, a branch of medicine; it is invariant in form. (Other examples include *anaphylaxis, erythema, oedema, periareolar, periorbital, tachypnoea*.)

Criterion (1), however, would exclude some other words which one feels a priori should be counted as part of English medical terminology. Examples are *abscess, recovery, tongue*, and perhaps *eat* as well. These words occur in both passages and are used and understood by layman and specialist in the same way. This introduces a general feature of technical terminologies—modern no less than ancient: they merge gradually with the generally known, everyday vocabulary of the language (cf. Sager, Dungworth, and McDonald 1980: 68). Evidently, this tends to occur at a high level in the lexical hierarchy, where the named phenomena are broad, obvious, and familiar enough, and are denoted by everyday words which are used and understood by lay folk (approximately) as by the specialists in the technical area. Other examples from English medical terminology would include *disease, surgery, kidney, nurse, amputate, intravenous*, and a host of names for symptoms, diseases, body-parts, and types of treatment that have a place in the vocabulary of the average native speaker of English.

The fact that a word is familiar to even the whole linguistic community is surely not a reason for excluding it from an account of a technical terminology.[39] It may appear to be of limited interest as a linguistic item, serving merely to label a large class of more obviously technical terms; but even this impression may be deceptive,[40] and gives in any case no grounds

[39] Alinei (1991: 40 ff.) has some good remarks along these lines. *The McGraw-Hill Dictionary of Scientific and Technical Terms* (1989 (4th edn.)), a single-volume reference work which covers all technical fields, includes entries for the following: *hand, head, liver* (anatomy); *common cold, cough, disease* (pathology); *drug* (pharmacology); *cat, dog, mouse* (zoology); *steam* (physics); *flower* (botany); *cotton, wool* (textiles).

[40] I am thinking of the fact that in Latin, at least, the suffix used for forming sets of rare and specialized hyponyms may be the same as that seen in the common and generally understood superordinate term or headword (e.g. *sensus* 'a sense, sensation', *usus* 'a physiological function', *dolor* '(a) pain', *laborans* 'the patient', *aegritudo* 'a disease', *adiutorium* 'a remedy'): see 5. 5 below.

for depriving a class of its headword. The range of general comprehensibility ('Allgemeinverständlichkeit') of technical terms in a linguistic community, from a tiny fraction of one per cent to 100 per cent of the population, should be permitted to run within any technical terminology, and not be made arbitrarily to intersect with a line dividing technical from non-technical. Any terminology will include a small number of terms that a large number of speakers use and understand, and an increasingly large number of terms that a correspondingly decreasing number of speakers have mastered.[41] I would, then, not hesitate to list *thumb* and *liver* among 'anatomical terms', although I would certainly not infer from their appearance in a text that the author who used these words had had any medical training.[42]

Criterion (1) having been rejected, it follows that in order to capture as many Latin medical terms as possible, we do need to observe criterion (2) ('Fachbezogenheit') and to include in our study all those words that are related to predetermined branches of the field of medicine. This is in accord with, for example, Seibicke's definition (1959: 42) of a technical vocabulary as 'alles Wortgut, das in einem Fachgebiet gebraucht wird', and this is the primary operative criterion for the inclusion or exclusion of a word in this study. Words are considered to belong to the Latin medical terminology simply if they name (or relate closely to) objects or ideas of ancient medicine.[43] This definition may appear broad and loose but it is not clear that one can in a non-arbitrary fashion constrain more tightly the definition of a technical terminology. In the framework of a recent classification of the language as a whole of medical writers (Mazzini 1991*a*: 178 ff.), this definition corresponds to 'direct lexical medicalisms' ('medicismi diretti lessicali'), whether exclusive to medical texts ('integrali') or found also in other types of text ('parziali'). Mazzini's classification is borrowed from Joseph Schrijnen's famous categorization of the language of Christian writers.[44] Our terminology, then, will comprise

[41] The latter is probably a universal feature of technical terminologies and so, conversely, Goltz (1969: 242 n. 29) uses the existence of a large number of not generally understood medical words as an argument for recognizing the existence of a medical 'Fachsprache' in ancient Greek.

[42] I allude here to Dover's salutary warning (1997: 115).

[43] More needs to be said about identifying phrasal terms, since I do not recognize every combination of noun + adjective, noun + genitive, or noun + prepositional phrase as a technical referring expression: on this see 2. 7. 3 and esp. 4. 2 below.

[44] Schrijnen (1932); cf. Mohrmann (1939) and (1961), *passim* (see the index, under 'Christianismes'). Also worthy of note is Dover's recent perceptive partition of 'technical terms' (1997: 114–15), which I quote here for convenience, as I shall have cause to refer to it elsewhere: 'In this field four categories of phenomena need to be distinguished: 1. Lexemes

all and only those referring expressions which are 'directly medical', or in Mohrmann's words (1961: 11) *mutatis mutandis*, 'welche spezifisch [medizinische] Begriffe andeuten'. I do not pretend that the terms 'direct' and 'spezifisch' are not themselves fuzzy-edged. One may be obliged, in the last resort, to take arbitrary decisions about certain words.

1. 2. 4 VARIATION AND SYNONYMY IN TECHNICAL TERMINOLOGY

I have suggested that we should reject criterion (1) ('Allgemeinverständlichkeit'), accept criterion (2) ('Fachbezogenheit'), and I move now to consider whether we should wish to retain criterion (3) ('Normung') as a sort of filter of 'fachbezogene Wörter', in other words, to include those terms which are standardized and to exclude those which are not. For a first example, I return to our modern English passages: both the *BMJ* and the *Independent* use the word *eat*. This word is an item of the core vocabulary of the language, but, as we determined, this cannot be a ground on which to exclude it from the technical lexicon. One case for its relevance to the field of medicine—its 'Fachbezogenheit'—can be made on the grounds that it is central both to nutrition, an essential function of any living organism, and to dietetics, a branch of therapeutics in both ancient and modern medicine. Another case for including *eat* in our account of the medical terminology would be based on its alternation, especially in medical language, with the verb *ingest* (cf. Dover 1997: 114, type 2; n. 44 above). In many contexts (including in 'after —ing a mango'), *eat* and *ingest* are synonymous and may be used interchangeably in medical texts for the same process. We have here a 'lay', or non-technical, expression (*eat*) and a technical expression (*ingest*), both with identical meaning and both occurring in medical texts. Before deciding what implications this has for the constitution of the terminology, let us consider some more examples of such variation.

Many common diseases have in modern English both a lay designation and a medical name (in the following examples, numbers refer to pages of Davies 1985): *measles* = *morbilli* (49), *whooping cough* = *pertussis* (49), *chicken pox* = *varicella* (50), *mumps* = *epidemic parotitis* (50), *(ear) boil* = *meatal furuncle* (299), *a cold* = *coryza* (88), *heat spots* = *papular urticaria* (232). Note also from the terminology of mental disease: *attempted suicide* = *parasuicide* = *non-fatal deliberate self-harm* = *DSH* (Read, Barritt, and Langton

which have no reference at all outside a specialized field, e.g. "palimpsest", "neutrino" . . . 2. Lexemes which do have synonyms, e.g. "tibia" = "shin-bone", "uterus" = "womb" . . . 3. Lexemes which have different denotations in majority usage and in one or more specialized areas, e.g. "induce" in ordinary language . . . or in obstetrics . . . 4. Lexemes which become recognizable as technical because of the consistency with which they are used. The medical profession usually speaks of 'severe pain' rather than of "ghastly" or "****** awful" pain'.

Hewer 1984: 524). Davies (1985) occasionally says expressly that certain expressions are popular, as in the following, for instance: 'multiple inflammatory skin lesions, referred to in lay parlance as spots, which form a rash (synonyms: eruption, exanthem)' (Davies 1985: 48); 'capillary angioma . . . popularly called a birthmark or port-wine stain' (Davies 1985: 231). Some instances of variation in the terminology are said to exist in the interests of *variatio sermonis*; Davies provides a good example in the introduction to his book *Medical Terminology*:

> Of necessity, the term *disease* occurs frequently in medical speech and writing, but an endeavour may be made to avoid undue repetition by employing other words which, when used in the right context, are its synonyms (i.e. words with similar meanings), e.g. *disorder, illness, sickness, morbidity, malady, pathological condition, morbid condition, ailment.* (Davies 1985: 12)

Some but not all of these synonyms occur with varying frequency also outside medical speech and writing. Rarely, a single expression names different phenomena in lay and medical parlance. For example, 'lay' *abortion* = 'medical' *termination of pregnancy*; 'medical' *abortion* = 'lay' *miscarriage*.[45]

In all these examples, the reference of the 'medical' expression is no different from that of the 'lay' equivalent. To reinforce this with further modern examples, the *dorsum* of the hand is no different from the *back* of the hand; the *innominate* bone is the *hip* bone, pure and simple; a *neonate* is neither more nor less than a *baby*. The choice by the medical specialist of the ordinary or the technical word reflects, presumably, a choice of style or register and the comprehension of the person addressed. Medicine occupies an interesting position linguistically among technical disciplines in that a crucial requirement of the clinical side of the field, at any rate, is that the specialist is able to communicate effectively with non-specialists.[46] This fact will contribute to the prevalence of popular equivalents in modern medical terminology.

The examples considered so far name phenomena familiar to non-specialists; in each case the lay expression is used and understood by non-medics in much the same way as both lay and medical expressions are used by the medical specialist. It is perhaps more surprising (to a layman, at least) to find equally abundant examples of specialists' equivalents, expressions naming phenomena which few non-medics encounter (numbers refer to pages of Read, Barritt, and Langton Hewer 1984): *partial deletion of the short arm of 5* = *cri du chat syndrome* (129), *hereditary haemorrhagic telangiectasia* = *Rendu–Osler–Weber disease* (460), *paroxysmal nocturnal*

[45] Cf. category (3) in Dover's partition of technical terms (n. 44 above).

[46] On the less-than-satisfactory meeting of this requirement in modern medical contexts, see Fluck (1980: 97) with examples and references.

haemoglobinuria (PNH) = Marchiafava–Micheli syndrome (436); *angiitis = vasculitis* (Davies 1985: 84); and compare *post-viral fatigue syndrome = Royal Free disease = myalgic encephalitis (ME)*.[47] The synonym has been said to be 'the deadly enemy of technical terminology' (Korn 1958: 117). Yet here we find in a thriving modern technical terminology that synonymy is not merely present but even prevalent![48]

No less than the disabling polysemy in Celsus' use of *fistula* (above), these modern examples of synonymy within the specialist terminology should give us pause. Are they really fully synonymous? Are they all technical terms of equal status, or is one more of a standard than the others? Are we to include all of them in our technical terminology? Presumably we should do further research to discover which, if any, of the synonyms is the recognized standard term. Perhaps some of the variants are confined to certain parts of the country; to certain hospitals; to specialists over a certain age? After all, geographical and sociolinguistic variation need not be foreign to technical languages. If we can determine that such factors do underlie cases of synonymy, then we may exclude or include variants as we please, provided that we do it in an explicit and principled fashion. This is straightforward on one view—what we might call the 'strong' definition (cf. 1. 3. 2 below)—of technical languages as varieties (minority languages, in Dover's words, 1997: 114) that belong to those who are specialized in the technical area. If we operate with this definition, then there is one simple, necessary, and sufficient condition on the inclusion of one or more synonymous terms, namely that they are used and recognized by our 'community of specialists' (however defined). Just as a dialectologist will regard the reports or imitations of an Englishman as evidence of low value for a study of Scots English, just as a sociolinguist will not accept even hypercorrect utterances from a member of a low socio-economic class as material contribution to a study of upper-class speech habits, just so the student of the technical terminology of medicine will treat with caution lay usages which are not confirmed by the use of the specialist.

The chances are high of inaccuracy in lay usage, in one of two ways: either a word that is used as a term by specialists is misapplied or misreported, or a word that is not current in the terminology is substituted for the proper term(s). An imaginary example of the first type of misuse might involve the use of, say, the word *eczema* to refer to a condition which, let us suppose, a doctor would diagnose as a type of impetigo. The patient establishes 'eczema' as the conventional label for his skin-complaint among his family, friends, colleagues, including it eventually in his autobiography, along with a description of the symptoms. The historian of medical terminology would normally not think of including *eczema* as a lay synonym of *impetigo*, except in the unhappy event that this autobiography was the only surviving document from its century.

A real example of the second type concerns the field of building. The regular indentation in the top of a brick is called the *frog*. In 1990, while cleaning dozens of old, used bricks, I was making reference to this part by using various everyday words (*dip, depression, hole, hollow, indentation, recess*), until a builder arrived and told me, 'We call it the *frog*.' In this instance, of course, while makeshift terms can serve communication between non-specialists, the word *frog* alone merits inclusion in a study of building terms.[49] Again, *sortation* is a current term of the sorting industry, meaning the process, especially automated, of sorting (letters, parcels, etc.).[50] It is the specialist—or rather, the consent or network of specialists—that makes and sanctions the terminology of the special field or activity. *Frog* and *sortation* hold a status as technical terms equal to the medical *neonate* (baby), *dorsum* (of the hand), and all medical expressions which have lay synonyms, all belonging unquestionably to a descriptive account of the relevant terminology.

The accumulation of synonyms in modern technical terminologies can be understood, in part at least, as a result of the age of their technical traditions and the consequent range of possible cultural-scientific and linguistic sources of terminology. It is striking, though, to find the same phenomena in ancient Latin medical terminology, almost at the beginning of a technical tradition, with a single scientific model (Greek medicine) and only two linguistic sources (Greek and Latin).[51] Yet here, too, we find synonym-pairs involving both popular and specialist terms and two or more specialist terms, including Greek and Latin words. Note, for example, the following passages where Cassius Felix gives the popular (Latin) equivalent of Latin and/or Greek technical terms:

[47] Arguably, the last has recently made its way into lay parlance; cf. Dover's prediction (1997: 114) regarding technical terms of his type 2 (n. 44 above).

[48] This obtains in modern scientific terminologies in spite of the publication of official nomenclatures, such as the *Nomina Anatomica* (originating chiefly at the Sixth International Congress of Anatomists, Paris 1955, revised 1960; cf. Kopsch and Knese 1957). On the standard (mainly Latin) nomenclatures of anatomy, medicine, botany, and zoology, see Ahrens (1988: 211, 260–1, 266). On standardization of technical terminology, see Wüster (1966: esp. 123–77); Fluck (1980), 93 (on medicine) and 110–30 (in general on 'fachsprachliche Normung'); Sager, Dungworth, and McDonald (1980: 76, 293, 329–43). On the 'terminological anarchy' in the ancient Greek science of anatomy before the standardizing influence of Galen, see below and also Lloyd (1983: 160–7), (1987: 207).

[49] I am grateful for this example to R. Pottle.

[50] I am grateful for this example to M. Edge. Cf. Langslow (1994*b*: 232) and n. 70 in 5. 3. 1 below.

[51] André refers (1986: 12, 16) the accumulation of synonyms in Latin technical vocabulary to successive and independent translations of Greek terms. This may or may not be relevant to cases of synonymy within a single text or to 'lay' and 'specialist' equivalents.

19. 3 impetigines, quas Graeci *lichenas* uocant, Latini uulgo *zernas* appellant;
42. 12 genus herpetis, quem Graeci *cenchrias* uocant . . . quam Latini uulgo *araneam uerrinam* uocant.[52]

Examples of specialist synonym-pairs in our four authors include the following: in Celsus, the urethra is *fistula urinae* or *iter urinae*; jaundice is *morbus arcuatus* or *morbus regius* (*arcuatus* or *aurigo* in Scribonius); major epilepsy is *morbus maior* or *morbus comitialis*; a kind of abscess is referred to by either its Greek or its Latin name, *phygetrum* or *panus*, respectively. In Cassius Felix, plethoric is *abundabilis* or *plenus multitudine suci*; remission (of a fever) is *determinatio* or *discussio (febris)*. In twenty-five instances Cassius uses repeatedly either the Greek or the Latin term for the same phenomenon, for example, *colpus* = *pendigo* = *sinus* for a type of abscess.[53]

Again, of course, we face the problem of not knowing the relative status (or social meaning) of these synonyms. Is, for example, the relationship between Latin *impetigines* and *zernae* roughly analogous to that between English *morbilli* and *measles*, or quite different? Was Greek *colpus* in current use among Latin-speaking doctors and, if so, was it stylistically marked?

For the purposes of defining a technical terminology, we are concluding in favour of retaining criteria (2) and (3), that is, to include as technical terms all and only the words which both have denotations of direct relevance to the *techne* and are current in the specialist community. In the context of a corpus language, it can be difficult to establish with what sort of authority a writer is using specialist terminology. The professional status and medical 'qualifications' of one of our authors—Celsus—is open to some doubt (see 1. 4. 1 below); but even for our other three authors, all most likely fully fledged members of the specialist community, the question remains whether they were using the terminology of their profession in full array or making concessions to their lay readers by sparing them some technical terms and using paraphrases instead (including on-the-spot translations from the technical register, whether Greek or Latin). As long as such historical questions remain open, it is more than usually important to refer terms closely to their sources. Nevertheless, in the face of all these uncertainties, as in all cases when we deal with incomplete material, it is permissible to generalize from it, while remembering that such generalizations may count only as hypotheses.

[52] Cf. *turiones* 'the heads or tips' (of brambles) (123. 3); *mappa* 'the peritoneum' (131. 7); *gelela* 'the flesh of a gourd' (176. 17).

[53] See 2. 4. 4. 3 below (also 2. 4. 4. 1), and cf. Langslow (1989: 41–9); on synonymy (*variatio*) in Theodorus Priscianus, see Migliorini (1982).

1. 2. 5 ABSOLUTE SYNONYMY AND TOTAL TRANSLATABILITY

The phenomenon of synonymy within a terminology offers one of very few general differences between technical and non-technical vocabulary, and, by way of a corollary, it provides in certain circumstances a way of identifying some referring expressions as technical terms.

While the synonyms of everyday language are normally partial synonyms, those within a terminology are typically absolute synonyms. This absolute synonymy arises from the very nature of the terminology as a structured set of labels for items of a fixed classification.[54]

Two words are said to be absolute synonyms if they are synonymous in all their meanings *and* in all their contexts of occurrence *and* on all relevant dimensions of meaning. Otherwise, they are partial synonyms. So, while *big* and *large*, for example, are synonymous in the meaning exemplified by:

They live in a big/large house,

big has a meaning that *large* does not have in:

I'll tell my big sister
(cf. I'll tell my large sister).

Again, there are certain contexts where *large* may not replace *big* without violating its collocational restrictions. An example is:

You're making a big mistake
(cf. ?You're making a large mistake),

although *big* appears to have here the same meaning as it does in *a big house*, where it may be replaced by *large*. *Big* and *large* may, however, be taken to be synonymous on the dimensions of descriptive (propositional) and expressive meaning, insofar as it is possible to determine objectively difference and identity with respect to the latter. They are descriptively synonymous in that one cannot without contradiction simultaneously assert that someone lives in a big house and deny that he lives in a large house. They are expressively synonymous in that *very big* and *very large* do not differ in their expression of their user's feelings or attitude in the way that *massive, colossal, ginormous, gross, obese, not petite* may do, although each of the latter group may be said to be descriptively synonymous with *very big* and *very large*.

In the language of the medical specialist, however, every example of synonymy given in 1. 2. 4 above involves absolute synonymy. *Morbilli* and *measles*, for example, are synonymous in all their meanings (they have only one); in all their linguistic contexts of occurrence; and on both descriptive

[54] The terminology and examples in this and the next paragraph are from Lyons (1981*b*: 50–5).

and expressive dimensions of meaning. They differ with respect to style, or, one might say, they are not synonymous in their social meaning (cf. Lyons 1981*a*: 143), in that *morbilli* is reserved normally for formal specialist circles (and would sound odd in an informal report of the form 'He's got the —'), whereas *measles* would be used, say, between doctor and patient and among doctors in an informal style. But even with this qualification, they are by definition synonymous to an extent that non-technical words typically are not.

A standard example of absolute synonymy (cited e.g. by Lyons 1981*a*: 148) is *typhlitis* = *caecitis* (inflammation of the blind gut; cf. Davies 1985: 125), to which one could add the very similar *angiitis* = *vasculitis* (inflammation of the arteries, veins, and capillaries; cf. Davies 1985: 84). In each pair we have the 'inflammatory' suffix *-itis* added to the stem of the Greek and Latin equivalents for the part affected by the inflammation. The different source-languages of the stems serve as a reminder of a corollary to the existence of absolute synonymy within a terminology in language A, namely that any term of language A is totally translatable into language B, provided that speakers of language B recognize precisely the classification that underlies the terminology of language A.[55] Between the ordinary vocabularies of the two languages such total translatability does not normally occur.[56]

The observation that two words in different texts in the same language are absolutely synonymous will follow, rather than precede, the recognition that both words are technical terms. Within a single text, however, absolute synonymy and especially total translatability can be used as means of identifying technical terms, above all in a language that is copying the science and therefore mirroring the terminology of another language.[57] This is especially useful in the study of corpus languages, and, for the purposes of this study in particular, the explicit equation of Latin expressions with Greek medical terms helps to identify a large number of Latin words and phrases as Latin medical terms.[58]

1. 2. 6 FORMAL CHARACTERISTICS OF TECHNICAL TERMS

To this point I have been characterizing technical terminology and technical terms with reference to essentially semantic and sociolinguistic

[55] Cf. Bloomfield (1935: 517), (1939: 47).

[56] See, for a simple but telling example, Lyons's discussion (1981*a*: 325–6) of the different ranges of meaning of modern English *wisdom* and Greek *σοφία*.

[57] On the other hand, beware the so-called *faux-amis*, which bedevil the study of technical terminology, that is, words in different languages which have the same or similar forms but quite different meanings (e.g. Latin *cancer* and English *cancer*); on this phenomenon see Gourevitch (1982*a*).

[58] See 2. 3 and 4. 2 below, and cf. Langslow (1989: esp. 41–2.)

criteria: how do terminologies work? what do their terms mean? who uses them? But, given the possibility of using the quasi-semantic feature of total translatability as a means of identifying technical terms, it is natural to inquire also into the morphology of technical terms and to ask if there are not formal features, too, that set them apart from other words. It is perhaps surprising to discover that, when one considers the formation of even modern technical terms, very few morphological peculiarities emerge to distinguish the technical from the non-technical. Still, two characteristics are worthy of mention.

The first involves morphology and syntax and style: it concerns the relative frequency of the word-classes to which technical terms belong. If the essence of a technical language is its terminology (see 1. 2. 1 above), the essential part of most terminologies are their nouns (cf. Fluck 1980: 48–9). The first impression that one receives from reading a modern technical (medical) work is constantly confirmed: the vast majority of the technical terms are nouns. Adjectives are common, especially in determining function, though many of these are denominative; verbs are rare, and most of those that occur, apart from the auxiliaries and 'core' verbs (such as *come, go, cause, occur*), are denominatives, too. In keeping with the very strong bias in favour of nouns, nominalizations of verbs are very common.

These general impressions receive good illustration in the passages quoted above (1. 2. 3) from the *British Medical Journal*,[59] and examples are readily multiplied from modern English medical prose. Here are two further examples from different contributors to Read, Barritt, and Langton Hewer (1984):

> [Oedema] occurs [in beriberi] because there is extreme vasodilatation and capillary leakage caused by the high tissue levels of pyruvate and acetate. (115)

> Aplastic anaemia is caused by reduction in the number of, or the disorderly function of, the haemopoietic stem cells, in the absence of marrow infiltration and in the presence of all of the essential factors required for normal haemopoiesis. (428)

Striking in both passages is the small number of verbs and the large number of nominalizations:

vasodilatation	(the blood-vessels dilate)
capillary leakage	(the capillaries leak)
tissue levels	(levels in the tissue)
in the absence	(when . . . are absent)
in the presence	(when . . . are present)

[59] I return to these in 6. 4 below, after reviewing analogous phenomena in Latin medical prose.

In the last two examples it is notable also that the option to nominalize is taken even in non-technical expressions. The extent to which these preferences manifest themselves will presumably vary, perhaps considerably, between specialist writers on medicine and between technical disciplines. That they exist in modern technical writing is undeniable. Why they exist and whether they serve a particular purpose of the technical discipline are questions which must be reserved for future study.

A second general formal feature concerns the derivational morphology of modern technical terminology. It may be that today a small number of suffixes have become the exclusive preserve of one or more technical subjects. In medicine one thinks, for instance, of the English suffix *-itis* which is confined to the field of pathology in being used always and only to name inflammatory conditions, for example, *appendicitis, bronchitis, enteritis, sinusitis* (cf. Davies 1985: 47). But such formations, exclusive to a single technical terminology, mark only a small percentage of the specialist vocabulary and remain extremely marginal as indicators of technical terms.

On the other hand, there is good reason to believe that all technical terminologies show strong preferences for certain formations, including certain models of derivational morphology, each technical or special language exploiting them in different ways. This is apparent in modern medical terminology in, for example, the predominance until well into the second half of this century of Graeco-Latin stems (cf. Fluck 1980: 91–2) (e.g. *dysphagia* 'difficulty with swallowing', *hyperbilirubinaemia* 'retention of bile-pigments in the blood'); the frequent naming of diseases after their discoverers (*Crohn's disease, Wilms's tumour*); the common use of 'lexicalized' abbreviations (*ECG* for *electrocardiography, MCV* for *mean cell volume*); the prevalence of certain suffixes with well-defined functions, such as *-osis* of a degenerative condition (*thrombosis, toxoplasmosis*), *-ism* of a disease (*hyperparathyroidism, Parkinsonism*), and adjectival *-al* (*petechial, postictal, puerperal*), *-ic* (*subhepatic, septicaemic*), *-ous* (*scirrhous, endogenous*) (cf. Sager, Dungworth, and McDonald 1980: 257–64, esp. 263–4).

When we turn, once again, to Latin, seeking to make another superficial comparison, it is again similarity, not difference, that strikes us. To take the second point—on derivational morphology—first, it can be shown that already in the first century AD, and increasingly thereafter, certain suffixes were similarly favoured by Latin medical terminology for forming words in well-defined semantic fields. (Most of Chapter 5 is devoted to this theme.)[60] But we find also that the preferences of modern technical prose—for nominalizing verbs, for making noun phrases out of verb phrases and adjectives out of prepositional phrases or relative clauses—are well repre-

[60] Cf. on ancient Greek Goltz (1969: 242 n. 29), who sees 'Krankheitsnamen mit gleichlautenden Endungen' as an indicator of the beginnings of a technical language of medicine.

sented, although to varying degrees, in Latin medical texts. (Some types and aspects of this complex phenomenon are discussed in Chapter 6.) In any attempt to identify universals of technical language, this feature must be a very strong candidate.

1. 2. 7 TECHNICAL TERMINOLOGY: SUMMARY AND CONCLUSION

A definition of 'technical term' that has emerged from the above discussion may be stated as:

> a referring expression which is recognized and used in a standard conventional way by the relevant community of specialists and which unambiguously (and often uniquely) names an object or a concept of the discipline, and therefore, because of this attachment, lends itself to absolute synonymy and total translation.

The essential difference in constitution between a technical terminology and a given field of everyday vocabulary lies in the exhaustive listing, the systematic (often hierarchical) structuring, and the fixed and absolute definition of the denotata of the terminology. Given a defined set of items and classes for labelling, the form of the linguistic expression for each is unimportant; it may, in principle, be a letter, a number, a single word, a whole sentence. It may be claimed that conciseness is essential to a technical term.[61] In practice, long noun phrases are common, in medicine at any rate, representing the results of nominalizing long descriptive verb phrases or even complete sentences (e.g. *partial deletion of the short arm of 5*). In many instances, conciseness in modern terminology is achieved only by drastic abbreviation, whether to vocalized letter-names (*ECG* for *electrocardiography*) or acronyms (*AIDS* for *acquired immune deficiency syndrome*).[62]

The discussion in this section has focused on certain general linguistic features of technical terminology and has been based purely on the existing literature, together with one or two superficial case studies. In comparing at several points ancient Latin with modern English technical language, I have hinted at the possibility of studying Latin vocabulary also from this point of view. First impressions suggest that, with regard to formal features (grammatical, lexical, and semantic), it is the similarities rather than the differences between ancient and modern technical terminology that deserve emphasis. But this is a preliminary, impressionistic assessment. The real work of analysis remains to be done for Latin and this is the task

[61] This is one of the principles behind the Parisian *Nomina Anatomica*, for example, quoted in Fluck (1980: 92). On the principles of official standard nomenclatures, see also Sager, Dungworth, and McDonald (1980: 293).

[62] On abbreviations and acronyms, see Fluck (1980: 54–5) and Sager, Dungworth, and McDonald (1980: 277–80).

that the following chapters address. It should by now be clear that a detailed study of a technical terminology *in the making* can contribute significantly to the general field of technical terminology.

From the formal (micro-linguistic) side of technical terminology, the heart of technical language, I turn now to the sociolinguistics of technical languages, to their speakers and contexts of use.

1. 3 Ancient Technical Languages and 'Medical Latin'

1. 3. 1 THE NOTION OF TECHNICAL LANGUAGE IN THE ANCIENT WORLD

At various points in this chapter so far, I have talked blithely of 'technical languages' with reference to both the ancient and the modern world, implying that their existence and their definition may be taken pretty much for granted. While this may be so today, it would be premature and misleading to proceed to an account of the language of the Latin medical writers without first reflecting on the notion of technical language in the ancient world and, in particular, on the status as a linguistic entity of 'medical Latin' and its relation to medical practice, medical education, and the writers of medical treatises, who were not necessarily doctors.

In the modern world, terms such as 'dialect', 'sociolect', and 'technical language' are conventional labels for abstractions from the linguistic behaviour of groups of people variously defined in geographical or social space who are said to use the language or dialect. The users of a technical language will belong to a group—a minority—within the wider linguistic community, that practises a particular art, science, profession, or occupation,[63] so that a definition of a technical language will have two parts, a social part and a contextual part. It is the language used to talk and write about a given activity by a group of people who share technical expertise in or knowledge of this activity. The social part of the definition would be based on the membership of that group or network of individuals who are agreed by certain criteria to be specialists in that area of knowledge.[64]

[63] The *OED*'s definition of 'technical' applied to words or language is as follows: 'belonging or relating to an art or arts; appropriate or peculiar to, or characteristic of, a particular art, science, profession or occupation' (*OED* (2nd edn.), s.v. 'technical', A. 3). Dover (1997: 114) extends the terms 'technical language' and 'technical term' to cover all special languages used by minorities. I have suggested elsewhere (Langslow 1999: 190) a distinction between technical terms, special words (e.g. in soldiers' language), and other (more or less isolated) exotic words for items of foreign culture.

[64] For this criterion of shared specialist knowledge, cf. Sager, Dungworth, and McDonald (1980: 68): 'We are in the presence of special language when both the production and the reception of messages are part of a specialist role, and require special knowledge.'

Hence today, for utterances or texts in a given technical language, the philologist turns to samples of the speech and writing on the technical subject in question produced by individuals belonging to the relevant expert group. So, for example, one might define medical language as the utterances, spoken and written, of a defined group or groups of medical practitioners on topics related to medicine. It would normally include neither language about medicine produced by someone outside the group(s) (although outsiders may imitate it more or less accurately), nor language produced by someone inside the group in a non-medical context.

In modern times such a technical language is typically homogeneous and standardized to some degree, at least, between the many groups within the technical field (in different laboratories, hospitals, universities, etc., in different cities and countries of the world). Standardization may be more or less explicit and have broader or narrower geographical scope. On the one hand, attempts may be made to standardize a terminology by very explicit means, such as conferences and journals devoted exclusively to nomenclature, which aim to set international norms. On the other hand, at a national or more local level, broader linguistic homogeneity may be encouraged less explicitly but probably more effectively by an institutionalized pattern of instruction and training through which all must pass who wish to enter the group of practising specialists.[65]

Both parts of the proposed definition of a technical language are relatively straightforward with reference to the modern world. Above all, specialist groups—the users of technical languages—are readily identified and may even be studied as communities by anthropologists or, in principle, linguists.[66] In the Roman world, however, the social side of the definition is much more difficult. In the case of regional or social varieties of Latin in the late Republic and early Empire, we have a firm a priori belief in their existence but at best fragmentary evidence, often amounting to no more than occurrences or reports of isolated words or features deviating from classical norms. When it comes to Latin used for special and technical purposes—for philosophy, architecture, medicine—we are blessed with

[65] In fact outsiders seem to exaggerate the homogeneity of modern technical languages, at least in subjects relating to medicine: I have been told repeatedly by medical people, anatomists and physicians, both clinical and laboratory-based, that standardization (even at a sub-national level) is increasingly problematic, and does not lend itself as an obvious point of contrast with the ancient situation.

[66] For an anthropological study of a group of scientists, see Charlesworth *et al.* (1989). On the language of this group, note the remark (p. 3): 'The group of research scientists . . . has its own distinctive set of shared beliefs and attitudes and practices and assumptions and expectations; it has its own way of going about things; it has its own language, its special in-words and shop-talk and gossip.' Of course, the 'special in-words and shop-talk and gossip' may or may not be technical. I know of no primarily linguistic study of a modern scientific community.

complete texts and some explicit discussion of the relevant terminology—in Cicero, Vitruvius, Celsus, Scribonius—and we are fortunate to find that contemporary witnesses, notably Cicero, write expressly, if not of technical languages, at least of technical terminologies of occupational groups of the day.[67] But in these cases at least we have the sense of being at the very beginning of serious writing on these subjects in Latin and, given their Greek background, there is real doubt as to the existence at any social level of homogeneous Latin-speaking groups of specialists.[68] Although some generalizations may be made, and are made, between disciplines, each technical subject calls for separate consideration and so I confine myself in what follows to medicine.[69]

1. 3. 2 'MEDICAL LATIN' AND THE LANGUAGES OF HEALERS IN THE ROMAN EMPIRE

In recent discussions of the language of Latin medical texts, it is not hard to find allusion to and illustration of 'medical Latin' ('le latin médical', 'il latino medico', 'medizinisches Latein', etc.). The reference of this expression requires more attention than it has yet received. 'Medical Latin', it seems to me, may have either a stronger or a weaker sense. In its stronger sense it denotes a variety of Latin (a 'Fachsprache') used by those with special medical knowledge in speaking and writing of medicine among themselves, a variety distinct both in vocabulary and at other levels of the grammar from the common language. In its weaker sense, 'medical Latin' is simply the sum of Latin texts devoted to medicine. In the former case, 'medical Latin' is the special language of a group or groups; in the latter, it is merely a set of texts or parts of texts.

Scholars have used 'medical Latin' in both senses, generally without discussion of the meaning of the phrase.[70] Yet the very use or rejection of the

[67] Note esp. Cic. *Fin.* 3. 3–4 in omni arte, cuius usus uulgaris communisque non sit, multam nouitatem nominum esse, cum constituantur earum rerum uocabula quae in quaque arte uersentur . . . (4) . . . ne opifices quidem tueri sua artificia possent nisi uocabulis uterentur nobis incognitis, usitatis sibi. quin etiam agri cultura . . .; Riposati (1981: 26). For the earliest allusions to technical language in Greek (including, for medicine, Thuc. 2. 49. 3), see Dover (1997: 114).

[68] For the Greek world, on the other hand, Dover (1997: 116) confidently supposes that 'there must have been as many special languages as there were specialized fields of practical and theoretical activity (not forgetting philosophy)'.

[69] On philosophy, see Puelma (1986); on architecture, Callebat (1982), (1990).

[70] The existence of 'medical Latin' in the stronger sense of the term has been either assumed or baldly postulated without discussion—by e.g. Baader (1970: 6), Jocelyn (1985: 312, 314, 330 n. 126), Mazzini (1991*a*: 175–6) and (1991*d*: 183–5 & n. 3)—or, in effect, denied, notably by André (1986: 9): 'les langues techniques latines sont des langues réduites au lexique'.

phrase presupposes a view on an important historical question, to which we must now turn: did there exist groups of Latin-speaking *medici* who wrote and spoke in a characteristic variety or varieties of Latin? If so, one might add, to what extent is their language reflected in each of our surviving Latin medical texts? The principal question calls for an assessment of the various sorts of evidence bearing on language-use in the context of healing in the Roman world, the second, for details on the author and intended readership of individual texts (on the latter see 1. 4 below).

On the face of it, the chances of there having been groups of Latin-speaking *medici* with their own characteristic Latin medical idiom appear—at least in the period of the late Republic and early Empire—very slight indeed. We might begin by noting in Cicero and other sources the silence on *medici* as a group *cum uerbis suis*: is this merely the accidental omission of a group that could perfectly well have been given as an instance of users of a special variety of Latin, or was it perhaps far from obvious to Cicero that there was such a thing as 'medical Latin'? But we have more than silence as evidence against the existence of medical Latin in the strong sense. Pliny (*Nat.* 29. 17) is quite explicit on this subject: Romans had never practised medicine, and the very few who had done so, had immediately deserted to the Greeks; and a medical treatise in a language other than Greek commanded no respect, even among those who didn't know Greek![71] Whether or not Pliny intended these obviously extreme statements to be taken seriously, the view that medicine remained, under the Empire, an exclusively Greek science, practised and written about almost exclusively by Greeks in Greek, appears still to be common among prominent historians and philologists alike,[72] although this could be seen as, in Nutton's words (1993: 52), 'the equation of Roman medicine [i.e. medicine in the Roman Empire] with what is described by three eminently-hostile witnesses' (Cato, Pliny, and Galen).[73] Nutton himself sidesteps the whole issue of language-use in ancient healing by redefining 'Roman medicine' as (1993: 70) 'the system (or systems) of healing practised in areas under Roman control or influence'. This is arguably a gain for the historian of medicine, since 'by setting Roman, or perhaps better Latin, medicine within a continuous process of assimilation, it need no longer be seen just as a degenerate form of Greek medicine but rather as a development of Greek

[71] Plin. *Nat.* 29. 17 solam hanc artium Graecarum nondum exercet Romana grauitas, in tanto fructu paucissimi Quiritium attigere et ipsi statim ad Graecos transfugae, immo uero auctoritas aliter quam Graece eam tractantibus etiam apud inperitos expertesque linguae non est, ac minus credunt quae ad salutem suam pertinent, si intellegant.

[72] Note e.g. Rawson (1989: 476) 'medicine was not naturalized'; Griffin (1994: 705) 'medicine, theoretical and practical, returned to the hands of the Greeks' (after Varro); André (1985*b*: xiii); Mazzini (1988*a*: 1323).

[73] On Pliny's attitude to contemporary medicine and its practitioners, see Nutton (1986).

ideas that is as valid as that which was taking place in contemporary Greek medicine.' For, in Nutton's view, 'within Hellenisation, the linguistic difference becomes irrelevant when seeking to determine quality or efficacy, and in the absence of emphasis on their language of composition, one may more easily compare various types of medical literature' (Nutton 1993: 61–2). Clearly this approach has merit and interest for medical doxography, although the social history of the subject may not so lightly dispense with the issue of language-use. Even if it is true, as Nutton suggests (1993: 62), that the division between Greek and Latin loses all meaning when applied to Scribonius Largus—whom Nutton takes to be from a bilingual area of south Italy or Sicily and equally at home in either language (cf. 1. 4. 2 below)—this loss of meaning concerns only the content of his medical discourse, not the form, the linguistic status, and the social meaning of his medical Latin, topics which are of course central to our purposes here.

Curiously, one hears and reads in modern discussions less of 'medical Greek' than of 'medical Latin'. This silence may be accidental; or it may be symptomatic of the general lack of attention paid (at least until recently) to the social linguistics of the Greek-speaking world;[74] or it may be more significant, reflecting what Geoffrey Lloyd, writing of Greek medical vocabulary in the age before Galen, has called 'a situation bordering on terminological anarchy' (1983: 163). This situation obtained, Lloyd continues (1983: 166), because the development of a standard technical vocabulary 'depended on the forging of some degree of consensus among practitioners who were usually, for obvious sociological reasons, highly individualistic and competitive'.[75] This appears to be a standard view: that variety, individualism, and competition marked the terminology and, presumably, the language generally of Greek doctors in the Roman Empire, many of whom will have been subject to the linguistic stamp of an institutional medical education in Greek. Lloyd adds (1983: 149 ff.) that this was true of all the life sciences, and Rawson (1985: 182) infers that 'this fact will have made things yet more difficult for the Romans'. And, while this picture of anarchy in Greek medical terminology may be overdrawn,[76] and

[74] For some bibliography, see Meier-Brügger (1992: i. 83 ff.) and, on Greek 'scientific discourse', Thesleff (1966) and especially van der Eijk (1997).

[75] There is fine illustration of this state of affairs in Galen's work *De nominibus medicis*, which survives only in an Arabic translation (see Meyerhof and Schacht 1931). There are signs of variation, although more moderate, in Latin medical texts, too (e.g. Scrib. ind. 10. 33–4 ad auriginem, quod uitium quidam arquatum quidam regium uocant, and at least 16 similar instances with *quidam uocant/appellant* in Scrib.: cf. 18. 12, 24. 7, 80. 19, 91. 20, etc.). See, however, the remarks on the normality of synonymy and variation in technical terminologies in 1. 2. 4 above.

[76] Sextus Empiricus, for instance, *Aduersus grammaticos* 232 ff., uses medical language as an uncomplicated example of a technical variety. There is even a possible implication here that technical varieties of Greek, unlike 'the plain untechnical usage of ordinary folk' (in R. G. Bury's Loeb translation), do not differ from one state or nation to another.

although Celsus at least, against Rawson's expectation, appears to have thrived on variation in Greek usage,[77] it is simply the case that the bulk of the relevant evidence shows us Greek doctors practising and writing in Greek.

There remain, however, several hints, chiefly in Latin literary sources, that we should—notwithstanding the arguments of the last paragraph—retain a belief in medical Latin in the strong sense of the term, at least in the later Empire, but probably under the late Republic and early Empire, too—and I am not referring to the spoken Latin which we must suppose Greek doctors to have used with patients who knew no Greek! There is of course a great deal of medical vocabulary, Greek and Latin, in (non-medical) Latin literary texts, both prose and verse, of all periods, whether used *sensu proprio* or metaphorically.[78] I have suggested elsewhere (Langslow 1999; and cf. below) how the language of metaphor in particular may be used to support a case for medical Latin in the strong sense, and I suspect there may be much fruitful work still to be done in this area, especially perhaps in the works of Lucilius, Cicero, and Vitruvius. For present purposes, however, we need arguments of a different order than the accumulation of medical vocabulary in non-medical texts. I begin with Plautus.

In the first place, it was possible for Plautus already, around 200 BC, to parody doctors' language in Latin.[79] The prime example of this is at *Mercator* 139–40:

CHARINVS: resinam *ex* melle Aegyptiam uorato: *saluom feceris.*
ACANTHIO: at edepol tu calidam picem bibito: *aegritudo apscesserit,*

where Charinus parodies doctors' Latin and Acanthio parodies the parody. The linguistic features italicized—*ex* 'dipped in', the future imperative in *-to*, the future-tense prediction of successful cure after the prescription—are among those characteristic of a style of written recipe which is well attested two generations later in Cato's *De agricultura* and which is found in very similar form throughout the Empire to the end of antiquity and into the Middle Ages.[80] The parody in Plautus suggests that this style was familiar already in the third century BC, and its occurrence in dialogue raises the interesting question whether it was then part of doctors' spoken

[77] See n. 97 below.

[78] On medical language and subject matter in Latin literature, I refer especially to the recent work of Mazzini and Migliorini listed in n. 21 above.

[79] In Greek cf. Menander, *Aspis* 439–64.

[80] On these and other features of the medical recipe-style, see Adams (1995: 636–8); cf. Langslow (1999: 214–15).

Latin or whether it presupposes a literate audience who would have recognized an allusion to written medical *commentarii*: perhaps Plautus did not expect all his spectators to understand the allusion in Charinus' line and so added the obvious send-up in Acanthio's words, which presuppose no extra-linguistic knowledge for their humorous effect. At all events, there is good independent evidence for these Latin *commentarii* in the period of the Republic (see Adams 1995: 72–8). Note, for example, Varro, *Res Rusticae* 2. 10. 10:

> quae ad ualetudinem pertinent hominum ac pecoris et sine medico curari possunt, magistrum scripta habere oportet. is enim sine litteris idoneus non est, quod rationes dominicas pecuarias conficere nequiquam recte potest.

This passage is of interest also for combining human and animal medicine and for distinguishing *medicina domestica*, within the *familia*, from cases which called for a *medicus*;[81] we shall return to this distinction below. The literate herdsman, *magister pecoris*,[82] leads to a further point that is relevant to our present concern. We have quite a bit of evidence, both Greek and Latin, for high levels of literacy in the context of healing, even in the lower orders of the medical profession.[83] We have also a strongly worded converse claim, that most physicians actually could not even read (cf. Pliny's statement that there had been no Roman doctors before his day (*Nat.* 29. 17, above)), this time from Galen (19. 9), but again we should probably regard this as an extreme view and prefer the less tendentious testimony of Varro (above) and, later, of Theodorus and Mustio on the literacy of midwives;[84] of tomb-reliefs showing doctors reading;[85] of references—in the works of Galen among others—to the flourishing trade in medical books in Rome;[86] and of Galen's (10. 560–1) more sober rating of book-learning above travel and attendance at medical centres as a preparation for medical practice.[87] This is not to question or to diminish the role played in

[81] Varro is more explicit on the latter point at *Rust.* 2. 1. 21: 'There are two divisions of such [medical] knowledge, as there are in the treatment of human beings: in the one case the physician should be called in, while in the other even an attentive herdsman is competent to give the treatment.' Cf. Vitr. 1. 1. 15.

[82] Cf. the literate shepherd at 2. 7. 16 de medicina uel plurima sunt in equis *et signa morborum et genera curationum, quae pastorem scripta habere oportet.*

[83] Cf. in general Harris (1989: 82, 275).

[84] For Soranus (*Gyn.* 1. 3) one of the first requirements in a good midwife is literacy. Cf. Scarborough (1993: 47). Note the prefaces of Mustio and of Theodorus' *Gynaecia*: Mustio has never known a midwife who knew Greek but both he and Theodorus take it that reading Latin will present no problem, provided the language is simple. Compare the implication in Vegetius (*Mulom.* 4. pr. 2) that *bubulci* may understand his book on veterinary medicine; see Adams (1995: 96).

[85] See Jackson (1988: 58 f.) and (1993: 82 with notes).

[86] Cf. e.g. Polybius 12. 25e. 4, Aulus Gellius 18. 10. 8, Galen 8. 148.

[87] See Kollesch (1973: 14), Nutton (1990: 248). On books and medical training in general, see Kollesch (1966) and (1979) and Baader (1972).

medical training by direct oral instruction,[88] but merely to reassert the presence and importance of reading and writing through a broad social spectrum, and the tendency of written treatises to standardize linguistic behaviour.

In what we have seen so far, one might object that in a Latin recipe-style and in literate Latin-speaking midwives there is nothing that is inconsistent with an exclusively Greek-speaking profession of 'high' medicine. Is there any evidence of 'medical Latin' at a higher social and intellectual level?

Of course, the very use of the word 'profession' in connection with medicine has been condemned as an anachronistic misnomer, most eloquently by Nutton (1993: 55–6): 'In short, despite the presence in certain writers of phrases such as *ars medicinae* or *professio medici*, there was in Antiquity no medical profession in the strong modern sense of the word, which implies a coherent body of practitioners with agreed educational, practical and ethical standards.' Healers and healing practices were undoubtedly very diverse, and if we leave all the various strands clumped together, Nutton's point is easy and unanswerable.[89] It is, however, probably both legitimate and profitable to disaggregate the whole and to draw distinctions—social, scientific, and linguistic—between high and low medicine.[90] It is the highest social levels that concern us here, since, to judge from their language and from other, internal and external, evidence, our four authors all belonged to the social—and medical—upper classes. One of them, moreover, in a memorable sentence, which deserves to be quoted in full, explicitly distinguishes between 'senior, influential doctors' and other 'humble and otherwise unknown healers' who are 'far removed from medical teaching and not even close to its *professio*':

> Scrib. 1. 4–10 animaduertimus itaque saepe inter deliberationes contentionesque *medicorum auctoritate praecellentium*, dum quaereretur, quidnam faciendum aut qua ratione succurrendum sit aegro, *quosdam humiles quidem et alioquin ignotos*, usu uero peritiores, *uel (quod fateri pudet) longe summotos a disciplina medicinae ac ne adfines quidem eius professioni*, medicamento efficaci dato protinus uelut praesenti numine omni dolore periculoque liberasse aegrum.

These are the words of a contemporary 'insider', a professional doctor who moves among the social elite and who plainly believes not only in different

[88] See van der Eijk (1997: 95 ff.), with references to, among others, Galen (6. 480, 11. 797, 12. 894) and Aristotle (*Nic.* 1181b2–6) on oral teaching vs. textbooks.

[89] Indeed, the linguistic variety (particularly in register and in command of the classical languages) in the surviving corpus as a whole of medical writings provides supporting evidence for the picture of the very non-institutional and heterogeneous nature of 'the medical profession' in the Greek and Roman worlds alike, which is also suggested by the evidence of inscriptions, archaeology, and ancient anecdotal accounts.

[90] On 'high' and 'low' medicine cf. Riddle (1993). For this distinction in veterinary medicine, see Adams (1995: 53 ff.).

'levels' of practitioners of the healing arts but also in a *disciplina* and a *professio*, something involving medical instruction and practice that you can be in or out of, close to or removed from. Whether or not 'profession' is held to be an appropriate translation of *professio* in this context, the social configuration suggested by Scribonius for this part of ancient healing would seem likely to promote linguistic homogeneity and to be conducive to the development of a technical language in the strong sense. I return to my question: is there evidence of 'medical Latin' at a higher social and intellectual level than recipes and midwives?

I have argued in a recent article (Langslow 1999) that the language used by Lucretius in medical images and metaphors (which shows important agreements with the medical vocabulary of Celsus, Scribonius, and other 'high' Latin medical authors) was intended to echo a contemporary or earlier Latin medical idiom, whether spoken or written. Given Pliny's statement (*Nat.* 25. 5) that between Cato the Elder and C. Valgius Rufus (cos. 12 BC) only Pompeius Lenaeus (Pompey's freedman) had written on a medical subject in Latin, I floated the possibility that it was Pompeius' medical Latin that Lucretius' audience was meant to hear in (for example) the image of love as a disease (at 4. 1068 ff.). Still, while Pompeius' work is the only one explicitly attested which could reasonably have been written before Lucretius' poem, it is likely on general grounds that, if Lucretius *is* alluding to some recognizable Latin medical idiom, the allusion is to more than a single work by a single author. Here, then, there may be an echo of 'high' medical Latin (in the strong sense) spoken or written in or before the 50s BC.

For our present purpose of assessing traces of the use of Latin in medical contexts, the work on architecture by Vitruvius Pollio (from the Augustan period) provides important circumstantial evidence for the use of Latin in medical education. Most relevant to our present concern is the fact that medicine evidently formed part of the general practical education (*encyclios disciplina*), for which Vitruvius thanks his parents (6. pr. 4; cf. 1. 1. 12), and from which derive presumably his considerable knowledge (which he regards as important for the architect: cf. 1. 1. 3, 10, 13) of aspects of medical theory and practice[91] and his use of medical terminology, including Latin expressions.[92]

From the first century AD, the Elder Pliny's lists of his sources are of potential interest and importance, although they have in fact been used to

[91] Note e.g. Vitr. 1. 1. 15 (on the pulse), 1. 4. 10 (a herb for treating *lienosi*), 1. 6. 3 (diseases requiring *adiectiones* 'strengthening remedies' as opposed to *detractiones* 'purgings'; cf. Cels. 2. 9. 2).

[92] Note e.g. 1. 6. 3 grauitudo arteriace, tussis, pleuritis, pthisis, sanguinis eiectio et cetera quae non detractionibus sed adiectionibus curantur. Further research is needed on these questions regarding practical education (in Vitruvius and other writers).

support opposing points of view. André (1985*b*: xiii) exploits them to illustrate his contention that medicine was an exclusively Greek and Greek-speaking profession, drawing attention to items such as 'Iulius Bassus, who wrote on medicine in Greek, Sextius Niger, who did the same' (Plin. *Nat.* 1. 12; 1. 20–1; 1. 23–7; 1. 33–4). These lists of sources feature also, however, in Kudlien's monograph (1986) on the social position of doctors in Roman society. The essence of Kudlien's thesis is that Greek medicine, like Greek philosphy, was early naturalized ('eingebürgert') at Rome (*pace* e.g. André 1987*a*: 23 ff., or Rawson 1989: 476), at the latest under the influence of Asclepiades of Prusias in Bithynia (d. 1st cent. BC), and that from an early date freeborn Romans from even the highest social strata were active in this generally well-respected profession.[93] This view yields in itself, of course, no argument in favour of 'medical Latin'; but let us proceed. Kudlien warns (1986: 45, 213) that the presence of Greek speakers and the Greek language in Roman medicine is certainly exaggerated both by Pliny's obviously tendentious statement (*Nat.* 29.17, quoted above) and by satirists and moralists, such as Martial and Juvenal (whom André (1985*b*: xiii) seems to take quite seriously): Pliny's silence on Scribonius Largus is particularly striking (see 1. 4. 2 below). Kudlien (1986: 211–12) also urges caution in interpreting statistics from inscriptions bearing the names of doctors, which are overwhelmingly dominated by Greeks.[94] With regard to Pliny's sources, Kudlien (1986: 21, 25–6) stresses rightly that Pliny also lists *medici* with Roman names without saying that they wrote in Greek,[95] and mentions in his text (at *Nat.* 29. 7) among 'many very famous doctors' the names Cassius, Calpetanus, Arruntius, and Rubrius. Kudlien observes correctly that there are no grounds other than prejudice for supposing that these doctors were Greek or wrote and practised in Greek. I would add that, if Greek was really so unremarkable and Latin so rare, then it is Pliny's note, 'qui de medicina *graece* scripsit', that calls for comment.

Two other points bearing on 'medical Latin' in the Republic and early Empire deserve mention before we turn to the later period; although neither of them provides anything like proof of the existence of a Latin medical idiom at this period, they merit inclusion in this small dossier of circumstantial evidence. The first is the difference between Cicero and Celsus in the matter of their self-awareness as they come to write in Latin on a 'Greek subject'. In striking contrast with Cicero, who frequently alludes to the linguistic adventure of addressing philosophy in Latin,[96]

[93] For criticism of Kudlien's position see Nutton (1993: 56 n. 31).

[94] Nutton (1986: 37) is careful to draw attention to the inscriptions set up by doctors with fully Roman names.

[95] For example, sources for book 28 include *Rabirius medicus, Ofilius medicus, Granius medicus*.

[96] See Puelma (1980) and (1986), Powell (1995). This is not to deny the comparisons

Celsus says nothing, or next to nothing, about principles, problems, licences, and restrictions on writing in Latin about medicine.[97] Admittedly, little if any weight may be attached to this silence: it may reflect rather a difference in interests or personality between Celsus and Cicero, or Celsus may have commented on this theme in a lost part of the *Artes*; in any case, he may have felt at home in composing a Latin medical treatise on the strength of just one predecessor, namely Varro in book 8 of his *Disciplinae*,[98] and I would not wish to claim that two encyclopaedist-compilers amount to 'medical Latin' in the strong sense. The fact remains that Celsus appears quite unselfconscious about writing in Latin on medicine.

The second point to be made is that several items of medical terminology *in Latin* are ascribed (e.g. by Varro, Cicero, Celsus, Seneca, and Pliny) either explicitly to *medici* or to an unspecified 'they', who can only be doctors.[99] I have in mind expressions such as the following:

Var. *Disc. apud* Nonius 135. 10M uesperi non uidere, quos appellant *lusciosos*;
Cic. *N.D.* 2. 136 *aspera arteria* (sic enim a medicis appellatur);
Cels. 4. 1. 12 ea [*uulua*] recta tenuataque ceruice, quem *canalem* uocant, contra mediam aluum orsa [on the interpretation, cf. 2. 2. 2. 3 below];
Cels. 5. 28. 17B alterum genus [*impetiginis*] peius est . . . *rubrica* cognominatur. tertia etiamnum deterior est . . . *nigrae* cognomen est;
Cels. 7. 19. 7 ferramentum quod a similitudine *coruom* uocant;
Plin. *Nat.* 24. 96 [*decoctum radiculae*] urinam ciet, aluum soluit, uuluas purgat, quamobrem *aureum potorium* medici uocant (cf. Plin. *Nat.* 25. 174 nostri herbarii *strumum* eam [*radicem ranunculi*] uocant, quoniam medetur strumis et panis);
Sen. *Epist.* 54. 2 aliud enim, quicquid est, aegrotare est, hoc animam egerere. itaque medici hanc *meditationem mortis* appellant.

In the case of the second example (from Cicero), we know the Greek equivalent (ἡ τραχεῖα ἀρτηρία): the Latin expression is clearly part translation, part borrowing, but it remains of interest in that the phrasal term *aspera arteria* is clearly established in Latin before the middle of the first century BC.[100] All the other examples are Latin medical expressions with-

made, by Mudry and others, of Celsus with Cicero; and some of Puelma's (1986) conclusions on Cicero's philosophical Latin apply very well to Celsus' medical Latin.

[97] Celsus sometimes notes that the Greeks make a terminological distinction that is not made in Latin (e.g. 5. 26. 31B; 7. 18. 3, 7), but in places (e.g. 3. 27. 1A, 4. 5. 2, 4. 6. 1, 4. 20. 1) he contrives to imply that an invariant Latin medical term is prior to, and superior to, the variable and unstable Greek terminology; see Langslow (1994*a*: 300 ff.).

[98] But note the scepticism with regard to the project of devising a Latin language of philosophy in the Varro portrayed at Cic. *Acad.* 1. 3–8 and *Fin.* 1. 1.

[99] At Cato, *Agr.* 102 melanthi acetabulum, quod medici uocant zmurnaeum, I take the last word to be Greek (ἀμυρναῖον).

[100] The joke at Lucr. 4. 528–9 ('and a shout, as it comes out, makes the "rough pipes" rougher' (moreover with neut. pl. for fem. sg.)) suggests that this term for the trachea was familiar enough to be played with.

out an attested—or at least without an exact—formal or semantic parallel in Greek. The species of *impetigo* named *rubrica* may be the equivalent of ὑπόπυρροι (λειχῆνες), but the form of the Latin tells against an on-the-spot translation; the Greek expression corresponding to *meditatio mortis* (μελέτη θανάτου) is not attested in this transferred sense with reference to asthma.[101] The others, *lusciosi*, *canalis*, *aureum potorium*, and *strumus*, have no known Greek parallel. Dover (1997: 115) observes with reference to Greek that 'it is a useful indication of technical status when the writer uses some part of καλεῖν', and it may be that we can take some of these expressions at their face value, that is, as Latin medical terms proper to a group of Latin-speaking (or at least Greek–Latin bilingual) *medici*. We cannot, however, exclude the possibility that they are to be read, in inverted commas, as it were, as literal, on-the-spot translations of the real, Greek technical terms which would have been vocalized in Greek (cf. 2. 4. 4 below).

In this immediate context, finally, I add a tentative note on Celsus' introduction to diseases of the genitals, where he agonizes over how to refer to these body-parts. I quote the passage in full since its interpretation is not straightforward:

Cels. 6. 18. 1 proxima sunt ea quae ad partes obscenas pertinent, quarum apud Graecos uocabula et tolerabilius se habent et accepta iam usu sunt, cum in omni fere medicorum uolumine atque sermone iactentur: apud nos foediora uerba ne consuetudine quidem aliqua uerecundius loquentium commendata sunt, ut difficilior haec explanatio sit simul et pudorem et artis praecepta seruantibus. neque tamen ea res a scribendo me deterrere debuit.

The last clause here makes clear that Celsus is going to use *Latin* terms for the genitals: otherwise, surely, his account would present him with no difficulty. His problem lies in the fact that among Latin-speakers these *foediora uerba* are still not *commendata*, even though they have enjoyed some regular use in polite conversation. Now, on the face of it, since 'polite conversation' (in Latin) is in antithesis with 'every medical book and discourse' (in Greek), this passage might even suggest an argument *against* the existence of 'medical Latin'. But in what contexts other than medical is there frequent mention of the genitals in polite conversation?: it seems to me that this may be rather an allusion to conversation on medical topics in Latin among the Roman elite, albeit not widespread enough for Celsus to be sure that all his readers will be totally at ease with the words that he will use.

So much for the Republic and early Empire. If the evidence for medical

[101] In the preceding sentence, Seneca refuses to use the Greek term for asthma: satis enim apte dici 'suspirium' potest. This sense of the phrase *meditatio mortis* is noted only in this passage in the *ThLL*, s.v. 'meditatio', 571. 53; for the literal sense, see ibid., 571. 69 ff. On this phrase cf. Pisi (1981).

Latin in this period is not compelling, neither can these repeated hints be altogether ignored. However, in the later Empire I think we can speak with more confidence of medical Latin in the strong sense of the term.[102] In the first place there is the circumstantial evidence of Latin inscriptions, for the most part undated,[103] set up by guilds (*collegia*) of *medici* in Rome, Beneventum, Turin, and Avenches.[104] Although the guilds served principally members' social ends and private interests, there is some evidence of their use for professional purposes, even for medical contests (Jackson 1988: 59). Of course, the language of these inscriptions is no guarantee that even some of the guild-members were Latin-speakers but it does demonstrate that they had a Latin-speaking public face. More telling, perhaps, are the Latin inscriptions on the seals and cases of the oculists (*ocularii*), most of which are collected in *CIL* 13 (10021, which includes 231 separate items).[105] These short texts are replete with Greek medical terms and personal names but they include Latin terms, too, and their script and language are Latin.

It is significant also that the type of doctor about which we are best informed in the Roman Empire practised in a decisively Latin-speaking context: I refer to the military doctors in the Roman army (cf. Nutton (1969); Jackson (1988), esp. chapter 5). Whatever their first language, they must have used Latin with some or all of their patients and in official contexts. From the latter we even know one item of 'army medical Latin', that is, the consistent and exclusive use of the word *aegri* (and not any of its synonyms) in reference to men unfit for service in strength reports from Vindolanda, Bu Njem, and the Mons Claudianus. Two remarkable sick-lists among the (Greek) medical ostraca from the Mons Claudianus (2nd cent. AD) are in Greek letters but are headed ἄγροι (*aegri*).[106] This affords us a precious reminder of what must have been one of the most important contexts for the use of medical Latin.

[102] See in general Jones (1964: ii. 1012 f.) and Demandt (1989: 243, 353, 360, 364), both with notes and references.

[103] Korpela (1987: 104) concludes from circumstantial evidence that there was a *collegium* of doctors in Rome by the start of the 2nd cent. AD at the latest.

[104] See *CIL* 6. 29805 (Rome; = *ILS* 5481); 9. 1618 (Beneventum; = *ILS* 6507); 5. 6970 (Turin; reign of Trajan); 13. 5079 (Avenches; = *ILS* 7786). Cf. Fischer (1979*b*), Jackson (1988: 58–9), and Nutton (1993: 55 f.). Korpela (1987: 102 ff.) has detailed discussion and further references. He thinks it probable that doctors, midwives, and 'Krankenpfleger' belonged to different *collegia*.

[105] See also Nutton (1972).

[106] *O. Claud.* 191, 192; see Cuvigny's chapter in Bingen *et al.* (1997). I am grateful for this reference to Professor J. N. Adams. On Vindolanda and Bu Njem cf. Langslow (1999: 206 n. 64) and the references there. Might the use of ἄγροι by Greek-speakers be relevant to the formation of Latin *aegrotare* (apparently *aeger* + Gk *-ώττειν*: cf. Leumann (1949), Risch (1977: n. 29))?

By the time we reach Theodorus Priscianus and Cassius Felix, we are well into the age of the public doctors, the *archiatri*, prestigious city-appointments held by men who were the social equals of professors, with whom they shared the same privileges and immunities from military service and taxes (the latter sometimes with their sons and wives also).[107] In fourth-century Carthage there was a Latin-speaking 'university' which probably included medicine among the subjects taught. It had, of course, professors of philosophy and of Latin and Greek literature, and in 371 Augustine studied Latin rhetoric there.[108] Among his teachers was a doctor, Vindicianus, who also numbered among his students Theodorus Priscianus (see 1. 4. 3 below).[109] Before AD 470, and perhaps in the lifetime of Cassius Felix, Salvian refers to Carthage's 'scholae artium liberalium, officinae philosophorum, gymnasia linguarum et morum' (*De gubernatione Dei* 7. 68); we may take it that the school still existed when Martianus Capella wrote his *Marriage of Mercury and Philology* under the Vandals, in the last quarter of the fifth century; and after the Reconquest of the West, Justinian decreed in 534 salaries for five public doctors in Carthage, along with two grammarians and two rhetors.[110]

As for language-use, defective knowledge of either Latin or Greek was not exceptional in late Roman Carthage. We may note, on the one hand, Augustine's famously professed weakness in Greek (*Conf.* 1. 13–14),[111] and on the other hand, the fact that there were Greeks whose Latin was much less than fluent: according to Possidius (5. 2, 8. 2 ff.), Augustine was appointed Bishop of Hippo before the retirement of his predecessor, Valerius, because Valerius' Latin was not strong enough for purposes of preaching.[112]

To conclude: we may assert the existence of 'medical Latin' in the strong sense with some confidence for fifth-century Roman/Vandal Africa but only doubtfully for first-century Italy. We have seen some evidence for Latin-speaking *medici* in the earlier period—in Plautus, perhaps in Lucretius, and in Pliny's source-lists, and conceivably among Vitruvius'

[107] On the *archiatri*, see Nutton (1977) and Fischer (1979*b*). On the dating of this system of public appointments, at least in Rome, see Korpela (1987: 105 f.), who posits a gradual development of rights and status beginning already in the 1st century AD. On the high status of some doctors in the late period in the Western Empire see Gummerus (1932), Fischer (1979*a*), (1979*b*), Fischer and Kudlien (1989*a*: 75).

[108] He complains of his fellow-students at *Conf.* 5. 8. 14.

[109] Theodorus still alludes in his preface to Greek as *the* language of medicine (1. 2–3 [*confeci libellos medicinae*] sed graeco stylo quoniam medendi industriam sermone claro haec natio publicauit), but his first language was probably Greek.

[110] Cf. the *Codex Iustinianus* 1. 27. 1. 41 f., Demandt (1989: 364, with references).

[111] Cassius' frequent explanation of Greek medical terms suggests an assumption of defective knowledge of Greek among his readers.

[112] I suspect the same of Theodorus' Latin for purposes of lecturing on medicine!

teachers.[113] There are also clear indications of widespread literacy (presumably Latin) within the lower echelons of Latin-speaking healers, which suggests the availability of Latin medical textbooks and which would have tended to foster linguistic homogeneity, even in the absence of medical training in the Latin language. It is probable also that Latin was spoken and written by *medici* in the Roman army throughout our period.

I have saved express mention of what is obviously the best evidence of a distinctive 'high' Latin medical idiom older than Scribonius Largus because it forms a principal concern of the chapters to follow. I mean the consistent use of language in and between Latin medical texts, both medical expressions proper and, even more important, expressions which are not directly medical but which are confined to, or particularly frequent in, Latin medical writers. In the Schrijnen–Mazzini framework mentioned earlier (1. 2. 3), these latter are the 'medicismi *indiretti*' (especially those which are 'integrali'—that is, which are found only in the medical corpus—although frequency also can be a decisive indicator) (Mazzini 1991*a*: 178 ff.). They are not necessarily lexical items and may equally well be morphological or syntactic features: these choices of—or preferences for—particular forms of expression for ordinary meanings are especially effective and distinctive markers of group-identity and help to justify attaching the label 'technical language/variety' to any technical discourse to which they are proper.[114] This type of expression coincides substantially with category 4 in Dover's partition of technical terms (n. 44 above)[115]—although it will include not only lexemes but also grammatical words and syntactic and morphological features. The present work studies systematically only directly medical vocabulary but even so, sufficient 'medicismi indiretti' ('integrali' and 'parziali') emerge along the way to demonstrate both the existence of a form (or forms) of Latin that we can legitimately call 'medical Latin' in the strong sense and the rich potential for further work in this area.[116]

The principal concern of this section was the question whether it is justifiable to talk of 'medical Latin' as we would today of 'medical English' and hence to approach our Latin medical texts as representing, in part, the language of a professional group. The answer that has emerged is that it is probably not unreasonable, even in the Republican period, to speak of

[113] On the question of Vitruvius' knowledge of Greek, see Lendle (1992).

[114] In Mohrmann's words (1961: 12–13) reporting Schrijnen (1932): 'Durch den Hinweis auf die Existenz zahlreicher indirekter Christianismen war aber der endgültige Beweis des Bestehens einer wirklichen Sonder- oder Gruppensprache geliefert.'

[115] Two of Dover's other categories were exemplified by some of the examples considered in 1. 2. 4.

[116] For some suggestions along these lines, cf. Langslow (1999: 205 ff.). For a medical use of *enim*, see Langslow (1998). For some 'medicismi indiretti' in veterinary Latin, see Adams (1995, ch. 8).

'medical Latin' in this strong sense. However, it must be stressed that there are important differences in social and cultural background between these ancient and modern medical languages: I refer again in particular to the very heterogeneous nature of the healing profession in antiquity and to its lack of a sharp divide between professional and amateur. Nevertheless, it seems plausible that the language of professional *medici* speaking and writing Latin among themselves and among the Roman middle and upper classes under the Empire may have had recognizable linguistic features which warrant the appellation 'medical Latin' in more than the weak sense of utterances about medicine in Latin. As at the end of 1. 2. 7 above, so here we conclude that, in the absence of stronger external testimony, the essential task is the analysis of the language of the texts themselves. Still, these linguistic and sociolinguistic prolegomena have served an important scene-setting function.

1. 4 The Authors (and Readers) of Latin Medical Texts

There remains one essential preliminary, namely to introduce our best evidence for 'medical Latin' (however understood), the extant corpus of Latin medical texts, and in particular our four authors (three doctors and one expert amateur). Keeping in mind the historical and sociolinguistic issues raised above, I begin with discursive accounts of Celsus, Scribonius, Theodorus, and Cassius and their works; the chapter ends with a much terser catalogue of surviving Latin medical texts.

1. 4. 1 AULUS CORNELIUS CELSUS, *DE MEDICINA*

The eight books of *De medicina* by Aulus Cornelius Celsus are all that survives from a much larger work. They formed books 6–13 of an encyclopaedic work, entitled *Artes*, which included also five books on agriculture, seven on rhetoric (and perhaps six on philosophy and one or more on military strategy). Of these other parts of the *Artes* we have only quotations (or mere allusions) in later authors.[117]

[117] Krenkel (1973) provides a useful critical collection of references to and discussions of Celsus, both ancient and modern; for the earlier literature see Schanz and Hosius (1935: 725–7) and, esp. but not only on surgical matters, Gurlt (1898: i. 334–94). On the other parts of the *Artes* see Schanz and Hosius (1935: 722–4), Krenkel (1959), Capitani (1966), Krenkel (1973: 21–6), Jocelyn (1985: 303 and n. 38), Contino (1988: 20 ff.), Serbat (1995: xi–xiv). For the section on agriculture: Col. 1. 1. 14, 2. 2. 15; Pliny *Nat.* 10. 150, 14. 33; Quint. *Inst.* 12. 11. 24. Rhetoric: Quint. *Inst.* 3. 1. 21, 12. 11. 24; Juv. 6. 244–5 (with scholiast ad loc.). Military strategy: Quint. *Inst.* 12. 11. 24; Veg. *Mil.* 1. 8; Lydus, *De magistr.* 1. 47, 3. 33. Philosophy: Quint. *Inst.* 10. 1. 124; Augustine *De haeres.* pr. viii p. 2.

The *De medicina* is a model of good, clear organization.[118] The opening words of the *prooemium* provide a link between the preceding five books on agriculture and the second, medical, section of the *Artes*:

Cels. pr. 1 ut alimenta sanis corporibus agricultura, sic sanitatem aegris medicina promittit.

The *prooemium* sketches a history of the theory and practice of medicine from the earliest times to Celsus' day. It is of supreme importance as a historical document, since Celsus had access to many medical works that have not survived. He is our only source of knowledge about a number of Hellenistic doctors and their teaching.[119]

The work as a whole is divided into three main sections: dietetics (books 1–4), pharmaceutics (books 5–6) and surgery (books 7–8), and Celsus reminds us of this overall plan at the start of books 5 and 7.

In the first part, on dietetics, book 1 contains general remarks on preserving good health (1. 1–3) and on regimens for those who have a weakness in one part of the body (1. 4–9). Book 2 begins, after a short preface, with an account of which seasons of the year, types of weather, times of life, and kinds of physical constitution are healthy and which are not (2. 1). There follows a series of chapters on symptoms and diagnosis of incipient disease (2. 2–8), and the book then moves rather abruptly to an account of methods of treatment in general terms (2. 9–33), although this subject was not signalled in the preface to book 2, which mentions only *signa*.[120] Book 3 announces that we have come to the treatment of diseases one by one, and explains the traditional division of diseases into acute and chronic (3. 1). It then deals with those diseases which affect the whole body: fevers (3. 3–17) and those diseases which supervene on fevers, madness, dropsy, consumption, and so forth (3. 18–27). Book 4 opens with a priceless anatomical description of the internal organs, the first and for centuries the only such account in Latin (4. 1). The book then treats of those ailments which affect a particular part of the body, starting with the head and ending with the extremities, *a capite ad calcem* (4. 2–32).[121]

Books 5 and 6 contain the *materia medica* of the work. Celsus gives prescriptions for and describes the effects of simples (5. 1–16) and compound medicaments (5. 17–25). He then passes to an account of several classes of *noxae* to which the human body is prone, starting with those which occur

[118] On the organization of the whole, see Serbat (1995: xiv–xx); he is more critical. Marx appends a detailed *conspectus operis* to his edition, (1915: 423–30).

[119] On the *prooemium* see especially Mudry (1982) and note also Pigeaud (1972), Deuse (1993), and Serbat (1995: xxxviii–liii).

[120] A very detailed analysis of books 1 and 2 is in Serbat (1995: xx–xxxviii).

[121] On this very common ordering principle, which informs part at least of the work of each of our four authors, see Fischer and Kudlien (1989*b*: 76 n. 2).

in any part of the body: wounds (5. 26), bites (5. 27), and abscesses and skin-diseases (5. 28). Book 6 continues with those instances of the last-mentioned class which occur in a specific part of the body. The bulk of the book is concerned with disorders of various parts of the head but it deals also with parotid swellings (6. 16), prominent navels (6. 17), and diseases of the genitals (6. 18, a long chapter), and ends with afflictions of the fingers and nails (6. 19).

Of the last two books, on surgery, book 7 opens with a brief preface on the history of the art and the best type of surgeon. In describing a long series of operations in minute detail, Celsus begins, once again, with those which are needed in any part of the body (7. 1–5) and then moves to those which apply to specific parts, starting again with the head (7. 6–33). Book 8, finally, handles surgical techniques involving bones. It opens with a description of the human skeleton (8. 1). Then the various types of damage which bones suffer are detailed (8. 2) and dealt with in turn: the excision of rotten bone (8. 3); fractures, from head to extremities (8. 4–10); dislocations, from head to extremities (8. 11–25).

Earlier attempts to identify a single source for Celsus' *De medicina*, whether Greek or Latin, have long yielded to the recognition that he makes direct and independent use of a wide range of specialist works, including Alexandrian surgical texts.[122]

Of Celsus the man we know virtually nothing. His home is supposed to have been either in Italy or in Gallia Narbonensis; for neither is there strong support.[123] The evidence for dating Celsus is as follows. It seems that the only reliable (but still rough) *terminus post* is the reference by Columella (1. 1. 14) to Celsus and Iulius Atticus as *nostrorum temporum uiri* in contrast with the Augustans Vergil and C. Iulius Hyginus. Celsus' reference (pr. 69) to the recent death of the doctor Cassius, (cf. *PWRE*, s.v., no. 3) is of dubious value, since Cassius cannot be independently dated (*pace* Krenkel 1973: 20; Contino 1988: 15 ff.). The list of doctors headed by Cassius in Pliny (*Nat.* 29. 7) tells us only that Cassius came after Antonius Musa and before Q. Stertinius Xenophon (Claudius' doctor). A better indication is perhaps to be gleaned from Celsus' reference to Themison as recently in his old age (pr. 11 *nuper . . . in senectute*; cf. Cels. 3. 4. 6): if we allow

[122] On the question of Celsus' sources, see Ilberg (1907), Wellmann (1913), Marx (1915: lxxiv–xciv), and more recently, including histories of the question, Mudry (1993*a*: 793–5) and (1993*b*), and Serbat (1995: liii–lxviii).

[123] He has been identified with the dedicator of a gravestone from Rome (*CIL* 6. 36285); cf. Cichorius (1922: 211–12). On the other hand, the rare name Cornelius Celsus occurs on a few inscriptions from Tarraco (e.g. *CIL* 2. 4266 = *ILS* 2717) and Narbo. Inscriptions containing the name Celsus are collected by Krenkel (1973: 19–20). In the part of his work on agriculture, Celsus mentioned (Col. 3. 2. 25) a species of vine (*marcum*) which, according to Pliny (*Nat.* 14. 32), is native to Narbonese Gaul. Cf. Krenkel (1958: 111), Serbat (1995: vii).

Themison's pupilship with Asclepiades to have begun at the age of 15 just before Asclepiades' death in 91 BC, and if we allow Themison to have lived to the age of 90, then he died in 16 BC and for dating Celsus the question becomes, until which year can Celsus have referred to events of 16 BC with the word *nuper*?

Termini ante for Celsus' work are: (1) as I noted above, Columella cites him (1. 1. 14, 3. 17. 4) as a man *nostrorum temporum* and *aetatis nostrae* in his work on agriculture which was published before AD 65. Other indications may be used to push the date back further: (2) Celsus says (4. 7. 5) that one of his prescriptions, which appears in very similar—but more careful and detailed—form in Scribonius Largus (39. 1–5), is not to be found in the *monumenta medicorum*. If it is incredible that Celsus should have ignored Scribonius, who wrote probably before AD 48, then Celsus preceded Scribonius (cf. Önnerfors 1993: 234); (3) Pliny reports (*Nat.* 26. 3) the arrival in Italy of an infectious skin-disease of the face (*mentagra* = *lichenes*) in the middle of Claudius' principate. If this means of dating the outbreak may be taken literally, and if Celsus' silence on this disease is significant, the composition of the *De medicina* may be pushed back to before AD 47; (4) Pliny says (*Nat.* 14. 33) that Celsus' work on agriculture was used by Julius Graecinus, the father of Agricola, who was executed by Caligula in AD 39 (Tac. *Ag.* 4). Pliny may have misread Columella (3. 17. 4) at this point but the *terminus ante* still stands (see Serbat 1995: xi). Finally, it is possible to derive a further (tentative) *terminus ante* from Pliny's statement (*Nat.* 26.9) that the disease of the large intestine called *colum* reached Italy in Tiberius' principate, and afflicted Tiberius first (in AD 21?: cf. Tac. *Ann.* 3.31), *if*, that is, one believes (a) that Celsus does not mention this disease and (b) that his silence is due to ignorance. If, however, he does name the disease (as I believe he may do at 2. 12. 1B: see 2. 2. 2. 2 below), or if his silence is for some other reason, such as deference to the feelings of the emperor (cf. Serbat 1995: ix), then *colum* provides rather a *terminus post*, one which would narrow the period available for the completion of the *De medicina* to the second and third decades of the first century AD.[124] In sum, then, for dating Celsus' work, the period AD 14 (perhaps AD 21?) to AD 39 satisfies best the few poor indications we have.

The *De medicina* has been greatly admired both for its medical content and for its Latinity. It was the first medical book to be printed (in Florence in 1478) and its text has seen many editions. In 1973 a hitherto unexamined manuscript in the library of the cathedral of Toledo was found to contain new material which permits the filling of the lacuna at 4. 27. 1D, marked

[124] On dating Celsus see further Cichorius (1922: 411–17), who dates the books on agriculture to AD 25/6 (cf. Önnerfors 1993: 234); Krenkel (1973: 20–1); Contino (1988: 15–19); Serbat (1995: viii–xi).

since 1528, as well as contributing to the establishing of the text at other points.[125] A new edition of Celsus is called for, to incorporate the new material from Toledo and the numerous contributions to the text of the whole that have appeared since the edition of Friedrich Marx (1915).[126] To the best of my knowledge, there is no lexicon or concordance of Celsus, although indexes and translations of his work do exist.[127]

In any assessment of the nature and purpose of *De medicina*, the starting-point must be the observation that the eight books on medicine formed just part of a larger work (see the introduction to this section). Celsus was not merely a writer on medicine. He was the author of a multi-volume work intended as an instrument for the liberal education of the Roman gentleman of leisure. His *Artes* was not the first such work; the lost *Disciplinae* of Varro, a work of the great man's eighties, of which the eighth book dealt with medicine, will have been one of his models.[128] Secondly, 'the essential literariness of Celsus' (Jocelyn 1985: 303) is not in doubt. His style was praised in antiquity and excited universal admiration when his work was rediscovered in the fifteenth century. Celsus was called by many 'medicus

[125] On the manuscript tradition of Celsus see M. D. Reeve in Reynolds (1983: 46–7), Contino (1988: 51–62), both with further references, and the bibliography in Mudry (1993*a*: 790–2). Baader (1960) provides a good account of the manuscripts and editions. See also Niedermann (1933: 18–20). On the manuscript from Toledo (*Toletanus 97. 12 = T*), see especially Capitani (1974), with an edition of the new material and a detailed philological commentary. Cf. Ollero Granados (1973) and (1978), and Fischer (1984) and (1986*a*). Capitani (1976) makes use of the new manuscript at other points in the text. Jocelyn (1985) uses the new material as a starting-point for a rich assessment of the nature and purpose of Celsus' medical work as a whole.

[126] The first volume of Serbat's new edition (preface and books 1–2) appeared in 1995 (see my review in *Gnomon* 71 (1999), 309–14). For contributions to the text see esp.: Armini (1931); Lyngby (1931); Wistrand (1931); Niedermann (1933), using the Latin versions of Oribasius where Celsus is cited, but leaving many passages untreated; Englund (1935); Capitani (1967–70) and (1976); Löfstedt (1990); Maire (1994*a*) and (1994*b*). Önnerfors (1993: 239–40) gives a survey of work on the text.

[127] The best index is G. Matthias, 'Index in Celsum' (pp. 1–463, at the end of the edition of Celsus by L. Targa, Leiden 1785). Richardson (1982) has some omissions and mistakes (e.g. *feles* 'cat' appears under *fel* 'the gall-bladder; bile' on p. 58) but has the advantage of being readily available. Spencer (1935–8) provides generally a good English translation (with rare lapses: e.g. at 4. 22. 2, 7. 26. 3C, 8. 1. 16, 8. 4. 3 note) and useful notes. Scheller and Frieboes (1906) offers the best translation and a very full medical commentary; it is really a medical work. The vast medical 'Erläuterungen' (pp. 479–775) include a glossary of 'Arznei-, Nahrungs- und Genussmittel' (pp. 580–708). At the end are four tables with line-drawings of medical instruments (dug up mostly in Pompeii and Herculaneum) taken from an earlier French translation of Celsus by C. Védrène (Paris 1876). Vol. ii of Langslow (1991*b*) contains a lexicon of the medical terminology of Celsus and Cassius Felix and complete word-indexes to both authors on microfiches.

[128] See Jocelyn (1985: 303–4) with notes and references. On Varro's *Disciplinae*: Vitr. 7. pr. 14; Isid. *Orig.* 2. 23. 1; Non. 135. 10M, 551. 13M. On the *Artes* and Roman education, see Russell (1989: 223–5); on medicine and Roman *Artes*, Stok (1993*b*).

Cicero' or 'Cicero medicorum'.[129] Principally on the basis of these two points, Jocelyn argues that Celsus was not 'any kind of professional medical practitioner' (1985: 303); furthermore, 'neither was he writing a handbook of practical advice in these fields for non-professionals' (ibid.). Jocelyn's case stands in contrast with most earlier literature on Celsus, which either hailed Celsus as a physician, and a good one, or left the case open.[130]

One can agree with Jocelyn that it is probable that Celsus had no formal medical training at a Greek school and was not himself a *medicus*. While he alludes to and quotes from numerous medical authorities from Hippocrates to Asclepiades, he mentions no teacher of himself,[131] and, unlike Scribonius, he does not claim to invent or have invented any treatments himself, and his instructions are impersonal and striking in their religious avoidance of the 'medical' *-to* imperative. The *medici* whom he cites so often as authorities for the use of a technical term or for a form of treatment are always in the third person: they are always a group to which neither Celsus nor his readers belong. Furthermore, in the author-lists to books 20–9 and 31 of Pliny's *Naturalis historia*, Celsus is included as one of Pliny's sources not among the *medici* but among the *auctores*.

It may be agreed, too, that Celsus wrote for the rich (Jocelyn 1985: 303). A Roman who could afford to acquire Celsus' *Artes* and who had the education and the interest required to read them could avail himself of the services of a professional doctor. Many of the foods and drugs that Celsus prescribes could have been afforded only by the wealthy.

On the other hand, Jocelyn perhaps underestimates the practical value of Celsus' work. If there are places where Celsus has omitted unpleasant details from his Greek sources (Jocelyn 1985: 305–8), the fact remains that he usually does not fight shy of detailed and graphic description, however gruesome (e.g. 4. 20. 1, of faeces emerging from the mouth; 7. 26, in cutting for the stone; 7. 18, 19, 25, 28, in operations on the genitals; 7. 29, in extracting a dead foetus from the womb). On the question of practical

[129] On the style of Celsus, see (e.g.) Marx (1915: xcv–cix, esp., on clausulae, xcviii–cvi), Jocelyn (1985: 299, 309, on the appellation 'Cicero medicorum', and 316–19), Önnerfors (1993: 237–9).

[130] Practitioners who have claimed Celsus as one of their own: Spencer (1925–6), Castiglioni (1940), Meinecke (1941). Cf. Nutton (1986: 41–2). The question is left open by Baader (1960: 216), Scarborough (1969: 59–65), Capitani (1975: 450, 517), Mazzini (1997: 10). See Jocelyn (1985: nn. 61–2) for further references. More recently André (1987*a*: 25) dismisses Celsus as an encyclopaedist in a single phrase; cf. André (1991: 22), and note already Bücheler (1882: 324): 'Celsus nihilo magis medicus fuit quam agricola aut miles.' On the language of Celsus and medicine, see Mazzini (1992*a*), Pinkster (1992), and Sconocchia (1993*a*).

[131] Did Celsus perhaps receive the *encyclios disciplina* for which Vitruvius is so grateful?: cf. 1. 3. 2 above.

utility, it is surely the judgement of medical men, ancient, medieval, and modern, that is paramount. This has been universally favourable; his descriptions are as full and accurate as any from the ancient world.

Celsus himself attests to his own practical experience. There is no good reason to ignore or to disbelieve him when he claims to give his personal opinion on medical questions (e.g. 3. 4. 3, 3. 11. 2, 3. 24. 3), or when he reports his own experience of particular types of case or treatment (e.g. 2. 12. 2A, 3. 5. 6, 7. 7. 6C, 7. 12. 4) or his personal acquaintance with *medici* (5. 27. 5B, 6. 18. 2G).[132] His inclusion of a suggestion for a makeshift cupping-vessel, should the real thing not be available (2. 11. 2), of alternative treatment in the event that 'one does not wish to use the scalpel' (5. 26. 32), of what to do 'if neither *medicus* nor medicament is to hand' (6. 6. 8B) are undeniably practically oriented.[133]

All this tends to qualify Jocelyn's view (1985: 304) that 'Celsus' books catered for a purely intellectual interest in the art of medicine'. The further observation (ibid.) that 'this is no longer an interest very easy to comprehend' prompts reflection on the scantiness of the evidence not only for Jocelyn's claim but also on the whole area of contemporary medical practice in and around Rome. Only anecdotally can we answer such questions as: what sorts of people practised medicine? What sorts of cases and treatment would they undertake? Under what circumstances and with what qualifications did they practise? That is to say, it is perhaps no easier to think away our modern notions of formal qualification, the professional, the specialist; of the sharp line that divides the candidates who passed the examination and may now practise from those who did not and may not; and of the equally sharp line that separates our literary stylists from our natural scientists.[134]

If, also in the judgements of his successors, Celsus was no *medicus*, neither was he a mere translator or compiler. Celsus is cited 30 times by Columella, and 25 times by Quintilian, 24 times by Pliny, but not once is he said to have copied a source in the way that Pliny says Julius Graecinus copied Celsus (*Nat.* 14. 33; cf. Meinecke 1941).[135] Later his work on

[132] For a catalogue of instances where Celsus writes in the first person, see Marx (1915: 451–2); cf. Spencer (1935–8: i. xi–xii), Krenkel (1973: 26–7), Lloyd (1983: 149, n. 104), and especially von Staden (1994).

[133] See too the remarks on the distinction in Celsus between the *medicus* and the *curans*, 5. 4. 4 below.

[134] On the practice of medicine in Rome in this period, see Nutton (1986) with notes and references throughout, esp. p. 40 on the period 250 BC–AD 70. Pliny's attitude to contemporary medicine and physicians is full of scorn and resentment at their greed and incompetence, at the damage they have done to individuals, and at the corruption they have wrought in the Roman state (esp. *Nat.* 14. 143, 29. 9–10). This is in striking contrast, of course, with Celsus who shows such confidence in, and admiration for, the medical profession.

[135] And yet in this century scholars have attempted to identify a single source of Celsus'

medicine was bound and read and used separately from the other parts of the *Artes* as a practical medical work. It does no violence to the evidence at our disposal to take the perceived practical utility of Celsus' work and its author's expressed opinions at their face value and to suppose that he had first-hand, practical experience of medical matters on the strength of his own learning and his personal contacts with *medici*.[136]

In sum, Celsus is made to occupy a rather awkward and ambivalent position as a witness for medical Latin—if, that is, we allow the existence of the latter as the idiom of a Latin-speaking group of Celsus' day. On the one hand, he is rightly called—sometimes wrongly dismissed as[137]—an encyclopaedist; on the other, he appears regularly at the head of lists of references for a certain Latin word or usage said to be found in all the *medici*. Today there is more or less general agreement that Celsus was no *medicus* proper, that he did not practise professionally outside the *familia*. Nevertheless, although we may not always be so trusting of Latin medical writers,[138] it would be wrong to ignore Celsus' numerous claims in the first person to direct experience of patients and their treatments and, moreover, of personal acquaintance with doctors, including Cassius (pr. 69). If Celsus was not himself a practising member of the group of professional *medici* who served the needs of educated and wealthy Romans and of their households, he was at least well placed—like a well-connected modern technical journalist—to be an excellent witness of the language of this group, and so to deserve his place at the head of *omnes medici* in Latin dictionaries and lexical studies. To this extent, we might even conclude that Celsus (perhaps Pliny, too), although not writing medical Latin in the strong sense, represents something more than medical Latin in the weak sense, is more, that is, than just any Latin text about medicine.[139]

medical work. See esp. Wellmann (1913), Marx (1915: lxxiv–xciv). Baader (1960: 215) and Önnerfors (1993: 233 ff.) give a brief history of the question. Cf. Jocelyn (1985: 324, n. 64).

[136] It was much easier to be a polymath then than now and it was part of the Roman ethos to combine learning with practical accomplishments: take the case of Varro, described by Horsfall (1982: 112), and cf. the remarks in 1. 3. 2 above on the *encyclios disciplina*.

[137] Cf. n. 130 above.

[138] On the demonstrably fictitious deixis of 1st-person statements in some medical and veterinary texts, see Adams (1995: 133) and cf. n. 147 below.

[139] Both Celsus and Pliny come, in the fullness of time, to instruct professionals, insofar as their works are later studied and excerpted by doctors. Compare the case of Vegetius, who, although a layman, wrote in the first instance in order to instruct veterinarians, at a time when the veterinary profession had collapsed (see Adams 1995: 88–99). This is an interesting point of contrast between human and animal medicine; at least, I am not aware of an ancient work on human medicine being written by an educated 'outsider' in order to instruct professional practitioners.

1. 4. 2 SCRIBONIUS LARGUS, *COMPOSITIONES*

If, to use a cricketing metaphor,[140] Celsus was probably a 'gentleman' among contemporary *medici*, Scribonius Largus, to judge from his surviving work, was very much a 'player', a full-time, professional practitioner. The work of Scribonius entitled *Compositiones* (117 Teubner pages) consists of (1) a dedicatory epistle to C. Iulius Callistus, the influential freedman of the emperor Claudius; (2) an index, chapter by chapter, to (3) 271 short chapters each containing usually one, sometimes more than one, recipe for a (nearly always compound) medicament. The main part, (3), is itself divided into three sections:[141]

(a) 1–162, remedies for afflictions of (mostly) particular parts of the body ordered, in the common manner (cf. n. 121 above), *a capite ad calcem*: these deal successively with the head; epilepsy; eyes, ears, nose, teeth, mouth and throat, trachea; asthma; glands; haemorrhage, cough and other thoracic and abdominal complaints, pleurisy; stomach and intestines, liver, spleen; dropsy; constipation and other afflictions of the lower bowel; kidneys, bladder, loins; gout;
(b) 163–200, remedies against toxic substances, first venomous animals and rabies (163–77) and then antidotes against harmful substances ingested, ending with maliciously confected poisons (*mala medicamenta*) (178–200);
(c) 201–71, 'surgical' remedies,[142] for treating wounds, fractures, lesions, growths, prolapses, bites, ulcerations, and the like, divided into plasters (201–54) and *malagmata* and *acopa* (255–71).

In the case of Scribonius' *Compositiones*, it seems safe to regard the index and the titles of the individual chapters as original.[143] This tripartite structure (letter of dedication—index—corpus) is a familiar one. It is found in a number of scientific and encyclopaedic works throughout antiquity and into the Middle Ages, from the *Ἐποπτίδων* of Q. Valerius Soranus (*c.*140–?82 BC; cf. Plin. *Nat.* pr. 33) to the *Variae* of Cassiodorus and the *Viaticus* of Constantine the African, and it places the work of Scribonius in a particular genre of technical literature.[144] The letter, too, which is of great value for the history of medical ethics and for characterizing Scribonius,

[140] Suggested to me by Professor Coleman.

[141] Cf. on Scribonius' contents Schonack (1912: 42–4).

[142] Chs. 201 ff. are characterized as (92. 18) 'quae ad chirurgos pertinent', contrasted with chs. 1–199 (92. 16) 'ex magna parte ad diaeteticos pertinentes compositiones'.

[143] Compare on this point Scrib. 5. 25 ff. with Plin. *Nat.* pr. 33. See Sconocchia (1981: 55–60) and Önnerfors (1993: 256). The index in manuscript *T* is edited in Sconocchia (1976).

[144] See Sconocchia (1985) and (1993*b*: 862–3 with notes, 883).

also clearly addresses topoi and observes other literary conventions of the technical prose preface.[145]

We can be brief on the main questions of relevance here (who was Scribonius?, for whom did he write?, when?, and where?), not only because we know nothing of the man beyond what may be inferred from his *Compositiones*, but also because these points have been well and fully discussed by others, above all by Sergio Sconocchia.[146] If the *Compositiones* was written as a unity as we have it, then it was composed between AD 44 and 48: after 43 because Scribonius recalls his trip to Britain with the Emperor Claudius (79. 21 cum Britanniam peteremus cum deo nostro Caesare), and before 48, the year in which Messalina was executed, because Scribonius refers to her use of a toothpaste in the present tense (35. 21 nam Messalina dei nostri Caesaris hoc [*dentifricio*] utitur). There is nothing to suggest that the work was not written as a whole between these dates, except conceivably the odd circumstance that, although he is widely cited by numerous medical writers, ancient, medieval, and early modern,[147] Scribonius is not mentioned at all by Pliny. This silence is striking but does not require us to down-date Scribonius, since there are significant parallels between the *Compositiones* and the *Naturalis historia* which are best explained as deriving from a common source or sources rather than as plagiarism on Pliny's part. In other words, it is probable that Pliny does not mention Scribonius because he had other better or more accessible sources which offered all the recipes he needed.[148] We may safely leave the date of composition in the period AD 44–8.[149] The place of composition was almost certainly in Italy, probably in Rome, given the prominent references to contact with members of the Imperial household—although it is worth noting that Scribonius may have known Sicily,[150] and that he may have been a pupil of Apuleius Celsus of

[145] See Deichgräber (1950), Römer (1987), and Mudry (1997), both with references to further literature. Note in general Janson (1964).

[146] To Sconocchia we owe the standard text of Scribonius (1983), as well as several fundamental linguistic and historical studies (esp. 1985, 1988*b*, 1991), critical bibliography (1993*b*) and concordances (1988*a*). Note also Bücheler (1882), Schonack (1912), Jourdan (1919), Schanz and Hosius (1935: 793–5).

[147] Notably Marcellus, an important witness for the text, who took about 90 chapters from Scribonius, including 15 1st-person pronouns! See Sconocchia (1993*b*: 859); Önnerfors (1993: 252).

[148] See Sconocchia (1993*b*: 854–5 with notes and references). On Scribonius' failure to mention Celsus, note Bücheler's comment (1882: 324): 'cur uersaret? nam elegantiam sermonis medicus humilis non magni aestimabat. quid inde disceret?'

[149] Perhaps AD 47 or 48 is most likely, since in 47 C. Iulius Callistus became procurator *a libellis* and was then in the best position to give Scribonius' *Compositiones* to Claudius (cf. Scrib. 4. 23–5. 11).

[150] Note the references to *crocus Siculus* (25. 18, 21), to rabid dogs in Sicily (81. 24), to

Centuripae in Sicily.[151] As to Scribonius' social status, Kudlien (1986: 24) is probably right that his designation by Schonack (1912) and Kind (*PWRE* ii. A. 1. 877) as a freedman is based on nothing but prejudice.[152] Kudlien adds that a pupil of Apuleius Celsus, just possibly a classmate of Scribonius, was the freeborn Vettius Valens, a Roman *eques* who according to Pliny (*Nat.* 29. 8) 'started a new *secta*'. Kudlien raises the possibility that Scribonius was one of a group of Roman *ingenui* around this doctor from Centuripae and, with reference in particular to the introductory epistle, ventures the view that Scribonius was not merely a Roman citizen but one of the best Stoic type![153]

At all events, to have been as close as he suggests he was to the imperial household, Scribonius clearly achieved considerable professional and social status, although it is unlikely that he was the personal doctor either of Claudius or of Messalina.[154] He also shows repeatedly concern with maintaining high professional standards and with personal verification of the efficacy of medicaments, the quality of their ingredients, and accuracy in the associated weighing and measuring.[155] The costliness of many of the ingredients called for in his recipes would suggest again, even in the absence of references to the imperial household, that Scribonius, like Celsus, moved among and wrote for the wealthy Roman elite.

There is one further issue regarding Scribonius the man that is of some relevance to our present purpose: his first language. It has been suggested, first, that his first language was Greek and that Greek influenced his Latin and, secondly, that the *Compositiones* is a Latin translation of a work that

Paccius Antiochus, a student of Philonides of Catania (51. 5; cf. Gal. 8. 748), to other things Sicilian (79. 17, 19).

[151] This is not beyond doubt: see Sconocchia's text and apparatus at 49. 17; 81. 22. Scribonius' unequivocal references to his own teachers are to Valens (ind. 9. 19; cf. Sconocchia 1983: vi n. 3) and Trypho (83. 8).

[152] Although some have regarded the excessive reverence that he shows Callistus, and the phrase *deus noster* (of Claudius), as grounds for inferring freedman status. (Note the freedman in *CIL* 6. 4649 L. Scriboni archimimi Caesa[ris] lib.) Cf. Jullian (1893) and Sconocchia (1983: vi n. 5). Korpela (1987: 174, no. 109) is neutral on the question of his status.

[153] See Kudlien (1986: 23–5, 186, 202), and note especially Scrib. 2. 13–16, including the injunction not to give poison even to an enemy.

[154] Their doctors were, respectively, C. Stertinius Xenophon and (probably) Vettius Valens; see Korpela (1987: 175, no. 115 and 176, no. 123).

[155] See Sconocchia (1993*b*: 863–9). Note, on the unity of medicine, 92. 11 ff. (cf. Cels. 7. pr. 5); on the importance of precise weights and measures, 4. 1 ff., 28. 3 ff, 51. 1, 91. 25 ff.; against purveyors of harmful or substandard remedies or ingredients, 22. 18 ff., 99. 1–4 (cf. Plin. *Nat.* 29. 24, 34. 108); on first-hand preparation and successful use of the large majority of his remedies, with a very few taken on trust from friends, 117. 14 ff.; on the use of various sources, even slightly unorthodox ones, if they are known to be effective, 20. 8 ff., 65. 5 ff., 81. 21–82. 31.

Scribonius wrote first in Greek.[156] Sconocchia (1983: vii–viii) takes Scribonius' mode of reference to the work that we have (5. 5 *scripta mea medicinalia Latina*), to imply that he wrote about medicine also in Greek. It would not be at all surprising if Scribonius did write also in Greek but the above phrase need not imply this: the 'Latina', if emphatic, may allude rather to the rarity of medical works in Latin, or it may carry no emphasis at all.[157] Sconocchia also refers (1983: vi) to 'crebrae inter Graecorum sermonem et Scribonianum genus dicendi adfinitates, quae scriptorem Graeca lingua uti adsuetum ostendunt', but these 'crebrae adfinitates' really amount to very little: the genitive *pigmentorum* after *ex* at 22. 4–5, and the apparent use of *emplastrus* as feminine and *cancer* as neuter.[158] Sconocchia's theory of L1 (= Greek) interference with L2 (= Latin) cannot be ruled out, but there are at least the following points to be taken into account in this connection:

(1) that Scribonius makes a clear distinction between *Graeci* and *nos* (19. 13–14),[159] and that his use of 'medical' *enim* after an instruction or a recipe looks very Latin (on this use of *enim* see Langslow (1998)).
(2) that in general, apparent Hellenisms may be vulgarisms;[160]
(3) the banal but important general observation that L2 can as well interfere with L1 (and not only in vocabulary) as the other way around.[161]

Note with regard to points (1), (2), and (3) the contrast between Scribonius

[156] See Sconocchia (1983: vii) with further references. This latter view was maintained by Cornarius in the preface to his edition of Marcellus (Basel 1536, p. 8), although Cornarius thought that the Latin translation was made in the 4th century, a view to be decisively rejected (Helmreich 1887: iv).

[157] Nutton (1993: 62) takes it that Scribonius was equally at home in either language and prefers to suppose that Asclepiades Pharmacion used a Greek rather than a Latin work of Scribonius. Whether he and Heras (from whom Galen quotes material found in Scribonius) used a common Greek source, or whether Scribonius wrote in Greek before AD 15 (Heras' *floruit*), is a question that Nutton rightly leaves open.

[158] See Sconocchia (1981: 26–7, 63–6), Kudlien (1986: 27). Note that *pigmentorum* is the seventh word after *ex* (which immediately governs *cadmia aut aere usto*): in my view, it is much more likely that *pigmentorum* is in the genitive because it was taken (as adnominal) with the immediately preceding *eiusdem generis*. (On other instances of *ex* + gen. in Latin, see Hofmann and Szantyr (1965: 267).)

[159] Cf. Kudlien (1986: 27 n. 89).

[160] Cf. Mazzini *apud* Kudlien (1986: 27). On Vulgar Latin in Scribonius, cf. Helmreich (1887: iv n. 7), Grassi (1968), Önnerfors (1993: 250–8): in fact his departures from classical norms are limited and there is evidence of some (successful?) stylistic aspiration, not only in the dedicatory epistle but also at (e.g.) 30. 8–20, 45. 3–26, 51. 3–20, 92. 11–19.

[161] See in general Romaine (1995: 51 ff.) and cf. Dubuisson (1985) on the famous, if controversial, case of Latin interference in the Greek of Polybius.

and Theodorus: Theodorus sometimes refers Greek words to *nos*, he does not appear to know 'medical' *enim*, and his text is studded with Hellenisms without parallel in Vulgar Latin (or any form of Latin). I believe that a case can be made for L1 (= Greek) interference in Theodorus' L2 (= Latin), but that in Scribonius we have little, if any, reason for suspecting the same.

1. 4. 3 THEODORUS PRISCIANUS, *EVPORISTA*

Plausibly ascribed to Theodorus Priscianus are two extant Latin works:[162]

(1) the *Euporista* (lit. 'easily-obtainable [remedies]'; cf. 1.5 *medicina praesentanea*) in three books: book 1, *Phaenomena*; book 2, *Logicus*, in two parts;[163] book 3, *Gynaecia* (ed. Rose 1894: 1–248);
(2) a small fragment of the *Physica*, a collection of magical remedies dedicated to his son Eusebius, contained only in a twelfth-century Brussels manuscript, of which we have only the preface, the chapter on headaches, and part of that on epilepsy (ed. Rose 1894: 249–57).

In the present work only the *Euporista* are studied systematically.

Each book has its own preface. Books 1 and 2, addressed to an unnamed friend, belong closely together, the first dealing with diseases which are visible (*Phaenomena*), the second (*Logicus*) with invisible, internal diseases (cf. 104. 6 *passiones interiora possidentes*), thirteen acute and twenty-one chronic. The third, much shorter (about one-tenth of the whole), begins

[162] Note also Pseudo-Theodorus, (1) three sets of additions to the *Euporista* and (2) two works transmitted with it: (1) (a) (*Additamenta*) Series of later, anonymous, interpolations to the *Euporista*, in a very vulgar form of Latin but common to several manuscripts show that Theodorus' major work ran to a second, enlarged edition. They are edited separately by Rose (1894: 268–354); see Fischer (forthcoming *h*, no. 1). (b) (*De uesicae uitiis*) Chapter 33 of Theodorus' *Logicus* (2. 111, p. 214) contains in two manuscripts (*r* and *b*) an anonymous, possibly Methodist, fragment (or two?) on diseases of the bladder, written, in Rose's judgement (1894: 261), earlier than the rest of Pseudo-Theodorus and edited separately by Rose (1894: 261–7); on this see Fischer (1988) and (forthcoming *h*, no. 3). (c) (*Ad Octauium filium*) A collection of gynaecological recipes is added in some manuscripts to Theodorus' *Gynaecia*. Evidently compiled from various sources, parts of this could be from the 4th cent. AD; see Fischer (forthcoming *h*, no. 2).

(2) (a) On the *Antidotaria Bruxellensia I* and *II*, appended to Theodorus in a single manuscript, see 1. 4. 5 (xx) below, and Fischer (forthcoming *h*, no. 4). (b) The anonymous work *De simplici medicina* (extracts in Latin of Galen's *De simplicium medicamentorum temperamentis ac facultatibus* bks 6–8) appears to have circulated in the Middle Ages under Theodorus' name, and Rose prints the text of the Sankt-Gallen manuscript in his Theodorus volume (1894: 403–23); see Fischer (forthcoming *h*, no. 5). As a final item in the group of works falsely ascribed to Theodorus, note the so-called *Diaeta Theodori*, a late compilation based on the Latin version of bk 2 of the Hippocratic *Περὶ διαίτης* (Sabbah, Corsetti, and Fischer 1987: 68); cf. 1. 4. 5 (xxviii (c)) below.

[163] And accordingly divided into two books by manuscript *r* (Vat. Barb. 160).

with a fresh dedication to a woman, presumably a midwife, Victoria.[164] Even so, Theodorus is not explicit on the question of whether he is writing for doctors/midwives or for the laity. The *Phaenomena* is ordered, rather roughly, *a capite ad calcem* (cf. 4. 14 qua de re erit nobis de capite tamquam ex arce ad reliquam curam corporis descendendum). The *Logicus* shows probably traces of the same pattern, the first part moving from fevers to cholera, the second from 'De querellis capitis' to arthritis, gout and sciatica (215. 1, ch. 34 'De arthriticis, podagricis, ischiadicis'). The *Gynaecia* deals first with pain in the breasts and then with various afflictions of the genitals. The *Gynaecia*, our oldest gynecological treatise in Latin, is also transmitted separately.[165]

An important Greek source for books 1 and 2, as for Cassius Felix (1. 4. 4 below), appears to have been Galen.[166] There are agreements between Theodorus and the pseudo-Galenic *Περὶ εὐπορίστων* (vol. 14, 311 ff. Kühn), especially books 1. 1–8 and 2. 1–2, although these are not particularly close or numerous and Theodorus often introduces treatments which are not in this Greek work and which Theodorus implies are his own: compare, for example, Theod. 33. 14 ff. *nos etiam . . .*, and 33.17 ff. *suadeo attamen . . .*, with Ps.-Gal. 14. 341; Theod. 45. 1 ff. *ego uero . . .*, with Ps.-Gal. 14. 336–7. According to Rose (1879: iii–iv; 1894: xix), this pseudo-Galenic *Euporista* was compiled around AD 400 from genuine Galenic material (esp. the *Τὰ κατὰ τόπους* (vol. 12, 378 ff. Kühn)),[167] at the prompting of Oribasius in the preface to his own *Euporista* (*Ad Eunapium* pr. 5 p. 317 Raeder), who felt the lack of Galen's genuine work *Περὶ εὐπορίστων*, to which Galen himself refers in *De methodo medendi*, book 14 (10. 955). Rose suggests (1894: xix), and Meyer-Steineg accepts (1909: 31), that it was this genuine work of Galen that Theodorus used.

At all events, Galen was not Theodorus' only source. Although he calls himself a *logicus* (1. 9), Theodorus also makes frequent use of the *cyclus* of medical treatment that was popular in the Methodist school.[168] Other aspects of his diagnoses and treatments in book 2 imply use of a Methodist source or sources and agreements with Caelius Aurelianus (e.g. 158. 4 ff.: cf. Cael. Aur. *Chron.* 2. 94) suggest that Soranus was one of these; the latter's *Περὶ γυναικείων παθῶν* may well have been a source for Theodorus' own *Gynaecia*.[169] There are in addition important parallels between Theodorus and the *Liber Byzantii* (and the Greek material in Paulus

[164] Or Salbina, *vel sim.*?: see Rose's apparatus (1894: 224, 233).

[165] Cf. Rose (1894: xvii f.); Hanson and Green (1994); Fischer (forthcoming *i*).

[166] Cf. Rose (1894: xix) and his apparatus criticus *passim*; Fischer (forthcoming *i*).

[167] See Ilberg (1896: 191–2).

[168] See Rose's index (1894: 505), s.v. 'cyclus'.

[169] On Theodorus' sources see Meyer-Steineg (1909: 31); Migliorini (1991); Fischer (forthcoming *i*).

Nicaeus), which have yet to be evaluated.[170] Theodorus also introduces, with the words *de experimentis* or *ut experti sumus*, a number of *remedia physicorum* in the manner of Vindicianus' work *De expertis remediis*, of Marcellus, and of the author of the 'second edition' of Theodorus.[171]

The popularity of Theodorus' *Euporista* is reflected in the fact that it was excerpted: by the author of the older (possibly sixth-century) Latin version of Oribasius (1. 4. 5 (xxix) below);[172] by Gariopontus, in an epitomized form (see Rose 1894: xiii ff.); by Simon of Genoa in his medical lexicon of *c.*1300.[173] Extracts appear also in the medieval corpus of six medical books centred on the Latin version of Galen, *Ad Glauconem*.[174]

Theodorus tells us expressly that he had written in Greek before he wrote the *Euporista* in Latin and indeed he refers explicitly in the Latin *Gynaecia* (229. 2, 231. 11, 247. 19) to his own Greek work. He does not, however, say that the Latin *Euporista* is a translation of his own Greek original (of the same title?: cf. 127. 8–9), although he has been so understood (e.g. by Önnerfors 1993: 288), and, of course, this cannot be excluded: it is consistent with but certainly not required by his words in his preface[175] or the form of his references to his Greek works. It should in any case be noted that the reader is twice referred to the Greek work for more remedies (127. 8 addes etiam adiutoria de graeco euporiston compendiosa; 101. 11 addes de graeco quam plurima, the latter only in manuscript *B*): if these passages are genuine, the Greek may have contained material that is absent from the Latin (and vice versa?).

Like Scribonius, Theodorus was a professional doctor (5. 2 *quantulaecunque scientiae medicus*); the medical quality of his work is rated highly by medical historians.[176] He tells us himself that he was a pupil of the distinguished doctor Vindicianus, whom he outlived (251. 15–16 *magister meus . . . dum uiueret*). Theodorus was an old man when he wrote the *Phaenomena* (5.1 *senex*), and Vindicianus is referred to as a *senex* by his friend St Augustine before 383 (while Augustine was still in Carthage). The fact that Vindicianus is referred to as living, by Augustine in his *Confessions*

[170] On these see Fischer (1998*b*).

[171] Cf. n. 162 above, (1) (a).

[172] This man intertwined Theodorus' *Phaenomena* and *Logicus* with Oribasius' *Synopsis* bks 8 and 9; he also imported excerpts from Celsus and from the *Euporista* of Oribasius; see Mørland (1952).

[173] The Theodorus cited by the 6th-century Greek doctor Alexander of Tralles (*Therapeutica* 1. 15, p. 559 Puschmann) is unidentified (*pace* Meyer-Steineg 1909: 30). Note the 6th-century doctor Theodorus in Korpela's catalogue (1987: 210, no. 313).

[174] Cf. 1. 4. 5 (xxvii) and n. 216 below; Fischer (forthcoming *i*).

[175] Theod. 1. 4–9 Nuper me . . . confecisse . . . praesentaneae libellos medicinae . . . fama retinet, sed Graeco stylo . . . in his igitur uoluminibus non studium tenebo gloriae, neque enim in logico opere eloquentia opus est sed labore.

[176] Cf. Fischer (forthcoming *i*).

but as dead, by Theodorus in his *Physica* may give a *terminus ante* of 397/8 for the composition of the latter.[177] Theodorus refers to the *Physica* in the *Euporista* (133. 4, 149. 17) but not vice versa. We may take it that Theodorus' life included the second half of the fourth century and that he was writing at the end of the fourth century and probably early in the fifth century. Rose even makes him a contemporary of Cassius Felix. It is presumed that Theodorus was African, like his teacher Vindicianus, although this cannot be proved.

Little has been written on Theodorus' language. Önnerfors' section on this author in his long article on medical Latin from Celsus to Cassius Felix (1993: 288–301) consists essentially of a detailed review (with numerous additions and corrections) of Sundelin (1934), chapter by chapter, including an excursus (Önnerfors 1993: 291–8) on *variatio sermonis* in medical Latin in general.[178] For present purposes it is relevant to note that Sundelin, Migliorini, and Önnerfors are all agreed that Theodorus, while admitting numerous everyday, colloquial expressions, frequently aspires to a literary style,[179] notably—but not only—in the prefaces to the *Phaenomena* and *Gynaecia*, and, Önnerfors adds (1993: 290 n. 104), in his unmistakable use of rhythmical and accentual patterns (*cursus*) at the end of sentences. In my opinion, there is good reason to believe (differently from the case of Scribonius Largus: 1. 4. 2 above) that Theodorus' first language was Greek, that he was less than fully at home in Latin, and that there are signs of Greek interference in his Latin.[180]

1. 4. 4 CASSIUS FELIX, *DE MEDICINA*

In AD 447,[181] one Cassius Felix dedicated to his son a short handbook in Latin containing the received wisdom of the Greek authors of the Logical school of medicine on all diseases. The writing of the work was undertaken at the bidding of Almighty God after a long time spent in dealing with medicine. It was intended to be read and put to practical use and, further,

[177] See Önnerfors (1993: 281, 288).

[178] On *variatio* in Theodorus, note Migliorini (1982).

[179] Fischer (forthcoming *i*) speaks of his 'Bemühtheit um einen eindrucksvollen Stil'.

[180] This topic I must reserve for separate treatment elsewhere but let me at least mention here Theodorus' unparalleled use of *imminere* (+ instr. abl.) 'to persist' (with a course of treatment) (at e.g. 55. 3, 90. 16, 114. 2, 144. 23), which is not adequately explained by the *ThLL*, s.v. 460. 69 or by Önnerfors (1993: 295 n. 112) and which is certainly a calque on Gk *ἐπιμένειν* (+ instr. dat.) which is common in e.g. Galen 13. 99, 327 *τῷ φαρμάκῳ*, 17a. 906 *τοῖς βοηθήμασι*; Paul of Aegina 3. 65. 2 *τοῖς τε καταπλάσμασι καὶ τοῖς ἐγκαθίσμασι*, 4. 48. 4 *τῷ αὐτῷ φαρμάκῳ*; Aetius 7. 32 (p. 282. 24 Olivieri) *τοῖς καταπλάσμασι ἐπιμένειν*, 8. 48 (p. 471. 9) *τούτοις ἐπιμενητέον*; *al.*, but not in the Hippocratic corpus.

[181] According to the consular dating in the title in manuscript *p*, 'sub Artabure et Calepio consulibus'.

to be a complete and necessary account, to which nothing need be added, from which nothing should be taken away. It starts with the afflictions of the head, the 'capital city' of the body.[182]

Not until chapter 33 ('Ad tussim humidam') does Cassius move definitely away from diseases affecting the head. Chapter 8 ('Ad maculas albas'), however, introduces a long series of chapters (8–27) on skin-diseases which may occur anywhere on the body (interrupted by chapter 14, 'Ad labia hiantia'). Cassius then resumes with diseases of the ears (28), eyes (29), nose (30–1), and teeth (32). The progression is then from the throat (33–7) and neck ('Ad tetanicos', 38) to the lungs (39–41) and stomach ('Ad stomachi passiones', 42). The diseases of other internal organs follow: the spleen (43), liver (44), kidneys (45), bladder (46), and intestines (47–51, including jaundice, 'Ad ictericos', in chapter 49). Chapters 52–4 treat of diseases of the limbs and joints and conclude the section on diseases related to specific parts.

Cassius deals next with the various types of fever (55–61) and a series of general diseases which include fever among their symptoms (62–6). The next four chapters cover animal and insect bites (67–70) and the final six chapters (77–82) are all devoted to women's diseases. It is not clear what principle, if any, determined the placing of the intervening accounts of epilepsy (71), intestinal worms (72), elephantiasis (73), lesions of the anus (74), oedema (75), and dropsy (76).[183]

The *editio princeps* of Cassius Felix did not appear until 1879. It is the work of that great pioneer of the philological study of Latin medical texts, Valentin Rose, to whom we owe several editions of lesser-known, especially medical Latin authors.[184] Rose's edition (1879) remains the only

[182] So Cassius Felix in his short preface (p. 1): 'cum diuturno tempore sedulus mecum uoluendo, carissime fili, de medicina tractassem, omnipotentis dei nutu monito placuit mihi ut ex Graecis logicae sectae auctoribus omnium causarum dogmata in breuiloquio Latino sermone conscriberem. quae cum perlegeris et usus fueris, ad curam omnium corporum humanorum cuncta experta reperies. unde admoneo, fili dulcissime, ne quid forte huic scripturae addendum uel minuendum existimes. et ideo a principio passionis capitis inchoantes scripsimus, quoniam summa ciuitas corporis a ueteribus dicitur caput, et honorabile et necessarium sensus hominis domicilium.'

[183] The ordering of the chapters varies in the manuscripts; the original order is perhaps in part still to be determined. Crucial indicators are the cross-references that Cassius gives to earlier or later chapters. The plan of Rose's edition is consistent with all of these references except one: at 180. 11 one is referred *inferius* to something discussed earlier, at 73. 3–6. It is perhaps significant that this 'wrong' reference comes in the small group of chapters (71–6) whose placement is hard to explain in a principled way (cf. Rose 1879: ix–x, Sabbah 1985: 307).

[184] Other editions by Rose include those of: fragments of Caelius Aurelianus (1864–70: ii. 180–240), Anthimus (1864–70: ii. 41–102), Mustio (1882), Gargilius Martialis (1875: 192–212), Theodorus Priscianus, and Vindicianus (1894).

edition of Cassius Felix, an author who is, furthermore, without published index, concordance, lexicon, translation, or commentary.

On only one issue has Cassius Felix excited debate among scholars, namely in connection with the theory of *Africitas* (that is, the idea that the form of Latin spoken and written in the African provinces in the later Empire shows characteristic divergences from the Latin of the rest of the Western Empire). This was hinted at first by Rose, who supported his view that Cassius Felix was African on the grounds that his Latin is so similar to that of Caelius Aurelianus, a near-contemporary from Sicca Veneria in Africa Proconsularis (1879: iii). The theory of *Africitas* was applied in detail to Cassius Felix by Eduard Wölfflin (1880); generalized by Karl Sittl (1882); destroyed by Wilhelm Kroll (1897); and written up as an item of historical interest by Einar Löfstedt (1959: 42).[185]

Important contributions have been made to the establishment of the text of Cassius Felix by Heeg (1910), Junel (1936) and Bendz (1964). Junel and Bendz are critical of Rose's text, chiefly because Rose often prefers the readings of manuscripts *c* and *p*, inconsistently with his demonstration that *g* is the oldest and best. Bendz, further, takes issue with Junel on a number of points. Now a new edition of Cassius Felix is being prepared. A collaborative venture was launched in 1984 by Anne Gaden, Danielle Gourevitch, and Guy Sabbah, under the auspices of the Centre Jean Palerne in Saint-Étienne; work is currently being pursued by Anne Fraisse in Lyons. A preliminary report was published in 1985 (Sabbah 1985). It contains sections on the origin of the text, the manuscript tradition, and an overall evaluation of the treatise of Cassius Felix, and I have relied heavily upon it for the present introduction.[186]

Cassius Felix was almost certainly from Roman Africa, probably originally from the town of Cirta (Constantina), though he may have moved to Carthage. The manuscript (*p*) which dates the work by the consuls of the Eastern and Western Empires gives Cassius the ethnic *artensis* which is generally corrected to *Cirtensis*. The most important pieces of internal evidence are: (1) his references to the African doctor Vindicianus in terms that suggest the latter was a master-physician familiar to his readers; (2) his mention of the marks on the faces of *feminarum Maurarum* (20. 15–6); (3) his use of a handful of Semitic words (*aturbis*, the local Punic word for a *herba putida* (32. 12); *gelela*, the popular term for the flesh of the gourd (176.17); *girba*, for Latin *mortarium* 'a mortar' (63. 5,

[185] The theory of 'African Latin' apart, the remarks of Wölfflin (1880) on the language, especially the vocabulary, of Cassius may still be read with profit.

[186] From a century ago note, especially but not only with reference to surgical matters, Gurlt (1898: i. 501–5). On Cassius' doctrinal orientation, see Orth (1960). Now see also Önnerfors (1993: 336 ff.), Vivian Nutton's article in *Der neue Pauly* (s.v. 'Cassius Felix'), and Sabbah (1998).

etc.); *mappa* (Punic, according to Quint. *Inst.* 1. 5. 57), the peritoneal membrane (131.8); the plants *sefra* (17. 12) and *zaccario* (167. 4), on which cf. André 1985*b*, s.vv.). He has been identified with the dedicator of a funerary inscription from Cirta (*CIL* 8. 7566). Probst (1908: 319–20) and, more tentatively, Sabbah (1985: 287–9) have identified him with the 'archiatrum quemdam Felicem nomine Carthaginiensis ciuitatis' who appears in an episode (datable to AD 418–27) in a work entitled *De miraculis sancti Stephani* (usually grouped with the works of Augustine: see *PL* 41. 833–54).

A doctor by profession and a Christian by faith, Cassius Felix composed—perhaps better, compiled—towards the end of his life a medical compendium, which he dedicated to his son. All this may be inferred from the words of the preface (quoted in n. 182). His experience as a doctor emerges also in the text at many points: in his advice and admonitions to patients and those administering to them (99. 6, 142. 18, 167. 18); in his criticism of ignorant practitioners (53. 11); in his emphasis on gentleness in the treatment of the weak, of children, women, and the elderly (e.g. 70. 8–9, 141. 19, 188. 10). (See Sabbah 1985: 309.)

Cassius' work takes its place in that important group of medical translations, adaptations and compilations of Greek originals and commentaries which were written in Latin in and around Carthage in the period AD 380–450. Carthage, the administrative capital and the cultural and university centre of the diocese, seems to have enjoyed a new flowering of scholarly and scientific activity comparable to that seen in the sixth century in the North Italian 'school of Ravenna' (on which see Mazzini (1981) and Mazzini and Palmieri (1991)). The preservation of knowledge of Greek language and culture, helped by the relative proximity of the medical school of Alexandria (which underwent a glorious revival in the fourth century) may have favoured the evident effusion of medical activity in Latin-speaking Roman Africa at this time. The master of this 'African school' appears to have been Vindicianus, who claims to have translated Hippocrates (n. 204 below), and his best-known pupils were, directly, Theodorus Priscianus, and indirectly conceivably Caelius Aurelianus (best known as the translator of the great Soranus of Ephesus) and Cassius Felix.[187]

There exists, to my knowledge, no study of the style of Cassius Felix. Sabbah devotes a few remarks to the matter in the context of his overall evaluation of the work, an important preliminary to editing the text. Sabbah perceives in Cassius' sentence-construction a tendency 'à une élégance sobre, à une sévérité classique' (1985: 310) and in the structure of his paragraphs and chapters a care for clarity, 'classique lui aussi', and 'une

[187] On the points raised in this paragraph, see Sabbah (1984*a*: 113–14) with further references, and esp. (1985: 289–92).

certaine recherche de l'équilibre et de la symétrie' (1985: 310–11). Sabbah's judgement of Cassius Felix as writer is much closer to that of Rose (and also Bendz 1964)[188] than to that of Junel (or Mazzini 1988*a*: 1327), who considered the language, style, and readership of the book to be vulgar and argued for readings accordingly (cf. Sabbah 1985: 305–6).

From 1. 4. 1–4 it emerges that three of our four authors were *medici* of high social and professional rank and consequently in the best available position not only to write good technical language (through their knowledge of the discipline) but also to represent any recognizable features of 'medical Latin' in the strong sense, if such a variety existed (through their membership of the relevant group).

1. 4. 5 CATALOGUE OF THE EXTANT CORPUS OF LATIN MEDICAL WORKS

The preceding paragraphs have presented the four authors with whom we shall be particularly concerned in the following chapters. In order that they may be appreciated in their context as part of the extant corpus of Latin medical texts, I conclude this section with a list of the more important surviving works in Latin on medicine, up to the end of the sixth century AD. The list is ordered first of all chronologically, as far as this can be established,[189] and in the later sections 'generically', according to the nature of the texts. Here and there, I have added brief notes on authors or texts, both individually and in groups,[190] but my purpose in compiling this list is to give not a critical account of the corpus but simply an impression of the number, range, and nature of the surviving texts, together with references to recent literature. With regard to the titles attached to the ancient medical texts catalogued below, it is important to note that many of these are modern or medieval designations, the original title being unknown, and

[188] This judgement, which I share, is further borne out by Cassius' use of sentence-connectives: cf. Langslow (1998).

[189] It must be acknowledged that we can date securely and accurately very few of the items in this corpus; our four authors and, say, Marcellus (xii) are among the exceptions rather than the rule.

[190] Much of the material here is drawn from Sabbah, Corsetti, and Fischer (1987), to which detailed reference is made for each author or text. I have added other, mainly more recent, bibliographical references here and there, but in general, useful reference can be made also to *PWRE*, *Der kleine Pauly*, and *Der neue Pauly* for further biographical and historical information. For authors and texts from the 2nd century AD and later, the articles (notably by K.-D. Fischer) in vols. 2, (forthcoming), 4 (1997), 5 (1989), and 6 (forthcoming) of *HLL* are fundamental and indispensable; for the later period note also the briefer but still very valuable accounts in the *LexMa*, again mainly by K.-D. Fischer, but note also e.g. Schipperges (1993) on 'Medizin' and Keil (1980) on 'Arzneibuch'. For a review of work done on the later period in ancient Italy, see Mazzini (1981).

that some works are referred to by more than one title, and so to be appropriately cautious in dealing with references to them in modern literature.

For bibliography to the whole corpus, from Cato, *De agricultura*, to AD 900, note above all the indispensable work of Sabbah, Corsetti, and Fischer (1987), a thorough and critical catalogue with many valuable comments, of editions, translations, commentaries, and indexes published from the Renaissance to the end of 1986—in all, well over 600 items under 134 author or text headings.[191] For more up-to-date bibliography, and for an extremely useful introduction to all aspects of Graeco-Roman medicine, including the corpus of Latin medical texts, see the two small volumes of Mazzini (1997).[192] Please note that I do not include below authors or texts on veterinary medicine;[193] on medical material in texts which are not principally medical, see 1. 3. 2 above and the references there. Lastly and importantly, on the earlier medical manuscripts note above all the priceless works of Beccaria (1956) and Wickersheimer (1966).

The Republic

Not a single Latin work on medicine survives from the Republican period, and for the most part we have to be content with testimonies, especially in Pliny, to various sorts of Latin medical texts, indirect hints of Latin

[191] This work contains also (pp. 18–20) a bibliographical guide to the field, including details of the regularly updated bibliographies, notably *Current Work in the History of Medicine* (London: Wellcome Historical Medical Library 1954–) and the usefully frequent and up-to-date bulletin of the Centre Jean Palerne (Saint-Étienne Faculté des Lettres, Langues et Sciences Humaines). A forthcoming issue of the latter contains important additions and corrections by K.-D. Fischer to Sabbah, Corsetti, and Fischer (1987).

[192] For bibliography note also Leitner (1973), who covers both Greek and Latin medical works but very selectively; cf. Sabbah, Corsetti, and Fischer (1987: 13). The introduction to Opsomer's index of pharmacopoea (1989: x–lxxvi) contains some bibliographical references for those Latin medical works which contain pharmaceutical recipes (up to AD 1000). Sconocchia includes a useful list of authors, works, and editions in his intervention in Radici Colace and Caccamo Caltabiano (1991: 314–19). The prefaces of many medical texts are dealt with in the collections edited by Santini and Scivoletto (1990–2) and Santini, Scivoletto, and Zurli (1998). Discursive accounts of the Latin medical writers from Cato to Pliny are to be found in Ilberg (1907) and Scarborough (1969: 52–65). The period from roughly AD 200–500 (Gargilius Martialis to Cassius Felix) is described by Temkin (1932); on this period note also Nutton (1984). Scarborough appends to his work on Roman medicine a series of biographical sketches of ancient medical authors (1969: 149–61). Korpela's (1987: 155–210) 'Prosopographie des Medizinalpersonals' gives biographical and bibliographical details for all named individuals connected with healing who spent time in Rome (to AD 600). There is an introduction to the Latin medical writers in Spanish by Conde (1996) with up-to-date bibliography.

[193] On the Latin veterinary treatises, the reader is referred to Fischer (1989*a*), (1989*b*), and (forthcoming *b*); Adams (1995: esp. 3–9, 103 ff.); Fischer and Schäffer (1997); and the relevant sections in Sabbah, Corsetti, and Fischer (1987).

medical discourse (e.g. in Plautus and Lucretius) and numerous medical words and expressions in literary texts of several genres (see 1. 3. 2 above). There are, however, important sections bearing on medicine in two works on agriculture.

(i) M. Porcius Cato (Maior) (234–149 BC), *De agricultura* (*c.*160 BC): of medical interest are especially chs. 156 ff. Lit.: Ilberg (1907: 311–14); Sabbah, Corsetti, and Fischer (1987), nos. 109–21; Boscherini (1993*a*) and (1993*c*).

(ii) M. Terentius Varro (Reatinus) (116–27 BC), *Res rusticae* (37 BC):[194] in this agricultural work, too, there is much of general medical interest. Lit.: Ilberg (1907: 315–22); Boscherini (1993*a*); Sabbah, Corsetti, and Fischer (1987), nos. 577–91.

The first three centuries AD

In this period, too, there are surprisingly few works devoted expressly to medicine. But there are four such, and two of these, Celsus and the Elder Pliny, are both very extensive and extremely influential in the history of medicine until the early modern period.

(iii) A. Cornelius Celsus, *Artes* 6–13 = *De medicina* 1–8 (early *s.* i AD). Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 122–40; Mudry (1993*a*); for discussion and further references, see 1. 4. 1 above.

(iv) Scribonius Largus (*s.* i AD), *Compositiones* (AD 44–8). Lit.: Sconocchia (1985); Sabbah, Corsetti, and Fischer (1987), nos. 527–38; for discussion and further references, see 1. 4. 2 above.

(v) C. Plinius Secundus (*c.* AD 23–79), *Naturalis historia*: of the 37 books those of medical interest are especially 20–7 (plants in medicine), 28–32 (animals in medicine), to a lesser extent 33–7 (minerals in medicine). Pliny forms the basis of the very important late Latin compilations, *Medicina Plinii* (vii) and *Physica Plinii* (xix), and is well represented (although with more reworking) also in Gargilius Martialis (vi). Lit.: Ilberg (1907: 351–6); Schanz and Hosius (1935: 768–83, esp. 774–9); Sallmann (1975); Schilling (1978); Serbat (1986: 2102 ff., 2147 ff., 2172 f.); Beagon (1992), esp. the final chapter; Capponi (1995); Sabbah, Corsetti, and Fischer (1987), nos. 486–98.

(vi) Q. Gargilius Martialis,[195] *Medicinae ex oleribus et pomis* (*s.* iii AD):

[194] On the eighth book of Varro's lost work *Disciplinae*, which dealt with medicine, see n. 128 above.

[195] Gargilius lived after Galen (d. after AD 210). If Gargilius is the honorand of *ILS* 2767 (*CIL* 8. 9047), then he died in AD 260 (cf. *CIL* 8. 20751) and was an *eques Romanus* from Auzia in Mauretania, with a high social position and possibly even contacts with the emperor Alexander Severus, whose biography he may have written (Hist. Aug. *Alex.* 37. 9; Syme (1983: 100 f.)).

fragments only, on the medicinal properties of herbs, condiments, fruit, and vegetables, from an agricultural work (*De hortis* or *De pomis*?), usually transmitted as book 4 of the *Physica Plinii Florentino–Pragensis* (xix (d)) and in a different version in the *Dynamidia Hippocratis* (xxi). As sources Gargilius cites Pliny (v), some of Pliny's sources, Dioscorides, and Galen; he may have used the lost work of Celsus (iii) on agriculture and Columella, and he was used by Palladius, by the author of the *Dynamidia Hippocratis* (xxi),[196] and by Isidore (xxxiv). Lit.: Mazzini (1977); Riddle (1984); Sabbah, Corsetti, and Fischer (1987), nos. 297–300; Stok (1993*a*); Fischer (1997*a*).

(vi[a]) Pseudo-Gargilius, *Curae boum*: these 23 fragments, concerned mainly with the treatment of draft animals, are appended in one manuscript to the *Digesta artis mulomedicinae* of Vegetius and there ascribed to Gargilius. But they are very different from the *Medicinae* and are certainly by another hand. Lit.: Mazzini (1977); Riddle (1984); Sabbah, Corsetti, and Fischer (1987), nos. 291–6.

AD 300–600

As emerges clearly from the continuation of this catalogue, (vii)–(xxxvi), the vast majority of surviving ancient Latin medical texts (including translations of Greek works) date from the three centuries which begin with the reign of Diocletian. These are for the most part second-hand works, many of which excerpt earlier medical literature, especially medical recipes, in order to preserve old knowledge and to make it widely accessible, in particular for self-help among the laity. Notable examples of this kind of work are, in Latin, the *Medicina Plinii* (vii) and the *Liber Byzantii* and, in Greek, Oribasius' *Euporista* (*Ad Eunapium*).[197] Yet by no means all of our Latin material from this period is at this low level of aim, language, and medical content. In particular, it is clear that Vindicianus (ix) addressed his elementary treatises on anatomy and physiology as much to student doctors as to the interested laity. His works herald the beginning of what may be seen as a 'golden age' of ancient Latin medical compendia, in that a number of relatively stylish, sophisticated, and authoritative compilations were produced in Latin by practising doctors in the period *c.* AD 370–450 and in the prosperous and still partly bilingual province of Africa (see Vindicianus (ix), Theodorus Priscianus (x), Caelius Aurelianus (xi), and Cassius Felix (xiii) below). (See on this period Fischer (forthcoming *d*); on the African writers Sabbah (1998).)

[196] It is alone on the basis of the attributions of material to sources in this work that the *Medicinae* is ascribed to Gargilius Martialis.

[197] See Fischer and Kudlien (1989*a*) and, on the *Liber Byzantii*, Fischer (1998*b*) and n. 217 below.

(vii) *Medicina Plinii* (*c.* AD 300, possibly earlier): the first edition, in 3 books, of a collection of more than 1,100 recipes by an anonymous excerptor, five sixths of them from Pliny (v), especially books 20–32. Books 1–2 proceed *a capite ad calcem*; book 3 is more general and chaotic. It was the first collection of *euporista* since Scribonius (iv) and purported in its preface to be aimed at instructing lay people in treating themselves, especially when travelling, and so to avoid corrupt doctors.[198] It is used by the pseudo-Apuleian *Herbarius* (xvi) and by Marcellus (xii), who numbers it among his *ueteres auctores*, and it is one of the principal sources of the *Physica Plinii* (xix). The importance and popularity of both the *Medicina Plinii* and the *Physica Plinii* are attested by the numerous manuscript versions of this compilation from throughout the Middle Ages. Lit.: Önnerfors (1963); Sallmann (1975: 64–6); Sabbah, Corsetti, and Fischer (1987), nos. 400–4; Fischer and Kudlien (1989*b*); Opsomer (1989: xiii).

(viii) Q. Serenus,[199] *Liber medicinalis* (*s.* ii, iii, or iv?: essentially undatable):[200] this didactic poem—our only properly therapeutic medical poem[201] from this period—offers remedies to about 80 diseases in 1,107 hexameters divided into 64 chapters. Its chief source was Pliny (v); it was possibly used by Marcellus (xii). It was copied on the orders of Charlemagne and was of very considerable influence among the Humanists and in the early modern period.[202] Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 539–46; Fischer and Smolak (1989); Opsomer (1989: xliv); Phillips (1991).

(ix) Heluius (?) Vindicianus (late *s.* iv AD): Vindicianus held a number of important offices, including that of *Comes archiatrorum*, and was finally Proconsul of Africa early in the reign of Theodosius I (AD 379–95). He was a doctor of great renown and a teacher of Theodorus Priscianus (x). He was a friend of St Augustine, who mentions him several times.[203] It is not possible on the strength of his surviving work to assign Vindicianus to a

[198] With this stated purpose compare the opening of the preface to Orib. *Eup.* It is uncertain whether this corresponded with reality: did a well-to-do Latin-speaker really pack his copy of the *Medicina Plinii* before setting out on a journey?

[199] Conventionally called Q. Serenus Sammonicus but the cognomen rests on no good evidence (and has finally been dropped by the *ThLL*); see Fischer and Smolak (1989).

[200] A doubtful echo of Nemesianus would give a *terminus post* of AD 283; even more doubtful echoes of Q. Serenus in Marcellus (xii) would give a *terminus ante* of *c.* AD 410; cf. Fischer and Smolak (1989: 319).

[201] As distinct from the index-like list of drugs in hexameters at the end of the *De medicamentis* of Marcellus (see (xii) below).

[202] In the words of Fischer and Smolak (1989: 320), 'dürfte nur *ein* Römer mehr auf die Ärtzte der Neuzeit gewirkt haben: Celsus.'

[203] See Aug. *Conf.* 4. 3. 5; 7. 6. 8; *Epist.* 138. 3.

particular medical school.[204] His (short) works, especially (b) and (c) below, are among the best known and most widely excerpted medical texts throughout the Middle Ages in the West. Ascribed to Vindicianus are the following:

(a) *Epistula Vindiciani comitis archiatrorum ad Valentinianum imperatorem*: transmitted with the text of Marcellus (xii), this serves to introduce his lost collection of pharmaceutical recipes, *De expertis remediis*, which were presumably incorporated, in part at least, by Marcellus;

(b) *Epistula ad Pentadium nepotem*: a very influential elementary account of physiology based on the theory of the four humours, for a nephew beginning medical study;

(c) one or more works on physiology and anatomy, of which we have fragments of 3 versions known as (1) *De natura generis humani*, (2) *Gynaecia* (in various versions) and (3) *Epitome altera*, of which (1) is nearest to the original and (3) derives from both (1) and (2); these must be reckoned as the standard text(s) on anatomy and physiology in the pre-Salernitan period.[205]

The authorship of *Medicorum placita* (or *De semine*), a fragment of a doxographical work earlier (and still conventionally) ascribed to Vindicianus, is now in serious doubt; this may be from a translation of a work by Soranus (cf. (xxxiii) below).

Lit.: Vázquez Buján (1982); Korpela (1987: 206–7, no. 286); Sabbah, Corsetti, and Fischer (1987), nos. 598–616; Mazzini (1997: 86–7); Fischer (1997*c*) and (forthcoming *j*).

(x) Theodorus Priscianus (*s.* iv–early *s.* v AD): Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 569–73; Fischer (1997*b*) and (forthcoming *i*); for discussion and further references, see 1. 4. 3 above.

(xi) Caelius Aurelianus (*s.* iv or first half of v AD): a doctor of the Methodist school from Sicca Veneria in Africa Proconsularis, and generally regarded (since Bendz 1964)—although without decisive evidence—as a younger contemporary of Cassius Felix, Caelius Aurelianus has been hailed by no less an expert than Valentin Rose as the 'historisch wichtigster aller lateinischen Mediciner'.[206] Of the 3 surviving works of Caelius, 1 is (almost) complete and very extensive, while the other 2 are fragmentary:

[204] His (much-quoted) statement at the beginning of the *Epistula ad Pentadium nepotem* (p. 485 Rose), 'ex libris medicinalibus Hippocratis intima latinaui', is obscure.

[205] The misleading title (the subject is human anatomy) must have been attached to this work in the Middle Ages, probably because it includes sections on female anatomy and the development of the foetus in the womb.

[206] In *Hermes* 4 (1870), 141 (cited by Fischer in his review, forthcoming in *Gnomon*, of Bendz (1990–3), n. 1).

(a) *Celeres siue acutae passiones* (in 3 books, dealing with 14 acute diseases) and *Tardae siue chronicae passiones* (in 5 books, covering 44 chronic diseases): together these provide a translation (with how much reworking we cannot yet say) of the lost work *Περὶ ὀξέων καὶ χρονίων παθῶν* of Soranus of Ephesus (cf. (xxxiii) below), and constitute a singularly important account of all aspects, theoretical and practical, of pathology and therapeutics, as well as a great amount of medical doxography (although none of the latter is later than Soranus);

(b) *Gynaecia*: disordered fragments on pregnancy, childbirth, children's diseases, and diseases of the female genitalia from a translation (apparently abbreviated at some point in time) in 2 books of the *Γυναικεῖα* of Soranus, surviving in just 1 manuscript where they are interspersed with Mustio's version of Soranus (xxxiii (a));

(c) *Medicinales responsiones*: of this great introduction to medicine in question-and-answer form, intended for teaching purposes and comprising at least 9 books, there are presently known only 2 sets of fragments referred to as *De salutaribus praeceptis* (on healthy living) and *De significatione diaeteticarum passionum* (on the diagnosis of internal diseases).

Lit.: Vietmeier (1937); Ernout (1956); Korpela (1987: 209, no. 305); Sabbah, Corsetti, and Fischer (1987), nos. 61–81; Opsomer (1989: xlix–l); Fischer (1995); Mazzini (1997: 90–2); Fischer (1999) and (forthcoming *a*). Note the new edition of *Acut.* and *Chron.* by Bendz (1990–3) and Fischer's review to appear in *Gnomon*.

(xii) Marcellus, *De medicamentis liber* (early *s.* v or late *s.* iv AD): Marcellus, a native of southern Gaul,[207] seems to refer to himself (pr. 2) as an amateur rather than a professional in medical matters. He achieved high rank (*magister officiorum*) under Theodosius I (d. 17 January AD 395), and appears to have completed his *De medicamentis* under Theodosius II (i.e. not before May AD 408 (or January 402?)).[208] The work consists of a massive collection of remedies in 36 very long chapters, ordered *a capite ad calcem* and including some magic and folk-medicine. It is a work of pure compilation which draws on the work of predecessors, above all Scribonius (iv), both Pliny (v) and the *Medicina Plinii* (vii),[209] and Vindicianus (ix); Marcellus reproduces even the dedicatory epistles (at the front of his book)

[207] Sometimes called Marcellus Empiricus, with reference to his statement (pr. 1) that he compiled his work *de empiricis*, or Marcellus of Bordeaux, although he was probably not from this city (Matthews 1971: 1084–7).

[208] If the reference (pr. 1) to 'Theodosii *senioris*' is original: Theodosius II became Emperor in May 408 but was joint regent from 10 January 402.

[209] Whence Marcellus' expression (pr. 2) *utergue Plinius*.

and some statements in the first person of the authors he uses. He concludes his work with a playful list of medicinal materials in 78 hexameters. Lit.: Matthews (1971); Sabbah, Corsetti, and Fischer (1987), nos. 393–9; Opsomer (1989: xi); Fischer (1993*a*); Maggiulli and Buffa Giolito (1996: 11–18); Fischer (forthcoming *c*).

(xiii) Cassius Felix, *De medicina* (AD 447). Lit.: Sabbah (1985); Sabbah, Corsetti, and Fischer (1987), nos. 105–8; for discussion and further references, see 1.4.4 above.

(xiv) Anthimus, *De obseruatione ciborum ad Theodoricum regem Francorum epistula* (early *s.* vi AD): in AD 477/8 Anthimus, a Byzantine doctor, was banished for life as a traitor from the court of the emperor Zeno and lived in Italy at the court of Theodoric the Great, king of the Ostrogoths (r. 474–526). His treatise on dietetics is in the form of a letter to Theodoric (cf. (xxxvi) below), and is also of linguistic interest as the product of a Greek who learnt Latin as an adult and writes no literary Latin but an idiom close to the contemporary colloquial language. Lit.: Mras (1943–7); Sabbah, Corsetti, and Fischer (1987), nos. 10–16.

Fourth-, fifth-, and sixth-century recipe-collections

Items (xv)–(xxiv) indicate, by way of illustration, some of the more important of the very large number of surviving 4th-, 5th-, and 6th-century collections of Latin recipes and antidotes. Some of these list relatively straightforward remedies for single ailments and are ordered for the most part *a capite ad calcem*; others, the *antidotaria*, give more complicated recipes calling for many ingredients, which may be used to treat numerous different conditions. We have seen this distinction adumbrated in the structure of the work of (e.g.) Scribonius Largus (cf. 1. 4. 2 above) but the 'heyday' of the *antidotaria* is much later; the title, *Antidotarium*, has, however, not always been well chosen by modern editors (cf. n. 214 below on the *Antidotaria Bruxellensia* (xx)). See further especially Sabbah, Corsetti, and Fischer (1987), nos. 17–25 under the heading *Antidotaria* and nos. 170–84 (*Compositiones*).[210]

(xv)[211] Pseudo-Antonius Musa, *De herba uettonica*: Antonius Musa was

[210] Note also individual items, such as the *Miscellanea tironiana*, which contains medical extracts (Sabbah, Corsetti, and Fischer (1987), no. 406); also important are the collections of recipes added to the text of Theodorus Priscianus (see 1. 4. 3 and n. 162 above). Opsomer lists with references (1989: xvii ff.) a further 19 Latin pharmaceutical works from between the 7th and the 10th century AD.

[211] Items (xv)–(xviii), herbals by authors unknown and of uncertain date, formed a corpus from the 6th century, and are printed together in vol. 4 of the *Corpus Medicorum Latinorum* (Howald and Sigerist 1927). Also transmitted in this corpus, and so formerly ascribed to Antonius Musa, are the pseudo-Hippocratic *Epistula ad Maecenatem* (Sabbah, Corsetti, and

the physician of the emperor Augustus, whom he cured in 23 BC of a serious illness,[212] and the work contains a reference to the Augustan age. It cannot, however, be regarded as authentic. It was perhaps used by Marcellus (xii) and is thought to have been written before the pseudo-Apuleian *Herbarius* (xvi) because the latter omits the plant *uettonica*. Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 26–34; Opsomer (1989: lxiii); Nutton (1996*a*).

(xvi) Pseudo-Apuleius, *Herbarius* or *De herbarum uirtutibus* (*s.* iv AD): a description of 131 plants, with (in some manuscripts) a picture of each plant, followed by some recipes arranged according to the diseases they treat. The author used Pliny (v) and *Medicina Plinii* (vii), and may have been used in his turn by Marcellus (xii). The false attribution (sometimes to an imaginary Apuleius Barbarus) may arise from a traditional association of Apuleius with Asclepius. Other medical texts ascribed to Apuleius are the *De herbis Galieni et Apulei et Chironis* (Sabbah, Corsetti, and Fischer 1987: 73) and the *Sphaera Apulei* (or *Pythagorae*) (Sabbah, Corsetti, and Fischer (1987), nos. 555–60). Lit.: Voigts (1978); Sabbah, Corsetti, and Fischer (1987), nos. 35–49; Opsomer (1989: lv); Maggiulli and Buffa Giolito (1996).

(xvii) Sextus Placitus Papyriensis, *Liber medicinae ex animalibus* (not before *s.* v AD): a collection of remedies drawn from the body-parts, faeces, and urine of 32 animals, including man. Nothing is known of the author, save that he used Pliny (v) and also Marcellus (xii) (whence the *terminus post*). Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 480–85; Opsomer (1989: lxii).

(xviii) *De taxone* (not before *s.* iv or v AD): this purports to be a letter from an Egyptian king to Octavian concerning the medical-magical properties of the badger. It has been suggested that it was written by Sextus Placitus (xvii) in imitation of *De herba uettonica* (xv). Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 561–67; Opsomer (1989: lxiv).

(xix) *Physica Plinii*: the name given to a reworked and extended version of the *Medicina Plinii* (vii). The work of revision was done perhaps in the 5th or 6th century AD but several different recensions survive, each named after the domicile of its sole or chief manuscript(s), as follows:

(a) *Physica Plinii Bambergensis* (*s.* v, vi AD, or later): this, the oldest of the recensions, comes probably from Italy and incorporates material from Pliny (v), Marcellus (xii) and the pseudo-Apuleian *Herbarius* (xvi);

Fischer (1987), nos. 335–40; cf. (xxxvi) below) and the incantations *Precatio terrae* and *Precatio omnium herbarum* (Sabbah, Corsetti, and Fischer (1987), nos. 501–13).

[212] Cf. Sabbah (1984*a*: 109 and n. 1), Korpela (1987: 165, no. 55), Michler (1993).

(b) *Physica Plinii Eporediensis*: excerpts only, mixed in with other collections of recipes;

(c) *Physica Plinii Sangallensis* (*s.* vi or vii AD): many magical incantations have been interpolated;

(d) *Physica Plinii Florentino–Pragensis*: this, the most recent reworking (*s.* xiii or xiv AD), which was aimed above all at improving the language, is in 5 books (1–3: a revised version of the older *Physica Plinii* proper; 4: Gargilius Martialis (vi), on the healing properties of 57 plants; 5: the *Liber diaetarum diuersorum medicorum*, mainly from the Latin version of Alexander of Tralles (xxv), on the dietetic treatment of 44 diseases). It contains a number of definitions excerpted from Caelius Aurelianus, *De significatione diaeteticarum passionum* (xi (c)), and has passages in common with the pseudo-Apuleian *Herbarius* (xvi) and Marcellus (xii). It was attributed in 1524 by the humanist Paulus Jovius to a certain doctor Plinius Valerianus (named on *CIL* 5.5317, Como).[213]

Yet another version of the *Physica Plinii* was used by the author of the late-9th-century Anglo-Saxon medical compilation known as Bald's *Leechbook*, and this is important for the history and the establishment of the text. Given their age, (a) and (c) above are important witnesses also for the text of Plin. *Nat.*, their ultimate source, for which all but one of our manuscripts are later. Lit.: Fischer (1986*b*); Sabbah, Corsetti, and Fischer (1987), nos. 466–75; Opsomer (1989: xx); Adams and Deegan (1992); Fischer (1993*c*) and (forthcoming *e*) with bibliography.

(xx) *Antidotaria Bruxellensia I* and *II* (*s.* vi AD?): 2 collections of recipes[214] (partly overlapping) excerpted from various authors, coming immediately after Theodorus' *Physica* in an 11th- or 12th-century Brussels manuscript, the two being separated by a fragment of the pseudo-Hippocratic letter to Antiochus (cf. (xxxvi) below). Their language and their mentions of several doctors have led to their being dated to the 6th century. Lit.: Niedermann (1916: 149–50); Sabbah, Corsetti, and Fischer (1987), nos. 20–1; Opsomer (1989: xv); Fischer (forthcoming *h*, no. 4).

(xxi) *Dynamidia Hippocratis* (probably *s.* vi AD, second half): an anonymous compilation in several books comprising a reworking of the Latin version of book 2 of the Hippocratic *De uictus ratione* (xxviii (c)) together with excerpts from other sources, notably Gargilius Martialis (vi) (cf. n.

[213] See *PWRE* xxix. 84 (in the article '*medicina Plinii*'). The name Plinius Valerianus survives in the references to the work in (e.g.) André (1956*b*) and in the earlier volumes of the *ThLL*.

[214] *Antidotaria* is a misnomer by Rose, who edits them in his Theodorus volume (1894: 363–96); these recipes are for the most part uncomplicated and intended each for a single ailment. Cf. the remarks preceding (xv) above and Fischer (forthcoming *h*, no. 4).

196 above). It may originally have been in 4 books, although it is difficult to reconstruct, as it is known only from medieval versions. Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 224–9.

(xxii) *Alfabetum Galieni* (or *De simplicibus medicaminibus ad Paternianum*) (*s.* vi or vii): an alphabetically ordered herbal containing 300 items, compiled from sources other than Dioscorides. Lit.: Sabbah, Corsetti, and Fischer (1987), no. 268; Opsomer (1989: lxvii).

(xxiii) *Anecdotum medicum Piechottae* (*s.* v/vi AD): a fragment of a collection of medical recipes. Lit.: Sabbah, Corsetti, and Fischer (1987), no. 9.

(xxiv) *Epistula de uulture*: a late Latin translation of a surviving (*s.* i AD?) Greek original. A short monograph on the medical-magical properties of various parts of a vulture's body. Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 245–8; Opsomer (1989: lxv); note the latest edition and commentary by Möhler (1990).

Latin translations of Greek medical works

In addition to those already mentioned, there are numerous other surviving Latin translations of Greek medical writings, all of them dated to the fifth and sixth centuries AD.[215] For want of a better principle, I list them alphabetically by the name of the Greek author.

(xxv) (Latin) Alexander Trallianus: Alexander of Tralles flourished under the Emperor Justinian (r. AD 527–65). He travelled widely but lived and practised medicine mainly in Rome. It has been suggested that the Latin version in 3 books of his Greek *Therapeutica* (in 12) was made soon after the publication of the original, perhaps even in Alexander's lifetime, in Rome or Ravenna, but the Latin text still awaits a critical edition and systematic study. Book 2 of the Latin version contains extracts from a Latin translation (by a different translator?) of Philagrius (xxx) and Philumenus (xxxi) on diseases not dealt with in Alexander's Greek original. Lit.: Puschmann (1878–9: i. 90 ff.); Sabbah, Corsetti, and Fischer (1987), no. 8; Opsomer (1989: xlv); Adams and Langslow (forthcoming).

(xxvi) (Latin) Dioscorides: Dioscorides Pedanius of Anazarbus was an army–physician under Claudius and Nero. His 5 books of *Materia medica* contain a systematic account of some 600 plants and almost 1,000 remedies. The Latin translation dates probably from the 6th century but is of unknown provenance. In about the 11th century, it was alphabetized and much modified. Lit.: Riddle (1980); Sabbah, Corsetti, and Fischer (1987), nos. 216–22; Opsomer (1989: lviii–lxi).

[215] In general, it is difficult to date them any later because of the doubtful availability in the West of Greek manuscripts and Latin-speakers competent to translate them. See Mazzini and Palmieri (1991).

(xxvi[a]) (Latin) Pseudo-Dioscorides (*s.* v or vi): under the name of Dioscorides we also have 2 versions of a herbal entitled *Liber medicinae ex herbis femininis*, which discusses 71 plants and includes pictures of them. It is based on the Greek work of Dioscorides, which it modifies and develops with unknown sources. Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 208–15; Opsomer (1989: lvii).

(xxvii) (Latin) Galen: of the immense and influential Greek output of the great Galen (in later Latin 'Galienus') of Pergamum (AD 129/30–210), although he lived, wrote and practised in Rome for the last 30 years of his life (including as the personal doctor first of Commodus and then of Marcus Aurelius), amazingly little survives in Latin translation; there is, however, reason to think that translations were available in Italy in the 6th century. Of the genuine Galenic corpus we have only the *De sectis* and a considerably altered version of the *Ad Glauconem de medendi methodo*.[216] Galen's continuing prestige is seen in the readiness of medieval scribes or editors to attribute all manner of anonymous Latin medical texts to him. Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 268–90 (but including also literature on pseudo-Galenic works); Löfstedt (1987); Palmieri (1989).

(xxviii) (Latin) Hippocrates: we have (5th- and 6th-cent.) Latin versions of only a small part of the *corpus Hippocraticum*, namely of the following works:

(a) *Aphorismi*;
(b) *Prognosticon*;
(c) *De uictus ratione*, books 1 and 2;
(d) *De septimanis*;
(e) *De aere, aquis, et locis*;
(f) *De mulierum affectibus*;
(g) *De natura humana* (fragments only).

The first of these, the *Aphorismi*, was immensely important and influential in the history of medicine in the West in the Middle Ages. Lit.: Mazzini (1984: 11–12 with nn.); Vázquez Buján (1984*b*: 153–4 with nn.); Kibre (1985); Sabbah, Corsetti, and Fischer (1987), nos. 314–69 (including also literature on pseudo-Hippocratic works); Grensemann (1996); Vázquez Buján (1997).

(xxix) (Latin) Oribasius: Oribasius of Pergamum (*c.* 320–400) was the personal physician of the Emperor Julian (361–3). He was the first and

[216] It is probably to this text that Cassiodorus alludes (*Inst.* 1. 31. 2) in enumerating the medical books in the library of the Vivarium, which would provide a *terminus ante* for the translation of AD 540. It seems to have belonged from an early date to a medical corpus of six books which contained notably Aurelius and Esculapius (see under (Latin) Soranus (xxxiii) below); this corpus includes also the so-called *Liber tertius* (i. e. a spurious book 3 to *Ad Glauconem*), which is composed of apparently ancient but as yet unidentified material.

greatest of the ancient medical anthologists. His mammoth *Collectiones medicae* (in 70 books) was never translated into Latin but we have in both Greek and Latin the 9 books of the *Synopsis* written for doctors and dedicated to his son Eustathius, and the 4 books of *Euporista* ('easily-obtainable [remedies]'; also referred to as *Ad Eunapium*), written for the wider public and also drawn from the *Collectio*. There are 2 versions of the Latin translation (conventionally referred to with the sigla of the 2 most important manuscripts *Aa*, the older, and *La*, the younger), which represent 2 revisions of a single translation made probably between AD 450 and 600.[217] Lit.: Vázquez Buján (1984*a*) and (1984*b*: 153–4 with nn.); Sabbah, Corsetti, and Fischer (1987), nos. 434–40; Opsomer (1989: xli–xliii); Fischer (1993*b*).

(xxx) (Latin) Philagrius: only fragments survive of the more than 70 works of this much-cited 4th-century Greek doctor from Epirus. The longest of these fragments are the extracts in Latin on diseases of the spleen and their treatment, which follow those of Philumenus (xxxi) in the middle of book 2 of the Latin version of Alexander Trallianus (xxv). Lit.: Puschmann (1886); Mihaileanu (1910); Sabbah, Corsetti, and Fischer (1987), nos. 460–2; Mazzini (1997: 82–3).

(xxxi) (Latin) Philumenus: very little is known of this Greek doctor. He drew on Soranus (early *s.* ii AD) and was used by Oribasius (*s.* iv AD) and is held to have been a contemporary of Galen (AD 129/30–210) because neither author mentions the other. A work, *On Poisonous Animals and Remedies from them*, survives in Greek. Some fragments in Latin dealing with diseases of the stomach and intestines occupy the middle of book 2 of the Latin version of Alexander Trallianus (xxv), immediately before the extracts from Philagrius (xxx). Lit.: Puschmann (1886); Mihaileanu (1910); Sabbah, Corsetti, and Fischer (1987), nos. 463–5; Mazzini (1997: 66–7).

(xxxii) (Latin) Rufus: Rufus of Ephesus flourished under Trajan (AD 98–117). The Greek original of his treatise *On Gout* has not survived but a Latin translation has, and appears to be contemporary with the Latin Oribasius (xxix). Lit.: Mørland (1933); Sabbah, Corsetti, and Fischer (1987), nos. 521–3; Opsomer (1989: xlviii).

[217] Note that the younger version contains, in three manuscripts, as book 5 of the *Synopsis* the Latin translation (as yet unedited) of another, otherwise unknown Greek work, the so-called *Liber Byzantii*. On this see Fischer (1998*b*), who seems inclined to regard this Latin work as contemporary with, or even older than, Theodorus Priscianus (i. e. around AD 400). In this connection note also the third extant Latin version of Oribasius that we have in the so-called *Liber medicinalis* attributed to Democritus (in some manuscripts the *Prognostica Democriti*). The version of Pseudo-Democritus (probably again *s.* v or vi) departs from the Greek *Synopsis* more than either of the other two translations but its relations with the latter and with the Greek Oribasius remain to be established: on Pseudo-Democritus see Fischer (1994*a*).

(xxxiii) (Latin) Soranus: Soranus of Ephesus (*fl.* under Trajan and Hadrian) was the greatest physician of the Methodist school. He studied probably in Ephesus and Alexandria and practised in Rome. The great translator of Soranus was Caelius Aurelianus (see (xi) above) but apart from Caelius we have in Latin also the following:[218]

(a) a manual for midwives adapted by a (?) 6th-century African doctor, Mustio (or Muscio, Musio), from two works of Soranus, namely the *Gynaecia* (in 4 books) and the *Cateperotiana* (an elementary catechism for midwives, in 2 books, now lost). This was later retranslated into Greek under the name Moschion. Some manuscripts of Mustio conclude with a list of *pessaria*;
(b) the *Liber Aurelii*, *De acutis passionibus*, and the *Liber Esculapii*, late (*s.* vi? AD) Latin compilations of high quality based on Soranus' lost work *Περὶ ὀξέων καὶ χρονίων παθῶν* but containing other material from unknown sources. These texts were once thought to be abridgements of Caelius Aurelianus (xi (a)), and, indeed, the latter makes use of Caelius' *Medicinales responsiones* (xi (c)), but Schmid (1942) showed that their connections with Soranus are independent of Caelius.

Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 60, 261, 423–9; Opsomer (1989: li); Hanson and Green (1994); Fischer (1995); Mazzini (1997: 57–60).

(xxxiii[a]) (Latin) Pseudo-Soranus: attributed to Soranus are the following Latin medical texts:

(a) *Quaestiones medicinales*: a series of medical definitions presented in question-and-answer form. The introductory chapter coincides with the start of the *Isagoge* but this is a separate work, which has material in common also with a Latin version of the pseudo-Galenic *Definitiones medicae*;
(b) *De pulsibus*: a short treatise on diagnosis;
(c) *Isagoge*: an elementary introduction to the theory and practice of medicine in the form of a catechism, compiled (at an unknown date, perhaps not before the later Middle Ages) from numerous well-known late-antique and early-medieval sources, half of them anonymous.

Note that the loss of nearly all of the Greek works of Soranus makes it difficult to determine whether (a) and (b) are based on genuine Soranic material or whether the attributions are wholly spurious.

Lit.: Rose (1864–70: ii. 243–80), (1882: 129–39); Stadler (1905: 361–8);

[218] See also under Vindicianus (ix) above.

Sabbah, Corsetti, and Fischer (1987), nos. 547–54;[219] Fischer (1995), (1998*a*), and (forthcoming *g*).

Late and Medieval Latin lexicography

(xxxiv) Isidorus Hispalensis (Isidore of Seville) (*c.* AD 562–636) *Etymologiae* (or *Origines*): of the 20 books of this (unfinished) encyclopaedic work on the liberal arts, books 4, 11, and 17 are devoted principally to medicine and related sciences. Lit.: Sabbah, Corsetti, and Fischer (1987), nos. 377–84.

(xxxv) Latin Glossaries: compiled as teaching-aids and to explain old or otherwise difficult words, the Latin glossaries that have survived from late antiquity and the Middle Ages contain many items of medical relevance which constitute a further important source of information on ancient medical terminology; despite the word *Corpus* in the title of Goetz (1892), much material was and remains unpublished. The medical parts of the *Liber glossarum* (or *Glossarium Ansileubi*: Heiberg 1929) are particularly important as they contain not merely individual words or phrases but longer extracts from medical authors, for the most part much better preserved than in the respective manuscript traditions. Lit.: basic editions: Goetz (1892); Heiberg (1929); on the groundwork for their interpretation, esp. Niedermann (1905), (1918), (1933), (1943–4); more recently note especially André (1954), (1956*a*), (1959); bibliography in MacKinney (1938), Sabbah, Corsetti, and Fischer (1987), nos. 302–6, Opsomer (1989: lxxv–lxxvi).

Collections of didactic letters on medicine

(xxxvi) *Epistulae medicinales*: the corpus or collection of didactic medical letters transmitted together is a significant phenomenon more of medieval and early modern times than of antiquity. However, letters feature quite prominently already in the Latin medical corpus reviewed above, in one of two functions: on the one hand as prefaces (e.g. to Scribonius Largus (iv), the *Medicina Plinii* (vii) or the lost work of Vindicianus (ix (a)). on the other hand as treatises, theoretical or practical, in their own right (cf. e.g. Anthimus (xiv) and above all Vindicianus (ix (b)).[220] The striking (in ancient Latin medical literature, unique) corpus of no fewer than 8 letters which preface the huge recipe-collection of Marcellus (xii) includes 2

[219] But correct the equation in the preamble there of the *Isagoge* with the *Quaestiones medicinales*.

[220] On the letters in Pelagonius' work on veterinary medicine (late *s.* iv), see Adams (1995: esp. 150–62). On Greek medical epistolography, from the collection of pseudepigraphic Hippocratic letters or those ascribed to Diocles of Carystus to the letter on intestinal worms by Alexander of Tralles (cf. (xxv) above), see Wiedemann (1976: 21–35).

pseudo-Hippocratic letters, 1 to King Antiochus (cf. (xx) above) and 1 to Maecenas (cf. n. 211), which, thanks to their theme (how to preserve good health and avoid disease), their layman's language, and their brevity, are among the most frequently transmitted medical texts from late antiquity.

Lit.: Wiedemann (1976: introduction, esp. 36–81); Sabbah, Corsetti, and Fischer (1987), nos. 230–60), including 14 items not mentioned above; Fischer (forthcoming *f*) on the pseudo-Hippocratic letters; Fischer and von Staden (1996), the 1st edition of a pseudo-Herophilean letter to King Antiochus; for general background, Peter (1901) and cf. 'Brief, Briefliteratur, Briefsammlungen' in *LexMA* 2, esp. part A, 648–63; on prefaces in Latin technical literature, Santini and Scivoletto (1990–2) and Santini, Scivoletto, and Zurli (1998).

2

Borrowing: The Presentation and Status of the Greek Words in Latin Medical Terminology

2. 1 Introduction

This chapter is concerned with the presentation and use of Greek medical terms in our four Latin medical texts. It is limited, then, to a few aspects of just one part of linguistic borrowing, namely to lexical borrowing; semantic borrowing is considered in the chapter on semantic extension (3. 3 below).

It is a commonplace to say that Latin technical terminology—in those disciplines which the Romans learned from the Greeks—is full of Greek words.[1] And it is true that studies of lexical borrowing have noted how foreign words tend to cluster in special and technical languages.[2] From ancient times until the present day, the emphasis has been on the shortcomings of Latin terminology. Celsus and Pliny, in their comments on the Latin nomenclatures of pathology and botany respectively, echo not Cicero's exceptional optimistic view of Latin's linguistic resources but rather Lucretius' *egestatem linguae*.[3] It will be recalled that Pliny, in the astonishing passage (*Nat.* 29. 17) that was considered in 1. 3. 2 above, although writing after both Celsus and Scribonius Largus, states that

[1] See in general e.g. Svennung (1935: 547–8), Marouzeau (1946: 171–2), Ernout (1954: 58, 81), Deroy (1956: 33), Löfstedt (1959: 88), De Meo (1986: 15–17), André (1986: 9); with special reference to medicine, see Weise (1882: 266–72), Mazzini (1978: 543), De Meo (1986: 224–6), André (1986: 13–15).

[2] Cf. (e.g.) André (1971) and Fruyt (1987*b*).

[3] Cels. 5. 26. 31B id genus [*cancer*] a Graecis diductum in species est, nostris uocabulis non est; 7. 18. 3 *enterocelen* et *epiplocelen* Graeci uocant: apud nos indecorum sed commune his *hirneae* nomen est; 7. 18. 7 [of another species of *hirnea*] nostri, ut scilicet nullis discriminibus satis cognitis, haec quoque sub eodem nomine quo priora habent. Plin. *Nat.* 21. 48 a Graecis tamen repertos quis dubitet non aliter Italia usurpante nomina illorum? 21. 52 sunt et alia genera nominibus Graecis indicanda, quia nostris maiore ex parte huius nomenclaturae [*herbarum*] defuit cura. Cic. *Fin.* 3. 3–5, esp. 3. 5 nos non modo non uinci a Graecis uerborum copia, sed esse in ea etiam superiores. Cic. *Fin.* 3. 15; Lucr. 1. 136–9, 830; 3. 258. Note also Sen. *Epist.* 58. 1, Quint. *Inst.* 12. 10. 33.

medicine had yet to be treated by *Romana grauitas*; that those Romans who had written on the subject had deserted to the Greeks; and that, in any case, the patient had more faith in a practitioner dealing in Greek than in one he could understand. Again, a reason offered to me in 1986 against undertaking this subject was that the vocabulary of the Latin medical writers was 'all Greek'!

This emphasis on the Greek element is, however, easily exaggerated. As I have indicated in general terms in Chapter 1, and as we shall see in later chapters, alongside the use of Greek terms may be observed the development of established Latin morphological and semantic means of term-formation. Lexical borrowing was one means of forming Latin medical terms, an important one certainly, but, even in the most Hellenizing authors, responsible for less than half of the total terminology, and, in all the authors here considered, numerically less important than the formation of terms by Latin suffixal derivation.

A natural first question to ask of borrowing as a means of term-formation is: what proportion of the terminology of a Latin technical writer is Greek? A straightforward word-count of the total medical terminology of our authors yields the figures (analysed also by lexical field: Anat. = anatomy & physiology, Path. = pathology, Ther. = therapeutics) set out in Table 2.1. These figures suggest the presence of a much higher proportion of Greek terms in Latin medical terminology in the later period compared with the first century. The percentages for Celsus and Scribonius are remarkably close, despite the very different background and nature of these two authors and their texts. But it must at once be stressed that these figures say nothing at all about the status and use of Greek terms in the Latin texts, nothing about their degree of integration into Latin terminology, merely about their presence in a vocabulary list.

Table 2.1. Total numbers of Greek and Latin medical terms by author and lexical field

		Anat.	Path.	Ther.	total	%
Cels.	Gk.	26	135	83	244	26.5
	(Lat.	251	260	162	673	73.5)
Scrib.	Gk.	5	68	71	144	27
	(Lat.	109	184	91	384	73
Theod.	Gk.	13	128	118	259	36
	(Lat.	135	216	108	459	64)
Cass.	Gk.	39	225	234	498	45
	(Lat.	178	303	122	603	55)

Of the very large number of Greek medical terms in Celsus (about 240), Scribonius Largus (about 140), and Cassius Felix (about 500), the majority are not used like ordinary, established items in the Latin terminology of each text, and may not be regarded as straightforward loanwords. Very frequently in these three authors, and often enough in Theodorus, a Greek term is introduced expressly as *the Greek for X*; it may occur only in that context, or it may be used subsequently without apology, so to speak; it may have a Latin expression assigned to it in some formula of equivalence, and this Latin word or phrase may be preferred to, or alternate with, its Greek synonym. It is my aim in this chapter first to make clear the range of types of treatment to which Greek medical terms are subject in the texts under consideration, and secondly, on the basis of an analysis of the nature and the relative frequency of these types in each author, to suggest some inferences about the status of the Greek elements within the terminology of each author. My aim thus falls short of applying a modern linguistic typology of lexical borrowing in all its aspects to the Greek words in our authors. This would involve, in particular, an analysis of the degree of integration into Latin on the basis of their spelling and inflection and an account of semantic borrowing, or calques. (On the latter, see the remarks and references in 3. 2 and 3. 3 below.) An account of the spelling, phonology, and inflection of the Greek words in our four texts is spared here: partly on grounds of space; partly, in the case of Celsus, to avoid duplication of the thorough work of Rippinger (1980: esp. 139–89, 266–79, 374–95); partly because the manuscripts vary so frequently and so widely in their spellings of Greek words as to render such a study provisional in the extreme.[4]

In the discussion of each type of treatment of Greek terms in the body of this chapter, examples and figures only are given. The Index & Glossary of Greek Words at the end of the book contains all the Greek medical terms here considered in our four authors, including an indication for each word of its 'status-type' in each author, as described in this chapter. I begin, however, with some remarks on the inventory of Greek terms, their forms, and their meanings.

[4] For other typologies of Greek words in Latin texts, see Weise (1882: 8–9), Haugen (1950), Deroy (1956, esp. ch. 9 'Les degrés de la pénétration'), Humbley (1974), Rippinger (1980: 410 n. 3, giving a summary), Fruyt (1987*a*: 228, with further references), Biville (1989) and (1990–5).

2. 2 Establishing an Inventory of Greek Terms and their Meanings

2. 2. 1 GREEK TERMS IN LATIN TEXTS

In all but a tiny percentage of instances, both identification and interpretation of Greek terms are straightforward.[5] It is frequently necessary to 'reconstruct' a Greek form from various, sometimes garbled, manuscript spellings. In this respect, we have been well served by our editors; I have accepted their reconstructions in nearly every case.

In Celsus and Scribonius Largus, who seem to have used both alphabets, it may be unclear whether the original was written in Greek or Latin letters, and, in all authors, in the case of nouns and adjectives in Latin letters, whether the original had Greek or Latin inflection. With one or two exceptions, I have ignored these questions. In what follows (and throughout this book), Greek words cited in isolation are in normalized Latin spelling; in longer quotations the form of the printed edition is usually retained.

A handful of Greek loanwords shows the effects of specifically Latin sound changes.[6] Otherwise, changes to the form of a Greek word are limited to those necessary or conventional for accommodating it to Latin phonology and inflectional morphology. These are unremarkable except for Greek third-declension (consonant-stem) nouns and middle-inflecting verbs. The former group often enter the Latin first declension, with what looks like the Greek accusative singular in *-ă* serving as nominative: so *meninga, -ae* from μῆνιγξ 'the membrane enclosing the brain'.[7] Greek middle verbs borrowed into Latin are regularly active rather than deponent: so *rheumatizo, -āre* from ῥευματίζομαι 'to suffer from a flux'. For present purposes, these small morphological groups are treated exactly on a par with, say, *stomachus, -ī* from στόμαχος, *-ου* 'oesophagus; stomach', and *apophlegmatizo, -āre* from ἀποφλεγματίζω 'to purge of phlegm'.[8]

[5] Problems with identifying Greek terms arise only in a few cases involving proper names, on which see the appendix to this chapter (2. 7). On problems of identification of loanwords in general, see Haugen (1950: 227–30).

[6] These are notably vowel-weakening and syncope in: *angina*, if from ἀγχόνη, which is not in any case a Greek medical term; *balneum* (also *balneae*, fem. pl.) from βαλανεῖον; *strangulo* from στραγγαλῶ (στραγγαλάω) 'to choke, throttle'. On *urina* back-formed from *urinare* ← **ūrn* (Gk οὐρεῦ) + *-āre*, see Leumann (1977: 328, 552) with further references. On the 'déformation' of Greek loanwords in Latin, see André (1980) and Biville (1987) and (1990–5).

[7] This is the type represented by *cratera* ← Gk κρατήρ, *-ῆρος* masc., or *lampada* ← λαμπάς, *-άδος* fem. : cf. Leumann (1977: 455). In our authors cf. *herpeta* 'herpes' (Scrib. 37. 10), *lepida* 'scale' (Scrib. 69. 9, Cass. 31. 22 mss.), *melotida* 'a probe' (Cass. 61. 18 mss.); on Cassius Felix see Junel (1936: 32). In general on the integration of Greek nouns into the Latin declensions, see Biville (1981).

[8] With regular assignment to the 1st conjugation; cf. Leumann (1948) and (1977: 552) with further references.

A similar but separate set of forms comprises Latin derivatives on borrowed and fully naturalized stems. These include *cataplasmo, -āre* (but Gk. καταπλάσσω) 'to treat with, apply as, a plaster', denominative to *cataplasma* (κατάπλασμα) 'a plaster'; or *embrocho, -āre* (but Gk. ἐμβρέχω) 'to treat with moist foments', denominative to *embrocha* (ἐμβροχή) 'a moist foment'. They receive comment in this chapter but are not counted as loanwords as such.

The vast majority of Greek terms in Latin medical texts are known and understood independently from their use earlier or, often, later in Greek texts. An appreciable number, however, of Greek words, variant forms, and meanings are known only from Latin texts, especially from those of the later period, above all in the field of therapeutics.[9]

Some Greek words in Latin texts have to be regarded as doubtful, in form or meaning or both. Uncertainty is occasioned by various factors, which may conspire: the text may be corrupt; the context may allow more than one interpretation; the word apparently intended may be otherwise unknown. I deal below (2. 2. 3) with a few individual cases. I wish first to raise some questions about the extremely frequent—and *prima facie* straightforward—presentation of Greek and Latin words together by means of relative clauses of the types *X which the Greeks call Y* and *Y which we call X*.

2. 2. 2 GREEK TERMS IN RELATIVE CLAUSES

There are three potential ambiguities—one semantic, one morphological, and one syntactic—in the use of a relative clause to present a medical word (usually Greek) and to associate it or equate it with another word (usually Latin). In our four authors these three ambiguities materially affect our interpretation of only a handful of Greek (and Latin) expressions presented in this format. Potentially, however, these points are of very broad significance indeed, applying to any similar presentational use of a relative clause in any language in which the syntactic forms are ambiguous.

[9] Words unknown in Greek texts include: *leptospathium* 'a thin spatula', *masomenum* 'a remedy for toothache', *spleniticus* 'for treating a diseased spleen', *sycotice* 'a remedy for anal lesions', *tiltarium* 'a lint dressing', *trichocollema* 'a salve for the eyelashes', *xerolusia* 'a dry bath in hot sand'; *elephantia* 'the disease ἐλέφας/ἐλεφαντίασις'. Meanings unknown in Greek texts include: *propino, -are* 'to give to drink as a medicine to drink' (προπίνω 'to drink first'), *trygodes* the name of an eye-salve of Euelpides (τρυγώδες 'like lees or dregs'). All cases known to me are noted in the Index & Glossary of Greek Words.

2. 2. 2. 1 Restrictive and non-restrictive relative clauses

It is customary to divide relative clauses into two types, namely 'restrictive' (R) (or 'defining') and 'non-restrictive' (NR) (or 'appositional'). Here is a clear example of each type:

(R) Cels. 3. 25. 1 frequentissimus in quibusdam regionibus is morbus est quem ἐλεφαντίασιν Graeci uocant;
(NR) Cels. 5. 7. 1 lactucae marinae, quae tithymallos a Graecis appellatur.

The relative clause in (R) is restrictive in that it restricts the reference of *is morbus* to one particular disease, that which the Greeks call *elephantiasis*. *Is morbus quem ἐλεφαντίασιν Graeci uocant* is a single referring expression; the relative clause is essential for identifying the disease intended and (at least in modern English and French orthography) is not preceded by a comma. The relative clause in (NR), on the other hand, is non-restrictive in that it does not in any way restrict the reference of the antecedent. Rather it presents an expression synonymous with its antecedent. *Lactuca marina* and *tithymallus* are two synonymous names; the relative clause could be omitted[10] without affecting the reference of the antecedent, and (in English and French orthography) is normally preceded by a comma.[11]

In general a restrictive relative clause presenting a Greek word in this way implies that the antecedent denotes a set or genus or larger whole and indicates that reference is made to only that item, species, or part of the antecedent which is denoted by the Greek term. A non-restrictive relative clause presenting a Greek word serves to equate exactly the reference of the Greek term with that of the antecedent. It may always be placed in parentheses by the editor (as e.g. at Cels. 2. 33. 2),[12] and should be preceded by a comma in English (and French) punctuation. A reliable formal indication of a restrictive relative clause is the use of a correlative demonstrative, such as the *is* with *morbus* in sentence (R) above, or *ea* with *species* in:

Cels. 6. 5. 1 rarior ea species est quam semion Graeci uocant.

If the antecedent has no name more specific than 'the thing', or is to be

[10] As it is at Cels. 2. 12. 1A aut lactucae marinae lac.

[11] In German orthography all relative clauses are preceded by a comma. Marx has applied this practice to his text of Celsus, which forms the basis of Spencer's Loeb edition. Serbat's Budé edition sets out to 'correct' Marx's punctuation, applying (I take it) French orthography, with some curious implications for some Greek words in Celsus; cf. my review of Serbat (1995) in *Gnomon* 71 (1999), 309–14.

[12] Parenthesis is, however, not a reliable diagnostic of non-restrictive relative clauses. Prof. Adams draws my attention to cases such as Col. 6. 13. 2 est et infesta pestis bubulo pecori (coriaginem rustici appellant) (cf. Col. *Arb.* 15, Pelag. 204. 1), where a parenthetical clause is clearly restrictive (and incidentally is immediately preceded by the existential use of *est*, 'there exists'); cf. Adams (1984: 26).

understood from the context, then the correlative adjoins the (restrictive) relative, as for instance in:

Cels. 6. 6. 37A non multum ab hoc malo distat id [*malum*] quod mydriasin Graeci uocant.

Attraction of the gender of the relative pronoun to that of its predicate may once have served as an (optional) indicator of non-restrictive meaning (see below). By classical times, however, it is likely that, in the absence of a correlative, the two types of relative clause were distinguished only by pause and intonation. (Cf. Pinkster 1990: 80–1.)

While it is nearly always clear how we are to interpret relative clauses used to present Greek terms, there is at least one debatable case in Celsus, which is not without significance. I have in mind the following item from the list of diseases common in the autumn:

Cels. 2. 1. 8 urinae difficultas, quam *στραγγουρίαν* appellant.[13]

This has been taken to equate *urinae difficultas* with *στραγγουρίαν*, and this may well be right (indeed, I have categorized *stranguria* in Celsus on this assumption). It may be, however, that the implied loss of distinction between *στραγγουρία* and *δυσουρία* (which *urinae difficultas* surely translates[14]) is due rather to Celsus' Greek sources than to his own incompetence.[15] The inferred equation (*urinae difficultas* = *stranguria*) conflicts with Celsus' careful distinction of at least two types of urinary dysfunction in the passage in the Toledo manuscript which fills the lacuna at 4. 27. 1D. Here *urinae difficultas* is the cover-term, as it were, a symptom common to all diseases of the bladder, although even *urinae difficultas* includes a number of importantly different conditions:

Cels. 4. 27. 1D Tol. 13 ff.[16] uesica autem uariis et interdum acutis interdum longis morbis obnoxia est. communis omnium est urinae difficultas. discrimina tamen in hac ipsa non sunt mediocria.

Celsus then proceeds to describe what is clearly *στραγγουρία* (ibid. Tol. 15–23), followed by what is clearly *ἰσχουρία* (23–7), though he does not mention any Greek terms. Having described two further types of dysury, *scabies* of the bladder and bladder-stone, he turns to the treatment of these conditions with the words:

Cels. 4. 27. 1D Tol. 44 commune uero ad urinae difficultatem remedium,

[13] Spencer prints a comma in text and translation; Serbat deletes Marx's comma from the Latin text but uses one in his French translation.

[14] Cf. Scrib. ind. 11. 23 ad . . . difficilem exitum urinae, quod uitium Graeci *δυσουρίαν* uocant.

[15] See Adams (1995: 232–3).

[16] Line numbers refer to the edition of Capitani (1974: 170–2).

making clear that *urinae difficultas* refers collectively to all the several species of urinary disease he has just distinguished. It is clear that Celsus could distinguish between the conditions standardly termed *δυσουρία* and *στραγγουρία*. If in 2. 1. 8 (quoted above) he is equating the latter with *urinae difficultas*, it is, I suggest, because he is aware of the wider use of *στραγγουρία* in Greek and understands it to be so used in the passage of the Hippocratic *Aphorisms* (3. 22) that he is here translating. However, the alternative interpretation ('the urinary disorder that the Greeks call *stranguria*'), with a restrictive relative clause, remains, in my opinion, available.

2. 2. 2. 2 *Attraction of the relative pronoun*

The second point of ambiguity to which these seemingly innocuous relative clauses are open is essentially morphological. In archaic and especially classical Latin the relative pronoun regularly agrees, not with its antecedent in the main clause, but with its predicate in the relative clause, when the relative is either in the nominative with the copula or in the accusative as object of a verb of naming (Kühner and Stegmann 1976: i. 37). Standard examples include:

Cic. *Phil.* 5. 39 *Pompeio, quod* imperii populi Romani *lumen fuit*, extincto.
Liv. 42. 44. 2 *Thebae* ipsae, *quod* Boeotiae *caput est*, in magno motu erant.

Demonstratives are subject to the same attraction under the same conditions (Kühner and Stegmann 1976: i. 34–7), as, for example, in:

Cic. *Clu.* 96 non fuit illud iudicium iudici simile . . . *uis illa* fuit.

The attraction of the relative is said to be the norm in the classical language, except in Cicero's philosophical works, where it is avoided 'im Interesse der Schärfe und Deutlichkeit' (Kühner and Stegmann 1976: i. 39 c).

Our special concern here is with the treatment of the relative pronoun when the predicate noun is a Greek word. Here the attraction is said both to fail 'sehr oft'[17] and to occur 'kaum seltener . . . und zwar ohne erkennbare Regel' and especially in Cicero (Kühner and Stegmann 1976: i. 38). Attraction is found with a Greek word in, for example:

Lucr. 3. 98–100 sensum animi certa non esse in parte locatum, | uerum *habitum* quendam uitalem corporis esse, | *harmoniam* Grai *quam* dicunt;
Asel. *Hist.* 1 (*apud* Gel. 5. 18. 8) quasi qui *diarium* scribunt, *quam* Graeci *ἐφημερίδα* uocant;

[17] I have found four examples of attraction in Columella, all with *Latin* predicates: 5. 11. 1 (= *Arb.* 26. 1), 6. 8. 1, 7. 5. 16, 11. 2. 71.

Cic. *Fat.* 20 non omnis *enuntiatio, quod ἀξίωμα* dialectici appellant, aut uera aut falsa erit;[18]
Cic. *Fam.* 13. 1. 5 *decretum* illud Areopagitarum, *quem ὑπομνηματισμόν* illi uocant,

all of which are more likely non-restrictive than restrictive. On the other hand, gender-agreement of the relative with the antecedent prevails in clearly restrictive instances, such as:

Var. *Rust.* 1. 46 in *floribus quos* uocant *ἡλιοτρόπια*;
Cic. *N.D.* 2. 14 tum *stellis iis quas* Graeci cometas, nostri cincinnatas uocant.

It is tempting to relate the attraction to the meaning of the relative clause and to postulate some sort of rule to the effect that the attraction was normal in non-restrictive clauses but avoided in the restrictive type, but there appear to be too many counter-examples on both sides (Kühner and Stegmann 1976: i. 38, n. 1), restrictive clauses showing gender-attraction, as in:

Lucr. 4. 132 in hoc *caelo qui dicitur* aer;[19]
Plin. *Nat.* 20. 16 *suppurationes quae* Graeci uocant *ἀποστήματα*,

and non-restrictive relatives showing no attraction, as in:

Cic. *Fin.* 5. 17 *appetitum* animi, *quem ὁρμὴν* Graeci uocant;
Cic. *Off.* 2. 18 cohibere *motūs* animi turbatos, *quos* Graeci *πάθη* nominant.

Of course, the question of the function of (or linguistic constraints on) the attraction is dependent on our readings of the precise form of a set of small grammatical words which were very commonly abbreviated or corrupted, or both, in the process of transmission. In our four medical authors, on the basis of their texts and apparatuses as printed, it seems that attraction is common in Celsus, virtually absent from Scribonius and, at most, rare in Theodorus and Cassius. As we shall see, however, some examples of attraction are the work of editors flying in the face of manuscript forms.

Marx's text of Celsus contains at least fifteen examples of attraction of the relative pronoun, eleven in a non-restrictive and four in a restrictive relative clause. The instances of attraction in the non-restrictive type are as follows:

Cels. 2. 1. 6 abscessus corporis,[20] quae apostemata Graeci nominant;
2. 18. 4 deinde [*triticum*] cui nihil demptum est, quem *αὐτόπυρον* Graeci uocant;[21]

[18] Cf. *Fat.* 1 enuntiationum, quae Graeci *ἀξιώματα* uocant, and ibid. *mores, quod ἦθος* illi uocant.

[19] Unless *qui* here is taken as instrumental ablative, 'by which I mean the *aer*'.

[20] Serbat prints no comma here, thereby implying that *apostemata* are a particular kind of *abscessus corporis*.

[21] This attraction has been introduced by editors. The manuscripts have: qua *F*¹ quod *VF*²*JT* (according to Serbat 1995), qua *F* quod *VPJ* (according to Marx 1915).

2. 33. 2 solanum [neut., 'the plant nightshade'] (quam strychnon Graeci uocant);
3. 22. 12 sub imis ossibus scapularum, quas *ὠμοπλάτας* Graeci uocant;[22]
4. 1. 12 ea [*the womb*], recta tenuataque ceruice, quem canalem uocant, contra mediam aluum orsa . . .;
5. 18. 19 aduersus panum, tum primum orientem, quod phygetron Graeci uocant;
5. 18. 28 ad recenti cicatrice contractos articulos, quas ancylas Graeci nominant;
5. 19. 25 lenia quoque quaedam emplastra sunt, quas liparas fere Graeci nominant;
7. 7. 4A unguis uero, quod pterygion Graeci uocant;
8. 1. 19 radius, quam cercida Graeci appellant;
8. 3. 1 si paruulum est quod laesum est, [*then the bone is cut away by means of a*] modiolo, quam *χοινικίδα* Graeci uocant.

Of the four examples of attraction in a restrictive clause, three involve the construction *is qui*. The instances are as follows:

Cels. 5. 17. 1C in *eo quem* obolon appellant;
5. 26. 31C oritur *ea quam* Graeci gangrenam appellant;[23]
6. 9. 6 et plani piscis quam pastinacam nostri, trygona Graeci uocant, aculeus torretur;
6. 11. 3 uerum *ea* longe periculosissima sunt ulcera *quas* apthas Graeci appellant.

It is perhaps surprising that the instances involving a Greek term in which the relative agrees with the antecedent in the main clause are only slightly more numerous. (There are, of course, indeterminate examples in which both antecedent and predicate nouns are of the same gender.) Of this second set of seventeen examples, seven are certainly and a further seven probably restrictive, while only two are non-restrictive. The instances in which the relative pronoun in a restrictive relative clause agrees in gender with its antecedent are as follows:

Cels. 2. 1. 18 serpentia ulcera oris quae *ἄφθας* Graeci nominant;
2. 33. 2 herba sanguinalis quam Graeci *πολύγονον* uocant;[24]
3. 19. 1 id genus quod cardiacum a Graecis nominatur;
5. 28. 3B fitque ex his ulcus quod phagedainam Graeci uocant;
6. 6. 37A non multum ab hoc malo distat id [*malum*] quod mydriasin Graeci uocant;
6. 18. 4 id genus ibi cancri quod phagedaena a Graecis nominatur oriri solet;
7. 11 id autem uitium quod ozena Graece [Graecis *F*] uocatur.

Three of the less certain cases involve *quidam*, which may be taken as meaning 'a particular', a suitable antecedent for a restrictive relative:

3. 11. 3 foetoremque quendam oris quem [quam *J*] ozenam Graeci uocant;

[22] I assume that *ossa* is the antecedent, given Celsus' common phrasal term for the shoulder blades *lata ossa scapularum*; cf. 4. 3. 1d below.

[23] With *ea quam* for *id quod*: cf. Cic. *Tusc.* 4. 25 ut ita appellem eam quae Graece *φιλογυνία* dicitur.

[24] Cf. Col. 6. 12. 5 uel sanguinalis herba quam poligonum Graeci appellant.

7. 4. 3B qua quasi membrana quaedam finit abdomen quam peritonaeon Graeci uocant;
7. 5. 3A genere quodam ferramenti quod Diocleum cyathiscum Graeci uocant.

In one the text is likely corrupt:

2. 8. 20 quibus in fistula urinae ⟨uel⟩uti minutiores abscessus quos *φύματα* [Graeci *ϝ*] uocant esse coeperunt.[25]

In one the antecedent appears to be a hapax and may be a description rather than a name, in which case the relative is probably restrictive:

5. 27. 5B herbae solaris quam heliotropion Graeci uocant;

we may compare this example with *herba sanguinalis* above (Cels. 2. 33. 2). In two further examples the nature of the relative clause seems to be indeterminate on the strength of the written text alone:

4. 2. 2 in capite autem interdum acutus et pestifer morbus est quem *κεφαλαίαν* Graeci uocant;
7. 7. 2 tuberculum paruulum nascitur quod a similitudine hordei a Graecis crithe nominatur.

A restrictive reading of the second is favoured by the fact that *tuberculum* is clearly a generic term in Celsus and is several times specified by a relative clause containing the Greek name of a particular species.[26]

The two non-restrictive clauses in which the relative agrees in gender with the antecedent are the following:

4. 25. 1 est autem aliud, leuius omnibus proximis de quibus supra dictum est, quod tenesmon Graeci uocant;[27]
5. 7 lactucae marinae, quae tithymallos a Graecis appellatur.[28]

Although there are exceptions on both sides, we may conclude that Celsus, when presenting a Greek term in a relative clause, shows a strong tendency in non-restrictive clauses to attract the relative to the gender of the Greek term (by 11 to 4) and in restrictive clauses to leave the relative in agreement with the Latin antecedent (by 15 to 2).

[25] The text seems to be corrupt. Serbat deletes *<uel>uti* and marks the relative clause with commas as non-restrictive. *Minutiores* strikes me as a conflation of *minores* (with *abscessus* at 5. 28. 11C) and *minuti* (with *abscessus* at 5. 18. 7 and 5. 28. 11A). I would propose emending to 'minores abscessus ut ii quos', with a restrictive relative clause (cf. 6. 18. 2K tubercula etiam quae phumata Graeci uocant, where *tubercula* is clearly a general term that is being specified).

[26] Note e.g. 5. 18. 18 eaque tubercula quae melicerides uel phymata nominantur; 5. 18. 20 omne tuberculum quod phyma uocatur; 6. 18. 2K tubercula etiam quae phumata Graeci uocant.

[27] Note the reading *et tenesmon* in *ϝF*. This could have arisen as a correction based on a misinterpretation of **que tenesmon*, i. e. *quem tenesmon*, with attraction of the relative.

[28] Cf. Col. 6. 15. 2 marina lactuca, quam Graeci tithymallum uocant.

The fact that this sort of attraction is evidently common in Celsus and in classical Latin generally will give us pause in identifying the precise antecedent of the relative in certain cases. This identification of course crucially affects the meaning of the predicate of the relative clause. So, in the following passage of Celsus, the meaning of *colum* is at issue:[29]

Cels. 2. 12. 2B si caput graue est; si oculi caligant; si morbus maioris intestini est, quod Graeci colum nominant; si in imo uentre aut si in coxa dolores sunt . . .

The availability of attraction makes it possible to take *colum* as being equated with *morbus maioris intestini*, with which of course *quod* does not agree, rather than with just the *maioris intestini*, with which it could. It is entirely plausible to take *morbus maioris intestini* as a fully specified naming expression (a phrasal term) in Celsus. The parallel phrasal term *morbus tenuioris intestini*, which is equated with Greek *ileus* at 2. 1. 8, is used independently at 2. 8. 17, 2. 8. 35, and (implicitly) at 4. 20. 1 in a note on competing Greek synonyms for this disease. Moreover, in my opinion, the fact that we have at 2. 12. 2B a list of afflictions makes it more likely that *colum* is the disease rather than the body-part.[30] The same account of the other occurrence of *colum* in Celsus:

Cels. 1. 7 at si laxius intestinum dolere consueuit, quod colum nominant, cum id nihil nisi genus inflationis sit, id agendum est, ut concoquat aliquis,

is grammatically possible but in the context much less likely, given that Celsus is here going through afflicted body-parts one by one (Cels. 1. 4 ff.). If these interpretations are right, then Celsus attests the Greek medical term *κόλον* once as an anatomical term and once as a disease-term.

In Scribonius Largus I have found only two examples of the attraction of the relative pronoun to the gender of a Greek word:

Scrib. 28. 24 sed praecipue *picis flos, quod pisselaeon* appellant, cum oleo communi mixtum, ita ut tertia pars sit olei;[31]
113. 10 *panum, quod* Graeci *φύγεθλον* uocant.

[29] Cf. 1. 4. 1 above.

[30] Grmek (1991: 210) takes it as a disease-term without discussion (and without printing a comma!). It is curious that in Greek texts *κόλον* appears to be attested only as an anatomical term.

[31] I am inclined to suspect the text here. We should perhaps emend to: sed praecipue picis flos cum oleo communi mixtus, quod pisselaeon appellant, ita ut tertia pars sit olei. This takes *pisselaeon* in its other sense, 'mixture of oil and pitch' (*Hippiatr.* 20 *al.*). That it is not synonymous with *flos picis* is perhaps suggested by the fact that Scribonius defines what he means by this ingredient a few lines later: 28. 28 florem picis autem appello quod excipitur dum ea coquitur lana superposita eius uapori. On the other hand note Marcell. 9. 31 prodest praecipue picis flos, quem pisselaeon Graeci uocant, cum oleo communi mixtus, ita ut . . .

Instances of agreement with the antecedent, on the other hand, are numerous.[32]

In Theodorus Priscianus, too, attraction of the relative pronoun seems to be very rare. In the following passage, at least, the manuscripts seem to agree:

Theod. 57. 12 si uero ueluti *exanthemata quas scabias* dicimus in facie uel genis . . . apparuerint;

here, be it noted, the Greek word is apparently the antecedent and the predicate noun is Latin![33] But elsewhere, it seems, Rose has favoured or even introduced the attraction. Note the following:

Theod. 8. 17 hoc etiam *scabiis siccis* utile est, *quam* Graeci *pityriasin* appellant [quam *Gelenius Rose* : quas *B*];
138. 11 ueluti temporales *commotiones* assimulant ⟨*quam* medici *epithesin* appellauerunt⟩ [quam *Rose* : quas *r*].[34]

In Cassius Felix instances of agreement with the antecedent are common[35] and attraction seems to be very rare; indeed, I have found only one straightforward example, namely the *quam* in the following lines, where the manuscripts seem to agree:

Cass. 42. 9–12 est et aliud genus herpetis, quem Graeci cenchrias uocant, si quidem in superficie cutis pustulas minutas milio similes ostendit: *quam* Latini uulgo *araneam uerrinam* uocant.

The *quem* in the earlier clause could be a second instance of attraction, to *cenchrias* (masc.), if we emend *cenchrias* to *cenchriam*. This is not justified, since all the manuscripts have a form with a final *-s*. We should rather see in *cenchrias* either an otherwise unknown neuter (acc. sg.) or an otherwise unknown feminine (acc. pl.), and in either case regard *quem* as referring, oddly, to *herpetis* (masc.).

In one rather striking case Rose appears to have introduced an attraction, notwithstanding a shared reading in the manuscripts:

[32] For example, ind. 8. 6; ind. 13. 20; ind. 14. 20, a Latin word; ind. 15. 27; 19. 13; 27. 23; 31. 22; 33. 2; 37. 10; 44. 7 (if *cyperum* is neut.); 69. 18; 85. 27; 86. 20; 88. 16; 93. 15; 95. 10, 17, 21; 96. 2; 100. 15; 108. 22; 110. 18.

[33] I shall argue below that *exanthemata* is the 'second accusative' of *dico*, which here means effectively 'use as the word for'.

[34] I reproduce Rose's angle-brackets, which here indicate that the relative clause is in *r* only.

[35] For example, t. 2. 2; 19. 2; 30. 9, 21; 33. 14; 47. 16; 49. 1; 61. 17; 62. 15, a Latin word; 64. 8; 65. 11; 69. 16; 72. 16; 83. 11; 84. 10; 90. 16, 21 (understanding *pyreton*); 122. 21; 130. 1; 131. 12; 132. 4; 175. 11; 178. 5; 188. 18; 189. 5. *Quod* picking up a phrase or clause: 7. 1; 29. 4; 30. 15; 39. 3; 42. 18; 43. 15; 55. 12; 68. 12; 72. 9; 76. 20; 82. 2, 6; 87. 23; 154. 10; 164. 4; 166. 7; 181. 17; 193. 22.

2. 7 et est cephalaea ex omni parte capitis *inueterata passio, quas* Graeci *chronias diathesis* uocant [quas *Rose* : quam *gpc*].

I have not found a parallel with this equation of singular with plural. It is as if we had 'inueterata passio, ⟨id est una ex eis⟩ quas Graeci chronias diathesis uocant', but Rose offers no comment.

In two further instances, Rose favours the attraction found in just part of the tradition:

Cass. 9. 5 *uomitu ex radicibus* uteris, *quod dia rafanidon* uocant [quod *g* : quē *c* qū *p*];
102. 2–3 *cessante corporis nutrimento, quam* Graeci *atrofian* uocant [quam *gp* : quod *c*].

A third case is uncertain because the form of the relative may be due to a factor other than attraction:

40. 7–9 et efficitur sub ingenti calore sanguinis ex commixtione *fellis flaui, quam* Graeci *xanthen cholen* uocant.

Here *quam*, which (Rose goes out of his way to tell us) is common to *gcp*, could show the influence of *commixtio* rather than of *chole*. The same principle may apply to *infusio* in the following (with no variant readings recorded):

72. 7 ex *uiscosi flegmatis* infusione *quam* Graeci *catarrian* siue catarrun uocant.

In a very similar passage later on, however, Rose has apparently restored *quod* to agree with *fel* avoiding the attraction in *c*:

145. 16 sub ingenti commotione *flaui fellis id est rubei, quod* Graeci *xanthen cholen* uocant [quod *Rose*: q°s (for quos) *p* quam *c*].

2. 2. 2. 3 The two accusatives after verbs of naming

The third and final potential ambiguity in the meaning of relative clauses used to present an item of terminology is syntactic in nature. It arises from the fact that a relative after a verb of naming (*appello, dico, nomino, uoco*) may refer to either of the two accusatives governed by the verb in normal circumstances, as in (an invented example):

uulpem$_1$ alopeca$_2$ uocamus ('we call a fox *alopex*').

In the large majority of cases, accusative$_1$ is relativized, yielding:

uulpes$_1$, quem$_1$ nos alopeca$_2$ uocamus ('a fox, which we (Greeks) call *alopex*');

but the alternative is also, if rarely, found so that we have to reckon with a second interpretation of the last sentence, namely:

> uulpes$_2$, quem$_2$ nos alopeca$_1$ uocamus ('*uulpes*, which is what we (Romans) call *alopex*').

Instances of this second type are rare in our four authors but obviously it is important to read them right when they do occur. I have noticed one example in Cassius Felix and two each in Celsus and Theodorus. The example in Cassius Felix is not immediately obvious:

> Cass. 87. 20 aut finicine Galeni quam dia chalciteos dicit,

but Galen himself tells us that *finicine* here must be the second accusative after *dicit*:

> Gal. 13. 375 τίνι λόγῳ συνέθηκα τὴν διὰ χαλκίτεως ἔμπλαστρον ἣν φοινικίνην ὀνομάζω.

The first example in Celsus is straightforward:

> Cels. 4. 1. 12 ceruice, quem canalem uocant ('the *ceruix*, which is what they call the channel [of the womb]'),

for *ceruix* is the term for the neck of the womb in both Latin and Greek (αὐχήν),[36] while *canalis* is a general expression, unparalleled in this sense. The second example in Celsus does not occur in a relative clause but is still relevant to the question of the two accusatives after verbs of naming: it is a clear instance of the emphatic fronting of a word denoting a new topic:

> Cels. 5. 24. 3 enchrista autem Graeci uocant liquida quae inlinuntur (cf. 5. 23. 1A antidota . . .; 5. 24. 1 acopa quoque . . .; 5. 25. 1 catapotia quoque . . .).

The first example in Theodorus is also in a main clause, and, I think, clear-cut because of the phrasal structure of the Latin part of the equation, which suggests that the Latin part is a description and the Greek the name:

> Theod. 13. 10 achoras papillas dicimus quae per cauernas breuissimas umorem pinguissimum mittunt ('*Achores* is the name we give to pimples which . . .').

Not so clear but still, I think, to be read in the same way is this instance:

> Theod. 57. 12 ueluti exanthemata, quas scabias dicimus ('like *exanthemata*, which is our word for *scabies*'; I have added the comma).

The examples in Theodorus are, of course, of special interest since the verb of naming is in the first-person plural form, as in the invented example about the fox (above), which would identify Theodorus, on the one interpretation, as a Greek, but on the other, as a speaker of Latin.

[36] Cf. Mazzini (1993: 52).

2. 2. 2. 4 Potential ambiguity in relative clauses

I have tried to show that an apparently straightforward expression such as *morbus maioris intestini quod colum uocamus* is in fact potentially ambiguous in three ways, all of which are attested, if rarely, in our four medical texts and presumably elsewhere in Latin, and all of which crucially affect our interpretation of both meaning and status of the lexical items so presented. I conclude by listing the six interpretations of the phrase *morbus maioris intestini quod colum uocamus* which I have argued are in principle available. (Note that in (1)–(4) the speaker's preferred expression *prima facie* is *colum*, while in 5–6 it is a Latin phrasal term.)

(1) a/the disease of that larger part of the intestine which we call *colum*: *colum* is an anatomical term naming one relatively large part of the intestine; *colum* is not synonymous with *maius intestinum* (restrictive relative);
(2) a/the disease of the large intestine, which we call *colum*: *colum* is an anatomical term synonymous with *maius intestinum* (non-restrictive relative);
(3) that disease of the large intestine which we call *colum*: *colum* is a disease-term naming a particular affliction, one of a set of afflictions, of the large intestine; *colum* is not synonymous with *morbus maioris intestini* (restrictive relative with attraction of relative pronoun);
(4) *the* disease of the large intestine, which we call *colum*: *colum* is a disease-term synonymous with *morbus maioris intestini*, which could be an independent Latin phrasal lexeme (non-restrictive relative with attraction of relative pronoun);
(5) *morbus maioris intestini*, which is our expression for (Gk.) *colum*: as in (4) except that the speaker's preferred expression for this disease is *morbus maioris intestini*;
(6) a/the disease of the *maius intestinum*, which is our expression for (Gk.) *colum*: as in (2) except that the speaker's preferred expression for this body-part is *maius intestinum*.

2. 2. 3 NOTES ON SOME INDIVIDUAL GREEK WORDS

I limit myself to brief remarks on just a few Greek medical terms which are unsurely attested or of uncertain meaning.

2. 2. 3. 1 Anatomy

(a) antiades (ἀντιάδες) *'the tonsils (esp. when diseased)'*

Antiades is found in Latin only in Celsus, Cassius Felix, and the older

version of Oribasius.[37] I have counted it under pathology in Celsus but under anatomy in Cassius. Celsus presents it as a disease-term, giving it in brackets as the Greek for indurated tonsils (André's abbreviated quotation (1991: 67) is misleading on this point):

Cels. 7. 12. 2 tonsillas autem quae post inflammationem induruerunt (antiades autem a Graecis appellantur) . . . oportet digito circumradere.

On the other hand, a straightforward anatomical use of *antiades* is read by Rose with manuscript *g* in a single passage in Cassius Felix:[38]

Cass. 77. 2 faciens ad digerendos tumores et praefocationes antiadum [antea datum *c* arteriarum *p*].

Evidently *antiades* 'tonsils', no less than its (near-)synonym *paristhmia*,[39] was subject to the common type of semantic extension whereby an anatomical term is used to denote the affliction particularly associated with the body-part (e.g. *dens* 'toothache'; cf. 3. 6. 1. 1g below).

(b) colum (*κόλον*) *'the large intestine' and 'the disease of the large intestine'*

The last point applies equally to *colum* but, remarkably, the word is apparently not attested in Greek as a disease-term. I argued above (2. 2. 2. 2; cf. 1. 4. 1) for reading it in Celsus once as the disease (2. 12. 2B) and once as the body-part (1. 7). Scribonius has just one probable instance of the pathological meaning:

Scrib. 66. 8 postea in consuetudinem uictus sui, qui colo infestabatur, dimittatur,

as against numerous examples of *colum* 'the large intestine' (e.g. 63. 3, 20; 64. 22; 66. 9, 11; *al.*), including:

Scrib. 57. 9 prodest compositio haec et colo inflato et ceteris intestinis.

Pliny uses the word both as an anatomical term (e.g. at *Nat.* 20. 108) and as a disease-term (clear instances at e.g. 26. 9, 30. 63); an ambiguous use of the word illustrates the ease with which the semantic extension can occur, especially when remedies are specified:

Plin. *Nat.* 20. 162 propter colum quoque bibitur [*wild cummin*].

Cassius Felix appears to attest both meanings of *colum* twice each, at 130.

[37] Oribas. *Syn.* 9. 1 (add.) Aa p. 267. 1 anthiades in tonsillas, an addendum to the *ThLL*, s.v.

[38] André's (1991: 245) dating of this use is to be corrected from *s.* iv to *s.* v.

[39] *Paristhmia* appears to be commoner in both Greek and Latin texts (Skoda 1988: 72–3; André 1991: 68). For *paristhmia* 'tonsillitis' André quotes Marcell. 35. 12 ad faucium tumorem et dolorem, qui graece dicitur paristhmia. Note that *paristhmia* and *antiades* are not always synonymous: Galen uses both words side by side at e.g. 12. 268, 905, 956.

20 alluding to a Latin synonym *inferior uentriculus* (see the Index & Glossary of Greek Words).[40]

(c) ischium (*ἰσχίον*) *'the hip-joint'*

This word, which is used by Gellius, Caelius Aurelianus, and the *physiognomici* (André 1991: 197), is not in the manuscripts of Cassius Felix but is a plausible conjecture of Rose at 137. 16 (see the Index & Glossary of Greek Words). André (1991: 247) accepts the word here but modifies the passage as follows:

Cass. 137. 15–16 et est ischiadica causatio in uertebro, quod Graeci (ischion, id est) coxile, uocant.

As alternatives to the unlikely looking hapax *coxile*, the reading of *p*, one should note (1) Junel's proposal (1936: 109–12) to read *cotile* (i.e. *κοτύλη*) 'the socket of the joint', equated with *ἰσχίον* at *Il.* 5. 305; and (2) the simple alternative of emending to *coxulam*. On the latter view, the passage would be exactly like two others in which Cassius glosses a Greek diminutive form with a Latin diminutive which is probably formed on the spot:

Cass. 51. 11 bothria etiam ulcera, id est fossulas;
64. 8 et rotulas finges, quas Graeci trochiscos uocant.

(d) splen (*σπλήν*) *'the spleen'*

This Greek word is attested already in Vitruvius (1. 4. 10) and is found in Persius, Columella, and the elder Pliny. Its authenticity in the text of Celsus, however, seems very doubtful, and I have not included it in the figures given for Celsus in this chapter. The word is attested at Celsus 5. 28. 2A, but this passage appears to be corrupt (see Marx's edition ad loc.); note also that manuscript *f* has *splen* for *lienis* at 3. 21. 14, 15. André (1991: 156) does not ascribe *splen* to Celsus; Rippinger (1995: 115, 123), on the other hand, does. *Splen* progressively gains ground against *lienis* (twenty-four times in Celsus) and alone survives in Romance (*REW* 8164).

2. 2. 3. 2 Pathology

(e) hydrophobas (*ὑδροφόβας*, *-ᾱ*) *'a sufferer from hydrophobia'*

In Latin this word is found only in Celsus (once only):

Cels. 5. 27. 2C solet autem ex eo uulnere, ubi parum occursum est, aquae timor nasci (hydrophobas Graeci appellant).

LSJ, s.v., refer to this passage as the first example of the word (*ὑδροφόβας*,

[40] See also André (1991: 145) and, on *colum* in the vets, Adams (1995: 275, 413–14).

-ā) denoting the disease hydrophobia (along with references to the Greek Dioscorides, Plutarch, and the Greek Philumenus). The use of the plural of the disease-term would be unusual, however, and I am inclined to agree with Capitani (1975: 509, n. 227) who takes the form to denote the patients, 'those suffering from hydrophobia' (cf. LSJ, s.v. II, with references to Arrian and the Greek Philumenus). On this view, *hydrophobas* is used in the same way as (acc. pl.) *ancyloblepharūs* at 7. 7. 6A and *lagophthalmūs* at 7. 7. 9A.[41]

(f) hydrops (*ὕδρωψ*) *'dropsy' in Celsus*

Celsus' usual expression for dropsy is *aqua inter cutem* (seven times in book 2).[42] Late in book 3 the Latin phrasal term is apparently equated with Greek *hydrops*:

Cels. 3. 21. 1 longus [*morbus*] uero fieri potest eorum quos aqua inter cutem male habet, nisi primis diebus discussus est: hydropa Graeci uocant.

A few paragraphs later, and only here in Celsus, the Greek word is used without comment:

Cels. 3. 21. 8 Asclepiades in eo qui ex quartana in hydropa deciderat se abstinentia bidui et frictione usum . . . memoriae prodidit.

The question arises whether, at least in this chapter of book 3, *hydrops* is distinct from Celsus' usual *aqua inter cutem*: could *hydrops* be, for example, the *longus morbus* introduced at 3. 21. 1 and *aqua inter cutem* a symptom or a general cover-term for conditions involving this symptom? I am inclined to think not, and to see in Celsus' single use of the Greek term either a quotation from Asclepiades or, more probably, a stylistic decision against *aqua inter cutem* imposed by the formal context (i.e. two prepositional phrases, 'from a quartan into dropsy'), which does not favour a phrasal term which itself contains a prepositional phrase. I have argued elsewhere (Langslow 1999: 199) that *hydrops* was in any case the ordinary Latin word for dropsy already by the time of Horace; *hydrops* at 3. 21. 8 will have sounded more natural to Latin ears than *aqua inter cutem* everywhere else.[43] In my opinion, then, the Latin and Greek expressions are synonymous.

(g) zona (*ζώνη*) *'herpes zoster' in Scribonius Largus*

This Greek word appears to have a double status in Scribonius. It occurs three times in the form 'ad zonam quam Graeci herpetam dicunt' (ind. 15.

[41] On masc. nouns in -*ās* with gen. in -*ā*, see Kühner and Blass (1890–2: i. 386–7) and Schwyzer (1953: 121, 561).

[42] At Cels. 2. 1. 8; 2. 7. 4, 18; 2. 8. 8, 26, 27, 34; cf. 2. 10. 12 aquaque quae inter cutem est, and 2. 15. 4 cum aqua cutem subit.

[43] Compare Celsus' straightforward use of *hydropicus* at 4. 2. 9, 5. 18. 2, 7. 15. 1.

27, 37. 10, 108. 22), that is, as an unremarked loanword (my status-type B: see 2. 3 below) to the left of a relative clause presenting Greek *herpes*, in each case following *ad ignem sacrum*. Once, however, it appears in a different form:

Scrib. 57. 14 etiam ad papulas et sacrum ignem uel quam zonam uocant bene facit.

Here the name appears to be used in a metalinguistic way (my status-type MG2: see 2. 3 below), inside a presentational relative clause, presumably the 'second accusative' after *uocant*, the antecedent of the relative being either unexpressed ('[*the disease*] which they call *zona*') or, just conceivably, *papula* (cf. *papulas* two phrases earlier). This looks very odd to me. Given the choice between accounting for these two quite different uses of *zona*[44] and emending the text at 57. 14, I have no hesitation in preferring the latter, and propose to emend to 'ad papulas et ignem sacrum uel zonam quam herpetam uocant'. The order of the elements of the phrasal term *sacrum ignem* is a further sign of corruption; Scribonius has otherwise (six times) *ignis sacer*.

2. 3 A Typology of Greek Medical Terms in Latin Texts according to their Presentation and Status

Typologies of lexical borrowing—or code-switching at the level of the lexicon—commonly set out to establish the degree of integration or penetration of foreign words into the borrowing (or base) language.[45] They have tended to use formal, including graphic, criteria: is the word in Greek or Latin letters? does it have Greek or Latin inflection? has it been subject to any Latin sound-changes? They have tended to be applied to a language in general, without special reference to a lexical field or to particular texts.[46] What is offered here is a 'text-based' typology of lexical borrowings based on the treatment of Greek words by a given author. This typology is based

[44] Sconocchia (1988: 41–3) proposes reading *ἑφηλίς* instead of *ἕρπης* at ind. 15. 27 and 108. 22 but does not mean, as far as I can see, to read a different sense of *zona* at 57. 14.

[45] On distinguishing borrowing from code-switching see Poplack and Sankoff (1984) and Muysken (1995: esp. 189–92). 'Borrowing' is there defined as involving material from a source (lending) language which is limited to single lexical items showing phonological, morphological, and syntactic adaptation into the base language, which tend to be used frequently, to replace any pre-existing word of the base language, and to be regarded as items of the base language, and which may undergo semantic change within the base language; 'code-switches', on the other hand, have negative values for all these features. The status-types proposed and discussed below represent to some extent points between these two extremes. In general on linguistic borrowing, note still Gusmani (1973).

[46] An exception is Coleman (1989), on philosophy, grammar, and rhetoric; and see Adams (1995: *passim*) on Greek words in Latin veterinary terminology.

on a reading of Latin medical writers but may, it is hoped, be applicable—at least in approach, if not in detail—to texts in other technical disciplines and in other languages. It is intended to complement and not to compete with traditional typologies. Its purpose is to give a statistical picture of the 'texture' of each work with respect to its Greek terminology, and, by distinguishing those actually used (in writing, at least) from those merely acknowledged or alluded to, to permit an estimate of the currency of the Greek terms in a given text.

My typology is based on the answers to two questions: first, is a term explicitly referred to as foreign, or is there some other form of metalinguistic hesitation over its use? If not, it is regarded here as integrated in the Latin medical vocabulary of that text, no matter the alphabet and inflection used,[47] no matter if it occurs only once in the text. I refer to this type with the abbreviation B, for 'borrowing proper'.[48] To illustrate with examples from Theodorus, I count as of type B not only the old and established borrowings like *stomachus* (40 times in Theodorus, always with Latin inflection), but also rarer words which may show Greek inflection, such as *paralysis* (7 times in Theodorus, including acc. sg. *paralysin*, 122. 17, *al.*, and possibly gen. sg. *paralyseos*, 229. 1[49]), and even words that occur just once in Theodorus, such as *tenontes* (abl. pl. *tenontibus*, 63. 13).[50]

If, on the other hand, the Greek origin of the word is explicitly mentioned (abbreviation M), then the second question is applied: does the Greek term have a Latin equivalent in the text? If there is no Latin

[47] The systematic use of Greek inflection on Greek words in a Latin text might be described as code-switching at the level of the word: adaptation (phonological, morphological, syntactic) is characteristic of borrowing, while its absence is typical of code-switching (cf. Poplack and Sankoff (1984) and Muysken (1995: 190–1)). This is potentially of great interest, although obtaining reliable results is made difficult by the hazards of manuscript traditions. Cf. Adams (forthcoming) on the alternation of Latin and Celtic inflection in the graffiti from La Graufesenque.

[48] Cf. Weise (1882: 8), 'total naturalisiert', printed in bold in his index, pp. 326–544; Deroy (1956: 224), 'emprunts proprement dits'; Rippinger (1980: 245–9), 'les mots utilisés sans référence à leur origine étrangère'; Biville (1989: 36), 'éléments intégrés'. For explicit acceptance of such loan-terms in Latin, see e.g. Cic. *Fin.* 3. 5, esp. [*uerbis*] utimur pro Latinis, ut ipsa *philosophia*, ut *rhetorica*, and cf. *Fin.* 3. 15; Quint. *Inst.* 2. 14. 4.

[49] But cf. Rose's app. crit. ad loc. The *ThLL*, s.v., cites gen. sg. *paralyseos* only from Theod. and Cael. Aur. (e.g. *Chron.* 2. 2, 2. 4), and it may be that these medical writers retain the Greek morphology for some special effect, for *paralysis* is well established early on in Latin: it is already in Vitruvius (at 8. 3. 4) and Petronius (129. 6, 130. 6), apparently with my status-type B, and it is used metaphorically by Paulinus of Nola and Augustine. The word appears to be an integrated borrowing but Theodorus and Caelius behave as if they are code-switching (cf. n. 45 above).

[50] In his comparison of a part of the Greek pharmaceutical terminologies of Scribonius and Cassius Felix, Mazzini excludes (1978: 551), wrongly in my view, those words which are used only once.

equivalent, the term is assigned to class MG, for 'metalinguistic' and 'Greek', that is, the word occasions some metalinguistic account but we remain with the Greek term,[51] and two sub-groups are distinguished. There are some Greek terms which, after comment on their origin, are used again without comment, having been, as it were, integrated on the spot (abbreviation MG1). For example, Celsus introduces a skin-disease as follows:

5. 26. 31B modo super inflammationem rubor ulcus ambit, isque cum dolore procedit (*erysipelas* Graeci nominant).

A few pages later he refers to this condition again with the words:

5. 26. 33A quod *erysipelas* uocari dixi.

Two chapters later, we read:

5. 28. 11B [*cataplasmata*] qualia paulo ante in *erysipelate* proposui.

Here, finally, after introducing the term as Greek, Celsus permits himself to use it without comment (and with a Latin ending).

On the other hand, other Greek terms never occur without mention of their foreign origin (abbreviation MG2); the vast majority of these occur just once in a text and it is, of course, impossible to know whether a given Greek word would have been used again as an integrated loan-term if the referend were mentioned again. For example, *arachnoides* occurs in Celsus only in this sentence:

7. 7. 13B [*oculi*] tenuissima tunica, quam Herophilus *arachnoidem* nominauit.

Hemitritaeus, on the other hand, occurs twice:

3. 3. 2 id genus [*tertianae*] plerique medici *hemitritaion* appellant;
3. 8. 1 id genus tertianae . . . quod *emitritaion* medici appellant.

Each time, however, it is ascribed to 'the doctors', who are, naturally, Greeks.

I have regarded as MG1 or MG2, rather than as B, a small number of words which occasion not a full gloss of the *quod Graeci uocant* type but a minor metalinguistic hesitation, such as *id est X*, *quod X appellatur*, or *X*

[51] Cf. Weise (1882: 8–9), 'litterarische Fremdwörter' but including technical terms that are clearly perceived as Greek, printed small in Weise's index; Deroy (1956: 224), 'pérégrinisme/xénisme'; Rippinger (1980: 250–65), 'présentés comme d'origine grecque': (a) 'avec une traduction latine', (b) 'expliqués au moyen d'une définition', (c) 'd'après le modèle *id, quod X uocatur*', (d) 'd'après le modèle *[comparaison ou description]: id Graeci X uocant*'.

appellatum.[52] Also assigned to status-type MG2 (rather than B) are Greek words which are used independently only in a title or an index.[53]

Those Greek terms which do receive a Latin equivalent are assigned to the class ML, for 'metalinguistic' and 'Latin', that is, the word occasions some metalinguistic account and for this referend we have also a Latin expression. Four sub-types, or points on a notional scale of integration, are distinguished, chiefly according to the frequency and independence of the Greek and Latin synonyms:

ML1: the Latin equivalent occurs just once or twice, while the Greek term is used more than twice and/or independently of the Latin and is clearly the preferred term. For example, in Cassius Felix *dyspnoea* is at first given a Latin equivalent:

Cass. 94. 1 *dyspnia* a Graecis dicitur, id est difficultas respirationis,

but later, used independently:

95. 13 ad uniuersas tusses et *dyspnias*,

no more being heard of the Latin expression.

ML2: neither the Greek nor the Latin synonym occurs more than twice and neither occurs independently of the other.[54] For example, both *pthiriasis* and *passio pediculosa* occur only here in Cassius:

Cass. 11. 14 *pediculosa passio*, quam Graeci *pthiriasin* uocant.

ML3: both Greek and Latin expressions occur more than twice and/or each occurs independently of the other. For example, *emphraxis* and *obtrusio* occur each four times in Cassius. Twice they are expressly equated:

Cass. Fel. 46. 2 ad *obtrusiones* quas Graeci *enfraxis* uocant;
110. 4 ad . . . *obtrusionem* epatis, quam *enfraxin* uocant.

But each occurs on two further occasions independently of the other (*emphraxis* at 110. 17 and 111. 5; *obtrusio* at 44. 10 and 49. 13).

ML4: the Greek term occurs just once or twice, while its Latin equivalent is used more than twice and/or independently of the Greek and is clearly the preferred term. For example, *oscheum* comes just once in Celsus:

[52] For example (in Scribonius), *coeliacus, epulis, lepra, opisthotonus, parulis, pharmacia, theriace*; (in Theodorus) *nyctalops, psoealgicus*; (in Cassius Felix) *colleticus* and numerous names of compound remedies in *dia-*.

[53] For example, *tetanus, diacadmias, diaglaucium, lexipyretus, perichristus*. In the case of Scribonius, this is perhaps erring on the side of caution, given that his *capitula* and titles are more probably authentic than those of Celsus, Theodorus, and Cassius (cf. Sconocchia 1981: 55–60 and 1. 4. 2 above).

[54] As with status-type MG2 above, I have assigned a Greek word to type ML2 if the sole independent use of the Latin synonym is in a title or an index.

Cels. 7. 18. 2 [*testiculi sinum*] oscheon Graeci, *scrotum* nostri uocant;

but *scrotum* is used subsequently thirty-one times.

Every Latin equivalent takes one of three forms. It is either a descriptive, non-terminological paraphrase, or a noun phrase consisting usually of noun + adjective or noun + genitive, or a single word. One example of each follows: in Celsus *cremaster* is replaced, rather remarkably, by *neruus ex quo testiculus dependet* (7. 18. 1, 11; 22. 5), *diaphragma*, by *saeptum transuersum* (pr. 42, 4. 1. 4, 5. 26. 3, etc.); in Cassius *tenontes* is dropped in favour of *nerui ceruicis* (84. 6, 145. 9, 174. 9), *acra* in favour of *summitates* (60. 16, 121. 16, 156. 2, etc.).

For the sake of convenience, I offer below a summary of the proposed points, so to speak, on the scale of integration of Greek terms:

B	Borrowed: used without mention of Greek origin;
MG1	Mentioned as Greek but elsewhere used without comment;
MG2	Mentioned as Greek on every occurrence (usually once only);
ML	Mentioned as Greek and given a Latin equivalent, with:
ML1	the Greek term preferred;
ML2	neither independent of the other;
ML3	each independent of the other;
ML4	the Latin term preferred.

2. 4 An Analysis of the Various Presentations of a Greek Term

Table 2.2. Greek terms by author, terminological status, and lexical field*

	Celsus	Scribonius	Theodorus	Cassius	
B	42 (5, 13, 24)	62 (4, 24, 34)	217 (12, 94, 111)	189 (15, 66, 108)	B
MG1	36 (–, 25, 11)	12 (–, 6, 6)	7 (–, 5, 2)	27 (2, 15, 10)	MG1
MG2	102 (13, 57, 32)	38 (–, 13, 25)	18 (–, 15, 3)	54 (–, 18, 36)	MG2
ML1	– (–, –, –)	2 (–, 1, 1)	– (–, –, –)	42 (1, 21, 20)	ML1
ML2	2 (–, 1, 1)	11 (–, 9, 2)	4 (–, 4, –)	115 (10, 61, 44)	ML2
ML3	3 (–, 3, –)	3 (–, 2, 1)	5 (1, 3, 1)	25 (1, 14, 10)	ML3
ML4	59 (8, 36, 15)	16 (1, 13, 2)	8 (–, 7, 1)	46 (10, 30, 6)	ML4
[ML	64 (8, 40, 16)	32 (1, 25, 6)	17 (1, 14, 2)	228 (22, 126, 80)	ML]
Total	244 (26, 135, 83)	144 (5, 68, 71)	259 (13, 128, 118)	498 (39, 225, 234)	

* The figures in parentheses refer to (*anatomy, pathology, therapeutics*).

Table 2.3. 'Status-types' by author in descending order of frequency*

Celsus		Scribonius		Theodorus		Cassius	
MG2	42.0	B	43.4	B	83.8	B	38.0
ML4	23.9	MG2	26.6	MG2	7.0	ML2	23.1
B	17.3	ML4	10.5	(ML4	3.1)	MG2	10.9
MG1	14.8	MG1	8.4	(MG1	2.7)	ML4	9.1
(ML3	1.2)	ML2	7.7	(ML3	1.9)	ML1	8.5
(ML2	0.8)	(ML3	2.1)	(ML2	1.6)	MG1	5.4
(ML1	0.0)	(ML1	1.4)	(ML1	0.0)	ML3	5.0
[ML sum	25.9		21.7		6.6		45.7]

* The figures are percentages, to the nearest 0.1%; types in parentheses represent <5% of the Greek words in that author.

Tables 2.2 and 2.3 summarize some raw data. Table 2.2 shows how many Greek terms (in total and in each lexical field) belong to each status-type in each author; Table 2.3 ranks the status-types in descending order of numerical importance in each author, expressing the number of terms that each accounts for as a percentage of the total number of Greek medical terms in that author.[55]

Before turning to the individual texts and authors, I offer some brief remarks on the status-types themselves.

2. 4. 1 TYPE B: BORROWED GREEK WORDS USED WITHOUT COMMENT, HESITATION, OR MENTION OF THEIR ORIGIN

Table 2.4. Greek terms of status-type B by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	5	4	12	15
Path.	13	24	94	66
Ther.	24	34	111	108
Total	42	62	217	189
% Gk	17.3%	43.4%	83.8%	38.0%

In all four authors the fewest loan-terms by far are in the field of anatomy, and the most, under therapeutics. The terminology relating to parts of the body remains, even in the later period, relatively resistant to borrowing, although a few items of 'core' vocabulary do appear as loanwords.

[55] A Greek word with more than one meaning in a Latin text I have counted once only if in each meaning it belongs to the same status-type, more than once, if to different status-types; e.g. I count *rhyas* ('a lacrimal fistula; a perineal fistula') in Celsus once only (MG2), as it is used without comment in both meanings; on the other hand, *ictericus* in Cassius I count once as B ('jaundice') and once as MG1 ('a sufferer from jaundice').

Brachium and *stomachus* (both in Plautus) are strikingly old examples of terms for such major parts of the body being borrowed from Greek into Latin (Capitani 1975: 468–9); the borrowing of *antiades* and *hepar* in Cassius gives further exotic colour to the anatomical terminology. Curiously, for the base of the brain Celsus uses the loan-term *basis*, Cassius, the native Latin *fundus*,[56] ignored by Celsus.

With regard to formal features of the Greek words borrowed, no tendencies or restrictions are prominent save, in Theodorus and Cassius, the very large number of borrowed formations in the Greek suffix *-ικός* (cf. 5. 4. 6 below).

Of the 100 Greek terms which Celsus and Cassius Felix have in common, Celsus uses 32 without remark, Cassius 53. That is to say, 21 Greek words which receive comment and possibly a Latin equivalent in Celsus are used without comment as loan-terms by Cassius. There are but 4 loan-terms in Celsus which are not so in Cassius: *steatoma* is mentioned and then incorporated (type MG1); *elaterium* is mentioned once as being Greek but does not recur (type MG2); *ephelis* occurs once with the Latin equivalent *solis ustio*, and *carcinoma*, with *cancerosa*, neither expression of either pair recurring (type ML2).

Perhaps the most striking cases of status-type B are those Greek words which appear in the *Y*-position in explanatory glosses of the type *X, id est Y*. These Greek words are evidently sufficiently well integrated within Latin to be used to 'translate' less familiar Greek synonyms, for example,

Cass. 179. 16 in pthoes, hoc est in pthisicis;
39. 12 reumatice diathesis, id est reumatica passio.

2. 4. 2 TYPE MG1: GREEK TERMS WHICH ARE MENTIONED AS BEING GREEK BUT ARE ELSEWHERE USED WITHOUT COMMENT

Table 2.5. Greek terms of status-type MG1 by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	–	–	–	2
Path.	25	6	5	15
Ther.	11	6	2	10
Total	36	12	7	27
% Gk	14.8%	8.4%	2.7%	5.4%

[56] Cass. 15. 21 a capite uel a fundo cerebri; Cassius uses *fundus* also of the base of an abscess: 29. 1 a fundo pendiginis.

Most examples fall under pathology (51 out of 82 in all). Only 2 are anatomical terms, *hemicranium* and *pericranius*, both in Cassius Felix. While the first is a good example of this type, being used without comment many pages after its introduction and explanation, the latter is used without a Latin gloss only six lines after its first appearance and with a Greek inflection and a reference back to the recent explanation (2. 16 membranae pericraniou supradictae). Clearly there are degrees of independence with which an acknowledged Greek term is subsequently used. At one end of the scale, in cases like *pericranius*, one hesitates between type MG1 and type MG2 (i.e. a Greek term never independent of a mention of its foreign origin).[57] At the other end, one is torn between type MG1 and type B (Borrowed). Some of the words of type MG1 are old borrowings from Greek which happen to have their Greek origin mentioned by our authors: *lethargus*, for example, which replaces Latin *ueternus*,[58] and which is found already in Lucretius (3. 465) and Horace (*S.* 2. 3. 145), is marked as a Greek word by Celsus only on its fourth occurrence in his text, as part of a formal pattern after a solemn statement of the symptoms (3. 20. 1).

In Celsus a striking group is constituted by no fewer than 15 Greek terms for various pustules, tubercles, and other skin lesions (discussed especially in 5. 28 and 7. 6): *alphus, atheroma, cacoethes, carcinodes, epinyctis, erysipelas, ganglium, gangraena, leuce, melas, meliceris, myrmecium, phagedaena, therioma, thymium*. I am reluctant to ascribe to Celsus a voracious appetite for borrowing every available Greek name for a skin-disease. *Carcinodes, erysipelas, gangraena*, and *thymium* are good examples of type MG1, occurring at least once without a gloss at some distance in the text from where they are explained. But all the other terms listed above occur without comment only later in the same chapter-section or paragraph in which they are introduced and given as Greek, so soon after their first appearance that to repeat *quod Graeci uocant* (or a similar phrase) was unnecessary. Further, *phagedaena*, the only one of the latter group to recur as well in a later book, is marked again as Greek when it does recur (6. 18. 4 id genus cancri quod *phagedaena* a Graecis nominatur). This consideration should temper an inclination to see in all examples of type MG1 a further set of loan-terms which accidentally have their origin alluded to.

2. 4. 3 TYPE MG2: GREEK TERMS WHICH ARE MENTIONED AS BEING GREEK ON EVERY OCCURRENCE

This is by far the commonest treatment of Greek medical terms in Celsus. He has nearly twice (and proportionally almost four times) as many as

[57] Note the probable retention of the Greek inflection in *pericraniou* above (*-ion* trad.).
[58] On which see Capitani (1975: 472, n. 85).

Cassius Felix. The majority of his examples (57 of 102), and nearly all of Theodorus' (15 of 18), relate to pathology; Scribonius and Cassius have most under therapeutics.

Table 2.6. Greek terms of status-type MG2 by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	13	–	–	–
Path.	57	13	15	18
Ther.	32	25	3	36
Total	102	38	18	54
% Gk	42.0%	26.6%	7.0%	10.9%

Of the 100 Greek words that Celsus and Cassius have in common, Celsus has 36 examples of this type, Cassius, just 6. Of this group of 36 words that Celsus merely puts in brackets, as it were, Cassius actively uses 24 (14 type B, 8 MG1, 2 ML1). These figures offer one illustration of how much more readily Cassius incorporates Greek terms into his terminology, or conversely, how much more cautious Celsus is in this respect.

2. 4. 4 TYPE ML: GREEK TERMS WHICH ARE MENTIONED AS BEING GREEK AND RECEIVE A LATIN SYNTACTIC EQUIVALENT

Table 2.7. Sum of Greek terms with a Latin equivalent (status-types ML1–4) by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	8	1	1	22
Path.	40	25	14	126
Ther.	16	6	2	80
Total	64	32	17	228
% Gk	25.9%	21.7%	6.6%	45.7%

Of the 244 Greek terms in Celsus, 64 (26%) receive a Latin equivalent of some sort; in percentage terms Scribonius is not far behind (22%). Theodorus has just 17, all but 3 in pathology, a tiny fraction (6.6%); in Cassius the figure is a massive 228 (about 46% of his total of Greek terms). On the face of it, this comparison speaks strongly against the growing impression in this chapter so far of a greater openness to Greek terminology in Cassius, and against the traditional view of Celsus as an anti-Hellenistic Latinizer. It is, however, important to note that the terminological status of the Latin equivalents varies very greatly, from that of an ad

hoc nonce-translation of an accepted Greek loan-term (ML1) to that of a Latin replacement for a Greek term that is mentioned only once or twice and remains outside the terminology (ML4), with less clear cases in between (ML2, ML3). A truer picture of the relative standing of Greek and Latin synonyms in our authors will emerge when we have considered these four sub-types in turn.[59]

Before we do so, let me draw attention to a small group of Latin equivalents, all of them single words, which give a strong impression of being on-the-spot loan-translations, with the aim of making clear the semantics of the Greek term, and which stake no claim to any currency as Latin terms. These instances are, I believe, analogous to English expressions such as, 'The French call a very rare steak *blue*', or, 'The German for "nipple" is *breast-wart*'. I have noted two examples in Celsus:

Cels. 8. 1. 23 a quibus [*lateribus ossis coxarum*] oritur os quod *pectinem* uocant;
7. 19. 7 ferramento quod a similitudine *coruom* uocant.

In the former he is giving a literal translation of Greek *κτείς* 'the pubic bone', for which he uses always *os pubis*; the latter is presumably a similar allusion to a surgical knife called *κόραξ*.[60] (Cf. Cels. 6.10.1 *radix quoque ea quam dulcem appellant*, a clear reference to Gk. *γλυκύρριζα*.[61])

In Scribonius and Cassius Felix I have noted the following instances, which are slightly different from those in Celsus in setting the Greek term alongside the invented Latin:

Scrib. 84. 8 antidotus Marciani medici, cui quia nihil deest *telea* dicitur, id est perfecta;
Cass. 51. 11 bothria ulcera, id est fossulas, . . . sanat [*collyrium*];
Cass. 64. 8 et rotulas finges, quas Graeci trochiscos uocant.

Cassius' *fossula* and *rotula* are striking in that he has probably derived these diminutives on the spot in order to reflect the morphology of Greek *bothrium* and *trochiscus*.[62]

[59] Cassius uses broadly three ways of presenting a Greek term: (1) [Latin] *(quod) Graeci* [Greek] *uocant*; (2) [Greek] *id est* [Latin]; (3) [Greek] *(quod) nos latino sermone* [Latin] *dicimus*. On the last, see 2. 4. 4. 1 below and cf. Sabbah (1985: 309). There is possibly a correlation between the linguistic formula of equivalence that Cassius uses to equate a Greek and Latin expression and the terminological status of each. In his pathological terminology, at least: 'a feature of Cassius' presentation of terms seems to be that a Greek or Latin term which is going to be incorporated into [his] terminology will be placed in first position, before either a description of the named phenomenon or the Latin or Greek synonymous expression' (Langslow 1989: 47).

[60] At Paul. Aeg. 6. 87 *κόραξ* appears to mean the point of such a knife.

[61] Note also Cels. 8. 3. 10 squama [id est lepis] a Graecis nominatur; I have disregarded this case, as the text is uncertain. Cf. Contino (1988), ad loc.

[62] I suggested in 2. 2. 3 above the possibility of reading a third instance of this type in *coxuda* for *ἰσχιον* at Cass. 137. 16.

2. 4. 4. 1 Type ML1: the Latin equivalent occurring just once or twice beside the Greek term which is preferred and elsewhere used without comment

For the reader's convenience, I repeat the example of a Greek term of status-type ML1 from 2. 3 above: in Cassius Felix, *dyspnoea* is at first given a Latin equivalent:

Cass. 94. 1 *dyspnia* a Graecis dicitur, id est difficultas respirationis,

but later used independently:

95. 13 ad uniuersas tusses et *dyspnias*,

no more being heard of the Latin expression.

Table 2.8. Greek terms of status–type ML1 by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	–	–	–	1
Path.	–	1	–	21
Ther.	–	1	–	20
Total	–	2	–	42
% Gk	0.0%	1.4%	0.0%	8.5%

The three sub-groups, ML1, ML2, ML3, are the near-exclusive preserve of Cassius Felix and, on a much smaller scale, Scribonius Largus. The most striking is ML1. Cassius has 42 examples of this type; Celsus and Theodorus have none; Scribonius has 2 examples (*ileus* and *cataplasma*). For Greek *ileus*, the status-type ML1[63] in Scribonius is a halfway house between ML4 in Celsus (who prefers the rather cumbersome *morbus tenuioris intestini*) and B in Theodorus and Cassius, and apparently already in the Elder Pliny (*Nat.* 30. 55, *al.*). That Greek *cataplasma* should be ML1 in Scribonius[64] is odd given that it is an unremarked loanword (status-type B) already in Cato and Celsus.

In Cassius the number of examples of type ML1 (42) matches almost exactly that of ML4 (45 examples); in other words, a Greek term in Cassius is equally likely to replace as to be replaced by its Latin equivalent.[65] It is

[63] Scrib. ind. 10. 18 quod est inflatio intestinorum perniciosa; 62. 6 quod uitium est inflatio tenuium intestinorum. Cf. 62. 21.

[64] Scrib. 78. 3 mirifice uero hoc facit cataplasma, id est superpositum medicamentum; cf. 78. 10, 17. Note Marcell. 36. 43 mirifice hoc cataplasma podagrae cuilibet superpositum medetur. Should we be suspicious of the text of Scribonius at this point?

[65] This is the overall picture in Cassius Felix. Each lexical field shows a different pattern in his work: in anatomy only 1 Greek term is preferred (as against 10 examples of the converse, type ML4), while in therapeutics 20 Greek terms are preferred (vs. 6 instances of ML4); the treatment of disease-terms is more balanced (ML1 21 : 29 ML4).

notable that 12 of the 42 words of type ML1 in Cassius receive a Latin equivalent which the author appears to say is a current Latin expression, but which he nonetheless straightaway drops in favour of the Greek term. For example, *condyloma* is introduced as follows:

178. 7 *condylomata*, quae nos latino sermone dicimus *tubercula*.

Yet it is *condylomata*, not *tubercula*, that is used subsequently (178. 23). Again, we are told 'the Latin for' Greek καῦσος:

149. 9 *causos* latino sermone *febris incendiosa* dicitur;

but *febris incendiosa* is not mentioned again, giving place to *causus* (151.7, 153. 18).

The same is true of the following Greek terms and their rejected Latin equivalents: *aptha* (78. 14 = *oris coctio*), *asthmatici* (93. 20 = *anhelosi uel suspiriosi*), *eschara* (164. 11 = *crusta*), *haemoptyïci* (85. 17 = *sanguinem spuentes*), *hedricus* (178. 9 = *sessorius*), *herpes* (42. 7 = *serpusculus*), *lepra* (22. 1 = *scabies squamosa*), *metromania* (191. 7 = *matricis furores siue insania*), *oedema* (179. 11 = *aquosa inflatio*), *ozaena* (62. 15 = *foetor narium*). These words make the point as strongly as any that Cassius, unlike Celsus, will actively and consciously Hellenize, to the extent of substituting the Greek equivalent for an acknowledged current Latin expression.

Table 2.9. Latin equivalents of Greek terms expressly said to be (current) Latin by author and status-type

	ML1	ML2	ML3	ML4	(Total)
Celsus:	0	1	1	1	(3)
[Scribonius:	2	2	1	2	(7)]
Theodorus:	0	1?	1	0	(1? 2)
Cassius:	12	8	2	2	(24)

Latin equivalents given in the format *quod nos X dicimus* are restricted neither to type ML1 nor to Cassius Felix. For the sake of completeness, Table 2.9 shows how they pattern. The examples in Celsus are: *scrotum* 'the scrotum' (7. 18. 2, *et saepe*, for Gk. *oscheum* ML4); *scutula operta* 'the shoulder-blades', only here in extant Latin (8. 1. 15, for Gk. *omoplatae* ML4, for which Celsus uses *lata ossa scapularum*); and, the only surprise, the example under ML3: *panus* (a term ascribed to *nostri*, although originally a Greek loanword) and its Greek equivalent *phygetrum* are each used independently of the other. In addition, not attached to individual Greek words are: *angina* 'an acute infection of the throat', again probably Greek in origin (ἀγχόνη, non-medical) but ascribed to *nostri* as a cover-term for Greek *synanche*, *cynanche*, and *parasynanche* (4. 7. 1); *hirnea* 'a hernia',

in effect the cover-term for *enterocele*, *epiplocele*, and the other species of hernia dealt with in 7. 18.[66] The instances in Scribonius all concern species of plants and so strictly fall outside the lexical fields that concern us here.[67]

In Theodorus, of 24 words which are given with a first-person plural verb of naming (e.g. *quod (nos) X dicimus*) only 4 are Latin; the Greek instances are discussed below. The first:

Theod. 38. 10 serniosos oculos, quas nos impetigines dicimus,

is reminiscent of Cass. 19. 2–3 impetigines, quas Graeci lichenas uocant, Latini uulgo zernas appellant; the phrase in Theodorus strikes me as slightly odd in making no reference to Greek λειχήν. The second:

57. 12 ueluti exanthemata quas scabias dicimus,

either equates *exanthemata* with *scabies* or (less likely) gives the latter as a species of the former; both words are elsewhere used independently without a gloss (*exanthemata* at 16. 11, *scabies* at 58. 6, t. 96. 8, 97. 8, 101. 6). As things stand, then, *exanthemata* in Theodorus is ML3.[68] The third:

85. 7 ramicem uero quam appellamus sic curabis,

contains, as it stands, no Greek word and strictly does not concern us here. It is, however, unparalleled in Theodorus as a way of presenting a term and it is inviting to speculate that a Greek word, such as ⟨*cirsocelen*⟩ (which would then be ML2), has been lost before *appellamus*.[69]

In Cassius *multitudine suci plenus* and its Greek equivalent, *plethoricus*, and likewise *localis* and *topicus*, are always bound together in a formula of equivalence (see 2. 4. 4. 3 below). The other examples are treated as one would expect, namely under ML4 or ML2.

2. 4. 4. 2 Type ML2: both Greek and Latin equivalents occurring only once or twice, neither independent of the other

For the sake of convenience, I here reproduce the example of a Greek term of status-type ML2 from 2. 3 above: in Cassius Felix both *pthiriasis* and *passio pediculosa* occur only in the following passage:

Cass. 11. 14 *pediculosa passio*, quam Graeci *pthiriasin* uocant.

[66] Note Cels. 7. 18. 3 apud nos indecorum sed commune his hirneae nomen est.

[67] The equations are at 19. 14; 44. 7, 24; 68. 2; 75. 3, 5; 111. 17. Celsus has another ML2 example in the name of a flat fish at 6. 9. 6.

[68] Note Theod. 58. 6 papulas suprascriptas et scabias, apparently general term + specific term. On Theod. 57. 12 cf. pp. 88 and 90 above.

[69] The fourth instance is straightforward but falls outside the lexical fields of primary interest in this book: 144. 8 oniscos quos porcelliones appellamus. For *porcelliones*, cf. Pelag. 49 and Fischer (1980), comm. ad loc.

Table 2.10. Greek terms of status-type ML2 by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	–	–	–	10
Path.	1	9	4	61
Ther.	1	2	–	44
Total	2	11	4	115
% Gk	0.8%	7.7%	1.6%	23.1%

This status-type is of minimal importance in Celsus (2 words[70] = 0.8%) and Theodorus (4 words[71] = 1.6%), small but noticeable in Scribonius (11 words[72] = 7.7%), and very important in Cassius Felix (115 words = 23.1%).

Type ML2 is akin to type MG2 in two respects. First, it has the negative feature in common with type MG2 that, because they occur just once or twice, we cannot know what status these Greek terms would have had in the terminology of our author(s), had the referend been mentioned on subsequent occasions. Either the Greek (ML1) or the Latin term (ML4) may have prevailed, or both terms may have been used independently (ML3); our texts do not permit us to say.

The second point of comparison is more positive, although speculative. Bearing in mind that type MG2 is the largest in Celsus (42%), and that type ML2 is the second largest in Cassius (23%), and taking it that any writer of a compendium on a technical subject will have frequent occasion merely to identify certain objects and their associated terms without having space to discuss them in detail, I suggest that types MG2 and ML2 represent the preferred ('default') means respectively in Celsus and Cassius Felix of identifying a Greek term that will not be used again. Specifically, Celsus gives a full description of the phenomenon with some formula of equivalence, such as *quod X Graeci uocant*; Cassius much prefers to give in a word or two a precise Latin syntactic equivalent of the Greek term. If this is right, it is further illustration of Cassius' strong inclination to a more compressed, nominal style, which is in sharp contrast with Celsus' tendency to use verb phrases and complete sentences beside, or in place of, noun phrases (see 4. 3. 2, 6. 2, and 6. 3 below).

[70] ἔγχριστα 'liniments': 5. 24. 3 enchrista autem Graeci uocant liquida quae inlinuntur; and ὑδροφόβας acc. pl. 'sufferers from hydrophobia': 5. 27. 2C solet . . . aquae timor nasci (hydrophobas Graeci appellant).

[71] See the Index & Glossary of Greek Words, s. vv. 'apthae', 'bulimantes', 'gonorrhoea', 'pityriasis'.

[72] See the Index & Glossary of Greek Words, s. vv. 'ancyla', 'aposyrma', 'arthritis', 'cyathiscus', 'melancholicus', 'oxea (pathē)', 'rhagades', 'rhūs erythrus', 'scotomaticus', 'telia', 'xeropthalmia'.

2. 4. 4. 3 Type ML3: both Greek and Latin equivalents occurring at least three times and/or each occurring independent of the other

For the reader's convenience I here reproduce the example of a Greek term of status-type ML3 from 2. 3 above: *emphraxis* and *obtrusio* occur each four times in Cassius. Twice they are expressly equated:

Cass. 46. 2 ad *obtrusiones* quas Graeci *enfraxis* uocant;
110. 4 ad . . . *obtrusionem* epatis, quam *enfraxin* uocant.

But each occurs twice more independently of the other (*emphraxis* at 110. 17 and 111. 5, *obtrusio* at 44. 10 and 49. 13).

Table 2.11. Greek terms of status-type ML3 by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	–	–	1	1
Path.	3	2	3	14
Ther.	–	1	1	10
Total	3	3	5	25
% Gk	1.2%	2.1%	1.9%	5.0%

This status-type is marginal in Celsus, Scribonius,[73] and Theodorus,[74] but it merits some attention, especially in Cassius Felix.

Celsus' 3 examples are Greek disease-terms which are used independently of their more frequent Latin equivalents: *phrenitis* (= *insania*), *phygetrum* (= *panus*), and, probably, *hydrops* (= *aqua inter cutem*; see 2. 2. 3. 2 above). One might strictly add *ileus* and *paralysis*, which do occur more than twice and independently of their Latin equivalents but only because Celsus discusses the use of competing terms in Greek authors: *ileus* and *chordapsus* at 4. 20. 1, *paralysis* and *apoplexia* at 3. 27. 1A.

About half of the 25 examples in Cassius Felix occur in repeated formulae of equivalence, that is, on at least 3 occasions Greek and Latin terms are equated, neither occurring alone elsewhere. Note, for example, the following set:

69. 16 *gutturis partem sub mento*, quam Graeci *antereona* uocant;
72. 16 (= 83.11) *sub mento gutturis partes*, quas Graeci *antereona* uocant;
79. 5 *sub mento in gutturis parte* ostendatur, quam *antereona* uocant.

The same treatment is used of: (path.) *anagoge haematos* (= *reiactatio sanguinis*), *cachexia* (= *habitudo corporis mala*), *chronius* (= *diuturnus*,

[73] See the Index & Glossary of Greek Words, s. vv. 'herpes' (= *zona*), 'pleuriticus' (= *latus dolentes*), 'hygra' (= *medicamentum liquidum*).

[74] See the Index & Glossary of Greek Words, s. vv. 'thorax' (= *pectus*), 'anathymiasis', 'causus', 'dialimma', 'thymiamata'.

inueteratus, longi temporis), *encausis* (= *adustio, ustio aeris*), *macronosia* (= *aegritudo longa, aegritudo prolixa*), *plethoricus* (= *plenus multitudine suci*), *thrombus, thrombumenus* (= *glebula sanguinis, glebosus sanguis*); (ther.) *cata logon* (= *secundum rationem*), *epaphaeresis* (= *detractio secunda*), *hypocapnistus* (= *suffumigatorius*), *stalticus* (= *constrictorius*), *topicus* (= *localis*). The last is curious in that the two words seem to change places in the glossing relationship. First, *topicus* is given in a non-restrictive relative clause as the Greek for *localis*:

3. 13 adiutoria localia, quae topica appellant.

Then, on 3 subsequent occasions, *topicus* is used with *adiutoria* or *medicamenta* and glossed with 'quae nos localia dicimus' (10. 13) or 'id est localia' (63. 8, 162. 20).

In 8 instances, both Latin and Greek equivalents occur each independently of the other: *atonia* (= *debilitas*), *colpus* (= *pendigo, sinus*), *emphraxis* (= *obtrusio*), *empyema* (= *collectio interna, occulta*), *proptosis* (= *casus prominens*), *enema* (= *iniectio*), *oxyrodinum* (= *acetum et rosaceum*), *tonoticus* (= *confortatorius*).

In 3 cases, finally, after being 3 times equated with the Greek, the Latin expression is used independently: *amychae* (= *laceraturae scarifationis*), *microsphyxia* (= *paruitas pulsus*), *trispermum* (= *tribus seminibus*).[75]

Consideration of Cassius' examples of status-type ML3 makes particularly clear a point which emerges from a straightforward reading of his *De medicina* and which is underlined by his very large number of examples under type ML in general. It is that he causes in a systematic way Latin–Greek synonym-pairs to proliferate in his text, a phenomenon that is scarcely present in Celsus, Scribonius, or Theodorus.

2. 4. 4. 4 Unremarked Latin–Greek synonym-pairs

By way of a coda to my discussion of status-type ML3, I draw attention to some instances chiefly in Theodorus in which Greek and Latin synonyms alternate within a text without being expressly equated at any point.

Examples of this phenomenon in Celsus seem to fall outside the strictly medical vocabulary. In the prolegomena to his edition, Marx (1915: xcvi) drew attention to the silent alternation between *sepia* and *lolligo* 'the cuttle-fish', *sipho* and *fistula* 'a drinking-straw', and *aroma* and *odor* 'an aromatic substance'. Capitani (1975: 458) adds the pairs *helenium* and *inula* 'elecampane', and *elaterium* and *sucus cucumeris agrestis* 'the prepared juice

[75] For details and references for the examples in the last three paragraphs, see the Index & Glossary of Greek Words, s. vv.

of the squirting-cucumber'.[76] In Scribonius I note the silent co-occurrence of Greek *tetanici* 'sufferers from tetanus' (81. 19) with the elaborate paraphrase at 53. 14–15: 'ad eos quorum musculi maxillares cum maximo dolore tensi sunt adeo ut aperire os nullo modo possint'; in the latter passage, however, the disease is immediately identified with Greek *tetanus*, so that this is at most a qualified example of the phenomenon.

Theodorus Priscianus, on the other hand, attests several examples that are central to his medical vocabulary. I have noticed seven which deserve a brief mention. Three are straightforward: *sanguinis emissio* (*et sim.*) 'bleeding, haemorrhage' alternates silently with *haemorrhagia*;[77] *physis* 'the penis', with *ueretrum* and *natura*;[78] *neophytum* 'the foetus', with *pecus*.[79] If Rose's text is right, then *splenetici* 'those suffering from a disease of the spleen' is once (184. 6) replaced by *causa splenis indignantes*.[80] There is further alternation of a different kind between *febricitans* 'one with a fever' and its opposite *apyretus* 'one without a fever' (179. 11, 185. 9). Note especially:

185. 8–9 *febricitantibus spleniticis* uinum . . . ingerendum est, *apyretos* uero his subiectis potionibus iuuo.

Then the chapter 'De narium morbis' begins:

43. 13 ozaenis et polypis uno eodemque modo cura est adhibenda;

after some remedies for treating both conditions, Theodorus gives several more for *polypi* alone (44. 13–45. 4) and finally one for *fetor narium* (45. 5). Cassius Felix (62. 15) gives *fetores narium* as the Latin for *ozaenae*, which confirms the equivalence implied by Theodorus.[81] Finally, Theodorus' word for 'symptom' is *accidens*. This Latin word is expressly made by Cassius Felix to replace Greek *symptoma*:

Cass. t. 115. 2 ad ea quae uesicae accidunt, quae a Graecis *symptomata* appellantur, nos uero dicere *accidentia* poterimus.

On one occasion *symptoma* appears in Rose's text of Theodorus, very close to an instance of *accidens*, but without being equated with it:

Theod. 172. 3–5 et si aliquod adhuc ex superioribus *accidentibus* perseuerauerit *symptoma*.

[76] I have counted only the last in the figures presented in this chapter (*elaterium*, status-type B).

[77] Cf. t. 165. 1; 165. 2, 10; 166. 1; 168. 11; 171. 3.

[78] Cf. t. 82. 1; 82. 2; 239. 4. At 82. 13 Gelenius' reading *caulis* would be a fourth synonym for the penis.

[79] Cf. *pecus* at 240. 17, 241. 9, 243. 11, *neofyta* at 241. 10.

[80] Cf. *splenetici* at t. 182. 4; 185. 8; 209. 13.

[81] Note also Theod. 48. 5 *foetor oris*. The expressions *fetor/fetores narium* (*oris*) are reminiscent of: Cels. 3. 11. 3: 'foetorem quendam oris quem ozaenam Graeci uocant'. The *quendam* discourages me from seeing here an early phrasal lexeme.

This may be a further case of silent synonymy, though I am inclined to delete *symptoma* and to read *aliquid* (with *rb*) for *aliquod*.

2. 4. 4. 5 Type ML4: the Greek term occurring just once or twice, its Latin equivalent being used more than twice and/or independently of the Greek and clearly as the preferred term

For the sake of convenience I here repeat the example of a Greek term of status-type ML4 from 2. 3 above: the Greek term for the scrotum, *oscheum*, comes just once in Celsus:

Cels. 7. 18. 2 [*testiculi sinum*] *oscheon* Graeci, *scrotum* nostri uocant;

but *scrotum* is used subsequently 31 times.

Table 2.12. Greek terms of status-type ML4 by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	8	1	–	10
Path.	36	13	7	30
Ther.	15	2	1	6
Total	59	16	8	46
% Gk	23.9%	10.5%	3.1%	9.1%

Status-type ML4 is marginal in Theodorus (8 words[82] = 3.1%). It accounts for about a tenth of the Greek words in Scribonius (16 words[83]) and Cassius Felix (46 words). In Celsus, on the other hand, it is the second most common status-type: nearly a quarter of his Greek medical terms receive Latin equivalents which are subsequently preferred. As we noted above, Cassius Felix has in absolute terms more examples than Celsus of Greek terms with Latin equivalents, but he replaces with a Latin term proportionally hardly more than a third as many Greek terms as Celsus does (9% vs. 24%).

If one seeks to identify from type ML4 elements of a common Latin medical terminology established to replace given Greek terms, one is disappointed (by our four texts, at least). Of a total (from Celsus and Cassius together) of 102 words treated under type ML4, just 1 is common to both and even it receives different Latin versions in each: *phlegmone* = *inflammatio* in Celsus, = *tumor* in Cassius Felix.

Of the 100 Greek terms common to both authors, type ML4 claims 20

[82] Namely, *asthmatici, baptizare, branchus, coryza, neurotroti, phlyctis, platycoriasis, rhus*. For details and references, see the Index & Glossary of Greek Words, s. vv.

[83] Namely, (anat.) *basis*; (path.) *anthrax, cephalalgia, dysentericus, dysuria, epilepsia, epilepticus, eschara, hypochyma, maenomenus, nygmata, ozaena, phygethlum*; (ther.) *hypochysis, rhinenchytes*. For details and references, see the Index & Glossary of Greek Words, s. vv.

in Celsus, 3 in Cassius. The greater strength of the Greek elements in Cassius is emphasized further in this comparison by the fact that, of Celsus' 20, Cassius has borrowed 7 (type B) and incorporated 5 more (1 of type MG1, 4 of type ML1).

In all four authors, most numerous by far are the examples under pathology (36 out of 59 in Celsus; 30 out of 46 in Cassius). Three factors may have contributed. It was in this field that Latin had the largest number of existing equivalents or, at any rate, terms that offered themselves as equivalents: for example, in Celsus *tormina* for *dysenteria, tabes* for *pthisis, grauedo* for *coryza*; in Cassius *macula* for *alphus, tussicula* for *bex, prurigo* for *cnesmone*. Secondly, Greek terms for diseases tended to be more information-bearing and hence more translatable than words for parts of the body and medicines: hence the very easy loan-translations in, for example, *abscessus* for *apostema, destillatio* for *catastagmus, suffusio* for *hypochysis*. Thirdly, the translated Greek terms tend to be fairly basic, generally not recherché, and thus bound to be repeated on numerous occasions. For this reason Celsus translates even opaque Greek terms like *spasmus* (*distentio neruorum*) and *tetanus* (*rigor neruorum*).

As to its morphological structure, the Latin replacement for the Greek term may be a single word (e.g. *destillatio* for *catastagmus*), or a phrasal term (e.g. *nerui ceruicis* for *tenontes*), or a non-terminological paraphrase (e.g. *neruus ex quo testiculus dependet* for *cremaster*). Table 2.13 provides a summary of how these possibilities are distributed. Two comments are called for. First, in Celsus more than half of the Latin equivalents of Greek terms of this type consist of more than one word (33 of 59); the corresponding proportion in Cassius Felix is less than a third (17 of 46). Especially since Cassius uses more phrasal terms than Celsus in total (and in a smaller total Latin terminology), it is interesting to note here the greater importance of the phrasal term in Celsus as a replacement for a Greek term.

Table 2.13. The lexematic form of Latin replacements of Greek medical terms by author and lexical field*

	Cels.	Scrib.	Theod.	Cass.
Paraphrase	13 (2, 9, 2)	5 (–, 5, –)	3 (–, 3, –)	3 (1, 2, –)
Phrasal term	20 (2, 14, 4)	3 (–, 3, –)	0 (–, –, –)	14 (5, 6, 3)
Single word	26 (4, 13, 9)	8 (1, 5, 2)	5 (–, 4, 1)	29 (4, 22, 3)
Total	59 (8, 36, 15)	16 (1, 13, 2)	8 (–, 7, 1)	46 (10, 30, 6)

* The figures in parentheses refer to (*anatomy, pathology, therapeutics*).

Second, it is striking that Celsus resorts on no fewer than 14 occasions

to a paraphrase in preference to a repetition of the Greek word.[84] Take, for example, his treatment of Greek *ascites*. It is introduced, as one of three species of dropsy (*aqua inter cutem* = Gk. *hydrops*) thus:

3. 21. 1 modo intus in unum[85] aqua contrahitur et moto corpore ita mouetur, ut impetus eius conspici possit . . . . asciten Graeci nominarunt.

Twelve paragraphs later, Celsus comes to deal with this species in detail, opening with the words:

3. 21. 14 si uero id genus morbi est quo in uterum multa aqua contrahitur.

This is a considerable circumlocution, all to avoid repeating the word *ascites*, but the referend must be the same and, although this is the most verbose case, the same treatment holds of Greek (anat.) *cremaster, tomis*; (path.) *atrophia, bubonocele, enterocele, epiplocele, haemorrhoïdes, hydrocele, opisthotonus, sarcocele*; (ther.) *epispastica*, and *lemniscus*.[86]

In Celsus the consistency of the Latin lexical material in these recurring paraphrase-equivalents is, in my view, sufficient to provide evidence for the wording of the text. At 3. 21. 1 (quoted above), I would accept Constantinus' emendation of *unum* to *uterum* in order to achieve a lexically consistent phrasal description of the salient feature of the disease *ascites*, namely *in uterum aqua contrahitur* (cf. 3. 21. 14 in uterum multa aqua contrahitur).

The instances of this phenomenon in the other three authors are much fewer. Scribonius prefers a Latin paraphrase to a Greek term in only about five cases. For example, *nygmata* 'lesions of a nerve or muscle' is introduced as follows:

Scrib. 96. 1 punctus neruorum musculorum, qui periculosissimi sunt, quos *νύγματα* Graeci dicunt,

but later the Greek word is dispensed with (96. 21 ad neruorum musculorum punctus; 97. 9 ad punctus neruorum et ad musculorum). Again, Greek *epileptici* 'epileptics' is introduced as follows:

52. 5 sanat ergo morbo comitiali correptos, quos epilepticos Graeci uocant, et furiosos quos mainomenos dicunt,

but yields place to the Latin phrase (58. 10 ut in furiosis aut comitiali

[84] Cf. Langslow (1989: 44–5). Cases of this type are all too easy to overlook; I confess I have found additional instances since I last wrote on them (Langslow 1994*a*). On the use of more than one Latin word for a single Greek word, cf. Cic. *Fin.* 3. 15 equidem soleo etiam, quod uno Graeci, si aliter non possum, idem pluribus uerbis exponere.

[85] On the text at this point, see below.

[86] For details and references, see the Index & Glossary of Greek Words, s. vv.; for more generous presentation of the material, cf. Langslow (1994*a*: 310–18).

morbo correptis). The same treatment is observed also of Greek *dysuria, ozaena*, and, just possibly, *strophus*. The last is doubtful because of the vagueness of the Latin paraphrase, roughly 'the/some other pain in the intestine':

Scrib. 63. 20–64. 1 facit [*colice Bassi Tullii*] . . . ad *intestinorum alioquin dolorem*, quem Graeci strophon appellant,

which recurs nearly twenty pages later:

Scrib. 83. 21 [*antidotus Cassi medici*] facit ad . . . tussim et omnia [*interanea*] inflatione alioque quo dolore correpta interanea (cf. 84. 5 ad ceteros dolores interaneorum).[87]

In the first passage, 64. 1, I would delete the comma before *quem*: the Latin phrase and Greek *strophus* surely cannot be intended yet as synonyms. The adverb *alioquin* beside *dolorem* strikes me as very odd, and if it is accepted that *alio quo dolore* in the later passage is indeed referring to *strophus*, I would propose emending *alioquin* to *alium quem*.

Theodorus has just three examples of this sort of replacement of Greek terms. *Branchus* and *coryza* are introduced as follows in the chapter (2. 20) entitled 'De catarro':

Theod. 158. 7–9 nam sub tribus differentiis ex hoc [*catarro*] causae fiunt. fit in naribus cui nomen est coryza, fit in faucibus qui dicitur branchus,

but they are referred to by means of paraphrase later in the chapter at 160. 12 'cum nares occupauerit [*catarrus*]' and 160. 15 'si fauces inquietauerit [*catarrus*]'. The third case is Greek *neurotroti* 'those wounded in a *neruus*'. The word is introduced in a non-restrictive relative clause:

Theod. 65. 3–7 ex quolibet casu *neruo uulnerato, quos neurotrotos appellamus*, . . . hoc adhibendum erit quod glutinare et curare membra ualeat uulnerata,

but subsequently replaced by Latin paraphrases in which the stems *neruu-* and *uulnerā-* are constant:

69. 10–11 *si* uero his accidentibus uulneribus etiam *neruus forte fuerit uulneratus*;
70. 10–11 aliud quod de experimentis ad *neruorum uulnerationes* adhibemus.

Cassius Felix, finally, handles in this way at most three Greek words, *chroniotes, tympanites*, and *metaphrenum*, the first two in a rather qualified way. The last is twice equated with the Latin phrase *a tergo inter scapulas*:

Cass. 72. 8–9 aliquando et *a tergo* dolorem *inter scapulas* sentiunt, quod Graeci *metafrenon* dicunt (cf. 87. 23),

[87] I reproduce Sconocchia's text, a conjecture of E. Cecchini; but see the app. crit. ad loc. With Boettiger and Helmreich, I would delete not the first but the second *interanea*.

which is used without the Greek word on 5 further occasions.[88] *Tympanites* is mentioned twice when it is introduced as one of the two species of dropsy:

Cass. 181. 9–13 altera uero [*species*] quae *tympanites* appellatur *a pulmone* contingit, ex quo pulmone sub ingenti uentositate uenter inflatus ostenditur, ita ut cum fuerit inspicientis palma pulsatus, tympani sonitum faciat, unde nomen ut supra dixi passio *tympanites* accepit,

but those suffering from this form of the disease are then alluded to, once only, and only a few lines later, by a participial phrase which refers to the seat of the disease in the lung:

182. 7 omnibus hydropicis, plus autem *a pulmone* patientibus.

The word *chroniotes* is also mentioned twice when it is similarly introduced as one of the two species of jaundice:

Cass. 128. 13–17 et appellatur a Graecis oxites, id est acuta, altera sine febre diuturnā, quae appellatur chroni⟨o⟩tes. [sed] illa quae cum febricula fuerit facta oxites ex tumore epatis fieri ostenditur, altera uero quae sine febre est chroni⟨o⟩tes ex fellis dissolutione,

but is then alluded to, again once only and at a short distance in the text, by means of a relative clause (which does not, be it noted, contain the vital word *diuturna*):

129. 19 aliud conueniens is qui sine febre fuerint.

I conclude this section by mentioning some of the more prominent examples of Latin paraphrase-equivalents for *unacknowledged* Greek terms, Greek terms which do not actually 'surface' in the text in question. For the most part this is one aspect of a wider phenomenon which receives fuller treatment in Chapter 6, namely the use of an uncompressed ('diffuse') Latin referring expression, a phrase or even a clause, in preference to an available lexeme or phrasal term, whether Greek or Latin. Accordingly I confine myself here to brief illustration of those cases involving 'missing' Greek words.[89] Unsurprisingly, these are overall most frequent by far in Celsus; perhaps surprisingly, certain types of paraphrase are at least as common in Scribonius; their rarity in Theodorus and Cassius is, I think, what we would have predicted—although it should be noted that Theodorus has more examples than Cassius (in whom this type is very rare) and, as often, one or two surprises in store. In particular, I would

[88] At Cass. 69. 8, 82. 11, 93. 17, 154. 22, and 169. 17.

[89] The appendix to Chapter 6 (6. 5) contains extensive, though not exhaustive, lists of 'diffuse' relative-clause referring expressions in all four authors, organized by syntactic/semantic type and lexical field.

record my impression that the avoidance, as well as the use, of Greek terms in Theodorus is quite unevenly distributed through the text (as we have it) and that their rarity, indeed their near-suppression,[90] in the early chapters of the first book is the result of a conscious effort, arguably by a native speaker of Greek.[91]

To begin with Celsus, I would note the anatomical referring expression at 4. 4, *ea quae sub mento sunt*, which is strongly reminiscent of *gutturis pars sub mento* in Cassius Felix. The latter, however, occurs four times in a formula of equivalence with Greek *anthereon*. Or take the Celsian *id medicamentum quod ex moris est*, which occurs twice in exactly these words (Cels. 4. 7. 3, 6. 11. 5) and is presumably the same remedy as the *dia moron* in Theodorus and elsewhere.[92]

Scribonius has several instances in common with Celsus, as in the case of *membrana tegens cerebrum* (at 95. 8) which stands silently for Greek μῆνιγξ 'the meninges' (used in the form *meninga* without comment by Theodorus and Cassius), just as *membrana cerebri* does in Celsus (especially in 8. 3 and 8. 4 *passim*). There is also *fluor sanguinis* 'haemorrhage' (cf. *profusio/profluuium sanguinis* in Celsus) for Greek *haemorrhagia*, which has status-type B in Theodorus and appears twice in Cassius (though in the latter replaced by *fluor/fluxus/profluuium sanguinis*); and *reicientes sanguinem* 'patients spitting blood' (Scrib. 48. 19, 49. 1; cf. the uncompressed relative clause at Cels. 2. 1. 21 *qui sanguinem expuunt*) for Greek *haemoptyïci*, which has status-type ML1 in Cassius. In at least two further instances, however, Scribonius passes over a Greek term that Celsus acknowledges. So, Scribonius refers to the cornea of the eye only with the Latin phrase *prima tunic(ul)a oculi* (22. 10, 23. 25), ignoring Greek *ceratoides*, which is acknowledged by Celsus (7. 7. 13A) and used without comment by Cassius (50. 15). A second instance is noteworthy at this point, although the preferred Latin expression is not a paraphrase but a single word: in a manner that would have commended him to the Younger Seneca (see *Epist.* 54. 1), Scribonius ignores Greek *asthma* and *asthmatici* using only *suspirium, suspiriosi*; Celsus mentions *asthma* (MG2) as a species of *difficultas spiritus* (4. 8. 1), while Cassius equates the Latin terms *anhelosi uel suspiriosi* with *asthmatici* (ML2, 93. 20), the latter appearing alone in a title (t. 93. 19).

In Theodorus the phrase *prima oculi tunica* (at 38. 5) stands out since it so closely resembles Scribonius' *prima tunicula oculi* mentioned above. Only a few lines later, on the same page in Theodorus, another instance strikes

[90] In the first five chapters (up to *de achoris*, p. 13. 9), apart from botanical terms, Theodorus uses at most three Greek medical terms (8. 17 *pityriasis*, 9. 14 *uitium elefantiae*, and 11. 11 *psilotra*), of which the first and third appear doubtful (see Rose's app. crit. ad locc. and on *pityriasis* below) and the second, *elefantia*, is not attested in Greek texts (cf. n. 9).

[91] I return to this last point in 2. 5. 5 below.

[92] Theod. 52. 9, 12; 197. 5. For further references see Chapter 6, n. 77.

the eye in the phrase *asperitatis uitiis laborantes* 'those suffering from trachoma' (at 38. 11): this is clearly for Greek *trachoma* which Theodorus does not use, but which appears in Cassius Felix with status-type ML1 (at 55. 1, 10). A third example is in this defining relative clause:

Theod. 72. 10–11 ad *emplastri* temperamentum *quo cicatrices utiles ualeas procurare*,

standing for the single Greek adjective *epuloticus*, which enjoys status-type MG1 in Cassius Felix (at 93. 15, 120. 7). A fourth is in this main-clause description of one of the symptoms of *phrenesis*:

Theod. 109. 18–20 et quod speciale accidens his tantummodo manifestum est, *de parietibus aut straminibus ueluti paleas uel floccos intentius legunt*,

a symptom which is called simply *carphologia* in Greek, a term which Cassius Felix at least mentions (154. 10 aliquando e parietibus stipulas legunt, quod Graeci carfologian appellant; status-type MG2).

Conversely, Cassius Felix uses a Latin paraphrase at 129. 19 'is (plur.) qui sine febre fuerint' for the single Greek term *apyretus*, which enjoys status-type B in Theodorus (179. 11, 185. 9). For the rest, however, in Cassius Felix, in contrast with what I have just observed from the three earlier writers, Latin paraphrase-equivalents for 'silent' Greek terms of this type are noticeable by their absence.

2. 5 The Status of Greek and the Nature and Purpose of the Text

2. 5. 1 AN ESTIMATE OF THE 'ACTIVE' GREEK TERMINOLOGY IN LATIN TEXTS

Even given such a text-based classification as the above, it remains to some extent subjective how one estimates the number of Greek terms in use, that is, to say current, or 'active' in the author's assessment of the knowledge of his intended readership. For present purposes I am assuming that an author's presentation of Greek terms will tend to reflect either his own patterns of use or his perception of patterns of use among his readers (or both), and for the sake of an illustration, I count as 'active' those Greek terms that fall under my status-types B (i.e. used without comment), MG1 (i.e. mentioned as Greek but elsewhere used without comment), ML1 (replacing a Latin syntactic equivalent), and ML3 (used alongside and independently of a Latin equivalent). I express this total as a percentage of a suitably adjusted total 'active' medical terminology (= the Latin total *minus* status-types ML1 and ML2[93] *plus* the 'active' Greek total). The resulting figures for each author are set out in Table 2.14. The purpose of

[93] Since the Latin equivalents in these categories are not 'active' in the text in question.

these figures is to exclude from each text those Greek (and Latin) terms which are never independent of a gloss and to allow comparisons to be made between the four texts of the absolute size and of the proportion of the terminology that is Greek 'in running discourse'. On this basis, tentative and slightly artificial as it is, I would venture four observations. First, the proportion of Greek terms in written use is likely to have been much smaller than that implied by an uncritical word-count; Greek terms used independently of a Latin gloss are seen to account, even in Cassius Felix, for not much more than a third of the total active medical terminology.

Table 2.14. An illustrative estimate of 'active' Greek medical terms (and the % they represent of the total 'active' terminology) by author and lexical field

	Cels.	Scrib.	Theod.	Cass.
Anat.	5 (2%)	4 (3.5%)	13 (8.8%)	19 (10.2%)
Path.	41 (13.5%)	33 (16%)	102 (32.5%)	116 (34.5%)
Ther.	35 (18%)	42 (32.5%)	114 (51.5%)	158 (73%)
Total	81 (11%)	79 (17.5%)	229 (33.5%)	293 (39%)

Secondly, the difference between the proportions in Celsus and Cassius Felix is likely larger than that revealed by counting medical terms without regard to their status within the text; we may reckon with a more-than-threefold increase in Cassius Felix in the proportion of Greek medical terms in the total active medical terminology.

Thirdly, while Celsus and Scribonius have in absolute terms nearly the same number of 'active' Greek terms, there emerges an appreciable difference in the proportion of Greek terminology used in medical writing between these near-contemporaries.

Finally, notwithstanding the last point, a cleaner and more striking contrast emerges between the earlier and the later writers. Whether or not this reflects the date of composition rather than, say, the nature of the sources used, Theodorus is seen to line up more closely with Cassius Felix, both proportionally and in absolute figures.

2. 5. 2 CELSUS

To take Celsus first: we may begin with the observation of his preferred means, in crude statistical terms, of treating Greek medical terms. In descending order of frequency, his three preferred means of handling Greek terms, accounting together for more than 80% of his Greek medical terminology, are: MG2, ML4, B. Substituting an appropriate catchword for each type, one could say that Celsus' approach to Greek terms is: first *give in brackets*, second *replace*, only in third place *use in running discourse* (or

borrow).[94] One may note also that a Latin syntactic equivalent is preferred over its Greek counterpart almost twelve times out of every thirteen (ML4 = 23.9%, compared with ML1 + ML2 + ML3 = 2%).

The traditional view of Celsus is that he was an anti-Hellenistic Latinizer.[95] In an extremely thorough review of Greek terminology in Celsus, Umberto Capitani (1975; cf. Camoletto (1986: 132–6)) takes issue with this account, arguing that Celsus would use Greek terms instead of or alongside existing Latin equivalents and that he was interested not so much in using or coining a Latin means of expression as in rendering as precisely as possible what he had learnt from his Graeco-Alexandrian or Roman sources. With regard to particular terms, Capitani is surely right, and his finely researched piece is an extremely important corrective to the over-simplified categorizing of Celsus as a Latinizing writer. It could be argued that Capitani's general view is supported by at least two facts noted above: first, by the small percentage (24%) of Greek terms that are replaced by Latin expressions, small, that is, for a presumed arch-Latinizer; secondly, by Celsus' failure ever to remedy any of the gaps that he notes in the Latin terminology: he observes the lack of a Latin term but forbears to supply it.[96]

On the other hand, several points have emerged from this chapter that are worth adding to the picture and which perhaps tend in the other direction. As we have seen, the bare figures indicate that, while Celsus is aware of and acknowledges the importance of Greek terminology, he is nonetheless reluctant, for whatever reason, to incorporate it in his active nomenclature. The large numbers of cases of type MG2 in Celsus make the point eloquently that Celsus is determined to be clear and precise in his encyclopaedia of (Greek) medicine, paying attention to the terminology of his sources so as to make clear to his readers all the categories and distinctions established and labelled by the Greek masters but without expanding the Greek elements of his terminology in an unconstrained fashion. His reluctance to *use* Greek terms is illustrated most strikingly, perhaps, in those cases—at least thirteen—where he replaces a Greek term of type ML4 by recourse to a descriptive paraphrase. In other words, in no fewer than thirteen instances, he returns to the referend of an acknowledged Greek term by means of an uncompressed, unlexicalized Latin phrase, and without repetition of the Greek. Capitani pays little attention to Celsus' treatment of these Greek terms. I submit that they merit a prominent place in the debate on Celsus' general attitude to Greek terminology, for it is not clear to what one may ascribe these verbose paraphrase-equivalents other than to a desire to avoid repetition of the Greek terms, whether on grounds

[94] Or, strictly perhaps, *code-switch*, if Greek inflection is retained: see n. 45 above.

[95] See e.g. Brolén (1872: 10); Marx (1915: xcv–xcvi); Krenkel (1959: 127, n. 4); Săndulescu (1960); Rippinger (1980: 429, n. 2), with further references.

[96] Cf. Langslow (1989: 45, n. 39) and (1994*a*: 300–5).

of linguistic purism, or in the interests of the clarity of plain language in the practical purpose of instructing a non-specialist readership of amateur *curantes*.[97] Furthermore, as we have seen, there are objections to seeing straightforward loanwords in more than a minority of words of type MG1 (2. 4. 2 above).

A third point against seeing Celsus as a *transfuga ad Graecos*[98] rests on the placement of the Greek words that he does use within the lexical structure of his terminology as a whole. Established loan-terms apart, Greek terms occupy in Celsus the lower positions in the lexical hierarchy, as hyponyms of, almost invariably, Latin head words. This is illustrated nicely in those cases where Celsus replaces a Greek head word while retaining the same term as a hyponym. So, for example, *tetanus* is replaced by the phrasal term *rigor neruorum*, and three species of the condition are distinguished, *emprosthotonus*, *opisthotonus*, and *tetanus* proper; *pthisis* is rendered by *tabes*, which has the sub-types *atrophia*, *cachexia*, and *uera pthisis* (cf. *cachexia* in its more general meaning 'malaise', for which it is replaced by *malus corporis habitus*). In nearly every case in Celsus a new Greek term has a Latin head word and so belongs to the most specialized stratum of the terminology.[99]

The question of Celsus' general attitude to Greek terms remains delicately balanced, but, I suggest, with a slight inclination in favour of the traditional view. Celsus acknowledges the overriding importance of his Graeco-Alexandrian sources and of their terminology in any discussion of medical science. And yet, while he is no reckless manufacturer of Latin terms to replace those of his Greek models, in the lexical fields central to medicine he is more a Latinizer than a Hellenizer. He shows significant restraint in his use of Greek terms; he replaces with Latin equivalents larger numbers of Greek words than he borrows; he maintains with regard to the Greek terminology a strong attitude of 'us and them', a clear foreign-versus-native distinction, that keeps the terminologies firmly apart.[100]

2. 5. 3 CASSIUS FELIX

The status of Greek medical words in the text of Cassius Felix is very different: there is a much less clear-cut separation here than in Celsus between the Greek and the Latin elements of the terminology. Much the largest group of Greek terms in Cassius Felix is of those simply used without comment as loan-terms (type B = 38%). Yet it is not just the number but also the *nature* of his loan-terms that indicates the very close

[97] On Latin translation-equivalents of this type see Langslow (1994*a*).

[98] Pliny's phrase (*Nat.* 29. 17) of those who had written on medicine in Latin.

[99] Cf. Langslow (1989: 48).

[100] These conclusions are independent of but pleasingly confirmed by those of Rippinger (1980).

integration of his Greek and Latin terminology. One observes in particular the following points.

- More Latin core-vocabulary items have been replaced by their Greek equivalents (notably *hepar* 'the liver').
- Verbs, which are generally more resistant to borrowing than nouns,[101] have appeared in appreciable numbers (e.g. *apophlegmatizare* 'to purge (of) phlegm', *encolpizare* 'to inject into the vagina', *phlebotomare* 'to let blood by opening a vein', *phrenitizare* 'to suffer from phrenesis', *mastichare* 'to chew', *rheumatizare* 'to suffer from rheumatism', *scariphare* 'to scarify', *strangulare* 'to strangle'; note also *schematizatus* 'in a certain shape or posture').[102]
- More Latin suffixal derivatives are built on Greek stems (e.g. denominative verbs: *cataplasmare* 'to apply in, cover with, a poultice', *embrocare* 'to apply an *embroca*'; deverbal nominal formations: *masticatio* 'chewing', *masticatorius* 'that is to be chewed'; *scariphatio* 'scarification'; a denominative adj. *arteriosus* 'characterized by arteries', and the diminutives *sacculus* and *saccellus* 'small bag'). The formation of a derivative with a native suffix on the stem of a foreign word may be taken to signal the complete integration of the foreign stem in the borrowing language.[103]
- On occasion Cassius glosses a Greek term with another Greek term, as if the latter were a Latin equivalent. Notice, for example:

> Cass. 39. 12 reumatice diathesis, id est reumatica passio;
> 101. 20 sin uero paresis fuerit stomachi, id est paralysis;
> 179. 16 in pthoes, hoc est in pthisicis.

Apart from the number and the nature of his Greek loan-terms, a further witness to the absence in Cassius Felix of the barriers between the two terminologies that are still strongly felt in Celsus is the presence of large numbers of Latin–Greek synonym-pairs: we see these in my status-types ML2 and ML3, types which are scarcely to be found in Celsus. Whereas in Celsus a Latin syntactic equivalent will replace its Greek counterpart

[101] Cf. Leumann (1948: 386–8), Gusmani (1973: 29–30, n. 47), and still Muysken (1995: 192), and Campbell (1993: 102), the last in a soberly iconoclastic review of received wisdom regarding constraints on borrowing. On Greek verbs in *-ίζειν* in Latin, see Funck (1886), Leumann (1948), Deroy (1956: 78).

[102] Celsus has only *gargarizare* 'to gargle' and, not strictly medical, *strangulare* 'to choke, strangle'.

[103] Cf. Biville (1989: 37). Again, Celsus has just one properly medical example, *garganzatio* 'a gargle'; he has also *coc(h)leare/-arium* 'a spoon' [Var. *Rust.* +], and one might add *canalis* ('channel, funnel, groove'), which is generally regarded as a Latin derivative from *canna* (*κάννα*) (Leumann 1977: 184; Rippinger 1995: 99), although *canna* is not attested before Var. At. and Vitr.

(ML4) twelve times out of thirteen, in Cassius this probability is reduced to less than one in five. It is almost equally likely that the Greek will replace the Latin (ML1), but most probable (three times out of five) that both equivalents will stand side by side (ML2 and ML3 together). The sense is no longer of rival languages with Greek at arm's length, as it is in Celsus, but rather of alternative, even interchangeable, variants.

This claim receives support in two further points. One is the presence in Cassius Felix of Latin–Greek hybrid terms. Biville (1989: 37) quotes the form *catafricare* 'to rub down' (Cass. 8. 10) as 'un hybride de préfixation'; the reality of this word is doubtful[104] but there are several clear examples of hybrid phrasal terms. For example, the ointment which is the subject of this explanation:

> Cass. 150. 16 alimma lexipyreton id est perunctio ad febres,

is referred to on the next page as *perunctio lexipyretos* (151. 7), with Latin noun and Greek adjective. Likewise, *cachexia* and *habitudo corporis mala* are established as alternative terms but appear once apparently blended in *cachexia corporis* (118. 13; cf. *cachectica corpora* at 11. 13 and 179. 19).[105] Or, again, notice beside the old Latin term *morbus regius* 'jaundice' (128.6) and the Greek equivalent *ictericus* (128.12) the blend *morbus ictericus* (67. 16). Formally reminiscent of the last is the phrase *dies critici*, the critical days in a fever (152. 14 quibus per sudorem prospera aegrotis determinatio febrium siue discussio fieri solet), although this is not a blend of two expressions in the same way as *morbus ictericus*.

The second point must be more tentative: it may be that the formal-lexical organization of the terminology (which, as we shall see in Chapter 5, appears in the Latin terminology already in Celsus) is applied by Cassius even to Greek terms. I am thinking, for instance, of Greek words in *-ōma*. The Greek word *symptomata* 'symptoms' is expressly replaced by Cassius with *accidentia*; the old Latin word *tuberculum*, on the other hand, yields place to the Greek *condyloma*. It is tempting to observe that both the abolition of *symptoma* and the incorporation of *condyloma* contribute to a formal-semantic relationship involving a Greek suffix, namely *-ōma* (also *-ēma*), as a characteristic marker of tumours and abscesses: Cassius has *carcinoma, steatoma, trachoma*, and *apostema, empyema, oedema*.[106] If the

[104] See Rose's app. crit., ad loc., and the *ThLL*, s.v.; on the borrowing of the Greek preposition *κατά* in certain phrases and contexts, see Hofmann and Szantyr (1965: 203, 254–5) with examples and further references. Note especially the phrase *cata unum*, which underlies Romance words for 'each' (Fr. *chacun*, etc.) and which is in the manuscripts (but not Rose's text) at Cass. 183. 8 singulatim cata una (cf. Ahlquist 1909: 133).

[105] Similarly, *cachexia laborantes* at 114. 20 may be seen as a blend of *cachectici* with *habitudine corporis mala laborantes*.

[106] Cf. Langslow (1989: n. 48).

establishment of *accidentia* and the demise of *tuberculum* are not due purely to chance, they may indicate an awareness of the possibility of organizing also the Greek elements of the terminology along regular formal-semantic lines. This would be a further sign of the breaking down of barriers between Greek and Latin terminology in the later period. The particular case of Greek *-ōma* and tumours leads to the establishment of a group which persists in modern medical terminology (e.g. in *carcinoma, epithelioma, fibroma, glaucoma, sarcoma*).[107]

There is also massive but organized borrowing of Greek terms in *-ικός* and evidence of a loss of clarity in the distinction between Greek *-ικός* and Latin *-icus*.[108] This last point is indicative at the level of derivational morphology of the same fusion of Greek and Latin that is to be observed at the lexical level in the terminology as a whole. The question arises whether this fusion is a peculiarity of Cassius Felix or a recurrent feature in late-imperial Latin medical texts.[109]

2. 5. 4 SCRIBONIUS LARGUS

The proportion of Greek terms in total in Scribonius' *Compositiones* is much closer to what we find in Celsus than in Cassius Felix and Theodorus. Remarkably, however, the percentage of Greek terms of type B in Scribonius (43.4%) is greater than in Cassius (38.0%). In Scribonius, however, one does not find those features indicative of especially close integration that I observed above (2. 5. 3) for Cassius Felix.[110]

As to the status of Latin equivalents to Greek terms, cases where the Greek term is preferred to the Latin or where both stand side by side (ML1 + ML2 + ML3 = 11.2%) are much more common than in Celsus (total 2%) but remain at the bottom of the scale. In the text of Scribonius 1 Latin equivalent in 2 is preferred, a proportion that stands midway between the 12 in 13 in Celsus and the 1 in 5 in Cassius. The total probability of a Greek term having a Latin equivalent in Scribonius is about 1 in 5 (21.7%), close to that observed in Celsus (25.9%).

A third point of interest, noted above (2. 4. 4. 5), is that Scribonius on several prominent occasions simply ignores a Greek term, using a Latin expression instead, even though the Greek expression is acknowledged or used in other Latin texts. He shares several instances with Celsus (e.g. *membrana tegens cerebrum* 'the meninges') but in other cases he passes over

[107] Cf. Sager, Dungworth, and McDonald (1980: 264); Davies (1985: 63, 157).

[108] André (1971: 117) expresses the view that adjectival suffixes are less prone to borrowing than substantival ones; the existence of the Latin suffix presumably favoured the integration of these Greek words.

[109] I return to this formation in 5. 4. 6 below.

[110] I note, for example, only three Greek verbs in Scribonius, namely *nausiare, gargarizare,* and *scariphare*.

a Greek term that Celsus acknowledges (e.g. *ceratoides* 'the cornea'; *asthma* and *asthmatici*).

2. 5. 5 THEODORUS PRISCIANUS

The figures revealed for the treatment of Greek terms in the text of Theodorus Priscianus are very striking in two respects. First, the proportion used without pause or comment (83.8%) is massive, more than 8 in every 10 Greek words, roughly twice that found in Scribonius (43.4%) and Cassius (38%) and more than four times the figure established for Celsus (17.3%).

As to the nature of these loan-terms, at least three of the observations offered above on those in Cassius Felix are true also of the Greek terms of type B in Theodorus. That is to say, they include items of core-vocabulary (e.g. *hepar* 'the liver', *physis* 'the penis', *neophytum* 'the foetus'), verbs (e.g. (path.) *nausiare, rheumatizare*; (ther.) *cataplasmare, massare, malaxare, phlebotomare, scariphare*), and Latin affixal derivatives (e.g. *alopeciosus* 'one suffering from alopecia', *elephantiosus* 'one suffering from *elephantia*', *scariphatio* 'scarification'). Moreover, Theodorus may attest two Greek–Greek synonym-pairs, of the type noted above in Cassius Felix, although the text is uncertain in both cases (*hiera* = *picra*[111] and *mydriasis* = *platycoriasis*[112]). Unlike Cassius Felix, however, Theodorus does not go in for Latin-Greek hybrid expressions, nor for formal-lexical organization of his Greek material. His terminology has a comparable proportion of closely integrated Greek items but it shows no sign of a strategy to balance the Greek and Latin components.

This last remark is borne out by a second notable feature of the statistical profile of Greek terms in Theodorus, namely that the proportion of Greek words receiving a Latin equivalent—of whatever status—is tiny compared with that found in the other three texts. Only about 1 Greek term in 15 has any Latin equivalent at all in Theodorus. Admittedly, in 8 of these 17 cases the Latin expression is subsequently preferred but probably the number of words involved here is too small for this proportion to be of any significance.

Apart from the extremely high proportion of Greek terms of status-type B, several other features of Theodorus' presentation of Greek words may

[111] Rose prints Theod. 146. 13–14 aliqui ieran adhibuerunt quam Graeci picran appellauerunt. I shall argue below that Theodorus was, and regarded himself as, a Greek doctor and so I cannot accept Rose's *Graeci* for *ceteri* in *rB* (*b* has *et postea*).

[112] Rose prints Theod. 157. 8–9 mydriasis, quam medici platycoriasin appellauerunt. For *medici* (*rB Gel.*) *alii* (*b*) is preferable (cf. the last note); perhaps *medici* is an insertion following loss of *alii*, or an error for *ceteri*? Note that Cassius Felix gives a Latin equivalent for *platycoriasis* (57. 12 id est dilatatio pupulae).

be of relevance to the question of his first language. That this was Greek rather than Latin is suggested (though by no means required) by his own statement in his preface to the *Phaenomena* that he had written on medicine first in Greek.[113] But to my mind much more striking evidence is the virtual non-occurrence of third-person phrases of the *quod Graeci . . . dicunt* type as a way of presenting Greek terms. In 248 small Teubner pages there are at most two examples, and there is variation in the manuscripts in both.[114] There is similar disagreement in the manuscripts over many of the other instances in which Theodorus mentions alternative or competing medical expressions. Rose's text contains attributions of terms also to *aliqui*, to *medici*, and to *antiquiores*, but these,[115] if original, amount to no more than acknowledgement of synchronic variation and diachronic change within medical terminology, both Greek and Latin, such as we find already in Celsus (e.g. 4. 6. 1, 6. 6. 7) and especially Scribonius (e.g. 24. 7–8, 59. 13–14). They bear neither on the question of the Greek terms in Theodorus' text nor on that of his first language and they need not concern us further.

A second indication that Theodorus' first language was Greek is his apparent use of the first person in *nos dicimus* (*et sim.*) to present a number of Greek equivalents for Latin medical expressions. In Cassius Felix first-person verbs of naming are invariably beside Latin terms (see above); in Theodorus, however, I have counted 19 instances in which the word in the relative clause is Greek,[116] compared with only 3 in which it is Latin. The latter examples are the following:

Theod. 38. 10 serniosos oculos, quas nos impetigines dicimus, et asperitatis uitiis laborantes sic curare consueuimus;
57. 12 ueluti exanthemata, quas scabias dicimus (I have added the comma);
85. 7 ramicem uero quam appellamus sic curabis.[117]

[113] On Theodorus' Greek works and on the possibility that the Latin *Euporista* that we have is his own translation of his own Greek original, see 1. 4. 3 above.

[114] Moreover, there is one clear example of a Latin equivalent inside the relative clause with a 3rd-person verb of naming: Theod. 122. 9–10 stafidis agriae, quam siluaticam uuam appellant (*b* and Gelenius' manuscripts have *aliqui*, *b*, before *siluaticam uuam*, Gel., after it; *aliqui* is not in *rVB*).

[115] Terms ascribed by Theodorus to *medici*: 138. 11 *epithesis*, 1. 102. 2 *exarthresis*, (100. 3 *oros*), 157. 9 *platycoriasis*; to *aliqui*: 195. 4 *carbunculus*, 130. 13 *metromania*, 130. 17 *priapismus*, 16. 1 *sycotice*; to *antiquiores*: 147. 12 *sacra passio* (i. e. ἡ ἱερὰ νόσος).

[116] See the Index & Glossary of Greek Words, s. vv. 'achor', 'anathymiasis', 'apthae', 'cardiaca diaphoresis', 'causus', 'cerium', 'chemosis', 'chrysun', 'emprosthotonicus', 'hypopium', 'ionthus', 'neurotrotus', 'opisthotonicus', 'parotis', 'rhus', 'tenesmodes'; 'gonorrhoea', 'hysterica pnix', 'myle' (the last three are words which Theodorus says he has used in his Greek work). Note also, on the margin of strictly medical vocabulary, 178. 10 radices quas rafanos appellamus.

[117] Note also, on the margin of strictly medical vocabulary, 144. 8 oniscos quos porcelliones appellamus.

It was suggested above (2. 2. 2. 3) that the second instance (57. 12) may reasonably be interpreted as meaning 'like *exanthemata* (which is the expression that we doctors use for *scabies*)', on the assumption that the 'second accusative' after the verb of naming has been relativized. In the two other cases, if we assume that *dicimus* is original and not from a scribe or redactor, it seems to me quite likely that a Greek word has been lost from the text. At 85. 7 this is made more probable by the fact that a structure of the form *ramex quam appellamus* 'what we call a *ramex*' is unparalleled in Theodorus. I suggest that we restore (e.g.) ⟨*cirsocelen*⟩ before *appellamus*. On the face of it, 38. 10 is simply an exception, the one passage where, on either interpretation of *dicimus*, Theodorus is identifying himself with a group which uses a Latin expression. It is perhaps surprising that Theodorus makes no mention at this point of the Greek equivalent *lichenes*; compare the corresponding passage in Cassius Felix:

Cass. 19. 2–3 impetigines, quas Graeci lichenas uocant, Latini uulgo zernas appellant.

On the other hand, in the very next phrase (38. 11 asperitatis uitiis laborantes) Theodorus ignores Greek *trachoma* in favour of a Latin paraphrase. I venture, tentatively, to raise the possibilities either that the third synonym, Greek *lichen*, has fallen out of the relative clause at this point and that *impetigines* was moved to fill the gap, or that manuscript *b* is closest to the original wording with 'inpetigine et asperitate laborantes sic curabimus' (omitting *serniosos oculos, quas nos . . .*) and that Theodorus' words were subsequently elaborated.

A third possible indication that Theodorus was more at home in Greek is the presence in his text of the seven unacknowledged Latin–Greek synonym-pairs, *sanguinis emissio – haemorrhagia, pecus – neophytum*, and so forth (2. 4. 4. 4 above). These are, I readily admit, explicable also either as deliberate *variatio sermonis* (rather than absent-minded use of a term of the author's native tongue in place of the equivalent in the target language of the translation) or as the result of omission to translate from the specialist's language to that of the non-specialist. It is notable, however, that most of these expressions are not especially technical and the Latin equivalents are all well established.

2. 6 Preliminary Conclusions

In conclusion, I should like to suggest how the foregoing linguistic observations on the place of Greek terminology in four Latin medical texts may contribute in the first place to our picture of the authors and their works,

and possibly also—I am more cautious here—to our view of the development of the Greek elements in Latin medical writings.

The first comparison that I drew was between Celsus and Cassius Felix. This revealed some very striking linguistic contrasts which could reflect historical developments in the place of Greek in Latin medical terminology. But there are at least two types of contrast between Celsus and Cassius, the authors and their works; they stand at a distance not only in time and space but also—as far as we can tell—in terms of their standing with regard to the practice of medicine and of the purposes and literary pretensions of their work. Celsus' eight books on medicine form one part of an encyclopaedia for the cultivated Roman gentleman of leisure, the work of an extremely learned man who, though with first-hand medical experience—and arguably with a practical purpose—was no *medicus*.[118] Cassius' treatise is a much shorter, more immediately practical handbook produced by a professional doctor towards the end of his career.[119] Celsus was an amateur, Cassius Felix, a professional. Scribonius Largus provides an interesting comparison, being certainly a professional medical man like Cassius, and yet probably less than twenty-five years younger than Celsus. It is hard to resist the question: are there aspects of the use of Greek terminology in our medical writers which we may correlate with external factors, such as professional status and the author's time and place, not to mention sources and first language?

The most notable feature shared by the doctors, Scribonius, Cassius, and, above all, Theodorus, is the prominence of type B, that is, the use in an easy manner, and without acknowledgement of their Greek origins, of the everyday terms of their own profession. Celsus the 'gentleman', on the other hand, goes in especially for the learned citation (my type MG2) from the many Greek sources used in the compilation of his more scholarly, encyclopaedist's account.

On the other hand, three features distinguish the first-century Italians from the fifth-century Africans: first, the much smaller proportion of Greek which we may estimate to have been in current use in their medical discourse;[120] second, the tendency for a Latin equivalent to be preferred above its Greek counterpart (my type ML4); third, the persistence of a much clearer line between the Latin and Greek terminologies.

Both Scribonius and Cassius say expressly that they are writing a medical work *in Latin*,[121] but each produces very different results with

[118] Cf. the discussion in 1. 4. 1 above.

[119] So Cassius in his short preface, 1. 1–5; cf. 1. 4. 4 above.

[120] Adams (1995: 341–7, esp. 342, 346) reaches a similar conclusion when he compares the veterinary terminology of Columella (1st cent.) with that of Pelagonius (4th cent.).

[121] Scrib. 5. 5 scripta mea latina medicinalia. Cass. 1. 4–5 ut . . . in breuiloquio latino sermone conscriberem.

regard to the treatment of Greek terminology. The key difference is the much closer integration in Cassius Felix of the Greek loanwords as part of the forging of a true partnership between the Latin and Greek elements of the terminology. This partnership seems to be self-consciously signalled by Cassius Felix in his numerous synonym-pairs and in his hybrid phrases, and may perhaps be seen also, I have suggested, in his formal-lexical organization of some of his Greek terminology along Latin lines.

No less interesting is the contrast that emerges between the other pair of near-contemporaries, Cassius and Theodorus. On the one hand, Theodorus is twice as likely as Cassius to use a Greek term without acknowledging its foreign origin. On the other hand, Theodorus' text implies an active use in addressing a Latin-speaking readership of a smaller proportion of Greek terms (33.5%) than does Cassius' (39%). I have suggested that the former finding (the massive preponderance of type B) reflects the fact that Theodorus' first language was Greek; the latter (the relatively modest proportion of Greek terms in Theodorus' terminology as a whole) probably indicates how much he has successfully translated into Latin. It underlines the remark made earlier that Cassius Felix has, in effect, two parallel terminologies, one Greek, the other Latin, 46% of his Greek terms having a Latin equivalent, as compared with only 5% of Theodorus' Greek terms. This figure for Cassius Felix—and the vast difference in this respect between him and Theodorus—serves as an objective confirmation of Guy Sabbah's general view (1985: 293) of Cassius as 'entremêlant' the Greek and Latin terminologies. I cannot comment on whether this will have had a political motivation arising out of recent events in Roman and Vandal Africa.[122] It is, however, quite plausible that personal and professional motivation alone will have been sufficient to prompt a Latin speaker, writing in a Latin-speaking province with an important Latin-speaking medical tradition, and in the shadow of Caelius Aurelianus (the great Latinizer of Soranus), to promote a medical discourse that married the Greek and Latin elements.

Theodorus was translating out of his first language, which he regards as *the* language of medical discourse.[123] He has no interest in promoting a Latin medical idiom nor, therefore, in relating Latin terms carefully to their

[122] Sabbah offers (1985: 292–3) a cultural-historical interpretation of the systematic intermingling of Latin and Greek elements in Cassius Felix. He sees in it a desire on the part of Cassius to symbolize a newly rediscovered Graeco-Roman spiritual unity and to make a statement on behalf of Latin-speaking Christian Roman Africa of cultural and linguistic solidarity with the Greek-speaking Eastern Empire in the face of Vandal domination. On the mutual interpenetration of Greek and Latin in the later Empire, see Löfstedt (1959: 99, 110–1, 119), with further references.

[123] Cf. Theod. 1. 6–7 Graeco stylo [*libellos medicinae confeci*] quoniam medendi industriam sermone claro haec natio publicauit.

Greek models or sources. His purpose is practical, even slightly condescending, his task as he sees it, laborious.[124] If he thinks that a given Greek term is sufficiently well known, he uses it without comment or apology (type B); if he doubts that a Greek word is familiar, he Latinizes without mention of the Greek (whence his very low percentage of my types ML1–4).

Cassius Felix, on the other hand, was a native speaker of Latin writing in a Latin-speaking province. He was probably translating from a variety of Greek sources into his own language and had an interest no less than—and probably inspired by—Caelius Aurelianus in maintaining (and adding to) an inventory of Latin terms and expressions which could take their place beside, and in Latin-speaking contexts do service for, those of the Greek masters of the discipline.

It was claimed in a recent article[125] that Cassius Felix (like Caelius Aurelianus) innovates only in detail in his medical terminology, conforming to the principles established by their predecessors. I hope that it is by now clear that, with respect to his use of Greek terms, at least, this is not the case.

2. 7 Addendum: The Use of Proper Names as Medical Terms

2. 7. 1 PROPER NAMES IN THE TERMINOLOGY OF THERAPEUTICS

All four authors attest each a handful of examples of a proper name being used in what is very probably a current medical term; indeed, Celsus and Cassius Felix several times say expressly that the word or phrase based on or containing the proper name is indeed a current term. Typical examples include:

Cels. 5. 19. 21 [*emplastrum*] quod Ephesium uocatur;
Cels. 7. 5. 3A genere quodam ferramenti, quod Diocleum cyathiscum Graeci uocant;
Scrib. ind. 11. 32–3 ad paralysin et lumborum dolorem compositio, Antiochi antidotus;
Theod. 54. 13 Musā trochiscus omnibus diffamatus;
Cass. 100. 5 quod appellatur a Graecis picra Galeni;
Cass. 99. 19 malagma Amythaonis a Graecis appellatum.

All but one of these proper-name terms belong to the field of therapeutics: the exception is the disease-term *Chironeum* which denotes a malignant sore (Cels. 5. 28. 5 *Chironeum ulcus*; Theod. 71. 16 *chironia*, 73. 13 *chironia uulnera*). Within therapeutics, all but two are used to name compound medicaments: the two exceptions are *Diocleus cyathiscus*, a type of probe or scoop (Cels. 7. 5. 3A) and, marginal to the medical vocabulary, *Laconicum*, a steam-room in bath-houses (Cels. 2. 17. 1, 3. 21. 6).

Nearly all are clearly Greek and as such are included in the figures presented in this chapter; as we shall see shortly, however, the use of proper names in term-formation was an established option in Latin, too, already in Celsus. For a list of those that I am counting as medical terms, see the end of 2. 7. 4 below.

[124] Cf. Theod. 1. 8–9 neque enim in logico opere eloquentia opus est sed labore.

[125] Grmek (1991: 200–1) 'ces auteurs innovent seulement dans les détails et se conforment aux principes établis par leurs prédécesseurs'.

2. 7. 2 ETYMOLOGY

Where we can recognize it, the proper name denotes usually a person or a place with which the compound remedy was associated, and from which it received a name. Most often the name gives the source of the remedy, either its inventor/discoverer,[126] historical or mythical, or its place of origin; in two cases the remedy takes the name of a divinity; in several further instances the relation between proper name and remedy is not obvious. I deal briefly with the clearer cases first.

(a) The name is that of the inventor

Galen offers a nice allusion to this naming principle when he corrects the name used by his source, Asclepiades (Pharmacion), for a certain well-known plaster. He comments:

13. 446–7 *οὐκ ὀνομάζει Ἀτταλικήν, ἀλλὰ Παμφίλειον, ἀγνοῶν, ὡς οἶμαι, τὸν πρῶτον αὐτὴν εὑρόντα, προσθεὶς δὲ τοὔνομα τοῦ χρωμένου τε καὶ δόντος αὐτῷ.*[127]

The proper person after whom to name a remedy is its first discoverer; failing that, one may call it after the author in whose work it is found.

Our four Latin texts attest the following eighteen items (seventeen preparations plus the scoop of Diocles) in which the proper name is that of the inventor (or source): *Amythaonis malagma, Andronium* [medicamentum, etc.], *Athenaei trochiscus, Athenipp(i)um, Attalium* [emplastrum], *Diocleus cyathiscus, Galeni picra, Herae trochiscus, Hieracis* [collyrium], *Mithridatis* [antidotum] = *Mithridatius antidotus, Musā trochiscus, Nilei collyrium, Philalethūs* [collyrium], *Philonium antidotum, Polyarchium* [emplastrum], *Polyidi sphragis* [pastillus] = *Polyidu trochiscus, Zoili collyrium, Zopyrius antidotus.* (For forms and references see pp. 138–9 below and the Index & Glossary of Greek Words.)

[126] For this naming principle in botany, note Plin. *Nat.* 26. 88 et herba Fuluiana . . . nomen inuentoris habet.

[127] Cf. Fabricius (1972: 27 n. 30, 111). On Pamphilus, cf. *PWRE*, s.v. 'Pamphilos', no. 28.

All but five of these proper names are probably or certainly of well-known physicians or pharmacologists, namely Andron,[128] Athenaeus of Attaleia,[129] Attalus III King of Pergamum,[130] Diocles of Carystus,[131] Galen of Pergamum,[132] Heras of Cappadocia,[133] Mithridates VI King of Pontus,[134] Antonius Musa,[135] Philon of Tarsus,[136] Polyarchus,[137] Zoilus,[138] and Zopyrus of Alexandria.[139]

Athenippus and Hierax are apparently otherwise unknown.[140] *Philalethūs* (Cels. 6. 6. 12, 23) I take to be a Greek genitive singular of *Philalethes*, a name which we know was taken as a title or cognomen by the head of the Herophilean school in Laodicea.[141] Amythaon and Polyidus are not attested as names of historical doctors but it is striking that both are attached to legendary figures associated with the family of the seer and healer Melampus. Amythaon, son of Cretheus and Tyro, and co-founder of Pylos in Messenia, fathered with Eidomene two sons, Melampus and Bias. Melampus, the central figure of the epic *Melampodia*, was held to be the first seer and the first expert in healing remedies. Polyidus appears in ancient genealogies as a descendant of Melampus, the details varying from source to source; given the name (*Πολύϊδος* 'having great knowledge'), he may well represent a conflation of several seers from different parts.[142] The

[128] *Fl.* before 70 BC; cf. *PWRE*, s.v. 'Andron', no. 16.

[129] The founder of the Pneumatic School, 1st cent. BC; cf. *Der kleine Pauly*, s.v. 'Athenaios', no. 6. Caelius Aurelianus mentions (*Acut.* 2. 6) an Athenaeus of Tarsus.

[130] Died 133 BC. See Fabricius (1972: 111, 202, 244); but cf. *PWRE*, s.v. 'Attalos', no. 24, an *ἀρχιατρός* of unknown date.

[131] *Fl.* 4th cent. BC. Celsus himself explains the name of the scoop of Diocles: 7. 5. 3A quoniam auctorem Dioclen habet.

[132] AD 129–99.

[133] An Empiricist; *fl.* around the beginning of the Common Era, perhaps between Antonius Musa and Celsus (Fabricius 1972: 183–5). His pharmacological works were highly valued and much used by Galen.

[134] *C.* 132–67 BC.

[135] The physician of Augustus.

[136] Late-Hellenistic pharmacologist. He set down the recipe for his panacea, the famous *Φιλώνειον*, in verse, which is reproduced by Galen (13. 267–9, beginning *ἡ τοῦ Φίλωνος [ἀντίδοτος] ἔνδοξος ἐγένετο, περὶ ἧς αὐτὸς ἐποίησε τάδε τὰ ἐλεγεῖα*).

[137] Cf. Cels. 5. 18. 8 id quod ad Polyarchum auctorem refertur. Cf. *PWRE*, s.v. 'Polyarchos', no. 3: in this case the remedy is very much better known than its author!

[138] *Fl.* 1st cent. AD or earlier. *Der kleine Pauly*, s.v., no. 6.

[139] *Fl.* c. 100 BC, an Empiricist. *Der kleine Pauly*, s.v., no. 8.

[140] Cf. *PWRE*, s.v. 'Hierax', no. 12.

[141] Possibly by Zeuxis, certainly by Alexander and Demosthenes, i. e. approximately from mid-1st cent. BC to mid-1st cent. AD; see esp. von Staden (1989: 529–39, 570–8). Cf. Strabo 12. 8. 20, Gal. 8. 726 f. *PWRE*, Suppl. 15, s.v. 'Philalethes'. Rippinger (1980: 137) takes *Philalethus* as nom. sg., making this name comparable in type with *Asclepius* and *Isis* (in (c) below). However, the name *Φιλάληθος* is not otherwise attested.

[142] See Apollod. 1. 95 ff., 3. 17 ff., and *PWRE*, s. vv. Fabricius (1972: 121) gives his name as Polycides; cf. the *Πολυείδου ἀφραγίς* at Gal. 13. 834. 5 ff.

motivation of these names of remedies was probably, then, the wish to sell them to patients by attributing them to healers of great antiquity and of mythical, supernatural powers. (Cf. *Asclepius* and *Isis* in (c) below.)

(b) The name is that of the place of origin

The name is a place name, presumably the origin of the remedy or of its inventor, in the following six items (five remedies plus the steam-room in a bath-house) always in the form of a derived adjective, Latin or Greek: *Alexandrinum uiride emplastrum, Canopites collyrium, Coacum* [emplastrum], *Diospolites medicamentum, Ephesium* [emplastrum], *Laconicum*.

The places referred to are, of course, the cities of Alexandria and Canopus (in Egypt); the island of Cos, birthplace of Hippocrates; the cities of Diospolis (= Thebe, in Egypt) and Ephesus; the state of Laconia.

(c) The name is that of a divinity

In two instances the name is that of a divinity and is underived: Celsus attests the form *Asclepius* as the name of an eye-salve (6. 6. 25, 32),[143] and Scribonius records *Isis* as the name of a green plaster of the surgeon Glycon[144] (94. 28–9). As with the poultice of Amythaon and the pastil of Polyidus (see (a) above), these names are chosen in order to attribute by implication supernatural powers to the remedy.

(d) The relevance of the name is doubtful or obscure

In six cases the relevance of the proper name to the medical term is, at best, not obvious: *Chironeum* [ulcus], *meline Vespasiani, Caesarianum* [medicamentum], *Iustiana* (*Iustiniana*?) [potio], *Faustinianus* [trochiscus catotericus], *Bestiane antidotum*.

The name of the malignant sore called *Chironeum* [ulcus, uulnus] (cf. *Χειρώνειον ἕλκος*) is supposed to indicate either that this sore resembles that of Chiron the centaur or that it requires his wonderful medical aid.[145]

A plaster called *meline Vespasiani* is mentioned twice by Cassius Felix (35. 23, 43. 12) and apparently nowhere else in our Latin or Greek record.[146] Assuming that *Vespasiani* is the correct reading and is what it

[143] It appears that there were a number of *Ἀσκληπιοί*, that it was a generic; cf. e.g. Gal. 12. 774. 3 *ἐκ τῶν Σκριβωνίου Λάργου Μαχάωνος Ἀσκληπιάδου*.

[144] The doctor of C. Vibius Pansa (*Der kleine Pauly*, s.v., no. 3), cos. 43 BC.

[145] Galen 10. 82 recognizes both naming principles. The *Χειρώνειον ἕλκος* is his example of a disease named *ἀπὸ τῶν πρώτως ἰαθεισῶν*, but his example of those named *ἀπὸ τῶν πεπονθότων*, the *Τηλέφειον ἕλκος*, is of identical structure. Cf. LSJ, s.v. '*Χειρώνειος*', Rippinger (1980: 136), Skoda (1988: 187 and n. 2). Note also Bertier (1991: 302) and, on the *uulnus Chironium* in Pelagonius and the *Mulomedicina*, Adams (1995: 324–6) and his conclusion (326): 'obviously a learned medical term borrowed by *ueterinarii*'.

[146] See Stephanus (s.v. '*μήλινος*') on the class of plasters called *μηλίνη ἔμπλαστρος, μήλινον ἔμπλαστρον*.

looks like, namely the Latin genitive singular of the personal name *Vespasianus*, we can make two good guesses at its relevance to the remedy. It could be the name of the inventor (presumably a medical man, otherwise unknown) and belong in type (a) above; the *meline Vespasiani* would then be parallel in both form and semantic motivation to the *finicine Galeni*[147] (Cass. 87. 20). Alternatively this Vespasian could be a man of very high rank (perhaps none other than the emperor Vespasian himself) who famously used and benefited from this remedy and allowed his name to be associated with it.[148] We know from various medical authors that importance was attached to the use of a particular medicament by a member of the imperial household. For example, with regard to six separate remedies, Scribonius tells his reader, in both index and text, that each was composed for or used by, respectively, Augustus,[149] Octavia, sister of Augustus,[150] Augusta,[151] Messalina,[152] Caesar Augustus[153], and Augusta and Antonia.[154] We know also from Marcellus (20. 115) of an 'antidotum Hadriani, quo utebatur Caesar Augustus', and from Aëtius of an eye-salve apparently called simply *Augustus*.[155] It is conceivable that we have an earlier example of a compound remedy named after a royal consumer in the case of the eye-salve *Caesarianum* (Cels. 6. 6. 27B medicamentum id quod Caesarianum uocatur); if this account is correct, the Caesar was presumably either Tiberius, Augustus, or Julius Caesar. Other etymologies are possible, of course: for example, that the eye-salve was invented by a doctor who was a freedman of a Caesar, or that it stemmed from or was associated with a Caesarian army. On the present, minimal evidence, the name *Caesarianum* is more likely an advertising ploy[156]—a compressed and lexicalized version of the recommendations Scribonius gives of compounds used by the imperial family—aimed at selling the remedy by associating it with a Caesar.[157]

[147] Cf. Gal. 13. 375 *τὴν διὰ χαλκίτεως ἔμπλαστρον ἣν φοινικίνην ὀνομάζω*; cf. 2. 2. 2. 3 above.

[148] Cf. Galen 13. 360. 2 *Τίτου Καίσαρος* of the *malagma τὸ διὰ τῶν δαδίων* of Asclepiades.

[149] ind. 7. 9, 26. 1 bene facit et hoc medicamentum, quo Augustus usus est.

[150] ind. 8. 15, 35. 10 hoc [*dentifricio*] Octauia Augusti soror usa est.

[151] ind. 8. 16, 35. 20 Augustam constat hoc [*dentifricio*] usam.

[152] ind. 8. 16, 35. 21 Messalina dei nostri Caesaris hoc [*dentifricio*] utitur.

[153] ind. 12. 21, 84. 10 haec [*antidotus Marciani*] Augusto Caesari componebatur.

[154] ind. 16. 31, 116. 12 acopum, quo fere Augusta et Antonia usae sunt; for the appearance of the latter in this sort of context, cf. Gal. 12. 768 *κολλύριον ᾧ ἐχρήσατο Φλῶρος ἐπὶ Ἀντωνίας τῆς Δρούσου μητρός*.

[155] Aët. 7. 106 p. 371. 5 Olivieri *κολλύριον ὁ διὰ τοῦ λιθαργύρου, ὃν Λύγουστον καλοῦσι*, unfortunately not known elsewhere, it seems.

[156] Other advertising ploys: *acharistum, ambrosia, smilium*.

[157] For a supposed instance of the converse—a king calling his own discovery after a doctor—note Plin. *Nat.* 25. 77 inuenit . . . rex Iuba quam appellauit euphorbeam medici sui nomine.

I raise very tentatively on the basis of this naming principle an alternative account of one other obscure name of a remedy, the *iustiana* [potio] in Theodorus (212. 5 dedi ego frequenter etiam iustianam.) This is the reading of *V* accepted by Rose who seems inclined to see a reference to a *hiera Iusti*; indeed, manuscript *g* has *hieram etiam Iusti* here, and we do know of at least one Iustus to whom various sorts of remedies are ascribed.[158] However, the reading *iustiniana* of *r* deserves some consideration as a *lectio difficilior* given the easy reduction by haplography of the sequence *-inian-* to *-ian-*. *Iustiniana* would suggest the empress Iustina as the inspiration of the name, the bride of Valentinian I,[159] with whom Vindician, Theodorus' teacher, enjoyed high prestige.[160]

This leaves us with *Bestiane* and *Faustinianus* in Cassius Felix. The *Faustinianus* [trochiscus catotericus] (Cass. 126. 8, 19) is probably not named from the empress Faustina, the queen of Constantius II. This is improbable not because a pessary is necessarily unsuitable to bear the name of an empress, but because Cassius Felix says that it is an ancient name (126. 8 appellatur a ueteribus Faustinianus) and because the remedy appears to be the same as the *ἔνεμα φαυστ(ιν)ιανόν* attributed by Galen (13. 296) to Isidorus, a friend of Andromachus the Younger, which gives us a *terminus ante quem* for the Faust(in)us or Faust(in)a after whom the pastil is named of about AD 70–80.[161]

The name of the *Bestiane antidotum* (114.10) is entirely obscure. *Bestia* is common in Latin names but none of these suggests any connection with a medicinal remedy.

2. 7. 3 MORPHOLOGY AND SEMANTICS

As we have seen, proper-name terms normally show the name in the genitive singular (e.g. *Hieracis collyrium, Polyidu trochiscus*) or as the base of a derived adjective (e.g. *Andronium medicamentum, Philonium antidotum*); in two instances (*Asclepius, Isis*) the proper name shows no change of form and is made into the name of a remedy by the process called conversion, or zero-derivation. The morphology of *Bestiane* is as obscure as its etymology (above); the form appears to show a Greek nominative singular ending (*-η*) on a stem formed with the (Latin) suffix *-ian°/a-*, which was prominent

[158] Cf. *PWRE*, s.v. 'Iustus', no. 10 and Sabbah, Corsetti, and Fischer (1987: 110), who note that in some manuscripts the so-called *Gynaecia* of Vindicianus (1. 4. 5 (ix) above) is ascribed to Iustus.

[159] They had, be it noted, a daughter Iusta. Her name could have served as the base of *Iustiana*.

[160] Note the letter purporting to be from Vindicianus to Valentinian which has been transmitted in the tradition of Marcellus; cf. 1. 4. 5 (ix. (a)) and (xxxvi) above.

[161] See Fabricius (1972: 228) correcting *PWRE*, s.v. 'Isidoros', no. 29.

among Latin loanwords in Greek,[162] added to, say, *Bestia*. If this is right, it may be an instance of a Latin form being borrowed by Greek and reappearing in a Latin text in its Greek form.[163]

As I have implied in my presentation in 2. 7. 2 above, the naming of a remedy after its inventor or its royal consumer is the result of a compression of information about one chosen salient feature of the remedy. This information is occasionally to be found uncompressed, in various ways. The uncompressed equivalents of genitives (or derived adjectives) of the inventor's name are sentences such as the following:

Cels. 5. 18. 5 concoctioni uentris Lysias composuit ex his;
5. 18. 10 Moschi esse dicitur [*malagma*];
5. 18. 14 Andrias auctor est ut haec misceantur;
Scrib. 59. 14 refertur in Musam Antonium [*medicamentum siccum*];
Cass. 168. 8 hoc fysicum de uiri illustris ⟨Vindiciani⟩ est;

or relative clauses, such as:

Cels. 5. 18. 8 id quod ad Polyarchum auctorem refertur;
6. 7. 2B compositio quae ad auctorem Erasistratum refertur.

Such long-winded ascriptions are very rare, at least in our four authors. It is striking that Celsus has a cluster of examples in chapter 18 of book 5, at the very beginning of his account of compound remedies; he has dealt with simples in 5. 1–16 and introduced the different types of applications (*malagmata, emplastra, pastilli*) in 5. 17. It is likely that he is, as it were, breaking his reader in gently to the convention of attributing a recipe to an inventor or a source, and, early on at least, varying the form and raising the stylistic level of the monotonously formulaic presentation (*medicamentum* + gen. *ad morbos X et Y . . . aliud* + gen. *ad eadem*) that is standard in collections of medical and veterinary recipes.

I quoted above (2. 7. 2 (d) with nn.) all of Scribonius' statements to the effect that a given remedy was used by or mixed for a particular royal personage. To some of the complete sentences in his main text correspond compressed versions in his index. Note in particular:

Scrib. ind. 8. 15 dentifricium ⟨Octauiae⟩ compositio;
ind. 8. 16 dentifricium Augustae. aliud Messalinae.

[162] Cf. Debrunner (1917: 161–2), Chantraine (1933: 197).

[163] With this suffix on Greek stems compare the antidote *Θεοπεσιανή* (Gal. 13. 67, 99, 102) and *Κερουσιανή* (Gal. 13. 105), and note also *τὸ φιλαγρίανον*, a poultice at Paul. Aeg. 7. 18 and a bandage at Alex. Trall. 1. 12 (where the base is presumably the name of the doctor Philagrius). We see the same suffix, probably on a Latin base, in *λβιανόν* (Gal. 12. 762; Aët. 7. 107, pp. 371. 10, 372. 2, 6 Olivieri), which may be for *Liuianum*: see 3. 6. 1. 2a below, with n. 88.

Formally these are identical with, in Scribonius, for example,:

ind. 12. 16 antidotos Celsi;
ind. 13. 16 emplastrum Thraseae,

and, in general, with countless introductory headings to medical and veterinary recipes, comprising generic remedy + 'genitive of the inventor/source'; *aliud* + the same genitive is equally common. Only non-linguistic information can tell the reader that Octavia, Augusta, and Messalina *use* these tooth powders (and appear in the 'genitive of the famous consumer'), while Celsus and Thraseas *made up* the antidote and plaster with which they appear in the 'genitive of the inventor'. Probably this potential ambiguity was rare enough to be allowed to stand.

There is, however, a further ambiguity in a phrase of the type *antidotus Celsi*, on which a word is due since it explains the relatively small number of such expressions that I have listed below as proper-name terms. *Antidotus Celsi* can mean, of course, either '*an* antidote of Celsus' or '*the* antidote of Celsus'; the latter interpretation is itself ambiguous as between 'the antidote of Celsus that I mentioned above (*vel sim.*)' and 'the well-known antidote of Celsus, which I presume you know and which you can ask for by name to have made up by any good *pharmacopola* (*vel sim.*)'. In my opinion it is only the last interpretation that vouchsafes the lexicalization of the phrase and entitles it to a place in a list of medical terms. In the absence of a definite article in Latin, we cannot be sure how to interpret a phrase of the form *medicamentum* + personal name in the genitive without help from the context. An obvious indication that not all such phrases are lexicalized terms is that some belonging to the same class of remedy by the same inventor use different recipes (e.g. Cels. 5. 18. 14B, 26: two different *malagmata Niconis*; Scrib. ind. 13. 12, 15, 17: three different *emplastra uiridia Tryphonis chirurgi*; Cass. 104. 8, 186. 11: two different *epithimata Philagrii*). I may have missed some well-known, and lexicalized, remedy-names but I have preferred to err on the side of caution in admitting as terms only those *medicamentum* + personal name in the genitive phrases which (1) are set in inverted commas by *appellatum* (*vel sim.*), or (2) are shown by independent evidence to have been well known, and in all likelihood by that name. Sometimes the fame of a particular remedy is explicitly mentioned by either a Latin or a Greek source. Theodorus, for example, says that the *Musa trochiscus* is *omnibus diffamatus* (54. 13) and *omnibus approbatus* (90. 14), while Galen vouches for the renown of the salves of Neilos[164] (*Nilei collyrium* in Cels.) and Zoïlos[165] (*Zoili collyrium* in Cass.). In other cases, the

[164] Gal. 12. 806 *καλεῖται δὲ Νείλου διάρροδον ἔνδοξον ἐκ παλαιοῦ κολλύριον*. Cf. Gal. 12. 765, giving the recipe used by Andreas (on whom see von Staden 1989: 472–7).

[165] Gal. 12. 771 *γενναῖόν ἐστι τὸ κολλύριον τοῦ Ζωΐλου*. Cf. Aët. 7. 117, p. 392. 17 ff. Olivieri.

familiarity of a remedy is implied by the (very unusual) absence of instructions for making it up: this applies to the *Athenaei trochiscus* and the *Polyidu trochiscus* in Theodorus, and to the *Musā trochiscus* in Cassius Felix (39. 7).[166]

2. 7. 4 CONCLUSION ON THE USE OF PROPER NAMES

Notwithstanding the few obscure examples, it is clear that the derivation of (in nearly every case) pharmaceutical terms from proper names, especially personal names, is well established in Greek medical discourse and that some examples have made their way into Latin texts. The probable existence, moreover, of Latin terms for medicines based on a personal name suggests that this means of term-formation was productive among Latin speakers already in the first century AD. There are no diachronic developments apparent in this little corner of term-formation—the number of Latin terms involved is, in any case, very small; all semantic and morphological types are present already in Celsus and remain in Cassius Felix. The set of proper-name terms in our authors contains at least the following:

Celsus:

Alexandrinum uiride emplastrum	(B 5. 19. 17; 26. 23F; 27. 1B)
Andronium [medicamentum]	(MG2 6. 14. 1)
Asclepios [collyrium]	(MG2 6. 6. 25, 32)
Attalium [emplastrum]	(B 5. 19. 11)
Attalium [collyrium]	(B 6. 6. 5B)
Canopites collyrium	(B 6. 6. 25B, 28)
Chironeum [ulcus]	(MG2 5. 28. 5)
Coacum [emplastrum]	(MG2 5. 19. 2)
Diocleus cyathiscus	(MG2 7. 5. 3A)
Ephesium [emplastrum]	(MG1 5. 19. 21; 27. 3D)
Hieracis [collyrium]	(MG2 6. 6. 28)
Laconicum	(B 2. 17. 1, 3. 21. 6)
Mithridatis [nobilissimum antidotum]	(B 5. 23. 3)
Nilei collyrium	(B 6. 6. 8G, 10, 11)
Philalethūs (gen. sg.?) [collyrium]	(MG2 6. 6. 12, 23)
Polyidi sphragis	(MG1 5. 20. 1, etc.)

[166] Sabbah (1984*a*: 113) points out that the pastil of Musa shares the distinction of lacking a recipe in Cassius Felix with just one other preparation, namely the *trochiscus trigonus* 'the triangular trochiscus', no doubt distinctive in virtue of its shape. He goes on: 'Le *nom* de Musa joue aussi, à lui seul, le même rôle: celui d'un moyen d'identification infaillible. . . . [U]ne référence si brève ne dénonce pas une ignorance . . . [E]lle a la valeur d'une allusion à un savoir partagé par l'auteur et par son public.'

Scribonius:

Andronium, -os (presum. = *Andronicum*)	(B 37. 3, etc.) (B 109. 9)
Antiochi antidotus (*antidotos hiera Pacci Antiochi*)	(B ind. 11. 33) (76. 18)
Athenipp(i)um	(MG1 ind. 7. 3, etc.)
Isis [emplastrum]	(MG2 94. 29)
Mithridatius antidotus	(B ind. 12. 13, t. 81. 3, etc.)
Zopyrius antidotus	(B ind.12. 12, t. 81. 1)

Theodorus:

Andronius trochiscus	(B 203. 7)
Athenaei trochiscus	(B 203. 9)
Chironia uulnera	(B 71. 16, 73. 13)
Musā trochiscus	(B 54. 13, 90. 14)
Polyarchium [emplastrum]	(B 180. 17, etc.)
Polyidu trochiscus	(B 62. 17)

Cassius:

Amythaonis malagma	(MG1 99. 19, 108. 13)
Bestiane antidotum (dub.)	(B 114. 10)
Diospolites medicamentum	(B 143. 23)
Galeni picra	(ML2 3. 12, 100. 5)
Herae trochiscus	(MG2 46. 12)
Hermolaon staticon [collyrium] (dub.)	(MG2 52. 6)
Musā trochiscus	(B 39. 7)
Nileos splenicum lexipyretum	(B 109. 2, 152. 7)
Philonium antidotum	(B 103. 13, etc.)
Vespasiani meline	(MG2 35. 23, 43. 12)
Zoili collyrium	(MG2 53. 15)

3
Semantic Extension in Term-Formation

3. 1 Introduction

Many items of medical terminology occur with a different meaning in non-medical Latin; these include such diverse examples as *album* 'the white' (of the eye) and 'white (thing)', *lenticula* 'a freckle' and 'a lentil', *impetus* 'the onset of a disease' and 'an attack, onrush', *plaga* 'a wound, incision' and 'a stroke, blow'. Some medical terms have more than one meaning even within the field of medicine; examples include *cubitus* 'the elbow' and 'the ulna bone of the forearm', *uterus* 'the belly' and 'the womb'. It is my aim in this chapter to list, explain, and exemplify the semantic relationships between the medical and non-medical (or the two medical) significata involved, with a view to comparing and contrasting the various kinds of semantic extension underlying this group of medical terms in our four authors.

For each medical term and its medical meaning I have looked to see if the form has a primary (or focal, or prototypical) sense other than and (arguably at least) prior to the medical one. I have sought then to characterize and to classify the various relationships observable between the two, retaining throughout the division into the broad semantic fields of anatomy and physiology, pathology, therapeutics.

The broad categories of semantic relationship that I have adopted and the divisions that I have made within them are put forward in an experimental spirit, but with the conviction that an informal and approximate organization of the material is better than none at all.

3. 2 Diachrony and Synchrony: Semantic Change and Semantic Range

There are—or may be—three stages involved in the formation of some of the medical terms discussed in this chapter. Let us take *sutura* 'a suture of the skull' and '(a piece of) stitching' as a (presumably) straightforward example to illustrate this.

First, the physical resemblance between a cranial suture and a row of stitches made with needle and thread is observed, by one or more people at one or more times and places. This may lead to an explicit or implicit sentence or simile such as: 'The joins between the bones of the cranium remind me of rough rows of stitches in needlework.'

Secondly, those who made this observation refer to the joins between the bones of the cranium, since they have no other name for them, as 'stitching', dropping, for the sake of brevity, any explicit indication of a simile but retaining mental quotation marks around the word *stitching* when they use it in this new way.

Thirdly,[1] since the comparison between the joins and rows of stitches seems so apt, more and more people take to using the word *stitching* with this new reference. Students of anatomy are delighted with this new expression and teach it to their students as *the* name for the joins between the bones of the cranium, all apologetic quotation marks being now dropped.

The first two stages—the expressing of a comparison and the encapsulating of the comparison by means of a metaphorical extension of the meaning of an established word—are synchronic processes, which are constantly exploited both in everyday language-use and, for particular effect, in literature, especially but not only poetry. The third stage, in which the metaphorical expression becomes conventional and is lexicalized, is a diachronic process which may or may not take place for a given metaphor.

The result of all this, seen from a diachronic point of view, is that the word *sutura* has acquired a new reference. Taking a synchronic view, one would say that the word *sutura* denotes, among its range of meanings, a cranial suture. In presenting and comparing this aspect of the medical terminologies of our four authors, I am adopting the latter, synchronic, point of view, although I am assuming in each case, *mutatis mutandis*, the diachronic developments sketched above in the use of each individual Latin word.[2] The emphasis of this chapter on a *synchronic* description of the place in the terminology of words whose primary reference lies outside the field of medicine has bearing on two related problems.

3. 3 The Question of Semantic Loans from Greek

In the 'Just So' story above about how *sutura* came to acquire an additional reference, I used *stitching* rather than *sutura* deliberately. While we may be confident that the corresponding Greek word (*ῥαφή*) came by such a

[1] Although it may be that stages 2 and 3 tend to run together.

[2] Untermann observes (1977: 337) that the division between synchrony and diachrony is nowhere less apt than in semantics, every new context bringing with it the potential for new meaning.

process to add to its prototypical meanings the meaning 'cranial suture', we must accept the possibility—some would say we presume, failing evidence to the contrary—that Latin *sutura* acquired its new meaning through imitation of the Greek.

Supposing this to have been the case, we must add a fourth stage to our historical account of the medical use of *sutura*. After, or at any point during, the three-stage process imagined above, which we now assume to have taken place among Greek speakers, someone interested in writing about medicine in Latin has the idea of naming a cranial suture in Latin by borrowing, not the Greek word for it, but the metaphorical extension of reference that the Greek word has undergone in coming to denote the cranial suture. The Latin writer (he could have been a Latin speaker who read or studied with Greek doctors, or a Greek who wrote also in Latin) would then initiate for Latin *sutura* in a Latin-speaking context a process similar to that assumed now for Greek *ῥαφή*, starting with a remark in a lecture or a book such as: 'That completes my description of the joins between the bones of the skull. The Greeks call them *ῥαφαί* and we, using the same comparison, could call them *suturae*.'

There is one instance in Celsus and Cassius Felix where precisely such a suggestion is made, namely to imitate Greek by using the word with focal meaning 'X' for medical meaning 'Y'. Celsus concludes his description of the zygomatic bone, the arch of the upper face, with:

Cels. 8. 1. 7 iugale appellari potest, ab eadem similitudine, a qua id Graeci zygodes appellant.

Cassius introduces what he presumes will be for his reader a new term for 'afflictions, symptoms' as follows:

Cass. 115. 2 ad ea quae uesicae accidunt, quae a Graecis symptomata appellantur, nos uero accidentia dicere poterimus.[3]

In these cases diachronic dependence on a Greek model is clear. Generally we have no such objective evidence and a historical semanticist's list of Latin medical calques on Greek models would have to be compiled on the basis of the assumption, a priori, of a high probability of Greek influence, given the supremely dominant role of Greek medical practitioners. Since our aim here is to analyse the Latin terminology especially from a synchronic point of view, it makes little difference whether or not the semantic extension evident in a given medical term is held to be borrowed from a Greek model. Even in the clear instance of *iugale* mentioned above, there has occurred, for whatever reason, an extension of meaning which concerns the Latin adjective *iugalis*. In other words, Latin speaker/hearers

[3] On our evidence for the use of *accidentia* in the sense, 'symptoms', see 5. 4. 4, n. 321.

are aware of the connection between *iugum/iugalis* in its primary sense and *iugale* in its special sense. They may be aware also of the connection between *iugale* and Greek *zygodes* in their special senses but that is not the essential point for anyone except the historical linguist or, perhaps, the bilingual speaker/hearer.

Latin words—and not only medical expressions—which appear to have been formed morphologically or semantically in imitation of a Greek model are often referred to rather dismissively, puristically, as if calques are not and cannot hope to become real words but are doomed to a perpetual semi-existence in a limbo of inverted commas and apologetic intonation. In reality such a qualified status holds only until the calqued form or meaning is heard or read and learned and reproduced by another Latin-speaker without stress being laid on its debt to the Greek model. This is true most obviously when the salient feature referred to in a naming-expression is evident to any untrained observer: in the 'white' of the eye,[4] for example, or the 'down-dripping' of catarrh as the main symptom of a *destillatio* (if, that is, as is generally supposed, this Latin word is a calque on Gk. *κατασταγμός*). But the same principle will hold good even if the motivation of the Latin form or meaning is not self-evident, as for instance in the case of the *ieiunum intestinum* 'the jejunum' (|| Gk. *νῆστις*).

In view of these considerations, a study and analysis of morphological or semantic loan-translations from Greek into Latin is here spared. Such a study involves necessarily a large number of claims of a diachronic nature which are, in most cases, impossible to verify objectively. All the examples in this chapter are Latin medical terms that may reasonably be taken to have arisen as a result of semantic extension within Latin, whether or not there exists a known semantic parallel in Greek medical terminology, and no matter how likely or unlikely it may be that the semantic extension in Latin is independent of the Greek. Throughout the chapter, however, known Greek parallels are indicated beside the Latin term.[5]

3. 4 Words of Uncertain Semantic Connections

Then there is the old question of polysemy versus homonymy. Given a word which has a range of very different meanings but a single set of

[4] Greek *τὸ τοῦ ὀφθαλμοῦ λευκόν*, Latin *album oculi*, French *le blanc des yeux*, German *das Weisse im Auge*, etc.

[5] On the general typology of semantic loans (*calques, Bedeutungslehnwörter*), see the fundamental articles of Haugen (1950) and especially of Gusmani (1974 and 1976–77); cf. Deroy (1956: 215–23) and Humbley (1974: 58–64). For Latin, see Debrunner (1916) and Löfstedt (1933–45: ii. 433–47) and (1959: 99–105). On some particular examples in Cassius see André (1963: 58–66) and Giuliani (1985).

morphosyntactic properties, how is one to decide whether to see in the word two or more lexemes, which happen to be identical in form and properties, or a single lexeme, which has developed a number of meanings?

Consider these (abbreviated) entries from the *OLD* for the words *acies* and *calx*:

> acies 1 A sharp edge, the edge of a weapon, etc. 2 The sight of the eyes, one's vision. 3 Look, glance. 4 The pupil of the eye, the eye. 5 Mental perception, discernment, acuteness. 6 An army, etc., engaged, or about to engage, in battle. 7 A battle, fighting.[6]

Calx has three entries, as follows:

> calx[1] [cf. Lith. *kulnas*, O.Pruss. *culczi*] 1 The back part of the foot, the heel. 2 The (back of the) hoof—also of a bird, a dog. 3 The butt-end or lower end of a beam.
> calx[2] [cf. perh. Gk. *χάλιξ*] 1 Lime, limestone. 2 A small stone or piece (orig. perh. of limestone) used in games. 3 The finishing-line in a race-course, marked with chalk.
> calx[3] (perh. corrupt; see quot.) *calces ampullae plumbeae*, Paul. Fest., p.46M.[7]

Clearly, the editor of the *OLD* has assumed semantic connections between the various meanings of *acies*, all possibly originating in the meaning 'sharpness' based on a single etymon **ak-iē-s*. On the other hand, in distinguishing three different lemmata for *calx*, and in assigning different etymological cognates to the first two at least, he seems to imply that we are dealing with three separate words whose meanings cannot be linked through the standard processes of extension of meaning.

However, both these points—the quasi-synchronic and the historical—are debatable. One could point out that these etymologies of *calx*[1] and *calx*[2] are far from watertight and, for *acies*, one could question the plausibility of the supposed semantic connection between vision and sharpness. Indeed, other possibilities spring to mind: for example, *acies* 'sight' could be from **ok^{w}-iē-s*, with a familiar root and with an unexplained but not unparalleled *a* for expected *o* in the initial syllable.[8] No longer then would one attempt to describe *acies* 'the power of sight' as the result of semantic extension based on a perceived quality of sharpness in human vision.

Another lexicographer could take a different approach again, dismissing the proposed etymology either of *calx*[1] or of *calx*[2] and postulating a semantic connection between 'heel' and 'limestone'; one might speculate,

[6] Walde-Hofmann, s.v. 'acies', make no mention of senses 2–5. Ernout–Meillet, s.v. 'ac-; aceo, acidus; acerbus; acies; acus; acer', treat all the senses together.

[7] Both Walde-Hofmann and Ernout–Meillet distinguish *calx*[1] and *calx*[2].

[8] For early Indo-European the root of the word for 'eye' is reconstructed as **h$_{3}$k^{w}-* with an initial laryngeal. On the plausibility of the development IE**h$_{3}$k^{w}-yē-s* > Latin *aciēs*, see Meiser (1986: 91), Schrijver (1991: 25ff., 77), Rix (1996: 156).

for instance, that the ball of the heel was compared in its shape and hardness with a lump of limestone.

In deciding that, for example, *acies* is a single polysemous lexeme and that *calx* represents two (or three) homonymous lexemes, the lexicographer is making implicit claims about either historical developments or synchronic semantic relationships, or both. For the historical semanticist the danger is that one attributes a semantic connection to two historically independent lexemes. In the worst case, it would be as if, in writing on the terminology of financial institutions, one concluded that the bank, the financial institution, is named in English by a semantic extension based on the observation of a physical resemblance between the counter in a bank and the bank of a river, connecting the source of the expression with such financial terms as *current accounts* and *liquid assets*, and commenting on the prominence of river- and water-based metaphor in this terminology!

Happily, there are few opaque medical terms which are 'of uncertain origin' in the sense just now indicated for *acies* and *calx*. This question of 'one lexeme or two?' is, however, something of a problem for a number of transparent derivatives, in which it is not clear whether the semantic extension is part of the meaning of the suffix or (as is the case with most of the examples in this chapter) not associated with any morphological marking. To give a simple, brief illustration: was the form *musculus* made and lexicalized once or more than once in Latin? Is *musculus* 'muscle' derived by purely semantic means from *musculus* 'a little mouse' ('mouse' + a suffix meaning 'small') or by mainly morphological means from 'mouse' + a suffix meaning 'resembling the base'? In a sense, it is a question of drawing boundaries between semantics and word-formation, or rather, of determining the amount and type of meaning that may be assigned to derivational affixes. It seems clear that in a given context (a medical context, at least, and probably quite generally), suffixes can reasonably be said to have clearly definable meaning of one or more types: serving to indicate the lexical field, the semantic structure or the stylistic level of the derivative. So, for example, the Greek suffix *-ωμα* in *σταφύλωμα* indicates that the derivative denotes a type of tumour; the 'diminutive' suffix *-lus* in *hordeolus* 'sty'[9] indicates that the derivative denotes something that resembles the base; and the otiose *-tio* in *cibatio* 'diet' arguably marks the derivative as a technical medical word.[10] These examples are simple in that each form is attested with only the given meaning. In cases such as *musculus* (above), or, say, *causatio* 'a disease', however, other meanings are attested. These other meanings could, on the one hand, plausibly be the source of the medical meanings through familiar processes of semantic extension (of which

[9] At e.g. Theod. 42. 7. The word is not attested in any other sense.

[10] Cf. 5. 3. 1 below, with n. 66.

numerous examples are presented in this chapter). On the other hand, two phenomena favour the 'derivational' account for particular cases and make it available, in principle at least, for the general case: these are (1) 'missing meanings', that is, the non-appearance of, for example, the abstract use of a medical *-tio* form, which is attested then with only concrete meaning and implies the possibility of deriving a noun with concrete reference in *-tio*; and (2) an anomalous semantic relationship between two meanings making difficult a straightforward semantic account, as between 'crop of figs' and 'a type of ulcer', the two meanings of *ficitas*, or 'patency' and 'kissing', the two attested senses of *osculatio*.[11]

In practical terms, in the terms of this book, these uncertain instances all reduce to the problem of drawing the line between this chapter and Chapter 5 'Compouding and Derivation'. In general, I have at least mentioned items in both chapters, even at the cost of some repetition, though I have tried to make clear my view of the relevant process of term-formation in each case. In particular, I have sought to address in this chapter all forms which have an additional meaning attested beside their medical meaning; forms which are known with only the medical meaning, but which could in principle have arisen by a process of semantic extension, receive more sporadic mention under the relevant semantic heading. Certainly there remain doubts on the general theoretical level as to the propriety of giving one account, a semantic one, of, say, *musculus* 'a muscle' (← 'a little mouse') and another, derivational, of, for example, *hordeolus* 'a sty' (*hordeum* 'a barleycorn' + *-lus* 'resembling the base'): this issue I reserve for separate discussion (see 5. 3. 9 below).

3. 5 Explicit Special Definition

We are about to see numerous examples of (in the main) ordinary words used with unusual meanings in medical texts. Nearly always, these special meanings have to be inferred from the use of the words in context. They originated presumably in an explicit definition in a particular medical context, a definition which drew another isogloss between medical and non-medical Latin, although with time they have become an implicit part of the medical language. We have already seen how any Latin expression may be specially defined by being equated with a Greek term.[12] There is also, however, in Celsus a small number of words which are expressly assigned a special meaning. I pay them separate attention here because they are peculiar to Celsus, 'semantic nonce-formations', as it were.

[11] On which cf. André (1963: 65–6) and *ThLL*, s.v.

[12] Cf. 1. 2. 5 above, with n. 58, and Langslow (1994*a*: 300 ff.).

There are two cases relating to anatomy. First, the special definition of *caput* at the beginning of 4. 2, where, after his sketch of human anatomy in 4. 1, Celsus starts his account of dietetic remedies for individual parts of the body, moving *a capite ad calcem*:

Cels. 4. 2. 1 remedia singularum laborantium partium exsequar, orsus a *capite, sub quo nomine nunc significo eam partem quae capillis tegitur*: nam oculorum, aurium, dentium dolor, et si qui similis est, alias erit explicanda.

The second case is more interesting both in that it applies over a longer stretch of text and in that it foreshadows a modern medical definition of spatial terms known as the 'anatomical position'. It occurs in Celsus' account of the humerus bone and is immediately generalized to all the joints of the human skeleton:

Cels. 8. 1. 18 *prior* autem pars [*humeri*] est quae a pectore est, *posterior* quae a scapulis, *interior* quae ad latus tendit, *exterior* quae ab eo recedit; *quod ad omnes articulos pertinere* in ulterioribus patebit. ('Now its *front* part is that on the side of the chest, its *back* that on the side of the shoulder-blades; its *inner* part that which faces the side, its *outer* away from the side. It will be clear in later chapters that *this applies to all joints*.' (tr. Spencer 1935–8: iii. 485–7)

An example of explicit special definition in the area of pathology involves the familiar words *frigus* and *horror* when they are used of two initial symptoms of quotidian fever:

Cels. 3. 3. 3 aliae enim [*cottidianae febres*] protinus a calore incipiunt, aliae a frigore, aliae ab horrore. frigus uoco ubi extremae partes membrorum inalgescunt, horrorem ubi corpus totum intremit.

Celsus' appreciation of the availability and, for practical purposes, the importance of the explicit definition of terms is seen most clearly in the area of therapeutics. First, in the attention that he pays to the definition of the weights that he will use in the medical recipes that occupy most of books 5 and 6, here towards the end of his preliminary observations, which precede the first recipes in 5.18:

Cels. 5. 17. 1C sed et ante sciri uolo, in uncia pondus denarium septem esse, unius deinde denarii pondus diuidi a me in sex partes, id est sextantes, ut idem in sextante denarii habeam, quod Graeci habent in eo quem obolon appellant. id ad nostra pondera relatum paulo plus dimidio scripulo facit.

The same kind of explicit definition in advance is seen on a much larger scale in Celsus' groupings of classes of foods (at the end of book 2) and simples (at the start of book 5). Substances are grouped according to the effect that they have on the human body or on that part to which they are applied. The effects provide the headings for a series of lists: those that produce effect E are substances S, T, U . . . . The lists effectively define the

meaning of the shorthand terms that Celsus subsequently uses to refer to 'those things which produce effect E'. Note for example these definitions:

Cels. 5. 2 *glutinant* uulnus murra, tus, cummi, praecipueque acanthinum . . . *reprimunt* alumen et scissile, quod σχιστόν uocatur, et liquidum; melinum, auripigmentum, aerugo, chalcitis, atramentum sutorium.

Glutinantia and *reprimentia* are subsequently used as nouns or adjectives (with *medicamenta* or the like), as defined terms, with implicit reference back to the start of book 5. Celsus practically says as much in his preamble to his similar classification of foodstuffs:

Cels. 2. 18. 1 pertinetque ad rem omnium proprietates nosse, primum ut sani sciant, quomodo his utantur, deinde ut exsequentibus nobis morborum curationes liceat species rerum quae adsumendae erunt subicere, *neque necesse sit subinde singulas eas nominare.*

I reserve for future study a detailed consideration of the mostly *implicit* semantic distinctions, in medical authors and elsewhere, among general terms for 'disease'. Our four authors attest a good number of these, including, in Celsus, *malum*, *morbus*, and *uitium*, to which Cassius Felix adds *aegritudo*, *causa*, *infirmitas*, and especially *passio*, among others. Some of these near-synonyms were certainly used in the interests of *variatio sermonis*.[13] Others were evidently added to the pile in the course of time; Theodorus Priscianus has a particularly rich assortment of general terms for 'disease'. But there is evidence of some semantic oppositions at work,[14] and this area may repay further work building on what has already been done.[15]

3. 6 A Classification of the Types of Semantic Extension Underlying the Medical Terms of Celsus, Scribonius, Theodorus, and Cassius Felix

It will perhaps be useful to set out in advance the classification here adopted. It is as follows:

[13] On the same phenomenon in modern medical English, note Davies (1985: 12): 'Of necessity, the term disease occurs frequently in medical speech and writing, but an endeavour may be made to avoid undue repetition by employing other words which, when used in the right context, are its synonyms . . . e.g. disorder, illness, sickness, morbidity, malady, pathological condition, morbid condition, ailment.' Cf. 1. 2. 4 above.

[14] Celsus, for example, seems to distinguish *malum* as his superordinate term from *morbus* and *uitium*, its two hyponyms. *Morbus* denotes a condition involving a complex of symptoms and/or the whole body; *uitium* means rather a more specific and localized affliction.

[15] See Wölfflin (1880), Baur (1886: 60 ff.), Önnerfors (1993: 241 and 337, n. 157) on *morbus*, *uitium*, and other words for 'disease'; Migliorini (1993), and Adams (1995: 572–6) on words for 'disease' in both veterinary and medical writers.

(1) Specialization and extension of sense
  (1. 1) Some particular semantic dimensions within the field of medicine
  (1. 2) More general semantic relations, mainly between medical and non-medical senses
  (1. 3) Concrete and abstract senses
(2) Metaphor
  (2. 1) Metaphor based on a physical or functional resemblance to a concrete object
  (2. 2) Metaphor based on a conceptual or abstract resemblance to states, events, or actions
(3) Some semantically non-transparent phrases

There is at least one element of arbitrariness in my presentation of the material in that, although some medical senses can be regarded as representing more than one of the semantic relations distinguished above, they are usually treated once only, under the heading that gives intuitively the most satisfying account of the immediate source of the medical sense.

3. 6. 1 SPECIALIZATION AND EXTENSION OF SENSE

In this first section I consider a dozen different types of semantic relation among (for the most part) coexistent senses of medical words with general meanings. All these relations involve not different meanings, but narrower or broader senses. The given medical sense may be seen as containing or contained by the primary (medical or non-medical) sense but as remaining always within the same class of objects of the world.[16] It turns out that instances of broadening of sense are always within the medical terminology, while specialization may relate either a medical to a non-medical sense or two medical senses. I begin (3. 6. 1. 1) with some prominent semantic dimensions which recur *within* parts of the medical vocabulary, between different senses of, above all, words for parts of the body and for diseases. In 3. 6. 1. 2, I set out further instances of narrowing or broadening of sense which are brought about by more general, partly formal, factors, especially ellipse and conversion, but also euphemism and contextual modulation. This second group involves mainly, though not exclusively, relations between medical and non-medical senses. The third part of this first section (3. 6. 1. 3) deals with medical terms which may have both a concrete and an abstract sense.

[16] Contrast metaphor, which is characterized by shift of class (3. 6. 2 below).

3. 6. 1. 1 Some particular semantic dimensions within the field of medicine

There are at least eight 'semantic dimensions' along which are found particularly prominent examples of semantic extension within the medical vocabulary, and which are illustrated here: (a) adjacent body-parts; (b) area of the skin-surface ← the body-part below; (c) bone ← body-part and body-part ← bone; (d) part ← whole and whole ← part; (e) container and contents; (f) human and animal; (g) body-part (bodily function) in a morbid condition; (h) diseases, symptoms, and causes. Groups (a)–(e) all involve relations within the lexical field of human anatomy, the field that dominates semantic extension of this type; group (h) is a small set of relations within the field of pathology. The remaining groups collect examples of semantic transfers between separate lexical fields, (f), between human and animal anatomy, (g), between anatomy and pathology.

3. 6. 1. 1a Adjacent body-parts

I begin with a small group of anatomical terms which are used to name two or more adjacent body-parts, external or internal (in the latter case, parts of the digestive tract). This type of semantic extension is by no means exclusive to medical texts. It has to be supposed to have been sufficiently active in the language of every day to produce diachronic shifts in primary meanings, such as that of *coxa* from 'hip' to 'thigh' (Fr. *cuisse*, etc.).[17]

Of names for external parts of the body used in this way, Celsus attests *articulus* 'the bone? of an extremity, especially the phalanges' ← 'a joint';[18] *pubes* 'the pubic region' ← 'the pubic hair' (‖ Gk. *ἤβη*);[19] and *umerus* 'the upper arm' ← 'the shoulder', the last strikingly parallel in anatomical terms to the case of *coxa* (above).[20] Cassius Felix uses *capilli oculorum* 'the eyelashes' ← (lit.) 'the hairs of the eyes'.[21] And it is possible that Theodorus attests the interesting euphemism *femur* 'the genitals' ← 'the thigh'.[22]

Within the body, in the intestinal tract, both Celsus and Cassius attest *stomachus* 'the stomach' ← 'the oesophagus' and *uenter* 'the bowels' ← 'the stomach, abdominal cavity'; and Cassius in addition notes *uentriculus inferior* as an alternative expression for 'the large intestine' ← (lit.) 'the lower belly or stomach'.[23]

[17] This shift may have originated in the language of animal breeders and vets, with reference to animal rather than human anatomy; see André (1991: 106) and Adams (1995: 396–400).

[18] Cf. Anke (1873: 597–8), André (1991: 79, 100).

[19] Cf. Adams (1980: 51), André (1991: 227).

[20] Cf. André (1991: 83).

[21] *Capilli* properly hair of the head; cf. André (1991: 214).

[22] Theod. 42. 1 etiam et sui femoris infundendo filii sui [*lactantis*] albas maculas [*oculorum*] permundauit [*mater*]. For this use of *femur*, cf. Adams (1982*b*: 56, 92–3), André (1991: 165–6, with n. 81) and *ThLL*, s.v., 472. 68 ff. It is just possible at Cels. 5. 26. 3.

[23] Cass. 130. 20–131. 1 totius ipsius intestini quod Graeci consuete colon appellant, quod aliquanti inferiorem uentriculum dicunt. André (1991: 145) comments simply that this is 'une traduction occasionelle de *ἡ κάτω κοιλία*', but the latter does not appear to mean 'large intestine'. On words for the stomach in Latin, see Gourevitch (1976) and (1977).

3. 6. 1. 1b Area of the skin-surface ← body-part below

Apparently 'productive' is the use of an anatomical term to indicate either the inside or the outside of a part of the body. Celsus uses in this way no fewer than nine anatomical terms: *abdomen* 'the skin over the abdomen' ← 'the abdominal cavity';[24] *aluus* 'the surface of the lower abdomen' ← 'the bowels';[25] *fauces* (pl.) and *guttur* 'the neck' ← 'the inside of the throat';[26] *praecordia* (pl.) 'the skin over the upper body below the diaphragm' ← 'the inside of the upper body below the diaphragm';[27] *stomachus* 'the skin over the stomach' ← 'the stomach';[28] *thorax* 'the skin over the thorax' ← 'the thoracic cavity';[29] *uenter* 'the surface of the abdomen' ← 'the stomach, abdominal cavity';[30] *uertebrae* (pl.) 'the skin over the vertebrae' ← 'the vertebrae'.[31]

Theodorus uses *uiscera* of the surface of the body over the internal organs,[32] and Cassius Felix uses in this way *guttur, praecordia, stomachus*, and *uenter* as in Celsus, *uiscera* as in Theodorus,[33] and also *splen*.

3. 6. 1. 1c Bone ← body-part and body-part ← bone

This dimension is clearly closely related to the last and I may be guilty of anachronism in presenting them separately. Of our four authors Celsus alone attests examples of names of bones derived from the part of the body that encompasses the bone. I have noted nine such instances: *coxa* 'the hip-bone' ← 'the hip';[34] *cubitus* 'the ulna bone' (← 'the forearm') ← 'the

[24] Cf. André (1991: 136).

[25] Cf. André (1991: 136–7).

[26] Cf. André (1991: 71–3). Scribonius, however, preserves the distinction between *fauces* 'the throat' (inside) and *collum* 'the neck' (outside). Note especially the opposition at 95. 15 prodest [*medicamentum*] nec minus angina correptis *faucibus*, extra superpositum ex toto *collo*. *Fauces* inside at Theod. t. 52. 1; 53. 5, 8 (opp. *guttur* outside).

[27] See André (1991: 220–1) on the various meanings of *praecordia*, even within Celsus.

[28] Cf. Anke (1873: 580–4), André (1991: 131–2).

[29] *Pace* André (1991: 220), Celsus does use *thorax* of the inside of the thoracic cavity, at 3. 7. 2D, 5. 25. 8, and 5. 28. 12B.

[30] Cf. André (1991: 132–3).

[31] This meaning is clear at Cels. 4. 6. 4.

[32] Theod. 46. 14. Cf. André (1991: 141).

[33] Adams (1995: 374–9) has an interesting discussion of the use of *renes* in veterinary texts to mean 'the posterior part of the spinal column' and 'the hind quarters, haunches, upper part of the hind leg' of a horse, although he concludes (378) that it is unclear which use is primary. This example seems to involve two semantic dimensions, both 'area of the skin-surface ← body-part below' and 'bone ← body-part' (3. 6. 1. 1c).

[34] Ignored by André (1991: 105). On *coxa* and *femur* in the vets, see Adams (1995: 396–400).

elbow';[35] *femur* 'the femur bone' ← 'the thigh';[36] *malae* (pl.) 'the (upper) jaw-bone' ← 'the fleshy cheek';[37] *pectus* 'the sternum' ← 'the chest';[38] *planta* 'the bones of the sole of the foot' ← 'the sole of the foot';[39] *sura* 'the fibula bone' ← 'the calf';[40] *talus* 'the ankle-bone' ← 'the ankle';[41] *umerus* 'the humerus bone' ← 'the upper arm'.[42]

Scribonius has an interesting example of the converse, the use of the name of a bone for the surface of the limb: *tibia* 'the lower leg' (only at 79. 6) ← 'the tibia bone'. A second possible instance of this relation is the use of *maxilla* 'the jaw-bone' to mean 'the cheek, chin', in Celsus and Scribonius (at 29. 25).[43]

3. 6. 1. 1d Part ← whole and whole ← part

Still in the lexical field of anatomy, and again in Celsus alone of the four authors considered in this study, there are at least seven cases of the use of the name of a whole body-part for one of its component parts: *abdomen* 'the wall of the abdomen' ← 'the abdominal cavity';[44] *brachium* 'the forearm' ← 'the arm';[45] *malae* (pl.) 'the upper jaw' ← 'the jaws'; *maxilla* 'the lower jaw' ← 'the jaws';[46] *ōs* 'the face' ← 'the mouth';[47] *uenter* 'the stomach' ← 'the belly';[48] *uterus* 'the womb' ← 'the belly'.[49]

Celsus attests one example of the converse relation, that is, the use of the name of a part for the whole, in the word *crus* 'the leg' ← 'the lower leg'.[50]

[35] Cf. André (1991: 93–4). Celsus does not attest *cubitus* with the meaning 'forearm'.

[36] Cf. André (1991: 107).

[37] Cf. André (1991: 39–40), and cf. below for *malae* specifically 'the upper jaw'.

[38] Cf. Anke (1873: 588–9). Ignored by André (1991: 219–20).

[39] Cf. André (1991: 116). On the word in the vets, Adams (1995: 404–5).

[40] Cf. André (1991: 112).

[41] Cf. André (1991: 113).

[42] Cf. André (1991: 83).

[43] Cf. André (1991: 39–40), Adams (1995: 368–9). Cf. *maxillae* (pl.) 'jaws' at Scrib. 110. 15.

[44] Cf. André (1991: 136) and 3. 6. 1. 2b below.

[45] Adams (1980: 61, n. 28) and André (1991: 88, 94) present the opposite semantic development, from 'forearm' to 'arm'. This view rests on the assumption that Gk. *βραχίων* ('arm') denoted originally 'the shorter *part*' of the whole arm: opinions differ as to which part this is (see Adams and André, locc. citt.). The alternative is that it meant 'the shorter *limb*', i. e. 'the (whole) arm'. At all events, while *brachium* refers to the whole arm already in Ennius and Plautus, the first clear examples of the meaning 'forearm' are in Ovid and Celsus.

[46] Cf. André (1991: 39–40) and Adams (1995: 368–9) and 3. 6. 1. 2b below.

[47] Cf. André (1991: 36, 56). In Scribonius, it means only 'the mouth'.

[48] Cf. André (1991: 132–3), who states that *uenter* 'stomach' is found first in Scribonius. It seems clear at Cels. pr. 20 and 4. 19. 2, and perhaps at 2. 3. 6, 2. 8. 30, and 3. 7. 2C. Cf. 3. 6. 1. 2b below.

[49] Cf. Adams (1982*b*: 100–2), André (1991: 138, 189).

[50] Cf. Adams (1980: 56). André (1991: 111). On the word in the vets, Adams (1995: 395–6).

3.6.1.1e Container and contents

Finally, under human anatomy, there are one or two examples of the word for an excretory or secretory organ being used also for the relevant bodily (waste) product. *Aluus* (‖ Gk. *κοιλία*) in Celsus and Scribonius, and *uenter* in Celsus and Theodorus,[51] primarily 'the bowels', mean also 'the stool, faeces'.

Similar to this is the use of *fel* for both 'bile' and 'the gall bladder', certainly in archaic and classical Latin and possibly in the later period.[52] The word originally meant either 'bile' (so already in Plautus) or 'l'organe et sa sécrétion conçus comme un ensemble, qui ont été ensuite dissociés' (André 1991: 154). Cassius Felix alone of our authors uses *fel* of human bile (see 3. 6. 1.1f). He does not use the word of the (human) gall bladder but this sense was known to Isidore (*Orig.* 11. 128) and survives in some French dialects and may have been available to Cassius Felix, too. The *fel* of an animal, as an ingredient in medical recipes, is apparently sometimes solid, presumably the gall bladder, sometimes liquid (bile), and sometimes impossible to determine.[53]

3. 6. 1.1f Human and animal

Bile will detain us a moment longer, since Celsus, Scribonius, and Theodorus make a lexical distinction, entailing narrowing of sense, between the human and the animal secretion. In Celsus and Scribonius the opposition is between *bilis* and *fel*, in Theodorus, between *cholera* (e.g. 186. 14) and *fel* (e.g. 7. 7), respectively. Cassius Felix once uses *cholera* (at 33. 13), and mentions Greek *chole* (at 40. 9 and 145. 16), but usually has *fel* for human bile (fifteen times) as well as for the bile/gall bladder of animals (3. 6. 1. 1e above).

A second instance of the restriction of the sense of a Latin anatomical term to animals is *iecur* 'the liver' in Theodorus and Cassius. In both, the human liver is always *hepar*,[54] while *iecur*[55] is used of an animal by

[51] In Theodorus *uenter* is 'the bowels' at e.g. 33. 5, 'the faeces' at e.g. 136. 9, 200. 3. What is *uenter inferior* at 179. 8?

[52] See André (1991: 154–5).

[53] In Scribonius e.g. *fel* is apparently liquid at 27. 25, 38. 16, and 38. 21, but perhaps solid at 104. 27, at the end of a list of dry ingredients which are to be crushed in lye. In Cassius, animal *fel* is liquid at 47. 1, 57. 13, and perhaps 192. 3, but solid at 168. 12 and perhaps 171. 16.

[54] The *ThLL*, s.v., 2610. 3–5, implies that there are other writers who do the same but does not name them; Marcellus and Pseudo-Apuleius have both *hepar* and *iecur* of the human liver, probably Vindicianus as well: note the *Epistula ad Pentadium* 486. 9 in epate, quod iecur uocamus and *iecur* (various forms) in the several versions of his *Gynaecia* set out by Rose (1894: 440–1).

[55] For *iecur* of humans, see *ThLL*, s.v., 245. 1 ff., citing from the later period Vindicianus, Caelius Aurelianus, and Marcellus; of animals, 246. 12 ff.

Theodorus at, for example, 41. 3 accipies hirci iecur, and by Cassius, once only, at 171. 17 mustelae iecoris sicci. This is in keeping with the observation of André (1991: 152) that from the fourth century *hepar* of humans is found almost exclusively in medical writers, and of animals, in veterinary writers; this distribution suggests that *hepar* has a technical (medical) flavour. *Hepar* is found only rarely in writers of other genres and is not continued in Romance, where we see instead reflexes of *ficatum*; the latter is rare, but not unknown, in late medical texts.[56]

Finally, there is a likely instance of semantic extension from animal to human anatomy[57] in the word *matrix* 'the womb'. The primary sense seems to have been 'a female animal kept for breeding', so of cows at Var. *Rust.* 2. 5. 12 habeo tauros totidem, quot Atticus, ad matrices LXX duo. The narrowing of sense to 'the womb' may have been occasioned, or at least supported, by the phonetic similarity between *matrix* and Greek *μήτρα* 'the womb'.[58] It is probable, though not necessary, that the semantic development of the Latin word was first to 'the womb' of an animal (so four times in Chiron) and thence extended to human anatomy.[59]

3. 6. 1. 1g Body-part (bodily function) in a morbid condition

Celsus offers no fewer than six examples of the use of the name of a body-part (in one case a bodily function) also for the disease of that part of the body, or for the part of the body when diseased.[60] These are: *articuli* (pl.) 'arthritic swellings' ← 'joints'; *dens* 'a tooth which aches' (in a list of diseases at Cels. 5. 25. 3A) ← 'a tooth'; *glandula* 'a swollen gland' ← 'a gland'; *inguen* 'an inguinal swelling' ← 'the groin';[61] *tonsillae* 'inflamed tonsils' ← 'the tonsils';[62] *deiectio* '(an attack of) diarrhoea' ← '(a normal)

[56] Of *ficatum* of animals the *ThLL* cites examples from Marcellus, Anthimus, the *Physica Plinii*, the Latin Dioscorides, and Pseudo-Theodorus; of humans, just Vindic. *Gyn.* p. 438 (*IG*) and Cael. Aur. *Diaet. pass.* 93. With reference to the human liver, *ficatum* is also in the list of body-parts edited by Fischer (1996).

[57] On this semantic dimension see Adams (1982*a*).

[58] Cf. Adams (1982*b*: 106), André (1991: 248).

[59] *Matrix* seems not to be securely attested of the human womb before Tertullian; Sen. *Contr.* 2. 5. 6 fac iam ne uiro placeat matrix, is surely a metaphorical use of the primary sense 'breeding animal'. See the *ThLL*, s.v., with Adams (1982*b*: 105–8), and note Fischer's important correction of the *ThLL*, s.v., 483. 19 ff.: *matrix* in Pelagonius and Vegetius is not the womb but the jugular vein (cf. Fischer 1980: comm. ad 6. 1, 17; Adams 1995: 422–3).

[60] On this starting-point for names of diseases, compare Galen 10. 82 listing *ἀπὸ τοῦ βεβλαμμένου μορίου τὰ ὀνόματα* (although his examples all involve morphological processes: suffixation with *-ίτης, -ίας, -ία*, etc.). On this type of semantic extension see Capitani (1975: 476) with notes, Jocelyn (1985: 330, n. 135), and Adams (1995: 339).

[61] This is slightly different from what is attested for Gk. *βουβών* (sg.) 'the groin', (pl.) 'the glands', esp. 'swollen glands' (e.g. Hp. *Aph.* 4. 55). On *ὁ βουβών* and *inguen* see Anke (1873: 385 ff.).

[62] This semantic extension is attested also for the corresponding Greek words, *antiades* and

movement of the bowels' (cf. 3. 6. 1. 2c below); we may perhaps add *colum* 'a disease of the large intestine' (Cels. 2. 12. 2B) ← 'the large intestine' (Cels. 1. 7) (cf. 2. 2. 3. 1 above).

In Scribonius I have noted only *deiectio* 'diarrhoea' (e.g. at 47. 23, 48. 20) as in Celsus. I have not found an instance of this type in Theodorus, but Cassius Felix has two good examples: *splen* 'the spleen' especially 'a diseased spleen', and *uua* 'the uvula', especially 'a diseased or enlarged uvula'.

3. 6. 1. 1h Diseases ← symptoms and causes

A final instance of a recurring semantic relation between medical senses which I will mention here is the use of the name of the (supposed) cause or most prominent symptom of a disease to name the disease itself.[63]

There are about five examples of conditions apparently taking their name from a major sign or symptom: in Celsus *grauedo* (primarily 'a sense of heaviness') for 'a head cold'; *resolutio* (esp. *neruorum*; with the verb *resoluere*) 'a limp state, paralysis' ← 'the action of loosening' (‖ Gk. *παράλυσις*);[64] and *timor aquae* 'rabies, hydrophobia' ← 'fear of water'. Scribonius attests *grauedo* as in Celsus,[65] and also *arcuati* (masc. pl.) 'sufferers from jaundice' ← 'rainbow-coloured (people)';[66] and *suspirium* 'asthma' (cf. *suspiriosi* (pl.) 'asthmatics') ← 'a deep or laboured breath'.[67] Cassius Felix has *timentes aquam* (cf. *timor aquae* in Celsus).

On the other hand, three disease-terms appear to take their name from that of their supposed cause. A clear example, in Celsus, is *bilis atra* 'melancholy' ← 'black bile', its presumed cause (cf. Gk. *μελαγχολία*). The same semantic relation appears to hold in the case of a superordinate term, as it were, *causa* 'a disease' ← 'the cause' of a disease, attested perhaps in Celsus and certainly in Theodorus and Cassius.[68] *Causa* 'a disease' is *paristhmia*, the latter in a Latin text at Marcell. 35. 12; cf. André (1991: 68). On *antiades* cf. 2. 2. 3. 1 above.

[63] This may reflect a frequent failure to distinguish between symptoms and diseases. Adams (1995: 271) has some good comments on this point. Compare again Galen 10. 82 listing diseases named *ἀπὸ τοῦ συμπτώματος* and *ἀπὸ τῆς δοξαζομένης αἰτίας*.

[64] Cf. Skoda (1988: 186, 190).

[65] 'Head cold' at Scrib. ind. 8. 8, 32. 12; 'heaviness' of stomach at 47. 23, 50. 11. In Theodorus *grauedo* is just 'heaviness', at e.g. 33. 1 (of eyes), 113. 3 and 114. 9 (in lethargy), 123. 10 (*stomachi*).

[66] At Scrib. ind. 10. 32, 67. 3, 80. 36. Cf. André (1949: 214).

[67] In Theodorus *suspirium* is just the symptom, not the disease, even at 172. 11, in the chapter headed (t. 172. 6) 'de asthmaticis uel suspiriosis'.

[68] The most probable instance in Celsus is pr. 16 eum recte curaturum quem prima origo causae non fefellerit; cf. 3. 5. 1. Marx (1915: index, s.v.) notes that *causa* 'disease' was inserted in manuscript *V* at 3. 2. 5, 3. 25. 1. Cf. Theod. 13. 17, 14. 8, 112. 7, 119. 10, 214. 2, and Cass. (e.g.) 176. 13 ad uniuersas melancholicas causas. See Adams (1995: 574–5), *ThLL*, s.v., 680. 82 ff., and below, 3. 6. 2. 1 *ad fin.*

supposed also by the derivative *causarius* 'diseased' (in the 1st cent. three times in the younger Seneca and twice in Pliny, *Nat.*[69]), which has the special military sense of 'a soldier discharged on grounds of health' (once in Livy, 6. 6. 14; *CIL* 16. 10 (AD 70)) seen also in the phrase *causaria missio* 'a discharge on grounds of health' (e.g. *Dig.* 49. 16. 13. 3). Finally, there is the interesting use, by Cassius, of *lucubratio* for 'insomnia' ← 'working by lamplight (usually late at night)'.[70]

3. 6. 1. 1i Interim summary

This first part of the section on specialization and extension of sense (3. 6. 1) has been dominated by words from Celsus and by the field of anatomy. Of a total of 63 examples, Celsus has 47, Scribonius, 8, Theodorus, 7, and Cassius, 16. Of the 63 examples, 44 relate to anatomy. It is worthy of note that, with the exception of types (c) and (d) above ('bone ↔ body-part' and 'part ↔ whole'), Cassius attests at least one example on each semantic dimension.

3. 6. 1. 2 More general semantic relations, mainly between medical and non-medical senses

I turn now to illustrate four more general semantic relations which appear to recur between the medical and the primary sense of medical words: (a) narrowing of sense through conversion (lexicalized ellipse of the head); (b) narrowing of sense through lexicalized ellipse of a determiner; (c) euphemistic ellipse of a determiner (or head); (d) contextual modulation. Unlike some of the dimensions considered in the last section (3. 6. 1. 1), these relations are in no way peculiar to Latin medical vocabulary, nor to medical vocabulary in general, but are quite commonplace, perhaps even universal, within lexical semantics. They are, however, responsible for the formation of a large number of Latin medical terms and may not be passed over.

Most of the types of relation illustrated in this section appear to have arisen through the ellipse of a head or a determiner, the word remaining after the ellipse having a non-medical primary sense. In using the sub-headings that I do, I may be justly charged with inconsistency in referring sometimes to morpho-syntactic processes (e.g. conversion), sometimes to semantic-pragmatic aspects of the medical sense (e.g. euphemism). This is

[69] Sen. *ad Marciam* 6. 11. 4, *Nat.* 1. pr. 4, and *Epist.* 68. 7 in a metaphor: sic in animo nostro sunt quaedam quasi causariae partes, quibus adhibenda curatio est; Plin. *Nat.* 23. 75, 25. 61. The *ThLL*, s.v., cites also Apul. *Met.* 4. 4, Chiron 254, Marcell. 8. 126, 12. 23, 18. 19, comment. Lucan. 5. 288, Ulp. *Dig.* 3. 2. 2. 2, and inscriptions.

[70] A symptom of *phrenesis* at 154. 6 *lucubratio siue insomnietas*; apparently only in Cass. in this sense.

in part because I am pleased to be able to use familiar labels, partly also because a clean separation of the morphological and semantic aspects of these expressions is not, I think, attainable. I am not, however, advancing a new theoretical position, nor even trying to operate within any particular theory of lexical semantics.

3. 6. 1. 2a Narrowing of sense through conversion (lexicalized ellipse of the head)

Conversion, or category-shift, accounts for a large number of the instances I have collected of specialization of sense. The label 'conversion' refers to the morpho-syntactic process that these words appear to have undergone.[71] They are adjectives or participles which have been 'converted' so as to function as nouns. A good example in Celsus is *malum* 'a disease' (from *malum* 'a bad thing', the neuter of the adjective *malus* 'bad'). Whether or not a native speaker thought of the word in a 'disease-context' as meaning still 'a bad thing', its reference is restricted to a particular set of bad things. Cassius Felix offers a good example involving a participle in *accidentia* 'afflictions, symptoms'. Most generally the word would be taken to mean 'things that befall' (cf. *accidere*, Gk. *συμπίπτειν* 'to befall'). In Cassius it is made to translate (at 115. 2) Greek *symptomata* 'afflictions, symptoms', denoting a particular set of things that befall a patient or a part of the body when it is diseased.

Some instances of this type can be regarded as having arisen through the ellipse of the head which the adjective or participle 'originally' determined. The meaning of the lost head is nearly always a very general one. In the examples just given of conversion without demonstrable ellipse, *malum* and *accidentia*, it is of course maximally general, in effect just 'a thing', 'things'; in other instances the lost head may have a more specific meaning than this but within each lexical field it is still a relatively general and central meaning that is lost and a relatively specific descriptive meaning (usually not primarily associated with medicine) that remains.[72] In anatomical and pathological examples, the lost head is usually 'part' (or 'part of the body') (e.g. *intestinum* 'the intestine' ← 'the internal part', *adustum* 'a burn' ← 'a burnt part'); in cases from therapeutics it is 'remedy' (e.g. *simplex* 'a simple' ← 'a simple remedy').

Regarded in this way, in terms of a zero deleted head, these instances of conversion follow naturally from some of the relations discussed in 3. 6. 1. 1, which may be similarly characterized in terms of the ellipse of a head:

[71] Cf. Hofmann and Szantyr (1965: 152–3, 156–7).

[72] In Greek, *τὸ ἐπίπλοον* 'the omentum' ← 'the floating (part)' fits both parts of this characterization of the Latin examples. Note, however, the ellipse of heads with more specific meaning in e.g. *αἱ ὠμιαῖαι* 'the scapular (veins)' and *ὁ νωτιαῖος* 'the spinal (cord)'; cf. Skoda (1988: 8).

for example, of *os, ossa* in the case of bones named from their body-parts (3. 6. 1. 1c: e.g. *femur, planta, sura*), or of *cutis . . . tegens* in the case of areas of the body-surface named from the underlying soft tissue or bone (3. 6. 1. 1b: e.g. *uiscera, uertebra*). These types have in common with those that I am about to present also that the name of the salient feature of the referent is made to do service for the name of the object itself: all are in a special sense instances of *pars pro toto*, or synecdoche.

In the field of anatomy, Celsus, as usual, has by far the largest number of instances: *album (oculi)* 'the white of the eye' ← (neut. adj.) 'white (part)' (‖ Gk. *τὰ λευκά*);[73] *genitale* 'the genitals' ← (neut. adj.) '(part) having to do with procreation';[74] *intestinum, -a* 'the intestine(s)' ← (neut. adj.) 'internal (part[s])' (‖ Gk. *τὸ ἔντερον*);[75] *menstrua* (pl.) 'the menstrual discharge' ← (neut. adj.) 'monthly (things)' (‖ Gk. *τὰ ἔμμηνα*); *naturale, naturalia* (pl.) 'the genitals' of both sexes ← '(part[s] having to do with nature, birth';[76] *nigrum (oculi)* 'the iris of the eye' ← (neut. adj.) 'black (part)' (‖ Gk. *τὸ μέλαν*);[77] *obscena* (pl.) 'the genitals' ← (neut. adj.) '(parts) causing shame';[78] *sputum* 'the spittle' ← (neut. pple) '(thing) spat out from the mouth'. Celsus has a single non-neuter example of this type: *secundae* 'the afterbirth' ← (fem. pl. adj.) 'second, following on' (‖ Gk. *τὰ δεύτερα*). Note also the euphemistic *inferiora* (pl.) 'the lower bowel' ← (neut. adj.) '(parts) lower down' (cf. 3. 6. 1. 2c below).[79]

Scribonius attests, like Celsus, *intestinum, -a*[80] and *menstrua (mulierum)*, and in addition *conceptum* 'the foetus' ← '(thing) conceived'.[81] Theodorus

[73] Cf. André (1991: 52–3).

[74] In Celsus only at 4. 1. 11. Cf. Adams (1982*b*: 57–9) and André (1991: 163).

[75] Cf. André (1991: 141–2).

[76] Cf., with the head, *partes naturales* (pl.) at Cels. pr. 49, 7. 18. 1. Note also *natura* 'the penis' (already in Cicero (*N.D.* 3. 56)) in Theodorus (at e.g. 46. 16, t. 82. 1) and Cassius (e.g. 117. 12); cf. 3. 6. 1. 2c below and n. 127. This use of *natura* may have arisen by a similar sort of ellipse, from *pars naturae*. On all these expressions, see Adams (1982*b*: 59–61), André (1991: 162), and Adams (1995: 421).

[77] Cels. 6. 6. 1D, 7. 7. 14D; cf. 14A. Ignored by André (1991: 53).

[78] In Celsus only at 5. 28. 14B, and not certainly here, since *partibus* may be supplied from the previous clause, as at Cels. 2. 1. 7 in ceteris quidem partibus, sed maxime obscenis. Cf. *obscenae partes* at 5. 20. 3 and 6. 18. 1. See Adams (1982*b*: 56), André (1991: 164) and *ThLL*, s.v., 160. 5 ff.

[79] Not apparent in the *ThLL* (note the literal interpretation of Cels. 6. 6. 37B, s.v. 'inferior', 1391. 26 ff.). Cf., with the head, *partes inferiores* (pl.) 'the genitals; the anus' at Cels. 3. 19. 5, 4. 22. 3, 4. 27. 1D Tol. 55, 5. 26. 17, etc.; cf. Veg. *Mulom.* 1. 40. 2 and see Adams (1981: 260) and (1982*b*: 77, 95).

[80] Except that the plural is always used unless a particular part is specified. *Pace* André (1991: 142), *interanea* (neut. pl.) in Scribonius is not synonymous with *intestina* but means more generally 'internal organs, internal parts'.

[81] At Scrib. pr. 2. 22 medicamentum quo conceptum excutitur; cf. *conceptio*, etc. in 3. 6. 1. 2b below.

has *inferiora* (euphem.),[82] *intestinum*,[83] *naturalia*[84] and *sputum* as in Celsus, and in addition *altiora* '(body-parts) further below the surface' (at e.g. 63. 11) ← neut. adj. '(parts) deeper'; *pudenda* (15. 14) like *obscena* in Celsus, and *uitalia (loca)* (pl.) 'the vitals, the vital organs' ← (neut. adj.) '(parts) essential for maintaining life'.[85] Cassius Felix uses *intestinum, menstrua, secundae* (fem.), and *sputum* all as in Celsus, and *uitalia (membra)* (pl.) as in Theodorus.

In the field of pathology Celsus attests: *adustum* 'a burn, a burnt area' of human tissue ← (neut. pple) '(part) burnt'; *contusum* 'a bruise' on human tissue ← (neut. pple) '(part) bruised'; *fissum* 'a split' in human tissue ← (neut. pple) '(part) split'; *incommodum* 'an affliction' ← (neut. adj.) 'inconvenient, uncomfortable (thing)'; *malum* 'a disease' ← (neut. adj.) 'bad (thing)'; *scissum* 'a split or crack' in human tissue ← (neut. pple) '(part) split'. Again, Celsus has a single non-neuter example: *cotidiana (febris)* 'a quotidian fever' ← (fem. adj.) 'daily (fever)'.[86]

In Scribonius I have noted *contusum* and *malum* as in Celsus, and in addition *combustum* 'a burn' on human tissue ← (neut. pple) '(part) burnt'; *exulceratum* 'an ulceration' ← (neut. pple) '(part) ulcerated'; and *luxum* 'a sprain' ← (neut. adj.) '(part) sprained'. Theodorus uses *incommodum* as in Celsus,[87] and also *accidentia* (pl.) 'symptoms' ← 'things which befall' (cf. *accidere*; ‖ Gk. *συμπτώματα*). Cassius also uses *accidentia* as in Theodorus, and in addition *difficilia* (pl.) 'intractable afflictions' ← (neut. adj.) 'difficult (things)' (translating Gk. *δύσκολα* at 191. 10).

In the field of therapeutics examples are very few. In Celsus I note only two: *Caesarianum* 'Caesar's', the name of an eye-salve ← (neut. adj.) '(remedy) pertaining to Caesar',[88] and *simplex* 'a medicine consisting of one ingredient, a simple' ← (neut. adj.) 'simple (remedy)'.

Scribonius has *simplex* as in Celsus, and two others: *cinereum*, the name of a medicament (at 23. 18, 24. 13, 27. 20) ← 'ash-coloured (remedy)'; *compositum* 'a compound remedy' (at ind. 14. 32; ind. 15. 11; 28. 5, 6) ← (neut.

[82] Of the anus at Theod. 18. 6 acerbi et corrupti umoris pertinacia per inferiora deposita.

[83] At Theod. 86. 12, *effusio intestini* refers to the rectum.

[84] In all the manuscripts at Theod. 230. 2, where Rose prints *naturam*.

[85] At e.g. Theod. 63. 12; cf. André (1991: 141).

[86] Without *febris* at e.g. Cels. 3. 3. 3. Cf. *ThLL*, s.v., 1089. 38 ff. *Tertiana* and *quartana* are more often without *febris* than with it (cf. Maire 1994*b*: 39).

[87] At e.g. Theod. 21. 2; cf. *incommoditas* (at e.g. 105. 14).

[88] Whether this Caesar was a famous beneficiary or the inventor of this remedy: see the discussion in 2. 7. 2(d) above. It would perhaps have been legitimate to add here the medicament *Liuianum* (in Theodorus and Cassius Felix) as the '(remedy) pertaining to Livia', though this etymology is far from secure; *Liuianum* (or *lib-* ?: neither form is in the *ThLL*) is an eye-salve at Theod. 33. 18 and Cass. 51. 6, 55. 20, 56. 10 and a pessary at Theod. 229. 10, 234. 18, 235. 3, 237. 10. Proper names in Latin medical terminology are otherwise nearly all borrowed from Greek and are consequently treated at the end of Chapter 2 (2. 7 above).

pple) 'compounded (remedy)'. Theodorus and Cassius have one example each, both non-neuters: in Theodorus, *uentosa* (fem. sg., with ellipse of *cucurbita*) 'a cupping-vessel' ← (lit.) 'characterized by wind, windy';[89] in Cassius, *inductus* 'a sort of foment' ← (masc. pple) 'besmeared'.[90]

Of this type only 6 examples (including 2 pples: *compositum* and *inductus*) belong to therapeutics. Of the rest, 14 are from anatomy (again 2 pples: *conceptum, sputum*), and 12 from pathology (7 pples: *accidentia, adustum, combustum, contusum, exulceratum, fissum,* and *scissum*).[91]

3. 6. 1. 2b Narrowing of sense through lexicalized ellipse of a determiner

In the remaining groups of terms considered in this section, it is the head (in most cases with a non-medical primary meaning) that remains after ellipse of a (usually) medical determiner, which in the full form of the expression places the head in its medical context and gives it its medical sense. The form of the head is various: many are deverbal abstract derivatives (*conceptio, uaporatio, ustio*), while some are primary nouns (e.g. *fibra, materia, uitium*). A consequence of this variety is that the form of the lost determiner must be supposed to be equally varied: on the one hand an adverbal genitive in (e.g.) *conceptio (seminum)* (ultimately the object of the underlying verb), on the other hand an adnominal determiner (or determining phrase) in (e.g.) *uertebra (in spina, uel sim.)*. For present purposes, however, I think that it does minimal violence to the material to treat the ellipses in this unified way. In some cases (not listed below) the head is never missing in our four authors: examples include *eicio, eiectio* of dislocating a joint[92] and *inflatio* of flatulence in Cassius Felix.[93]

To begin, as usual, with anatomy, Celsus shows us two old nominal terms which appear to have been specialized in this way, namely *fibra* and *uertebra*. *Fibra* 'a lung; a lobe of the liver' is first attested meaning the sheathing leaves of a leek (Cato *Agr.* 70.1 *porri fibras III*; cf. Verg. *G.* 1. 120 of chicory) and then applied to the divisions of a plant's roots (Cic. *Cato*

[89] Theod. 116. 11 adhibemus etiam uentosarum suis temporibus aptissimum adiutorium.

[90] Only here, according to the *ThLL*, s.v. 'induco', 1243. 66 ff.; we are presumably to understand *pastillus*, or the like. Cassius Felix may have two further examples here: *auricularis* (cf. Gk. *ὠτικοί*) 'a medicine for treating the ear' and *podicalis* (cf. Gk. *δακτυλική*) 'a medicine for treating the anus'. Strictly, of course, these are examples of narrowing of sense only if the forms are attested also with a primary meaning, 'having to do with the ear/anus'; the *ThLL* does not record such attestations.

[91] On this use of the neuter of the perfect participle in the field of pathology, see Önnerfors (1956: 23–7) and (1993: 261), and Adams (1995: 338).

[92] At Scrib. 95. 24 *eiectum articulamentum*; on this use of the verb cf. *ThLL*, s.v., 310. 43. At Theod. 1. 102. 1 *eiectio articulorum* 'a dislocation'; *ThLL*, s.v., 312. 8 ff. cites only 3 other examples of this usage, one each from Firmicus Maternus, Caelius Aurelianus (*Chron.* 2. 28), and Eustathius.

[93] As 'flatulence', always with or close to *stomachi* (104. 3, 19; 108. 10; 134. 7, 8).

51; *Tusc.* 3. 13, 84). Given this starting-point, one might be tempted to see metaphor at work in the use of *fibra* of parts of animal and human internal organs. *Fibra* is, however, used of parts of the liver probably already in Lucilius 1201 (quoted at Gel. 20. 8. 4), *fibras et iecur* (supposedly a hendiadys for *fibras iecinoris*), and certainly, in the context of divination, in Cicero (*Div.* 1. 16) and Vergil (*G.* 1. 484), so that we cannot say that it is used for any significant period only of plants and then of animal organs, and it is probably best to start from a general meaning, 'division, split', which is then specialized in at least two ways.[94] *Vertebra*, originally 'a joint', is specialized to mean in Celsus 'a vertebra of the spine', but in Cassius (*uertebrum*), 'the hip joint'.[95]

As a standard term of reproductive medicine Celsus uses *conceptio* 'pregnancy, the fact of having conceived' (with *concipere* 'to conceive') ← 'to take in, absorb, catch' (‖ Gk. *σύλληψις, συλλαμβάνω*).[96] The name of another natural process, digestion, also arose in this way: Celsus attests *digestio* (with *digero*) 'the distribution of assimilated food through the body' from the verb specialized from its primary meaning 'to scatter, disperse, distribute'.[97] Both of these instances are found still in Theodorus and Cassius. Theodorus has *conceptio, conceptus*,[98] and *digestio*,[99] and Cassius, *conceptus* (with *concipere*) and *digestio* (with *digero*), all as in Celsus. Cassius also has *uertebrum* 'the hip-joint' (cf. *uertebra* in Celsus), as noted above.

In the field of pathology Celsus attests the following examples: *aspritudo* 'a trachoma of the eye';[100] *circu(m)itus* 1. 'the cycle, pattern', 2. 'a recurrence, periodic onset' of a recurrent fever ← 'a recurring series of events, a cycle' (‖ Gk. *ἡ περίοδος*);[101] *cubans, iacens* (with *cubare, iacere*) 'the

[94] So Louette (1979) and André (1991: 120–1).

[95] Cf. André (1991: 198), Adams (1995: 389). This specialized use of *uertebra* in reference to the spine is clear and autonomous (*pace* Serbat 1975: 173–4) at e.g. Cels. 4. 6. 4.

[96] Perhaps originally in the phrase *semina concipere*: cf. Cic. *Div.* 2. 68, Lucr. 4. 1266, etc. Note Oribas. *Syn.* 9. 40 conceptus dicitur ab eo quod captum teneat semen ueluti concaptio nuncupata.

[97] Cf. *ThLL*, s.v., 1121. 22 ff. and, for the verb, *ThLL*, s.v., 1116. 17 ff. Celsus uses *digero* in a number of different senses: see *ThLL*, s.v., 1116. 45 ff. (*i.q. soluere, purgare, excutere, plerumque materiam morbidam*), 1116. 79 ff. (*i.q. concoquere*), 1117. 38 ff. (*i.q. uires consumere, labefactare*), 1117. 46 ff. (*i.q. corpus agitare*).

[98] Rose prints *conceptus* at Theod. 236. 2; *conceptio* at 1. 233. 1, 4, 8; 234. 4, 236. 4.

[99] At e.g. Theod. 206. 7; opp. *indigestio* (152. 16 *stomachi*). Also of a disease, e.g. 116. 17 *aegritudinis*, and see Rose's index, s.v.

[100] In all, 9 times, at Cels. 6. 6. 26–8 *passim*, 6. 6. 38, 7. 7. 6C, 15. Celsus also uses *aspritudo* to mean a rough patch anywhere on the body (4 times: 5. 28. 2B, 15; 7. 23. 1; 7. 26. 2I). Cassius retains the determiner in *asperitates palpebrarum*, at 55. 1, 3, 6. (Cf. Gk. *τράχωμα*, which means only 'trachoma', and see below.)

[101] It means apparently 'periodic onset' at Cels. 3. 12. 3 si proximo . . . circuitu aeque accessit [*horror*]. Otherwise in Celsus (7 times) *circuitus* means 'the cycle, period' of a recurrent fever, at 2. 17. 3, 4; 3. 3. 1, etc. Cf. *ThLL*, s.v., 1105. 76 ff.

patient, the one lying ill', from the verbs specialized from their primary meaning 'to be lying';[102] *destillatio* 'a head cold, rheum, catarrh' ← (lit.) 'dripping down' (‖ Gk. *καταστάγμός*); *inflatio* (with *inflare*) 'distention of the stomach or intestines with gas', from the verb specialized from its primary meaning 'to fill with air';[103] *integer, integritas* 'free(dom) from fever'[104] ← 'whole(ness), complete(ness), sound(ness)'; *uitium* 'a disease' ← 'an imperfection, fault'.

Scribonius attests *circuitus* (50. 14, 16 pl.) and *inflatio* as in Celsus, and additionally *languentes* 'those who are ill' (only at pr. 3. 7) ← 'those who are physically sluggish, faint'; *periculum* 'a disease' (e.g. at 49. 16), *periclitantes* 'those who are ill' ← 'a danger; those who are in danger' (only at pr. 1. 14) (‖ Gk. *?κίνδυνος, ?κινδυνεύω*). In Theodorus I have noted *inflatio* as in Celsus,[105] and *languor, languens* as in Scribonius; and in addition *indignatio* 'affliction' ← 'cause for indignation';[106] *passio* (at e.g. 16. 14); *querella* (e.g. 125. 12, 172. 7) and *querimonia* (e.g. 174. 13, 189. 5) 'an affliction, a complaint of the body' ← 'a subject for complaint, a grievance'; and *sollicitudo* (at e.g. 149. 2). Cassius, finally, uses *inflatio,*[107] with *inflare, indignatio* (only 190. 13), and *querela* as in Theodorus, and in addition, *patiens* 'the patient, the one suffering from a particular disease' ← (masc. pple) 'the one suffering'.

In therapeutics Celsus uses the following examples of this kind of ellipse: *abstinentia* 'abstinence from food and drink as a form of treatment' ← 'abstention, restraint'; *auxilium* 'a remedy, form of medical treatment' ← 'help, aid' (‖ Gk. *βοήθημα*); *materia* 'the dietary substance of food' ← 'matter, substance' (‖ Gk. *ὕλη*);[108] and *ustio* 'cauterization' ← 'burning'.

Scribonius attests *abstinentia* and *ustio* ('cauterization' at pr. 3. 11) as in Celsus. Cassius uses *auxiliari*, of the action of a remedy, like *auxilium* in Celsus;[109] and in addition *uaporatio* (with *uaporo*) 'subjecting a patient to steam-treatment', from the verb specialized from its primary meaning 'to cover or fill with a vapour'.

[102] Cf. *ThLL*, s. vv. 'cubo', 1278. 59 ff. and 'iaceo', 28. 31 ff., for the latter quoting examples especially from Cicero and ignoring Celsus 3. 19. 3; the colloquial nature (at any rate by the 2nd cent. AD) of this euphemistic use of *iaceo* 'to lie ill' is indicated by its occurrence in a letter of Claudius Terentianus (*P. Mich.* VIII 468. 13; cf. Adams 1977: 79 f.). For *cubans* see Cels. 3. 4. 3, 3. 6. 8, 4. 11. 8, 7. 2. 3, 8. 25. 4.

[103] For this use of the verb see *ThLL*, s.v., 1466. 22 ff.

[104] Seventeen times in this special sense in Cels., esp. bk 3, chs. 3, 4, 5; cf. Cels. 2. 3. 3.

[105] But of the womb, at Theod. t. 230. 9, 230. 10, 231. 3, and presumably of the head at 116. 16 [*faenum graecum*] febrientibus caput semper dolore et inflatione sollicitat.

[106] At e.g. 22. 7; see Rose's Index, s.v. Note also *indignari*, e.g. 55. 1 *faucibus indignatis*.

[107] In Cass. also 'a swelling', at 18. 7, 181. 16, *al.*

[108] See esp. Cels. 2. 18 where foods with different types of *materia* are listed. *Materia* in Celsus means also the matter composing the body, and morbid matter.

[109] Cassius has *auxiliari* only at 134. 13.

3. 6. 1. 2c Euphemistic ellipse of a determiner (or head)

I give euphemism a heading at this point because it seems that the largest number of euphemistic expressions are achieved by ellipse of a determiner; we have, however, noticed some isolated instances in other groups (e.g. *inferiora* in 3. 6. 1. 2a above). Predictably, the euphemisms in our four medical authors relate above all to sex and excretion (but cf. *cubans, iacens* 'the one lying (ill)' in 3. 6. 1. 2b above).

For sexual intercourse Celsus uses *coitus*, from the verb *coire* specialized from its basic meaning 'to come together' (‖ Gk. *συνέρχομαι*),[110] and *concubitus* (lit.) 'lying together' (‖ Gk. *συγ(κατα)κλίνομαι*).[111] He also attests *cutis* of the foreskin (‖ Gk. *δέρμα*),[112] and *loci* (pl.) 'the genitals' (esp. of a woman) ← 'parts of the body' (‖ Gk. *τόποι*).[113]

In Scribonius we find *loca* (pl., at 77.4) like *loci* in Celsus, specified by *muliebria*.

Theodorus has no fewer than five examples of euphemistic ellipse for names of sexual parts and functions: *cutis* 'the foreskin' at 83. 9, as in Celsus; *partes muliebres* 'the female genitalia' at 168. 19; *particula* 'the penis' at 130. 14;[114] *patratio* 'ejaculation' ← 'accomplishing';[115] and *usus (usus ueneris, uenerius)* 'sexual intercourse' ← 'a bodily function' (‖ Gk. *ἡ τῶν ἀφροδισίων χρῆσις*).[116]

Cassius Felix uses *concubitus* for sexual intercourse, as in Celsus.

Moving to words to do with excretion, we find that Celsus still has the old elliptical expression *deiectio* (with *deicio*) 'the process or action of moving the bowels', from the verb specialized from its primary meaning 'to throw down';[117] the verb *desidere* in the sense 'to go to stool';[118] and

[110] For *coitus* in this sense the *ThLL*, s.v., 1567. 48 ff., cites first Ovid and then Celsus; for the verb see *ThLL*, s.v., 1418. 7 ff.

[111] Cf. Adams (1982*b*: 177–8). The noun and verb are scarcely attested in other than a sexual context (cf. *ThLL*, s. vv., 99. 76–9 and 102. 23–7).

[112] At Cels. 7. 25. 1ABC, 2, 3. Cf. Adams (1982*b*: 73–4).

[113] Cf. Adams (1980: 51) and (1982*b*: 94–5), and Andrè (1991: 181–2). This use of the Greek word is not clear before Soranus (Andrè, loc. cit.).

[114] Cf. Migliorini (1982: 25).

[115] See Adams (1982*b*: 142–3, 226), Migliorini (1982: 26–8), and *ThLL*, s.v., 742. 9 ff. and, on *patro* 'to ejaculate', 773. 66 ff.

[116] *Vsus* alone at Theod. t. 130. 6 de satyriasi uel impedimento usus, 130. 9 gonorroea sine ueretri extensione uel usus desiderio; cf. *usus ueneris* at 149. 6, *usus uenerius* at 66. 2, 132. 4, 12. Cf. Adams (1982*b*: 189) and Migliorini (1982: 26, with n. 35). The latter is reluctant to acknowledge this absolute use of *usus*, but cf. Cael. Aur. *Chron.* 5. 80.

[117] Cf. Adams (1982*b*: 241–2). Originally perhaps of deliberate purging, *deiectio* seems to mean an ordinary movement of the bowels at e.g. Cels. 1. 3. 25, 2. 12. 2E, 3. 2. 3 (pl.). For this use of *deicio* see *ThLL*, s.v., 398. 31 ff. For the sense 'uncontrollable motion, diarrhoea', see 3. 6. 1. 1g above.

[118] At Cels. 2. 7. 5, 2. 12. 2EF, 4. 22. 2, 4. 23. 2, 4. 25. 1. Compare the euphemisms in Scribonius and Cassius immediately below.

purgatio 'the process of menstruation' and 'the action of purging the human body, especially the bowels' ← 'the action of cleaning, clearing, purifying' (cf. 3. 6. 3. 1a below).

Scribonius attests *desurrectio* 'going to stool' (with *desurgere*) from the verb specialized from its basic meaning 'to get up from table';[119] and *sella* 'the stool'.[120]

For excretion and secretion of various substances Theodorus uses *egestio* (with *egero*) 'carrying out, removing';[121] although not elliptical, I would note also his use of the euphemistic expression *expositio (uentris)* at 125. 10 (with *expono*).[122]

Cassius Felix uses, apart from *deiectio* and *purgatio* ('purging of the bowels') as in Celsus, and *egestio* (with *egerere*) as in Theodorus, *assellatio* '(passing) a motion of the bowels' from the verb *assellari* formed by hypostasis to *ad sellam ire* 'to go to the seat' (cf. *sella* in Scribonius), and *exclusio* for 'excretion' of urine (cf. *excludere*) ← (lit.) 'debarring, uncovering'.[123]

I mention at this point also a small group of words of which the primary sense has to do with pleasure, delight, or sweetness but which are used in excretory contexts and which appear to denote an urgent need to answer the call of nature. In Cassius Felix we find *delectatio* 'an urgent physical need'[124] ← (lit.) 'the conferring or gaining of pleasure'.[125]

I note finally the terms *abortus* (Cels.), *aborsus* (Theod.),[126] *abortio* (Cass.) 'a termination of pregnancy', accidental or deliberate, from the verb *aboriri* specialized from its basic meaning 'to pass away, disappear, be lost'.

[119] Has a word or phrase been lost from Scribonius' index at ind. 11. 16 'extremi intestini inritatio cum desurrectione'?: cf. 72. 16 in quo uitio saepius libet desurgere sine causa.

[120] Close to 'faeces' at Scrib. 90. 3 ex stomacho cruorem reiciunt, postea per sellas etiam abundantius eundem deiciunt; cf. 102. 21 cum desederint ad sellam. Cf. Adams (1982*b*: 241).

[121] At Theod. 200. 6 desiderium egestionum suauium; cf. 13. 15, 226. 15. The verb *egero* is found in this sense already in Ovid and Pliny the Elder; see *ThLL*, s.v., 244. 7 ff. Cf. 3. 6. 3. 1a below.

[122] *ThLL*, s.v., 1773. 61 ff. cites no other instance of this use of the noun. Theodorus has the verb in this sense at 129. 7 *expositis scybalis*, and 205. 1. *ThLL*, s.v., 1758. 48, cites examples also from Gargilius Martialis, Vindicianus, and the Latin Dioscorides. Cf. Adams (1982*b*: 243). (The verb is also used of giving birth, including in a metaphor at Tert. *Adv. Marc.* 4. 21, p. 491. 9.)

[123] For this sense of the noun the *ThLL*, s.v., 1273. 52 ff. cites only Cael. Aur., Cass. Fel. and Soran. It seems that this use of the verb also is almost exclusively medical (cf. *ThLL*, s.v., 1271. 51 ff.).

[124] At Cass. 117. 2 subito urinae egerendae delectationem patiuntur (of those suffering *atonia uesicae*).

[125] With this euphemism compare *dulcedo, suauitas*.

[126] The form *aborsus* is read at t. 240. 3 (ms. *B* has *abortu* in the index for this chapter). On the two forms, cf. *ThLL*, s.v., 127. 5–10. *Aborsus* appears in later writers: the *ThLL*, s.v., cites Tertullian, Theodorus, Pseudo-Augustine, Marcellus, Sextus Placitus, and the Latin Soranus.

There is arguably one prominent instance of a euphemism achieved by the ellipse of the head rather than of the determiner, namely (in Theodorus and Cassius) *natura* 'the penis' ← (lit.) 'nature' (‖ Gk. *φύσις*), perhaps from *pars naturae* (cf. 3. 6. 1. 2a above, and n. 76).[127]

3. 6. 1. 2d Contextual modulation

In this final sub-section I have collected, not without some misgivings, a large number of ordinary words with ordinary meanings (the large majority from Celsus), which arguably show a modulation of their meaning in a medical context. All relate to the lexical field of therapeutics and, within therapeutics, names for surgical instruments and associated paraphernalia, especially in Celsus, are particularly prominent: for example, *fascea, ferula, fibula, fistula, linamentum, scalper, spatha*. This reflects the origin of most medical equipment in ordinary household objects or in tools used in other walks of life which kept at first their ordinary names. One may object in cases such as *linamentum* ('a surgical dressing' and 'a strip of linen') that the medical reference is really no different from the general reference, that 'a surgical dressing' is an over-translation, the intended object being any old strip of linen. In the case of objects made of perishable material this question is strictly not decidable. Concerning metal implements, however, thanks to archaeologists' finds of doctors' instruments from all over the Roman Empire, we can be confident that, for instance, a medical *forfex* was specially made, probably by a metalworker specialized in medical instruments, and that it was sufficiently different from a blacksmith's tongs, sufficiently remarkable within the class of all tong-like objects, to justify the inclusion of its name here. There are even some indications within the texts. For instance, Celsus speaks of two surgical instruments as being 'purpose-made for this task': the forceps for removing fragments of bone is, at 8. 4. 16, 'forfex ad id facta' and the lithotomy scoop (Gk. *λιθουλκός*) is, at 7. 26. 2K, 'uncus . . . eius rei causa factus';[128] or again, Scribonius at 33. 11 qualifies *scalper* with the adjective *medicinalis* (in the context of scraping out a decayed tooth). From the existence of precision instruments, it is surely not unreasonable to infer that bandages and dressings, too, were specially made.[129]

A second group of words collected here (again relating to therapeutics) have abstract meanings and denote types of medical treatment, including

[127] See Adams (1982*b*: 59–60), with further references. André (1991: 162–3, 259), on the other hand, suggests that *natura* 'the sexual organs' originated as a rustic term used of female farm-animals before being extended to humans.

[128] See Jackson (1994: 172–3).

[129] See Jackson (1988: 113–25) and now (1994). Note especially the lists and references in his tables 3 and 4 (1994: 199–200) headed 'miscellaneous everyday objects adapted to medical usage' and 'sutures, ligatures, dressings and bandages'.

the superordinate term *curatio*. Some items, again, I have included only with some hesitation, as their special reference is difficult to prove. This is true of *fames*, *inedia*, *sitis*, for example: meaning generally 'hunger' and 'thirst', these words have arguably special reference when used of abstention from food and drink imposed by the doctor on the patient as part of a course of medical treatment. I note also Celsus' analogous use of *uomitus* 'the act of vomiting' to mean 'a vomit deliberately induced as a form of treatment'.

In what follows, I divide the material into two groups, as in this preamble, beginning with words for concrete items of medical equipment. From Celsus I note the following examples: *fascea* 'a bandage' ← 'a strip of material'; *ferramentum* and *ferrum* 'a surgical instrument' especially a cautery-iron ← 'an iron implement';[130] *ferula* 'a splint' ← 'a cane' (the stalk of giant fennel) (‖ Gk. *νάρθηξ*);[131] *fibula* 'a pin' used to draw the edges of a wound together ← 'a pin'; *fistula* 'a pipe or tube' used for various special or medical purposes ← 'a pipe, tube'; *forfex* 'forceps, surgical pincers' ← '(blacksmith's) tongs'; *ieiunus* and *ieiunium* 'deliberately abstaining from food' as a form of treatment ← 'hungry', and 'hunger'; *linamentum* 'a piece of lint' used in surgery ← 'a strip of linen';[132] *linteum* and *linteolum* ← 'a piece or strip of linen' especially for applying medicines ← 'a piece or strip of linen';[133] *pannus* 'a piece of cloth' used as a surgical dressing or to apply medicaments ← 'a piece of cloth, rag';[134] *potio* 'a medicinal draught' ← 'a drink'; *scalper* 'a surgical instrument for scraping and cutting bone' ← 'a tool for scraping, paring or cutting away'; *spatha* and *spatula* 'a splint' ← 'an instrument with a flat blade'.

Scribonius uses *fascia*, *ferrum*, *fibula*, *forfices* (pl.),[135] *linteum*, *linteolum*, *pannus*, and *potio* all as in Celsus.

Theodorus has *fascia* (e.g. 85. 14), *linteolum* (e.g. 20. 14), *pannus* (e.g. 30. 1), and *spatula* (e.g. 85. 2) as in Celsus, and in addition *fasciola* (e.g. 36. 14) 'a bandage' ← 'a strip of material'.

Cassius Felix attests *ferramentum* = *ferrum*, *forfex*, *linteolum*, *pannus*, *potio*,

[130] Jackson (1988: 116) comments that the cautery was one of the few surgical instruments normally made of iron.

[131] Apparently fennel at 8. 8. 1C ex ferula facto canaliculo (for fixing the fragments of a broken clavicle) but subsequently (6 times pl. + once sg.) a semi-cylindrical object used as a splint, i.e. half of a hollow, rigid stalk of internal diameter sufficient to enclose a fractured limb. This is quite a different object from the schoolmaster's cane and the walking stick with which *ferula* (splint) is grouped in the *OLD*, s.v., 2. Cf. *ThLL*, s.v., 599. 19 ff.

[132] In medical use only in Celsus, Columella, and Vegetius. In Celsus also 'a lampwick': cf. Gk. *ἐλλύχνιον* with both these meanings.

[133] On this pair of words see now Adams (1995: 554).

[134] Very common in medicine and magic (for attaching amulets): cf. *ThLL*, s.v., 235. 14–71.

[135] For pulling teeth at 33. 8.

and *spatha* (only at 30. 22) all as in Celsus, *fasciola* as in Theodorus, and in addition *tibia* 'a pipe' for injecting into the anus ← 'a pipe'.[136]

Moving now to the second, abstract, group of words, those denoting rather types of medical treatment, I note from Celsus: *cura* and *curatio* (with *curo* and *curans* 'the one in attendance on the patient') 'medical treatment' ← 'care, attention';[137] *fames* = *inedia* 'fasting deliberately imposed or entered upon as a form of treatment' ← 'hunger';[138] *fricatio*, *frictio* 'therapeutic massage' from *frico*[139] specialized from its primary meaning 'to rub'; *gestatio* (with *gestare*) 'rocking' the body in various ways as a form of treatment from the verb specialized from its primary meaning 'to carry along, take for a ride';[140] *ignis* 'the cautery' ← 'fire'; *opus* 'a surgical operation' ← 'a job, piece of work';[141] *plaga* 'the wound of a surgical incision' ← 'a gash, wound'; *sitis* 'deliberate abstention from drinking, as a form of treatment' ← 'thirst'; *uinctura* 'bandaging, the use of bandages' ← 'that which binds or fastens'; *uomitus* 'a vomit deliberately induced as a form of treatment' ← 'the act of vomiting'.

Corresponding to this type, Scribonius has only *curatio* (at 86. 16 only) as in Celsus (and the verb *frico* 'to massage': cf. *fricatio*, etc. in Celsus).

Theodorus uses *cura* (e.g. 171. 12) and *curatio* (e.g. 4. 12), *fames* (e.g. 131. 14), *gestatio* (e.g. 111. 18, 168. 17 pl., 171. 14), *ignis* (e.g. 63. 14), *plaga* (e.g. 209. 6), and *sitis* (e.g. 131. 14) as in Celsus, and in addition *continentia* of food and drink (e.g. 32. 3, 36. 16).[142]

Cassius Felix attests *cura*, *curatio*, *ieiunium*, and *ieiunus* as in Celsus, and *defricatio* (with *defricare*, *fricare*) like *fricatio*, *frictio* (with *defrico*) in Celsus.

Of my total of 30 examples Celsus has 26, Scribonius, 7, Theodorus, 12 and Cassius, 13. The authors after Celsus offer only 4 new examples (concrete equipment: *fasciola*, *tibia*; abstract treatment: *continentia*, *defricatio*), of which one (*continentia*) is probably a solecism of Theodorus (see n. 142)

[136] Only in a gloss on Gk. *eneter* at Cass. 127. 6 id est tibia iniectoria.

[137] Note Donatus' comment on these words *ad* Ter. *Andr.* 30 curatio proprie medicorum est, cura reliquorum.

[138] *Fames* 21 times as a form of treatment; note e.g. 3. 7. 1A in hac [*pestilentia*] utile minime est aut fame aut medicamentis uti. *Inedia* 9 times as a form of treatment (e.g. 2. 12. 2B, 3. 21. 4), only twice as a symptom of disease (pr. 41, 2. 6. 2).

[139] Not in Celsus, though used in this sense by Scribonius. Celsus has only *defrico*.

[140] Cf. Gourevitch (1982*b*) and Jackson (1988: 34, 90). See esp. Cels. 2. 15. 3–4. For this use of the verb cf. *ThLL*, s.v., 1968. 21 ff.

[141] In Celsus only at 7. 33. 1 in ipso opere . . . moriuntur [*aegri*]. According to the *ThLL*, s.v., 849. 46 ff., this usage is neither common nor characteristic of medical writers: the closest parallels are in Plin. *Nat.* 25. 59, 28. 87; Tert. *Scorp.* 5 p. 154,21; and Ammian. Marcell. 22. 16. 18. (Cf. *opus* with reference to *medicamenta* at Sex. Plac. *Med.* 2. 11 rec. a.)

[142] *ThLL*, s.v., 699. 79 ff. cites no other medical writer as exhibiting this use of the word, and no other example of the word being used of food and drink. This may well be a 'syntagmatic disaffinity' (Cruse 1986: 16). Cf. also Theod. 34. 4, 83. 7, 99. 16, 110. 7.

and a second (*tibia*) is used just once, in a gloss on a Greek word (see n. 136). This small number of new examples in the later writers deserves emphasis because this subsection in particular is as much about lexical choice on the part of our Latin authors as about semantic extension. In this small corner of the terminology relating to therapeutics, Cassius Felix retains nearly half of the words used by Celsus and adds at most one item. This may be, I think, a further indication of consistency in naming ordinary objects and procedures in medical contexts over more than four centuries.

3. 6. 1. 3 Concrete and abstract senses

Another dimension of semantic range that is prominent in medical vocabulary and that is recognized as being important generally in Latin technical language is the use of *abstractum pro concreto*.[143] There are in all nearly a hundred terms in our authors of which the medical reference is to a concrete object but which have also a primary, abstract meaning. For example, Celsus and Cassius use the word *uomitus* both in its primary abstract meaning, 'the *action* or *process* of vomiting', and with reference to a concrete object, 'the *stuff* or *matter* that is vomited, vomit'. In the large majority of cases the formal base is a verb (e.g. *morsus* 'the wound made by a bite', from *morsus* 'the action of biting', on *mordere* 'to bite'); though there are more than a dozen instances in which the base is an adjective (e.g. *aspritudo* 'an area of roughness', from 'the state of being rough', on *asper* 'rough'). I deal in turn with (a) deverbal abstracts, (b) de-adjectival abstracts and finally (c) a small group of concrete nouns which are used also with abstract meaning, and represent effectively the converse of (a) and (b) (*concretum pro abstracto*).[144]

3. 6. 1. 3a Abstractum pro concreto: *a* deverbal *abstract yields a concrete meaning*

In the concrete sense of the deverbal abstracts one can specify, in most cases straightforwardly, the case-relation that holds between the concrete object and the action of the underlying verb. For example, *abscessus* 'an abscess' denotes the concrete subject of *abscedo* in the relevant special sense

[143] See, e.g., Svennung (1935: 518), Ernout (1954: 179–83), Hofmann and Szantyr (1965: 745, 749–51). Cf. Jocelyn (1985: 314 and nn. 133–5).

[144] All counted examples are attested in their (presumed primary) abstract sense before their use as concrete nouns. Words are included here rather than in an earlier section of 3. 6. 1 (specialization and extension of sense) if they are attested with a concrete meaning first in Celsus, even if this meaning can be regarded as a specialization of a (later-attested) more general concrete meaning. Not included here are countable abstract formations meaning 'instances of X', where 'X' is not a concrete object (e.g. *oscitationes* 'yawns, instances of yawning').

(cf. Cels. 2. 7. 26 *si quid abscessit* 'if an abscess has formed')[145] and hence could be said to be 'nominative' with respect to its underlying verb; *exulceratio*, on the other hand, denotes in its concrete sense the accusative object of the transitive verb *exulcero*, and *gargarizatio* 'a preparation used for gargling', an instrumental complement of *gargarizo* 'to gargle'. Where it is straightforward, I note in parentheses after each example its syntactic function in this sense,[146] and add a note on this aspect of *abstractum pro concreto* and on uncertain cases, at the end of this section.

The most important lexical group of this type in the field of anatomy and physiology comprises words for the concrete products of bodily functions, namely breath, sputum, urine, and other excreta.[147] Celsus, Scribonius, and Theodorus have *spiritus* (acc.) 'breath' ← 'the action of breathing' (cf. 3. 6. 2. 1a (2) below);[148] Scribonius has also *spiratio* (acc.) with the same meaning at 87. 4 and 91. 2. Theodorus attests *sputus* (acc.) 'sputum' at 119. 1, and Cassius Felix, three (or four) words for concrete excreta or secreta: *assellatio* (acc.) 'the faeces' ← 'the action of defecating'; *egestio* (acc.) 'the faeces; a secretion' ← 'the action of excreting, secreting'; *minctus* (acc.) 'the urine' ← 'the action of urinating'; (and cf. *exscreatio* (acc.) 'sputum, phlegm', in examples from pathology below.) Finally, Celsus uses in a concrete sense *purgatio* (acc.?) 'the menstrual discharge' [Cels.+][149] ← 'menstruation' (cf. 3. 6. 1. 2c above; on the case-relation here, see below).

Under anatomy one should notice first *exitus* (instr.) 'an opening in the human body' ← 'the action of going out', in Celsus (7. 26. 1C) and Scribonius (89. 21, pl.), and *meatus* (instr.) 'a passage in the body' ← 'movement, progress', in Cassius Felix. Celsus alone uses a small set of nouns in *-cessus* for physical features of body-parts: *excessus* (nom.) 'a projecting part' [Cels.+] ← 'the action of going out, away'; *processus* (nom.) 'a projecting part' [Cels.+] ← 'forward movement'.[150]

[145] Note also Cels. 2. 7. 8 *aliquid abscedet*, 5. 18. 21 *quod abscedit . . . omnia abscedentia* and cf. 2. 5. 2; 2. 7. 30, 32; 7. 2. 2; 7. 12. 5; 8. 9. 1H.

[146] So e.g. *abscessus* (nom.), *exulceratio* (acc.), *gargarizatio* (instr.).

[147] On less concrete phenomena, notably the senses and sensations (e.g. *sensus* 'a sensation' ← 'the action of feeling') cf. n. 177 below. It is tempting to include as an anatomical example *uultus* (instr.) 'the face, the front of the human head' ← 'a facial expression' but it is perhaps doubtful whether this relation was felt by Latin-speakers, even if historically this is the true account of the word: so e.g. Hamp (1984) starts from **uel-tus* 'seeing' and re-orders the senses distinguished by the *OLD* chronologically as follows: 3, 1, 4, 2, 5, 6. Cohen (1979) usefully reviews the proposed etymologies of the word, although his favourite (← *'turning') is not convincing. Cf. André (1991: 36). Note the plural in Theod. 111. 12 *uultūs . . . fomententur*.

[148] In Cassius *spiritus* refers not to breath of the lungs but to various other gaseous substances (cf. 72. 19, 83. 8, 171. 15, 179. 15, 181. 5).

[149] [Cels. +] means 'attested with the concrete meaning first in Celsus'.

[150] Note also Cels. pr. 24 *recessus* and cf. Theod. 106. 7 *recessūs interiores* (of the inside of the body, unspecified), though this concrete sense is attested before Celsus; and cf. *abscessus* in examples from pathology below.

Celsus and Cassius have in common *partus* (acc.) 'the foetus' ← 'the action of giving birth'; and Cassius has also *fetus* (acc.) 'the foetus' ← 'the action of giving birth'.

A further possible example in Cassius is *sessus* ('the anus' ←) 'the bottom, buttocks?' (instr.) ← 'a seat' (|| Gk. ἕδρα). This may be an instance of a word for 'buttocks' replacing a more specific term for 'anus' (Adams 1982*b*: 115) but the meaning 'seat, bottom, buttocks' is apparently not attested in Latin.[151]

The pathological examples are much more numerous. I have noted the following. Celsus uses *abscessus* (nom.) 'an abscess' [Cels.+] ← 'the action of withdrawing'; *coitus* (nom.) 'a collection' of morbid matter [Cels.+] ← 'the process of coming together'; *exulceratio* (acc.) 'an ulcer, ulceration' [Cels.+] ← 'the process of ulceration'; *fractura* (acc.) 'a fracture' ← 'the action of breaking'; *ictus* (acc.) 'injury, bite' caused by a blow to the body or the bite of a venomous creature;[152] *inflammatio* (acc.) 'an inflamed spot' [Cels.+] ← 'the process of inflammation';[153] *morsus* (acc.) 'a wound made by the bite of an animal or insect' ← 'the action of biting'; *plaga* (acc.[154]) 'a wound' ← 'a blow, stroke'; *scissura* (acc.) 'a split' [Cels.+] ← 'the process of splitting'; *suffusio* (nom.?) 'a cataract of the eye' [Cels.+] ← 'the action of welling up'; *suppuratio* (nom.) 'a suppuration' [Cels.+] ← 'the process of suppuration'; *uomitus* (acc.) 'stuff vomited' [Cels.+] ← 'the action of vomiting'.

Scribonius uses *exulceratio* (pl. at 101. 17), *ictus*,[155] *morsus*, *suffusio*, and *suppuratio* as in Celsus, and in addition *collectio* (nom.?) 'a collection' of morbid matter (only at 95. 16, 17) ← 'the action of collecting'; *contusio* (acc.) 'a bruise, contusion' ← 'the action of bruising'; *conuulsio* (acc.) 'a dislocation' ← 'the action of wrenching, displacing'; *fissura (ani)* (acc.) 'a crack, split' ← 'the process of cleaving or splitting'; *punctūs* (pl.) (acc.) 'a puncture' ← 'the action of pricking' (96. 1, 21, *al.*) and *ustio* (acc.) 'a burn' (only at ind. 7. 2, 24. 23) ← 'the action of burning'.[156]

In Theodorus I have noted *morsus*[157] and *suffusio* (40. 16, pl.) as in Celsus; *collectio* (e.g. 28. 5) and *ustio* (e.g. 5. 11) as in Scribonius; and further *egestio* (acc.) (at 246. 6, pl.); *percussus* (acc.) (at 68. 5);[158] and *uulneratio* (acc.) 'a lesion, ulceration' (e.g. 53. 15) ← 'the act of wounding, ulcerating'.[159]

Cassius, finally, attests *diruptio* (acc.) 'a tear, rupture' ← 'the action of tearing' (51. 10, pl.); *exscreatio* (acc.) 'sputum, phlegm' ← 'the action of bringing up and ejecting'; *hiatus* (nom.) 'a split, fissure' ← 'the action of splitting open'; *inflatio* (acc.) 'a swelling' ← 'the process of swelling';[160] *insurrectio* (nom.) 'a swelling' ← 'the process of swelling'; *perforatio* (acc.) 'a hole, perforation' ← 'the action of perforating'; *rasura* (acc.) 'a shred' ← 'the process of scraping' and *ulceratio* (acc.) 'an ulceration' ← 'the process of ulceration'; as well as *ustio* as in Scribonius;[161] and *ictus* (only at t. 168. 3), *morsus*, and *uomitus* as in Celsus.

Most of the examples that fall under therapeutics name types of concrete applications.[162] Celsus attests *compositio* (acc.) 'a compound medicament' ← 'the action of compounding';[163] *gargarizatio* (instr.) 'a preparation for gargling' [Cels.+] ← 'the action of gargling'; *medicina* (instr.[164]) 'a medicine' ← 'the art of healing'; *mixtura* (acc.) 'a ready mixture, compound' [Cels.+] ← 'the action of mixing'; *potio* (acc.) 'a medicinal drink' ← 'the act of drinking'; *sternumentum* (instr.) 'a sneezing-agent' [Cels.+] ← 'sneezing, a fit of sneezing'; and also two words for places, *natatio* (loc.) 'a swimming-bath' [Cels.+] ← 'the action of swimming' and *sudatio* (loc.) 'a sweating-room' ← 'the process of sweating'.

[151] Unless one emends Cass. 174. 11 per totam spinam usque ad sexum perungues. Anointing right down the spine as far as the genitals is perhaps slightly odd; it might be preferable to read *ad sessum* 'as far as the buttocks' (or 'anus'?). For *sexus* 'the genitals', Adams (1982*b*: 62) cites only Plin. *Nat.* 22. 20 radicem eius [*of a plant*] alterutrius sexus similitudinem referre (and *Gloss.* 4. 241. 14, 588. 17). For *sessus* 'the anus?, the buttocks?', cf. Cass. 178. 5 ex . . . egestionis . . . duritia frequenter in sessu, quem Graeci edran uocant, diuersa podicis uitia efficiuntur. Cf. André (1963: 65), Adams (1981: 255–6). For 'anus' Pliny has *sedes* and Caelius Aurelianus, *sessio*: see André (1991: 149, 151) but correct his attribution of *sessio* to Cass. on p. 248.

[152] See Cels. 5. 26. 35B altiores ictūs, 6. 6. 14 ictūs [*oculorum*] parum bene curati, and 5. 27. 3C, 4, 6, 8, 10, all five of venomous creatures. The examples cited by *ThLL*, s.v., 167. 40 ff. begin with Cicero and Vergil.

[153] Note the apparent synonymy of *id quod inflammatum est* with *inflammatio* at Cels. 5. 26. 31D, on the spread of *cancer*: omniaque ea simul serpunt; ulcus in locum pustulosum, pustulae in eum qui pallet aut liuet, pallor aut liuor in id quod inflammatum est, inflammatio in id quod integrum est transit. On participles and 'abstract' nominalizations see further 5. 3. 1 and 6. 2. 1 below.

[154] On the case-relation here, see below.

[155] Always (6 times) pl., always of snakes (Scrib. ind. 12. 8, t. 79. 11, 79. 13, 80. 2, 82. 29, 83. 19).

[156] Note also *sugillationes* (pl.) 'bruises, discolorations' (Scrib. t. 109. 15; 109. 16), although the abstract has only the derived sense, 'the action of insulting'.

[157] Probably concrete at Theod. 69. 8 *qui humanos morsūs patiuntur*, but abstract at 65. 3, 68. 11, 'the biting' of a dog.

[158] *ThLL*, s.v., 1238. 12 quotes good parallels from the Latin versions of Dioscorides and Oribasius.

[159] On *uulnus* and *ulcus* and derivatives in Theodorus, see Rose's index, s.v. *uulnus*.

[160] Especially concrete at Cass. 136. 13 and 181. 16; the sense '(a) swelling' is found also at 18. 7, 179. 12, 180. 13, 181. 5; cf. *ThLL*, s.v., 1456. 40 ff.

[161] No matter the precise form and meaning of *solis ustiones* at Cass. 177. 20, it has concrete reference: probably 'freckles' or 'rough spots'.

[162] Adams (1995: 522) notes the same in Pelagonius and sees in this 'another point of similarity between medical and veterinary treatises'.

[163] For this sense see *ThLL*, s.v., 2139. 81 ff.

[164] On the case-relation here, see below.

Scribonius has *compositio*[165] and *potio* as in Celsus; *curatio* (acc.) app. 'the object of care, treatment';[166] and *purgatio* (instr.) 'a purge, means of purging' (only in the index, ind. 6. 6–9, ind. 11. 11–12) ← 'the action of purging'.

Theodorus uses *potio* (acc.) at 32. 15 as in Celsus and Scribonius; *purgatio* (at 14. 1, 2) as in Scribonius, and in addition, *calefactio* (instr.) at 194. 4; *coctio* (acc.) at 5. 15; *commixtio* (acc.) at 13. 8; *confectio* (acc.) 'a compound medicament' (at 6. 12) ← 'the action of preparing'; *datio* (acc.) 'a dose' at 14. 6;[167] *decoctio* (acc.) 'a decoction' (at 12. 16) ← 'the action of boiling down'; *unctio* (instr.) at 10. 15.

Cassius, finally, has *potio* as in the other three authors; *confectio* and *decoctio* as in Theodorus and in addition, *cibatio* (instr.) 'food, nourishment' ← 'the action of feeding, taking food'; *collutio* (instr.) 'a mouthwash' ← 'the action of rinsing';[168] *expressio* (acc.) 'pomace', residue after pressing fruit, vegetables, etc. ← 'the action of forcing out'; *infusio* (acc.) 'an infusion' ← 'the action of pouring in or on'; *iniectio* (acc.) 'an enema' ← 'the action of inserting' especially a medicine into the body; *perunctio* (acc. or instr.)[169] 'an ointment that is rubbed on' ← 'the action of smearing'; *refectio* (instr.) 'food, refreshment' ← 'the action of repairing, refreshing'; *sectio* (acc.) 'an incision' ← 'the action of cutting' in surgery;[170] *uaporatio* (instr.) 'a means of treatment involving steam' (concrete at 134. 21) ← 'the action of applying steam-treatment'; *uomitus* (instr.) 'something to provoke a vomit' ← 'the action of vomiting'.[171]

This large collection of examples shows the distribution, by author, lexical field, formation, and semantic structure, which is set out in Table 3.1. This pattern of distribution calls for two immediate observations. The first concerns the uneven spread of forms in *-tio* and forms in *-tus*. Of the 13 anatomical examples, 10 are in *-tus* and only 3 in *-tio* (*spiratio* in Scribonius (beside *spiritus*), and 2 products of excretion in Cassius: see above for details). Under therapeutics, on the other hand, there is only 1 example in *-tus* (*uomitus* in Cassius) versus 23 in *-tio*. Of the 6 anatomical

[165] Curiously this concrete use seems to fade in the later period. The word is apparently abstract, 'way of putting together, recipe', at Theod. 120. 21, is not attested in Cass., and is abstract in Cael. Aur. always (13 times) in a reference to another work in a formula of the type: *Chron.* 4. 124 quorum [*medicamentorum*] compositiones Responsionum libris de medicaminibus scribentes tradidimus.

[166] At Scrib. pr. 3. 8 deinde si ad hos [*cibos*] non responderit curatio, and 19. 10 nonnumquam uix ad duas tresue [*torpedines* 'sting-rays'] respondet curatio; cf. Sen. *Ben.* 6. 16. 5.

[167] Cf. Cass. 177. 3–4 *perfecta dosis*.

[168] In Scrib., at 33. 13, but with abstract meaning.

[169] *Perunguo* takes an acc. either of the patient or of the ointment (already in Scrib.).

[170] Only abstract in Cels. and Scrib. pr. 3. 11, 104. 8.

[171] For a string of examples of this use of *uomitus*, see the *additamenta* to Theodorus (Rose 1894: 306–7).

examples in Celsus, 5 are in *-tus*; moreover, Celsus has not a single concrete noun in *-tus* in his therapeutical vocabulary, although in total he has as many instances of *abstractum pro concreto* in *-tus* as in *-tio* (10 of each). It seems that the synchronic patterning of these abstract nouns with concrete meaning is foreshadowing the evidence that we shall see in Chapter 5 of a special affinity between the suffix *-tus* and the lexical fields of anatomy and physiology; they appear to imply in addition a disaffinity between *-tus* and the vocabulary relating to medical treatment, a state of affairs to which I shall return in 5. 3. 1.

Table 3.1. Distribution of examples of *abstractum pro concreto* by author, lexical field, suffix, and case-relation*

	Cels.	Scrib.	Theod.	Cass.
Anat.	6	3	2	6
–tio	$1^{?}$	1^{A}	–	2^{A}
–tus	2^{A}, 2^{N}, 1^{I}	1^{A}, 1^{I}	2^{A}	3^{A}, 1^{I}
Path.	12	11	7	12
–tio	2^{A}, 1^{N}, $1^{?}$	4^{A}, 1^{N}, $2^{?}$	3^{A}, $2^{?}$	6^{A}, 1^{N}
–tus	3^{A}, 2^{N}	3^{A}	2^{A}	3^{A}, 1^{N}
–ura	2^{A}	1^{A}	–	1^{A}
other	1^{A}	–	–	–
Ther.	8	4	9	13
–tio	2^{A}, 1^{I}, 2^{L}	3^{A}, 1^{I}	6^{A}, 3^{I}	7^{A}, 4^{I}, $1^{?}$
–tus	–	–	–	1^{I}
–ura	1^{A}	–	–	–
other	2^{I}	–	–	–
Totals	26	18	18	31
–tio	10	12	14	21
–tus	10	5	4	9
–ura	3	1	–	1
other	3	–	–	–

*Superscript ^{A} = accusative; ^{N} = nominative; ^{I} = instrumental; ^{L} = locative; $^{?}$ see below.

The second point also has to do with the distribution of these forms between the lexical fields. In our four authors taken together, this means of term-formation is about equally important in the vocabulary of pathology (29 examples) and therapeutics (27 examples). It may be significant, however, that both Celsus and Scribonius have many more disease-terms of this type than they have words relating to treatment; that is, Theodorus and Cassius add numerous new examples under therapeutics but only a few under pathology. Of course, the use of *abstractum pro concreto* was among the most common developments in virtually every area of the Latin

vocabulary, but it seems that in the medical vocabulary of the later empire it was particularly productive of names for types of medicinal applications.

It is perhaps remarkable that the assignment of a case-relation to the semantic gap between concrete and abstract meanings is doubtful in only four cases: *perunctio*, *purgatio*, *collectio*, and *suffusio*. These four divide themselves into two pairs. *Perunctio* 'an ointment' and *purgatio* 'the menstrual discharge' are similar in part in that the underlying verb in each case (*perunguo* and *purgo*) allows two alternative constructions. Both verbs may take as direct object the person or thing anointed/purified;[172] alternatively—here they part company—*perunguo* may take an accusative of the ointment, *purgo*, an accusative of the impurity removed.[173] For *perunctio*, then, there is a straightforward choice between 'instrumental' (cf. *collutio* 'a mouthwash') and 'accusative' (cf. *iniectio* 'an enema'). *Purgatio*, on the other hand, may be either another example of the ordinary 'accusative' type, that is, *quod purgatur* 'the impurity that is removed', or a unique case of the 'ablative', that is, *(a) quo (mulier) purgatur* 'that from which the woman is purified'. One criterion that is available for deciding in each case is comparison with the preferred argument-structure of the finite verbs in authors who also use the *-tio* forms with concrete meaning; another is comparison with more clear-cut instances in the same lexical fields. My impression is that neither criterion is decisive for *perunctio*, while for *purgatio* they each favour a different interpretation: *purgo* in the relevant sense generally takes the woman as direct object or 'experiencer' (subject of a passive or 'middle' verb form),[174] while other concrete uses of abstract nominalizations relating to the expulsion of material from the body are clearly 'accusative' (e.g. *egestio*, *exscreatio*). An alternative approach is to abandon altogether the notion of case-relation in this connection and to suppose that, at least in cases like *purgatio*, the concrete meaning arose analogically on the basis of the semantic extension perceived in the use of other derivatives, from abstract ('expulsion from the body') to concrete ('the thing expelled from the body'), without reference to the syntax of the underlying verb.

The other pair, too—*collectio* 'a gathering of morbid matter' and *suffusio* 'a cataract'—are similar. Both would be ordinary examples of 'nominative'

[172] Note e.g. (for *perunguo*) Cato *Agr.* 162. 3 pernas . . . perunguito oleo; Cic. *Tusc.* 1. 113; Hor. *Epod.* 5. 59; (for *purgo*) Cato *Agr.* 157. 3 brassica uulnera . . . purgabit, 157. 12 siquem purgare uoles.

[173] For *perunguo* the *OLD* quotes only Scrib.: note e.g. 21. 22 (where Sconocchia prints *supraperunctum* as one word), 102. 4, 109. 2. For *purgo* note e.g. Cato *Agr.* 157. 7 morbum articularium nulla res tam purgat quam brassica cruda; Scrib. 67. 4 ex partu residua mulieri purgat [*remedium*].

[174] Note e.g. Scrib. 57. 11 [*mulieres*] quae difficulter purgantur; Sen. *Epist.* 87. 16 in cuius ore feminae purgabantur; Paul. *Dig.* 21. 1. 15 quae bis in mense purgatur, sana non est.

(like, say, *suppuratio* 'a suppuration' or *coitus* 'a gathering of morbid matter'), if their underlying verbs were attested in intransitive use; this may, indeed, be the case for *colligo*.[175] Failing that, they must be regarded as 'accusative', but as unusual examples in that no external cause is available to serve as subject to the transitive verbs (of gathering and causing to well up); they would be, as it were, accusative subjects to intransitive verbs.

Turning briefly to the morphology of the examples in this section, I note that only three words do not have one of the suffixes *-tio*, *-tus*, *-tura*, namely *medicina* 'a medicine', *plaga* 'a wound', and *sternumentum* 'a sneezing-agent'.[176] And yet all three show not only the same semantic relation between their concrete and abstract meanings, but even the same sort of case-relation that we have seen repeatedly, a wound being the 'accusative' result of a blow or stroke (cf. *contusio* or *morsus*) and a medicine and a sternutatory being in slightly different ways 'instrumental' means to the ends of, respectively, the art of healing and a sneezing-fit (cf. *collutio*, *unctio*, etc.).[177] These three instances, which are clearly not morphologically determined, may yield an argument in favour of seeing semantic analogy at work within lexical groups in cases such as *purgatio* above, and perhaps quite generally.

3. 6. 1. 3b Abstractum pro concreto: *a* de-adjectival *abstract yields a concrete meaning*

The medical terms I have noted in which a *de-adjectival* abstract yields a concrete meaning are confined in Celsus (and Scribonius, who has just two examples) to the pathological vocabulary. To these is added in Theodorus and Cassius an interesting group of anatomical items. There is only one plausible example in our authors relating to therapeutics (*diligentia* in Theodorus: see below).

Celsus attests *asperitas* 'a rough patch' ← 'roughness'; *aspritudo* 'a rough patch' [Cels.+] ← 'roughness' (cf. 3. 6. 1. 2b above); *duritia*, *durities* 'an induration' [Cels.+] ← 'hardness'; and *nigrities* 'black, decayed material' ←

[175] The *ThLL* (s.v. 'colligo', 1610. 1 f., 1611. 39 ff.) cites instances of 'reflexive use without *se*' (albeit of different senses of the verb from that which underlies *collectio* here) from Chiron (72), Tertullian, Irenaeus, and Optatus.

[176] *Sternumentum* 'a sneeze, sneezing' is rivalled and replaced by *sternutamentum* (based on *sternutare* [Petr. +]) already in the 1st cent. AD [Scrib. +] but neither the *OLD* nor Georges records an instance of *sternutamentum* meaning 'a sneezing-agent'. On Latin derivatives in *-mentum* (and *-men*) see Perrot (1961) and Leumann (1977: 369–72).

[177] Although between abstract entities, the 'accusative' case-relation holds also between the two meanings of *gustus* (Cels.) 'a taste' and 'the sense of taste', and of *sensus* (Cels. and Cass.) 'a sensory stimulus' and 'a sense-faculty'. That termed 'instrumental' holds in the case of *facultas* between 'easiness, the condition of being doable' and 'faculty, ability' (Cels. 7. 7. 12 *uidendi*, 7. 8. 2 *audiendi*, 7. 12. 4 *loquendi*, etc.; Scrib. 31. 10 *spirandi*; Theod. 227. 3 *lactandi*).

'blackness'. Scribonius has only *aspritudo*, as in Celsus,[178] and *eminentia* 'a protuberance' on the body ← 'the quality of standing out or projecting'.

Theodorus has four pathological examples: *asperitas* (e.g. 38. 11) and *duritia* (e.g. 29. 3) as in Celsus, together with *distantia* 'a species' (17. 16) and *uentositas* 'wind, air in the body' ← 'windiness'.[179]

Cassius Felix attests no fewer than eight items relating to disease: *asperitas* and *duritia* as in Celsus; *eminentia* as in Scribonius; *uentositas* as in Theodorus; and in addition, *callositas* 'a callosity' ← 'callousness';[180] *limositas* 'slime' ← 'sliminess';[181] *nigredo* 'a black spot' ← 'blackness'; and *putredo* 'an area of foulness' ← 'foulness'.

Then, in the later writers, there is the following group of anatomical words, which name not particular parts of the body but general areas. Theodorus Priscianus has *altitudo* 'the parts of the body far below the surface' (at 25. 1; 63. 8; 161. 1) ← 'depth, deepness'; *extremitas* 'an end, extremity';[182] and *uicinitas* 'the surrounding area' ← 'proximity, the fact of being neighbours';[183] Cassius Felix attests also *altitudo*, as in Theodorus,[184] and in addition *neruositas* 'the network of nerves in the human body' ← 'fibrousness', and *summitas* (but apparently only concrete).

There is a probable example relating to therapeutics in *diligentia* 'a form of treatment' at Theod. 117. 14 *alia diligentia uisitamus*, where the reference is to a drink.[185]

In all but three of this small group of concrete de-adjectival abstracts, the concrete meaning may be characterized as 'something that is X', where 'X' is the meaning of the underlying adjective. So, for example, in Celsus *nigrities* (primarily 'blackness, black colour') means 'black decayed material'; in Cassius *putredo* (primarily 'foulness') means 'an area of foulness'. The three exceptions are *limositas* (primarily 'the state of being slimy'), *uentositas* (primarily 'the state of being windy'), and *diligentia* (primarily 'the state of being careful'). The first two are similar in

[178] Concrete and plural at Scrib. 27. 21, 65. 22; abstract 'roughness' at 61. 2, 65. 22 (pl.), 37. 13.

[179] At Theod. 126. 1 of faecal gas, at 189. 18 of wind in the stomach; cf. 22. 10 uentositas uero si intercluserit aures.

[180] *Callositas* is attested in Scribonius (ind. 7. 18, 27. 4) and Theodorus (28. 10) but with only abstract meaning, opposed to *callus* concrete.

[181] The *ThLL*, s.v., cites apart from Cass., only Chiron 94 and Anon. *Med.* ed. Piechotta 191.

[182] At Theod. 122. 8, *extremitas intestini* of the anus or rectum. Of the human body already at Plin. *Nat.* 23. 48, 159; 29. 32. The *ThLL*, s.v., 2080. 48 ff., cites only Pliny, Pelagonius, Vegetius, and the Physiognomici.

[183] At Theod. 118. 8 *laterum*. Concrete, of land, already in Var. *Rust.* 1. 18. 7. Cf. *uicinia* in the same context in Cels. 8. 10. 2D.

[184] Cf. *ThLL*, s.v., 1768. 84 ff., citing examples also from the Latin versions of Soranus and Oribasius.

[185] On *diligentia* in medical contexts, cf. *ThLL*, s.v., 1175. 80 ff.

denoting, not a concrete object characterized by the underlying adjective, but the significatum of the noun that underlies that adjective: that is to say, *limositas* means 'slime' (cf. *limus* 'slime'), *uentositas* means 'intestinal wind' (cf. *uentus* 'intestinal wind').[186] The third, *diligentia*, if its concrete sense may be understood as 'that with which one shows *diligentia*', is akin to those deverbal *abstracta pro concretis* (3. 6. 1. 3a above) in which the case-relation between the concrete object and the underlying verb is 'instrumental' (e.g. *purgatio* 'a purge, that with which one *purgat*'); compare also, in the field of therapeutics, the near-synonyms of *diligentia*, *animaduersio* (Cels. 4. 26. 3, *al.*), and *obseruatio* (Cels. 6. 6. 35, *al.*) both 'remedial measure' ← 'attention, observation' (although without clearly concrete reference).

There are only about 17 examples in our authors of abstract formations on an adjectival base having concrete reference. Celsus has just 4 examples, Scribonius, 2, all under pathology; Theodorus has 8 (counting *diligentia*), Cassius, 11 (counting *summitas*), including the group of general anatomical terms. Although the numbers are small, it is clear that this type becomes more vigorous in the later period.

In total (taking 3. 6. 1. 3a and b together) Celsus has some 30 examples of abstract formations with concrete reference; Cassius has about 42, 35 of which are not found in Celsus. Cassius's larger total and his large number of new examples are clear evidence that this semantic phenomenon becomes more important and more vigorous in the later period. This exemplifies the generalizations that one finds in the literature (cf. n. 143) to the effect that the large numbers of concrete nouns formed in *-tio*, *-tas*, and other 'abstract'-forming suffixes 'in der Fachsprache' are characteristic of the increasingly frequent use of abstract formations with concrete reference. Hofmann and Szantyr's examples start, however, with the Elder Pliny; they might have begun with Celsus. (Cf. Chapter 5, esp. 5. 3. 1 and 5. 3. 4.)

3. 6. 1. 3c Concretum pro abstracto: *the primary sense is concrete*

Finally, a word to a small group which, in terms of semantic extension, complements the last two types (3. 6. 1. 3a and b, *abstractum pro concreto*). In Celsus there are at least 6 medical terms which have an abstract meaning beside a primary concrete meaning; Scribonius Largus offers 3 examples, Theodorus, perhaps 4, and Cassius Felix, perhaps 1 example.[187]

The examples, few as they are, fall into two types. Under anatomy two words for bodily waste-products, *sudor* 'sweat' and *urina* 'urine', are used

[186] There is, moreover, at most a small difference in meaning between *neruositas* and *nerui*.

[187] This group is ignored by Hofmann and Szantyr (1965: 751) in their notes on *concretum pro abstracto*.

also to mean the discharging of these products from the body. *Sudor* means 'sweating' in Celsus (at e.g. 1.6. 1, 4. 5. 9); *urina* means 'urination' in all four authors: in Celsus at (e.g.) 2. 7. 12 *urinae crebra cupiditas* and 4. 27. 1D Tol. 15 *urinae desiderium*;[188] in Scribonius at 67. 4 *quibus opus est urina*; and in Theodorus (at 213. 3) and Cassius (at 115. 14; cf. 113. 11) in the phrasal term *difficultas urinae* 'dysury' (parallel to the clear abstract nominalization in e.g. *difficultas respirationis* 'dyspnoea').[189]

The second type is the use of the name of a concrete object to mean also the *use* of that object. This sort of semantic extension is attested from the beginning of our Latin record. *Balneum* can mean 'the taking of a bath' already in Plautus (e.g. *Mer.* 127), *ferrum*, 'surgery' in Vergil (*G.* 3. 468, quoted by Theodorus at 25. 11). Under therapeutics, Celsus attests at least four instances of this type: *cucurbitula* 'the use of a cupping-vessel' (e.g. Cels. 2. 9. 2), *ferrum* 'surgery' (e.g. Cels. pr. 3), *ignis* 'the use of cautery' (Cels. 7. 2. 4), *manus* 'surgery' (e.g. Cels. 5. 26. 1B; cf. Gk. *χειρουργία*).[190] Scribonius attests this abstract use of *ferrum* and *ignis* in a single sentence in his preface (pr. 2. 2), and Theodorus comes close to this use of *ferrum* at 69. 15. Theodorus attests in this abstract sense also *balneae* and *lauacrum* (at e.g. 21. 3, 32. 4, 171. 13).

3. 6. 2 METAPHOR

It is well known that metaphor plays an important part in the language of science.[191] There are about a hundred terms in our four medical authors which have each a medical meaning which stands in a metaphorical relationship to its primary meaning. Characteristic of the metaphorical relationship is the transfer of a term proper to one domain to another; looking at it from another point of view, we could say that the medical object is

[188] Contrast the more 'careful' form of expression at Cass. 117. 2 *urinae egerendae delectatio*.

[189] On this abstract use of *urina*, cf. Adams (1982*b*: 248–9).

[190] One might add *scalper* and *scalpellus*: note Cels. 8. 4. 12 ad manum scalprumque ueniendum est, and 5. 26. 1B scalpellum et manum postulant. Jocelyn (1985: 314 and n. 134) would add *cibus* 'the act of eating, the taking of food'. In the passage he quotes (1. 2. 8) the meaning is perhaps rather 'a meal'; such an abstract use of *cibus* may, however, be seen at e.g. 2. 8. 24. To these five medical examples could be added from Celsus' non-medical vocabulary: *sedile* 'the use of a chair, a sit-down', from 'a chair, seat'.

[191] See, for example, Vendryes (1939: 297), Chantraine (1928: 8), Hofmann and Szantyr (1965: 780), Molino (1979), Rater (1982), Lloyd (1987: 172–214, 'Metaphor and the Language of Science', esp. 203–8), Fruyt (1989), Langholf (1989), Boscherini (1991), Adams (1995: index, s.v. 'metaphor'). On metaphor in the Hippocratic corpus see the contributions by Cambiano, Vegetti, and Wenskus in Lasserre and Mudry (1983) and especially Langholf (1989). For a useful critical catalogue of examples of metaphor in Greek medical terminology (anatomy and pathology) see Skoda (1988). On metaphor and simile in the language used by patients to describe their disease (modern German, Akkadian and ancient Greek), see Goltz (1969: 242–7, 248–56).

named after another object which is in some way reminiscent of it and which belongs to a different class of objects of the world.[192] Two simple examples may help to illustrate this: *lenticula*, primarily 'a lentil', means in Celsus also 'a freckle';[193] presumably the latter, medical meaning arose from a perceived superficial resemblance between a freckle and a lentil with respect to colour, size, and shape. Or again, *impetus*, primarily '(a) violent onward physical movement or force', especially 'attack', is used in both authors to mean 'an onset of a disease';[194] in this case, as with NE *attack* and Greek *ἐπίθεσις*, a word that is used primarily of a physical object, especially a human agent, and particularly in a military context, is used also of the apparent action of a disease.

As these two examples show, the observed (and expressed) resemblance between medical and primary meanings may be physical, involving especially concrete objects (e.g. *lenticula*), or conceptual, involving especially states, events, processes, and the like (e.g. *impetus*). Each type of resemblance is dealt with in turn, the more concrete examples in 3. 6. 2. 1, instances of 'abstract' metaphor in 3. 6. 2. 2.

3. 6. 2. 1 Metaphor based on a physical or functional resemblance to a concrete object

The characteristics shared by two objects, which prompt the use of the name of the one (the non-medical) object also for the other (the medical), may be more or less directly physical and concrete. At one end of the scale are examples like *lenticula*, above, where the close, purely physical resemblances between a lentil and a freckle, involving similarity in shape and size and colour, underlie the use of the word for both objects. At the other end of the same scale are examples such as *uia* 'a road, thoroughfare' and 'a duct in the human body'. Here there is no simple resemblance between the two objects with respect to size, shape, colour, nor even hardness, straightness. Here the observed similarity is more notional and functional. It involves the analogical comparison of the function of a duct in the body with that of a road in the big wide world in permitting the

[192] Cf. Arist. *Po.* 1457^{b}6 *μεταφορὰ δ' ἐστὶν ὀνόματος ἀλλοτρίου ἐπιφορά* (cf. ibid. 22–5), and Lloyd (1987: 184 and n. 42). The notion of 'transfer of class' is relatively straightforward in connection with concrete objects (my type 3. 6. 2. 1), much less so when the 'objects' compared are events or processes (my type 3. 6. 2. 2); cf. Lloyd (1987: 204–6). On metaphor cf. also Arist. *Rhet.* 1411^{a}1 ff.; Langholf (1989: 7 ff.); and in general B. Snell (1986: 178 ff.).

[193] Cels. 6. 5. 1 (3 times), 6. 5. 2 (twice). According to the *ThLL*, s.v., 1158. 35 ff., this sense is securely attested only in Celsus: at Plin. *Nat.* 26. 7 it is in a simile, *ueluti lenticula*, as also in the *Medicina Plinii*, Vegetius, and Marcellus. On metaphors in Celsus, see Toninato (1993).

[194] According to the *ThLL*, s.v., 608. 36 ff., this sense is attested first in Celsus and is then largely confined to medical writers, although instances are cited from Seneca, Petronius, and Cyprian (in a metaphor).

conveyance of substances along a fixed route between two fixed points. Somewhere between lie cases such as *porta*. Primarily 'a gate', this word is used, by Celsus and others, of the opening of an internal organ of the human body, especially of the pyloric sphincter which connects the stomach with the intestine. The observed similarity is arguably both functional (that of providing a structured, well-defined passage from one space to another) and physical (that of the relative narrowness of the gate or sphincter with respect to the spaces it connects).

If such distinctions are accepted, still, opinions will differ as to where on the scale particular words belong. I have not ventured to list separately primarily *physical* and primarily *functional* cases but I would record that my impression is that those words whose meanings are linked by a predominantly functional similarity are rare and come nearly all from Celsus, and under anatomy. Those that may be considered in this way include the following (for details see the lists and notes below).

> Anatomy, in Celsus: *frenum, index, iter, lumen, materia, porta, saeptum, tunica, uertex, uia*; in Scribonius: *materia, tunic(ul)a, uia*; in Theodorus: *tunica*; in Cassius: *tunica, uia*;
> Pathology, in Celsus: *nota, signum*, the latter in all four authors.

Of perhaps 12 examples Celsus has 12, Scribonius, 4, Theodorus, 2, Cassius, 3. The numerical difference is striking and may be significant, even in such a small sample. The contrast between the near-contemporaries Celsus and Scribonius suggests that this is not a question of a diachronic development within the medical language. It is notable that only three of these words, *materia*,[195] *signum*,[196] and *tunic(ul)a*,[197] have any currency in the Latin medical corpus as a whole; the others are either (nearly) confined to Celsus among medical writers and/or widely attested in non-medical texts.[198] This is perhaps rather a further small indication of the 'essential literariness' of Celsus,[199] another subtle way of elevating the style of his medical discourse. This must remain, at this point, no more than a working hypothesis, pending a more comprehensive comparison between physical and functional metaphorical designations, not only of medical objects, in different registers of Latin.

[195] Cf. *ThLL*, s.v., 459. 8 ff. (only Cels., Sen. *Nat.*, Vindic., Cael. Aur., Cass., Philum.).
[196] Cf. Georges, s.v., sense C.
[197] Cf. *OLD*, s.v., sense 3a.
[198] Cf. *ThLL*, s. vv. 'frenum', 1293. 46 ff. (only Cels. and *Exc. Bob. gramm.* 1. 548. 26); 'index', 1143. 8 ff. (widely attested from Cicero to Boethius but among other medics only in Plin. *Nat.*); 'iter', 541. 68 ff. (widely attested in prose and verse but among other medics only in Q. Serenus); 'lumen', 1817. 80 ff. (common in literature but not in other medics); 'porta', 7. 25 ff. (only Cic. *N.D.* 2. 137 and Cels.). For the other words see Georges and the *OLD*.
[199] The phrase is H. D. Jocelyn's (1985: 303); cf. 1. 4. 1 above.

Taken as a whole, this type (3. 6. 2. 1: physical or functional metaphor) is the best-represented of the semantic relationships that I have considered; examples are especially numerous in Celsus. Of a total of 101 examples, Celsus has 69, Scribonius, 25, Theodorus, 21, and Cassius, 39. Cassius offers 18 examples which are not in Celsus.

Greek parallels are most numerous in this type of semantic shift, in absolute terms and as a proportion of the total: at least 44 of the 101 instances have Greek parallels. No doubt some of these parallels are fortuitous (though most, one suspects, originated as deliberate loan-translations). It is of note that the proportion of such metaphorical designations with Greek parallels is only slightly smaller in Cassius than in Celsus: those of my examples with parallels in Greek number 33 out of 69 (= 48%) in Celsus, 17 out of 39 (= 44%) in Cassius. It seems, perhaps paradoxically, that a much larger presence of borrowed *lexical* material, such as we noted in Cassius Felix (2. 5. 3 above), need not entail a corresponding decline in the use of *semantic* borrowings. It is even possible for a Latin word that appears to be a one-off calque to become established in preference to its Greek model. This may be the case of the name of the pubic bone. Celsus' standard expression for it is *os pubis*, but he also makes this oblique reference to the Greek term κτείς:

> Cels. 8. 1. 23 a quibus [*lateribus ossis coxarum*] oritur os quod *pectinem* uocant, idque . . . uentrem firmat.

I suggested above (2. 4. 4) that this sort of reference to Greek is more or less as if you were to say in English, 'The French call a very rare steak *blue*'. Cassius Felix, however, uses not Greek κτείς but *pecten*.[200]

Of note on the morphological side is the prevalence among these concrete metaphorical terms of 'diminutives' in . . . *lus*, . . . *la*, . . . *lum*. Since the concern of this chapter is with extension of meaning *without* change of form (contrast Fruyt 1989), I have included here only those 'diminutives' which are attested also with a non-metaphorical meaning (e.g. *capitulum* 'a (small) head' and 'the head of a part of the body').[201]

Of the semantic fields from which these physical and functional metaphors are drawn, three recur in significant numbers:[202]

[200] At Cass. 117. 17, 118. 19, 119. 8, 187. 2; strictly not of the bone but of the surface of the body over the pubis (cf. other instances of this semantic extension in 3. 6. 1. 1b above).
[201] The possibility of ascribing a metaphorizing *function* to the 'diminutive' suffixes . . . *lus*, . . . *la*, . . . *lum* is discussed in 5. 3. 9 below.
[202] For source-areas of metaphors in Greek terminology relating to anatomy and pathology, see Skoda (1988: 315): her best-represented areas are 'terms related to human activities: cooking, clothing, daily life, animal-breeding, fishing' (total 35), 'anatomical terms, human and animal' (total 27), 'names of animals' (total 23), 'names of plants' (total 23), followed by 'names of natural and meteorological phenomena', 'architectural and building terms', and 'terms of social life' (10 examples of each), and 24 others in smaller groups.

(1) *Parts of the human body*: the head (*caput*), crown of the head (*uertex*), mouth (*ōs*), tongue (*lingua*), lip (*labrum*), breath (*spiritus*), neck (*ceruix*), fingernail (*unguis*), flank (*latus*), nipple (*papilla*), stomach (*uentriculus*), and bladder (*uesica*) are used to designate other body-parts or other objects or phenomena relating to disease or therapeutics.

(2) *Animals (and parts of animals)*:[203] crab (*cancer*), mouse (*musculus*), breeding-sow (*scrofa*), cobweb (*aranea*), and perhaps lizard (*lacertus*), as well as dog's tooth (*caninus dens*) and (fish- or reptile-)scale (*squama, squamula*), are used with metaphorical meaning to designate diseases or human body-parts.

(3) *Plants (and parts of plants)*: seed-sack (*folliculus*), stalk (*coles*), root (*radix, radicula*), thorn (*spina*), bark (*cortex*), acorn (*glans*), grape (*uua*), lentil (*lenticula*), and gourd (*cucurbit(ul)a*) recur in metaphorical medical names.

The remainder are drawn chiefly from diverse areas of the material world, one of which deserves mention as cohering well under the etiquette 'objects of material culture'. This includes: water-conduit (*canalis*), pipe (*fistula, tibia*), small bowl (*patella*), mooring-stake (*tonsilla*), ring (*ānus*), weaver's shuttle (*radius*), stitching (*sutura*), gate (*porta*), bridle (*frenum*), tunic (*tunic(ul)a*), piece of cloth (*mappa*), spade (*pala*), millstone (*mola*), comb (*pecten*), spool for thread (*panus*), rivet (*clauus*), wheel-nave (*modiolus*).

The remainder of this section is devoted to a catalogue of instances organized, for each area of medical vocabulary (anatomy and physiology; pathology; therapeutics), according to the semantic field of the source-domain of the metaphor, as follows: (1) after objects of material culture; (2) after parts of the human body (or personified as human figures); (3) after animals or their body-parts; (4) after plants or their parts; (5) after other natural phenomena; (6) from various other source-domains. To this catalogue I append brief discussion (3. 6. 2. 1d) of some difficult or otherwise interesting cases.

3. 6. 2. 1a Anatomy: Body-parts named metaphorically

(1) Anatomical terms named after objects of material culture

Celsus attests: *anus* 'the anus' ← 'a ring' (‖ Gk. *δακτύλιος*);[204] *canalis* 'the neck of the uterus' ← 'a channel';[205] *circulus* 'the corona of the glans penis' ← 'a circular ornament';[206] *fistula (urinae)* 'the urethra' ← 'a pipe, channel'

[203] On the use of animals' names for military devices, see McCartney (1912).
[204] Cf. Adams (1982*b*: 114–5), Skoda (1988: 95–6), André (1991: 148–9).
[205] Cf. André (1991: 191).
[206] Cf. Adams (1982*b*: 73), André (1991: 176).

(for urine);[207] *frenum* 'the frenulum' ← 'a bridle, harness' (cf. Gk. *σειρά*);[208] *iter* 'a duct in the body' ← 'a thoroughfare' (‖ Gk. *πόρος*); *iugale os* 'the arch of the upper face' ← 'the bone like a yoke' (‖ Gk. *ζυγῶδες*);[209] *patella* 'the kneecap' ← 'a small bowl';[210] *porta* 'an opening of an internal organ' ← 'a gate' (‖ Gk.*πύλη*);[211] *radius* 'the radius bone' ← 'a weaver's shuttle' (‖ Gk. *κερκίς*);[212] *saeptum (transuersum)* 'the diaphragm' ← 'a (transverse) partition' (‖ Gk. *διάφραγμα*);[213] *scrotum* 'the scrotum' ← (*scrautum*) 'a leather bag for arrows' (‖ Gk. *πηρίς*);[214] *scutula operta* (pl.) 'the shoulder blades' ← 'covered (small) shields'; *sutura* 'a cranial suture' ← '(a piece of) stitching' (‖ Gk. *ῥαφή*);[215] *tibia* 'the tibia bone' ← 'a pipe';[216] *tonsillae* (pl.) 'the tonsils' ← 'mooring-stakes';[217] *tunica* 'the tunic or sheath of a part of the body' ← 'a tunic' (‖ Gk. *χιτών*);[218] *uia* 'a passage in the body' ← 'a road, thoroughfare' (‖ Gk. *πόρος*).[219]

Scribonius has *anus*, *tonsillae*, and *uia* (at 86. 23) as in Celsus, and in addition *molaris* 'a molar tooth' ← 'like a mill-stone' (‖ Gk. *μύλη, μυλιαῖος, μυλῖται*)[220] and *tunic(ul)a (prima oculi)* 'a tunic of the eye' ← 'a (small) tunic'.[221]

Theodorus attests *anus* and *tunica (oculi prima*, at 38. 4) as in Celsus and

[207] Cf. André (1991: 157–8).
[208] See 3. 6. 2. 1d below. Cf. Skoda (1988: 165) on Gk. *κόων* in this sense.
[209] Cf. Skoda (1988: 15–16) on *ζύγωμα*, André (1991: 33).
[210] Cf. Skoda (1988: 43), André (1991: 109). In Scrib. it means only 'small bowl'.
[211] Specifically, *uentriculi porta*, the pyloric valve of the stomach (Cels. 4. 19. 1; cf. 4. 1. 7): see Skoda (1988: 91) on *πυλωρός*, André (1991: 135); and *iocineris portae*, the porta hepatis, the hilus of the liver (Cels. 5. 26. 2): cf. Skoda (1988: 98, 120–2) on *πύλαι τοῦ ἥπατος*. André (1991: 129, 154, 247) understands *iocineris portae* in Celsus and *portae iecoris* at Cic. *N. D.* 2. 137 as referring to the two branches of the portal vein. While this is possible in Celsus, where the context is unhelpful, the Cicero passage clearly favours the first meaning, the *part* of the liver which receives the blood. This is, furthermore, apparently the only attested sense of the Greek phrase in Plato, Aristotle, and the Hippocratic corpus: see Skoda's presentation (loc. cit.).
[212] Cf. Skoda (1988: 33–4), André (1991: 94).
[213] Cf. André (1991: 139).
[214] Cf. Adams (1982*b*: 74–5), André (1991: 179).
[215] Cf. Skoda (1988: 12–14), André (1991: 30).
[216] Cf. André (1991: 111–2), who regards the meaning 'bone' as prior to that of 'reed-pipe', since animal bones were the earliest musical pipes. This does not, however, exclude the present etymology of *tibia* 'tibia bone', as this particular bone could have received its name much later than the musical instrument, once the latter was felt to be the primary meaning of *tibia*. Cf. also Adams (1995: 400–1).
[217] Cf. Boscherini (1991: 188–9). Contrast André (1991: 66–7).
[218] Cf. Skoda (1988: *passim*), André (1991: 54, 179).
[219] Cf. André (1991: 158).
[220] At 36. 12, without *dens*. Cf. Skoda (1988: 85–7), André (1991: 65).
[221] At 23. 25 André (1991: 54) reads *tunica* with *T* and *R* (cf. Theodorus below); Sconocchia reads *tunicula* with *M* (i. e. Marcell. 8. 5), as at Scrib. 22. 10.

Scribonius; and in addition *molae* 'the molar teeth' at 49. 2 ← 'mill-stones' (‖ Gk. *μύλαι*).[222]

Cassius Felix has *tunica* and *uia* as in Celsus, *molares (dentes)* (pl.) 'the molar teeth' as in Scribonius;[223] and in addition *longauo* 'the rectum' ← 'a (long?) type of sausage';[224] *mappa* 'the peritoneum' ← 'a piece of cloth';[225] *pala* 'the shoulder blade' ← 'a spade, winnowing-shovel';[226] *pecten* 'the pubis' ← 'a comb' (‖ Gk. *κτείς*);[227] and *serum* 'the serum of the blood' ← 'the whey of the milk' (‖ Gk. *ὀρός*).[228]

(2) Anatomical terms named after parts of the human body (or personified as human figures)

Celsus has *caput* and *capitulum* 'the head of a part of the body' ← 'a (little) head' (‖ Gk. *κεφαλή*);[229] *ceruix* 'the neck of the bladder or womb' ← 'the neck' (‖ Gk. *αὐχήν, τράχηλος*);[230] *corpusculum* 'a particle of matter' ← 'a (small) body' (‖ Gk. *σωμάτιον*); *latus* 'the side of a part of the body' ← 'the side of the human torso';[231] *lingua* 'a tongue-like flap of skin' ← 'the tongue';[232] *ōs* 'the mouth of a part of the body' ← 'the mouth' (‖ Gk. *στόμα*);[233] *pupilla* 'the pupil of the eye' ← 'a little girl' (‖ Gk. *κόρη*);[234] *spiritus* 'wind, intestinal gas' ← 'breath' (cf. 3. 6. 1. 3a); *uentriculus* 'a ventricle of an internal organ' ← 'the stomach' (‖ Gk. *κοιλία*);[235] *uertex* 'the top of a part of the body' ← ' the crown of the head'.[236]

It is surely only by accident that there are no examples of this type of metaphor in Scribonius. Theodorus attests *pupilla* (at 157. 7, 8) as in Celsus; and in addition *testes* 'the testicles' ← 'witnesses, third parties' (‖

[222] Cf. the *v.l.*, *mola resoluta*, at 50. 1.

[223] André (1991: 65) reads *molae* 'molar teeth' at Cass. 64. 18 *fysicum ad dolorem molae* (where Rose records that *c* and *p* have *mole* but prints *malae*). Cf. above on *molae* in Theod. 49. 2.

[224] Cf. Adams (1981: 236–7), André (1991: 146–7), and, on the word in the vets, Adams (1995: 411, 414).

[225] Cf. Boscherini (1991: 188), André (1991: 140).

[226] This may be a transfer from animal to human anatomy. Cf. André (1991: 86, 259), Adams (1995: 393–4).

[227] Cf. Cels. 8. 1. 23 *quod pectinem uocant*. Celsus uses only *os pubis*. See 2. 4. 4 and 3. 6. 2. 1 above. Cf. Skoda (1988: 156–7, 169–70, and *passim*) on the range of anatomical meanings that *κτείς* bears.

[228] Cf. André (1991: 130).

[229] Cf. Skoda (1988: *passim*), André (1991: *passim*).

[230] Cf. Skoda (1988: 154–5, 178–9), André (1991: 159, 191).

[231] Cf. André (1991: 120). See 3. 6. 2. 1d below.

[232] Cf. André (1991: 60–1). Celsus also describes the epiglottis as a *lingua* at 4. 1. 3.

[233] Cf. Skoda (1988: *passim*), André (1991: 191) on *ōs uoluae*.

[234] See 3. 6. 2. 1d below.

[235] Cf. André (1991: 125) and add Cels. 4. 1. 5, of the kidneys.

[236] Cf. André (1991: 30) and add Cels. 8. 1. 8, 16, 19, 20, 22, of the heads of various bones.

Gk. *παραστάται*).[237] Cassius has *caput, ōs, pupula,* and *spiritus,* all as in Celsus.

(3) Anatomical terms named after animals or their body-parts

Celsus attests *caninus dens* 'a canine tooth' ← 'tooth of a dog' (‖ Gk. *κυνόδους*);[238] *lacertus* 'the biceps muscle of the upper arm' ← 'a lizard';[239] *musculus* 'a muscle' ← 'a (small) mouse' (‖ Gk. *μῦς*);[240] *squama* and *squamula* 'a flake' of broken or decayed bone, dead skin, etc. ← 'a scale' of a fish or reptile.

Scribonius, Theodorus, and Cassius all attest *musculus* 'muscle', and Cassius has also *squamilla/squamula* as in Celsus; in addition Theodorus uses *pecus* 'the foetus' and Cassius, *corium* 'the human skin' ← 'the skin, hide of an animal'.[241]

(4) Anatomical terms named after plants or their parts

Celsus has *coles* 'the penis' ← 'a vegetable stalk' (‖ Gk. *καυλός*);[242] *glans* 'the glans penis' ← 'an acorn' (‖ Gk. *βάλανος*);[243] *radicula* and *radix* 'the root of a part of the body' ← 'the root of a plant' (‖ Gk. *ῥίζα*);[244] *spina* 'the back-bone' ← 'a thorn' (‖ Gk. *ἄκανθα*);[245] *uua* 'the uvula' ← 'a grape' (‖ Gk. *σταφυλή*).[246]

Scribonius attests *radix*,[247] *spina*, and *uua* as in Celsus.

Theodorus has *caulis* (at 82. 13), *musculus* (at 63. 13), *radix* (at 63. 10 of a wound), and *uua* (at 55. 1), all as in Celsus.

Cassius attests *radix* as in Celsus and *folliculus* 'the bladder, or sac, of the uvula' ← 'the bag, sack or envelope of a seed'.[248]

(5) Anatomical terms named after other natural phenomena

Celsus has *lumen* 'the faculty of sight' ← 'light' (‖ Gk. *φῶς*)[249] and *uertex* 'the crown of the head' ← 'a whirlpool'.

[237] Rare in medical writers, who prefer *testiculus*, but common in the vets. Adams (1982*b*: 67–8) regards *testes* as 'more slangy' than the diminutive, which 'unlike *testis*, was specialised in the anatomical sense with its etymology no longer felt'. Cf. André (1991: 178) and Adams (1995: 420–1).

[238] Cf. Skoda (1988: 83–5), André (1991: 64).

[239] See 3. 6. 2. 1d below.

[240] Cf. Skoda (1988: 57–8), André (1991: 203).

[241] Cf. André (1991: 200–1 with n. 9).

[242] Cf. Adams (1982*b*: 26–7), Skoda (1988: 157–8).

[243] Cf. Adams (1982*b*: 72), Skoda (1988: 161–3), André (1991: 176).

[244] Cf. André (1991: *passim*).

[245] Cf. Skoda (1988: 16–18), André (1991: 197–8).

[246] Cf. Skoda (1988: 103–5), André (1991: 68).

[247] Of hairs at 104. 24, of haemorrhoids at 103. 1.

[248] Cf. André (1991: 68).

[249] Cf. André (1991: 50).

Theodorus attests *cauerna* 'a passage, cavity in the human body' ← 'a cavity in the earth'.[250]

Cassius has *cauerna* as in Theodorus.[251]

(6) Anatomical terms named from various other source-domains

Celsus has *index (digitus)* 'the index finger' ← '(the finger) that points',[252] *sinus* 'the fossa of a bone' ← 'a recess, bay'.[253] Cassius uses the same word *sinus* for 'the vagina' ← 'a recess, bay' (‖ Gk. *κόλπος*).[254]

3.6.2.1b Pathology: Disease-terms named metaphorically

(1) Disease-terms named after objects of material culture

Celsus has *area* 'a bald patch' ← 'a threshing floor, an open space';[255] *carbunculus* 'a carbuncle, an ulcerous, purulent tumour; the disease anthrax' ← 'a coal' black and/or burning;[256] *clauus* 'a corn, wart' ← 'a nail, rivet' (‖ Gk. *ἧλος*);[257] *fistula* 'a narrow suppurating sore or ulcer' ← 'a pipe' (‖ Gk. *σῦριγξ*);[258] *panus* 'a kind of abscess' ← 'a spool wound with thread';[259] *rubrica* 'a type of *impetigo*' ← 'red ochre'; *strigmentum* 'a shred in the faeces' ← 'a scraping, especially one removed by the strigil'.

Scribonius has *carbunculus*,[260] *clauus*, *fistula*,[261] and *panus*, all as in Celsus. Theodorus also has *carbunculus* (at 1. 62. 12, 63. 3) and *clauus* (at 64. 6). Cassius has *fistula* as in Celsus, and in addition *fossula* 'a type of small ulcer' ← 'a small ditch' (‖ Gk. *βοθρίον*).[262]

(2) Disease-terms named after human body-parts

Celsus uses *uesica* 'a blister' ← 'the bladder'; *unguis* 'a pterygium' ← 'a finger-nail'.[263]

[250] At 172. 9, of the lungs; cf. 49. 10, of rotten teeth; 13. 10, of a *papilla*. Cf. André (1991: 41, 43, *al.*).

[251] Cf. Boscherini (1991: 192).

[252] Cf. André (1991: 101–2).

[253] Cf. André (1991: 195).

[254] Cf. Migliorini (1981), Adams (1982*b*: 90–1), André (1991: 188).

[255] On Gk. *ἀλώπηξ*, *ἀλωπεκία*, see Skoda (1988: 241–3). The Greek term is explained, since Galen, as alluding to mange in the fox (*ἀλώπηξ*). I am struck both by the oddity of this supposed metonymy and by the agreement between Latin *area*, its Greek equivalent *ἀλωή* 'threshing-floor', and the first part of *ἀλώπηξ*. It may be worth looking for a different etymology for *ἀλώπηξ* 'bald patch, alopecia'; the standard account linking it with the name of the fox looks very like a folk-etymology.

[256] Cf. Gourevitch (1982*a*: 190), Rippinger (1987: 212–17). On Gk. *ἄνθραξ* see Skoda (1988: 207–9).

[257] Cf. Skoda (1988: 214–16).

[258] Cf. Skoda (1988: 277–81).

[259] Cf. Boscherini (1991: 190 with n. 19).

[260] Cf. Rippinger (1987: 212–17, esp. 216).

[261] An ulcer at 95. 26, 96. 24; a pipe at 31. 14, 17.

[262] Cf. Skoda (1988: 190) on Gk. *βοθρίον*. See 3. 6. 2. 1d below.

[263] Cf. André (1984) on *uesica*; Skoda (1988: 284–6) on Gk. *πτερύγιον*.

Scribonius attests only *uesica* (at 60. 11) as in Celsus, and in addition *praegnates (gingiuae)* (only at ind. 8. 17, 36. 2) a name for infected gums ← 'pregnant with child, swelling with growth'. There are no examples in Theodorus, but Cassius Felix has *papilla* 'a pustule, pimple' ← 'a nipple'.[264]

(3) Disease-terms named after animals

All four authors have *cancer* 'cancer' ← 'a crab' (‖ Gk. *καρκίνος*).[265] Cassius attests in addition *aranea*, *aranea uerrina*, types of skin-disease ← 'a cob-web'[266] and *scrofa* 'a scrofulous swelling in the glands of the neck' ← 'a breeding-sow'.[267]

(4) Disease-terms named after plants

Celsus attests *lenticula* 'a freckle, beauty spot' ← 'a lentil' (‖ Gk. *φακός*);[268] *uua* 'staphyloma of the eye' ← 'a grape' (‖ Gk. *σταφύλωμα* with only the medical meaning).[269] There are no examples in Scribonius or Theodorus, but Cassius has *cortex* 'a scab on a wound' ← 'the bark of a tree'.[270]

(5) Disease-terms named after other natural phenomena

Celsus attests *crusta* 'a scab' ← 'a hard crust';[271] *inflammatio* (with *inflammare*) '(an area of) inflammation' of part of the body ← 'setting on fire'. Scribonius has *crusta* and *inflammatio* (only at 86. 12) as in Celsus, and in addition *cauerna* 'the cavity' of a rotten tooth (only at 50. 13) ← 'a cavity in the earth',[272] and *uentus* 'intestinal wind' (only at 62. 8, 88. 9) ← 'the wind'.

Theodorus uses *inflammatio* (107. 8) as in Celsus, *cauerna* (at 49. 10, of rotten teeth) as in Scribonius, and in addition *gleba (sanguinis)* (at 45. 9) 'a clot' of blood ← 'a clod of earth'. Cassius attests *crusta* and *inflammatio* as in Celsus, *cauerna*, *cauernula*, *(cauernari)* like *cauerna* above, and *glebula* like *gleba* in Theodorus.[273]

[264] See 3. 6. 2. 1d below.

[265] Cf. Skoda (1988: 263–6) on the metaphor in Greek. Note that *cancer* is neuter in Scribonius.

[266] Cf. André (1987*b*: 7–8), oddly omitting Cass. 42. 4, 5, 12; Boscherini (1991: 189).

[267] Cf. Gk. *χοιράδες* with *χοιράς* 'like a hog or hog's back'. *Scrofa* is correctly bracketed by Rose at Theod. 31. 5, in the chapter 'De choeradis', in which the Greek term is much preferred.

[268] Cf. Skoda (1988: 227–30).

[269] Cf. Skoda (1988: 286) and compare *σταφυλή* 'inflammation of the uvula'.

[270] Cf. Boscherini (1991: 189–90).

[271] Cf. Skoda (1988: 210–13) on the Greek equivalent *ἐσχάρα* 'hearth, fireplace'.

[272] See nn. 250–1 above. For this meaning in the 1st century cf. Plin. *Nat.* 22. 106; on its use in Cassius (below), see Boscherini (1991: 192).

[273] André (1991: 130) prints *globula* at Cass. Fel. 61. 17, without saying why. It is true that *glob-* is recorded as a variant for *glebosus (sanguis)* at 86. 10 (ms. *p*) and 117. 9 (ms. *c*) but *gleb-* seems more appropriate for 'clot' in all three passages; *glob-* refers to roundness, *gleb-*, to lumpiness. Cf. *gleba sanguinis* in Theodorus (45. 9).

(6) Disease-terms named from various other source-domains

Celsus has *nota* 'a sign, symptom of a disease' ← 'a distinguishing mark', and *signum* (with *significare*) 'a sign, symptom of a disease' ← 'a mark, impression'. Scribonius has just *signum* (only at 19. 10, 62. 20) as in Celsus, as does Theodorus (e.g. at 106. 22). Cassius has *significare* as in Celsus, and in addition *causa* 'a medical case, a case of disease' ← 'a legal case',[274] and *sinus* 'a fistulous ulcer' ← 'a recess, fold, bay' (‖ Gk. *κόλπος*).[275]

3. 6. 2. 1c Therapeutics: Terms relating to therapeutics named metaphorically

(1) Terms of therapeutics named after objects of material culture

Celsus has *canaliculus, canalis* 'a (small) gutter-splint' ← 'a (small) channel or duct'; *modiolus* 'a trepan' ← 'the nave of a wheel' (‖ Gk. *χοινεικίς*). Scribonius attests *emissarium* 'an outlet made for the discharge of morbid matter' (95. 16, 104. 12) ← 'a drain, channel' for surplus water; *globulus* 'a pill' (at e.g. ind. 11. 11; t. 71. 12, 18, 21) ← 'a little ball, sphere' (‖ Gk. *σφαιρίον*); *pilula* 'a pellet' ← 'a little ball'. Cassius has *rotula* 'a medical pill' ← 'a small wheel' (‖ Gk. *τροχίσκος*).[276]

(2) Terms of therapeutics named after human beings or body-parts

In Celsus we find *custos membranae*, a metal plate used to protect the meninges during operations on the skull ← (lit.) 'the guard of the membrane' (‖ Gk. *μηνιγγοφύλαξ*), and *labrum* 'the rim' of a vessel or instrument ← 'a lip' of the human mouth.

(3) Terms of therapeutics named after animals

Celsus has *coruus* 'a surgical knife' ← 'a raven' (cf. Gk. *κόραξ*, the point of a surgical knife).

(4) Terms of therapeutics named after plants

In Celsus we find *cucurbitula* 'a cupping-vessel' ← 'a gourd' (‖ Gk. *σικύα*), and *lenticula* 'a small vessel' ← 'a lentil'. Scribonius has just *cucurbita* (at 30. 20, 38. 11) like *cucurbitula* in Celsus. Theodorus has *cucurbita* (e.g. 24. 14) as in Scribonius,[277] and also *bacula (spathomeles)* at 38. 12 ← 'a (small) berry'. Cassius attests *cucurbita* and *lenticula* as in Celsus.

(5) Terms of therapeutics named after other natural phenomena

I have noted none in this category.

(6) Terms of therapeutics named from various other source-domains

In Celsus I note *linea* 'a surgical incision' ← 'a line traced on a surface'.

[274] On this etymology, and the other medical senses of *causa*, see 3. 6. 2. 1d below.

[275] Cf. Skoda (1988: 190).

[276] Cf. André (1963: 64). See 3. 6. 2 1d with n. 283 below.

[277] Cf. Theod. 126. 13 *uentosis cucurbitis*.

3. 6. 2. 1d Some notes on a few problematic instances

A few individual words call for some brief notes, which I simply order alphabetically, considering in turn: *causa* 'a case' of a disease, *ficitas* 'a type of ulcer', *fossula* 'an ulcer', *frenum* 'the frenulum', *lacertus* 'the biceps muscle', *papilla* 'a pustule', *pupilla* = *pupula* 'the pupil of the eye'.

Causa is attested in at least three different senses in medical contexts:[278] (1) 'the cause of a disease', (2) 'a disease', (3) 'a case' of a disease. It was suggested above (3. 6. 1. 1h) that sense (2) may have derived from (1), just as the disease melancholy (*bilis atra*) appears to have taken its name from that of its presumed cause, black bile. Sense (3), the use of *causa* to mean 'a case' of a disease,[279] could perhaps have arisen through a sort of contextual modulation within medical contexts: 'a/the disease' ← 'the particular case of the disease under discussion' ← 'any particular case of any disease'. But the sense 'a case' is certainly open to more than one semantic account, and by including it here I am raising the possibility that it arose through an implicit comparison of a medical case with a legal case,[280] and that it is part of a small set of medical terms drawn from the language of the law (cf. *iniuria, noxa* in 3. 6. 2. 2 below).

Ficitas 'a type of ulcer' is apparently attested only at Cass. 55. 2 sycosin, quam nos ficitatem dicimus, though the form makes one other appearance in Latin, meaning 'a crop of figs'.[281] André (1963: 65) and Skoda (1988: 223–4 'litt. "production de figues"') seem to regard the ulcer as named metaphorically from the fig-*crop*, and I include it here but with misgivings: there is no suggestion anywhere that this ulcer resembled a plurality of figs; Celsus compares it to *a* fig at 6. 3. 1 ulcus quod a fici similitudine sycosis a Graecis nominatur. And even if *ficitas* 'crop of figs' (with *-tas* roughly 'harvest') was still current in Latin, it seems to me to be at least as likely that *ficitas* (the ulcer) was formed anew to translate Greek *σύκωσις* morph by morph (with *-tas* for *-sis* in a disease-term, like the probable neologism *saxietas* for *σκίρ(ρ)ωσις*).[282] May we in any case even believe Cassius' implied statement that this was a current Latin disease-term?

I have similar misgivings about the status of *fossula*, which is used of an ulcer once only in Cassius (51. 11 bothria etiam ulcera, id est *fossulas* . . . sanat) and in no other Latin text (*ThLL*, s.v.). One must admit the

[278] On the semantic history of *causa*, see Miniconi (1943–4), (1951).

[279] *Causa* must mean 'a case' at e.g. Cass. 153. 20 secundum aetatem et uires et causae magnitudinem; cf. 143. 4, 160. 24, and see Adams (1995: 574), who quotes an instance from Pelagonius.

[280] For *causa* in the sense of a legal case see *ThLL*, s.v., 689. 12 ff.

[281] Attributed to Novius by Nonius Marcellus p. 109. 18 ut oliuitatem id est fructus fici. On *oliuitas* (Varro, Columella), *oleitas* (Cato) 'crop of olives' and *autumnitas* (Cato, Varro) 'harvest', see Leumann (1977: 374).

[282] So, too, André (1971: 52, n. 3).

possibility that it too is a morph-for-morph translation of Greek *βοθρίον* (which does recur in Cassius of an ulcer), rather than a serious metaphorical use of *fossula* 'a small ditch' (cf. André 1963: 63). The same doubt surrounds *rotula* 'a pill' and 'a small wheel' (cf. Gk. *τροχίσκος*).[283]

Frenum 'the frenulum' of the penis: the anatomical sense is attested only at Cels. 7. 25. 2 and *Exc. Bob. gramm.* 1. 548. 26 *λέγεται δὲ καὶ σειρὰ φύσεως freni* (*ThLL*, s.v., 1293. 46 ff.); Boscherini (1991: 188) observes the slight difference between the images in Greek ('trace, lasso') and Latin ('bridle, bit'). There is no evident physical similarity between a bridle/trace and the frenulum, although a functional similarity could be apparent to one performing a circumcision.[284]

Lacertus 'the biceps muscle of the upper arm'[285] and 'a lizard': this is an interesting case: is this one lexeme or two, and, if just one, which sense is prior? Walde–Hofmann (s.v. 'lacerta') suppose that the lizard takes its name from *lacertus* 'the upper arm', 'und zwar als die "biegsame" oder "zappelnde, bewegliche" . . . nicht als "die straffe, muskulöse" ';[286] presumably, they mean not that the sense 'lizard' is derived from 'upper arm' but that the two senses are different specialized uses of an adjective in *-to-* meaning *'bent, wriggly'.[287] By including the item here, I am following M. Bréal,[288] André (1991: 90–1), and Skoda (1988: 58, n. 211),[289] who derive the sense 'muscle' from 'lizard', assuming a comparison based on the common traits of swift, fluid movement and tightness of skin. This account is supported by the similar semantic links seen in *mus* 'a muscle' and 'a mouse' (cf. Gk. *μῦς*), Greek *ἀλώπηξ* 'the psoas muscle' and 'a fox', Italian *pesce* 'the biceps' and 'a fish'.[290]

Papilla 'a pustule' and 'a nipple': it is tempting to take this as a parallel (though running in the other direction) to the metaphor apparent in German *Brustwarze* 'a nipple', literally 'a breast-wart'. This is the account given by the *ThLL* (s.v., 255. 80) and it is supported by the chronology of

[283] In Isid. *Orig.* 4. 9. 10 (adduced by André 1963: 64), *rotula* means simply 'small wheel'.

[284] I owe this observation to C. Michie, M.D. Cf. also Adams (1982*b*: 74 and n. 2).

[285] See André (1991: 90–1) on the other anatomical senses of *lacertus*, viz. muscle (in general), the upper arm, the whole arm.

[286] N. Jokl (*IF*, 37 (1916–17), 110, n. 1) argues for some semantic parallels in Albanian and Slavic.

[287] Supposedly containing the verbal root **lak-* 'bend, turn, wriggle' seen in e.g. Gk. *λακτίζω* 'kick', *λικερτίζειν* = *σκιρτᾶν* 'spring, leap, bound' (Hsch.).

[288] Quoted by André (1991: 90, n. 30).

[289] As well as Ernout–Meillet (s.v. 'lacertus') and the *ThLL*, s.v. 'lacertus', 829. 49–50.

[290] See André (1991: 203–4). Boscherini (1991: 192) tentatively refloats Wölfflin's analogous (animal-name) account of *furunculus* 'a boil' and 'a cat' (cf. *ALL*, 12 (1902), 388–9); this is hinted at also by the *ThLL*, s.v., at 1650. 50 and at 1650. 35 with the reference to *furo* 2 (1629. 15 ff.), some kind of cat (cf. *CGL* 3. 320. 49 *furunculus αἴλουρος mustela*). *Furunculus* is usually taken to be from the language of the vinedresser (cf. Boscherini, ibid.). Perhaps rather arbitrarily, I have regarded this as too uncertain to merit inclusion here.

the occurrences of the two meanings: *papilla* 'a nipple' is already in Plautus and Lucilius, while the sense 'a pustule' is not found until much later (Quintus Serenus, 4th cent.(?)). It is also possible, however, that *papilla* was formed as a 'diminutive' to *papula* 'a pustule'; the latter is not attested with the meaning 'nipple'.

Pupilla = *pupula* 'the pupil of the eye'[291] and 'a little girl': this instance of polysemy is not in doubt but two points should be noted in connection with it. First, it is not a straightforward instance of metaphorical transfer of meaning: the pupil is not 'the part that *resembles* a little girl' but 'the part that *contains something that resembles* a little girl'.[292] Secondly, it is possible that Latin *pupilla, pupula* is based on a misunderstanding of the semantic origin of Greek *κόρη* 'pupil' which may be derived not from the meaning 'little girl' but from 'small votive image, puppet, doll',[293] a meaning not securely attested for the Latin words. This appears to be Chantraine's understanding of the Greek term (*DELG*, s.v.) and it is notable that Plato glosses *κόρην* 'pupil' with *εἴδωλον* 'image' at *Alc.* 133ª1–3 *τοῦ ἐμβλέποντος εἰς τὸν ὀφθαλμὸν τὸ πρόσωπον ἐμφαίνεται ἐν τῇ τοῦ καταντικρὺ ὄψει ὥσπερ ἐν κατόπτρῳ, ᾧ δὴ καὶ κόρην καλοῦμεν, εἴδωλον ὄν τι τοῦ ἐμβλέποντος.*[294] Does the image in the pupil resemble a young girl more than any other human form?: the Elder Pliny, in his lyrical essay on the eye at 11. 139–55, appears to think not:

> Plin. *Nat.* 11. 148 tam parua illa pupilla totam imaginem reddit hominis.

On the other hand, the Greek medical writer Aretaeus (1st or 2nd cent. AD) clearly takes the term for 'pupil' to refer to a young female, in that he substitutes the word *παρθένος* for *κόρη*, writing at *SD* 1. 7. 7 (p. 46. 3 Hude) *ἡ ἐν τοῖσι ὀφθαλμοῖσι παρθένος*; there is also the interesting fact that medical papyri from pharaonic Egypt refer to the pupil as 'the girl', 'the girl in the eye'.[295]

3. 6. 2. 1e Summary

Table 3.2 summarizes the distribution of the 'concrete' metaphorical medical terms catalogued over the last few pages, organizing them by author and lexical field, and within the latter, by the source-domain of the metaphor.[296]

[291] *Pupula* in Cicero, Horace, Ovid, Caelius Aurelianus, Cassius Felix, etc.; *pupilla* in Lucretius, Celsus, Pliny, Theodorus, etc.

[292] Skoda repeatedly (1988: 143, 145) calls the relationship simply metaphorical.

[293] Contrast Skoda (1988: 143–4).

[294] For *κόρη* 'votive image' cf. Pl. *Phdr.* 230ᵇ.

[295] See Lefebvre (1956: 69) (André's reference to him (1991: 53) is to be corrected). On the Greek words see Skoda (1988: 143–6).

[296] For a summary of 'métaphorisés' and 'métaphorisants' in Greek vocabulary relating to anatomy and pathology see Skoda (1988: 313, 315).

Table 3.2. 'Concrete' metaphorical terms by author, lexical field, and source-domain*

	Cels.	Scrib.	Theod.	Cass.
Anat.	44	9	12	20
1	18	5	3	8
2	11	–	2	4
3	5	1	2	4
4	6	3	4	2
5	2	–	1	1
6	2	–	–	1
Path.	16	12	7	16
1	7	4	2	2
2	2	2	–	1
3	1	1	1	4
4	2	–	–	1
5	2	4	3	5
6	2	1	1	3
Ther.	9	4	2	3
1	3	3	–	1
2	2	–	–	–
3	1	–	–	–
4	2	1	2	2
6	1	–	–	–
Totals	69	25	21	39
1	28	12	5	11
2	15	2	2	5
3	7	2	3	8
4	10	4	6	5
5	5	4	4	6
6	4	1	1	4

*1 = objects of material culture; 2 = human body-parts; 3 = animals; 4 = plants; 5 = other natural phenomena; 6 = other.

Two observations are called for on the distribution revealed by this table. One is that this type of term-formation is particularly well represented in the vocabulary relating to anatomy (except in Scribonius) and very poorly represented in that relating to therapeutics (in all four authors). On the other hand, the difference between anatomy and pathology in this respect in our Latin sample—even in Celsus, who has a large anatomical vocabulary—is much smaller than that established by Skoda (1988) for Greek: Skoda counts in all (1988: 313) 182 metaphorical body-part terms but only 47 relating to disease.

The second unevenness in the distribution of the Latin examples is the prominence of the first-mentioned source-domain, 'objects of material culture', again above all as a source of anatomical terms. This agrees well with one of Skoda's findings for Greek: her best-represented area is 'terms related to human activities: cooking, clothing, daily life, animal-breeding, fishing' (total 35). On the other hand, she identifies three other source-domains which yield significant numbers of metaphorical names, namely 'anatomical terms, human and animal' (total 27), 'names of animals' (total 23), 'names of plants' (total 23). The picture presented by Celsus, Scribonius, and Cassius suggests that the source-domain of cultural objects has no such close competition (this is not the case in Theodorus)—although it is noteworthy that my source-domains 2, 3, and 4 (human body-parts, animals, and plants), though much less fruitful in Latin than in Greek, do match Skoda's quite closely.

3. 6. 2. 2 Metaphor based on a conceptual or abstract resemblance to states, events, or actions

This section is the least complete of all. This is due, first, to the emphasis in this study on nominal forms and, secondly, to the fact that, in the case of verbs and their derivatives, it is much more difficult than with nouns to say where simple 'semantic stretch' gives way to metaphorical usage.[297] This section, then, should be read as a set of tentative and preliminary remarks on 'abstract' metaphor based on some prominent medical examples. I include only those verbal actions which find expression in a nominal derivative in at least one of our four authors, be it an abstract nominalization or a participle functioning as a noun or an adjective (although I do also note occurrences of the associated verb).

The large majority of my examples are, indeed, transparent nominal derivatives of verbs which are found also with the metaphorical meaning. Only nine are not so tied to a verb (see the lists and notes below for details):

Anatomy: *ieiunum (intestinum)*, *potentia* (Cels.); *officium* (Theod., Cass.);
Pathology: *noxa* (Cels.), *impetus* (all four), *iniuria* (Cels., Scrib., Cass.);
Therapeutics: *uis* (Cels., Scrib., Theod.); *potestas, uirtus* (Theod.).

This area of general medical language promises to repay further study also in that already, even without a close study of non-nominalized verbs, certain themes for metaphor or analogy repeat themselves. These images depend in general on a 'promotion' in terms of physical status of the

[297] For 'semantic stretch' see Lloyd (1987: 198); cf. my type 3. 6. 1 above. See Lloyd's discussion of Gk. *πέψις*, with references to Aristotle (1987: 204–6).

medical phenomenon denoted or alluded to: so, for example, symptoms and diseases, which have no corporeal existence, may be presented as if they were at least physical objects and indeed are often associated with predicates which imply that they are volitional, animate, even human agents of the action of the verb.[298] To body-parts and remedies also, actions and states are ascribed (directly or by implication) which are primarily proper to an animate, especially a human, agent.[299] These include the notions of movement, including aggressive movement (attack), unlawful conduct, force, capacity, and occupation, and the actions of helping and repairing. There is, in short, a considerable element of corporeality, animacy, and even anthropomorphism implied in the vocabulary used of physiological processes, and of the actions and effects of disease on the body and of medical remedies on both body and disease. Within this metaphorical framework certain coherent images recur in numerous items of terminology. Some of these are very well known—notably that of the war between the disease and the doctor/the art of medicine—and these will occupy us shortly.[300] First, however, I shall present some material from our four authors under the following headings: (1) metaphorical promotion to (at least) corporeal status; (2) metaphorical promotion to (at least) animate status; (3) metaphorical promotion to human status; (4) metaphorical promotion of an action of the human body from involuntary to voluntary; (5) other abstract metaphors.

In effect in (1)–(3) I am distinguishing three levels on a sort of animacy hierarchy: corporeal—animate—human.

(1) Metaphorical promotion to (at least) corporeal status

Of items relating to anatomy or physiology, the voice, the senses, the bowels, strength, and life itself may be spoken of as if they were physical objects. Celsus uses the verbs *obtundere*, of the dulling of the speech or

[298] It is interesting to compare the remarks of Goltz (1969) on this aspect of descriptions of disease in modern (layman's) German, Akkadian and ancient Greek. On the latter two languages see her lists of examples on pp. 243–6 and note esp. her conclusions on pp. 246–7. Of the description of disease in part of the Hippocratic corpus she writes (p. 247), 'Bei den Griechen muß diese Sprache bereits als ein Relikt einer früheren animistischen Krankheitsauffassung angesehen werden.' She applies the same account to the language of the Babylonians 'auf Grund ihrer im wesentlichen dämonistischen Auffassung von der Ursache der Krankheit' and sees even in the demythologized, depersonalized German 'es' (English 'it', in 'it hurts', etc.) 'noch etwas von einer ursprünglichen Numinosität'. Note also the important article of Langholf (1989).

[299] Cf. Langholf (1989: 13): 'Daß dies eine Metapher ist, kommt einem kaum zum Bewußtsein. Das Wort . . . ist ursprünglich aber die Tätigkeit eines persönlichen grammatischen Subjekts.' On the cognitive status of this sort of metaphor (or 'Idealised Cognitive Model'), see Lakoff and Johnson (1980), Lakoff (1987), Kövecses (1986), (1988).

[300] Cf. Langslow (1999: 199 ff.).

senses,[301] and *soluere*, of the loosening of the bowels.[302] Scribonius has the nominalization of the latter in *solutio (stomachi)* 'looseness of the bowels' ← 'freedom from restraint'; and in addition *abscisio (uocis)*, 'loss' of voice (cf. 41. 8 *abscisus sonus uocis*) from the verb used figuratively from its basic sense 'to cut off'. Theodorus talks of the 'undoing of strength' (134. 4 *resolutio uirium*). Cassius Felix has the nominalization *obtunsio* (beside *obtundere*, as already in Celsus) 'dulling' of the senses,[303] from the verb used figuratively from its basic sense 'to beat'; and *solutio (uentris)* as in Scribonius. Cassius attests also *amputatio* (beside *amputatus*) 'the loss of a faculty'[304] ← 'the process of pruning, cutting off' (‖ Gk. *συγκοπή*); and *exhalatio (animae)* 'fainting, expiring' ← 'breathing out'.

Symptoms and diseases are often said to have weight, to weigh down the patient. They are also said to move down, to be shaken off, to be stretched. So Celsus uses the verbs *opprimere* and *premere* of a sense of being weighed down,[305] *declinare* of an illness subsiding,[306] and *discutere* of shaking off a disease,[307] and the nominalization *intentio* (beside *intendere*) 'the intensification of a fever' ← 'the action of stretching' (‖ Gk. *ἐπίτασις*, *ἐπιτείνω*).

Theodorus Priscianus has *declinatio* 'the declining stage' of an illness ← 'the action of turning aside or away' (e.g. 106. 10, 130. 3; beside *declinare* as in Celsus); and *depressio* 'the condition of being weighed down' (114. 13 *capitis*).

Cassius attests *declinatio*, as in Theodorus (beside *declinare*, as in Celsus); *discussio* 'the ending, bringing to an end' of a disease ← 'shaking, vibration'; *oppressio* 'a feeling of oppression' ← 'the action of pressing against'; *pressura* 'a sense of being weighed down'[308] ← 'pressure'.

(2) Metaphorical promotion to (at least) animate status

There are few plausible examples of anatomical terms which imply metaphorical promotion to animate status. One is the phrasal term *ieiunum intestinum* 'the jejunum' ← 'the fasting intestine' (Cels. 4. 1. 7; ‖ Gk. *ἡ νῆστις*).[309] Another is *recursus* 'the reflux' of an internal organ ← 'the action

[301] Cf. *obtunsio* in Cass. below.

[302] Cf. *solutio* in Scrib., Theod., and Cass. below.

[303] Of the vision at 56. 18, 100. 9.

[304] Of the voice at 187. 12; of movement at 140. 6.

[305] Cf. *oppressio* and *pressura* in Cass. below.

[306] Cf. *declinatio* in Cass. below.

[307] Cf. *discussio* in Cass. below.

[308] In Cass. only at 155. 16.

[309] Cf. Skoda (1988: 92–3), André (1991: 144–5). I regard *caecus* in *caecum intestinum* 'the cecum' ← 'the "blind" intestine' (‖ Gk. *τυφλὸν ἔντερον*) as meaning 'having no egress' (cf. Cels. 4. 1. 8), so that this body-part is compared not to a creature with eyes but to, say, a road or a passage. On the terms for the cecum, cf. Skoda (1988: 93–4), André (1991: 145–6). The *ThLL*, s.v. 'caecus', 43. 19 ff. cites examples of this use also from Vindic. *Med.* 27, Cael. Aur.

of running back' (Theod. 230. 1; Cass. 188. 18; ‖ Gk. *ἀναδρομή*); Cassius has a further metaphorical term similar to the last in *suffugium* 'a shifting upwards' of the womb[310] ← 'a means of escape'.

On the other hand, examples relating to the actions of diseases and remedies are numerous, and the images invoked relatively consistent. Most prominent is the picture of a disease approaching or more aggressively attacking the patient, seizing the patient, letting him go, and departing. So, Celsus uses *accessio* (with *accedere*) for 'the onset' of a disease, especially a fever ← 'the action of approaching'; *decessio, decessus*[311] (with *decedere*) for 'the abatement' of a disease, especially a fever ← 'the action of departing'; and *remissio* (with *remittere*) for 'the remission, abatement' of a disease, especially (25 times out of 27) a fever ← 'the action of loosening, releasing' (‖ Gk. *ἄνεσις*; cf. *dimittere*, of a disease leaving a patient).[312] More aggressive are *impetus* 'an onset, attack' of a disease ← 'violent onward movement or force' (‖ Gk. *ἐπίθεσις*), and the verb *incursare*, of the attack of a fever.[313] Scribonius has *accessio, impetus*, and *remissio (dolorum)* (only at 52. 16;[314] cf. 52. 10 *remissi (aegri)*), all as in Celsus. Theodorus Priscianus has only the more aggressive images of *impetus* as in Celsus and Scribonius,[315] *attemptatio* (e.g. 32. 12) and *occupatio* (114. 9 *sensūs*; with *occupare*); and in addition *dimissio* 'the release' of the patient by a disease, especially a fever ← 'the action of sending forth, letting go' (247. 7; cf. *dimittere* already in Celsus). Cassius Felix has *accessio, dimissio, impetus*, and *remissio*, as above; and in addition *apprehensio* 'seizure' of the senses, 'insensibility, with bodily rigidity' ← 'the action of seizing' (‖ Gk. *κατάληψις*);[316] *incursus* 'an influx' of fluid in the body[317] ← 'a running forward' especially military (cf. *incursare*, already in Celsus); and *raptus* 'a convulsion, fit, seizure' ← 'the action of snatching' (cf. Gk. *σπασμός* in only the medical sense).[318] Cassius also has the image of a disease being born, in the term *natiuitas*[319] (with *nasci*, already in Celsus) 'the formation' of a growth, disease ← 'birth, being born'.

Chron. 2. 11, and Isid. *Orig.* 11. 1. 31, all referring explicitly to the Gk. *τυφλὸν ἔντερον*. It is striking that, while *τυφλός* is well attested in the sense 'having no egress' (LSJ, s.v., II. 2), Latin *caecus* is apparently otherwise unknown with this meaning. S.v. 'excaeco, are', 1196. 74 ff., the *ThLL* refers the rare use of this verb to mean 'to block up' (only Ovid, Celsus, and Seneca) to *caecum intestinum* but s.v. 'caecus' offers no other parallels.

[310] In Cass. only at 187. 16.

[311] *Decessus* only at 3. 12. 2. *Decessio* seven times, and apparently only in Celsus in this sense.

[312] Cf. *dimissio* in Cass. below.

[313] Cf. *incursus* in Cass. below.

[314] Cf. 54. 7 *remissio neruorum* 'relaxation'.

[315] See Theod. 25. 17 *doloris*, 69. 14, of a disease, 222. 6 *ad impetus eorum uaporeos*.

[316] Cf. André (1963: 60). [317] In Cass. only at 49. 3. [318] Cf. André (1963: 65).

[319] In Cass. only at 38. 1.

Then there is a series of images of the hostile actions performed by diseases against the patient or his body, notably of biting, pricking, twisting. In Celsus we find, for example, *punctio* 'a pricking, stabbing pain' ← 'the action of pricking, stabbing'; *rosio* (with *rodere*) 'a gnawing pain'[320] ← 'the action of eating away'; and the verb *torquere*, of the pain of colic.[321] Scribonius attests *punctus* like *punctio* in Celsus, and *morsus* 'a sharp pain'[322] ← 'the action of biting' (‖ Gk. *δῆξις, δάκνω*). Cassius Felix uses *punctio* as in Celsus,[323] *morsus* as in Scribonius, and similarly *mordicatio* 'griping pain',[324] again from the verb used figuratively from its basic sense 'to bite' (‖ Gk. *δῆξις, δάκνω*). Cassius attests also *rasura* 'an uncomfortable scraping sensation' ← 'the action of scraping' (cf. 3. 6. 1. 3a above) and *tortus* 'severe pain in the stomach or intestines, colic',[325] from the verb used figuratively from its basic sense 'to twist' (cf. *torquere* already in Celsus, and Gk. *στρόφος* 'twisted cord; colic').[326]

Remedies are depicted as being no less active than the diseases they fight against, and as performing actions proper to animate beings, such as binding, squeezing, eating, gnawing.[327] Celsus uses *adstringens* (with *adstringere*) 'making costive the bowels' ← 'binding up tightly'; *comprimens* (with *comprimere*) '(an) astringent' to make costive the bowels ← 'to squeeze, constrict a channel'; *educens* (with *educere* and *deducere*) 'extracting' harmful materials ← 'leading out, drawing out'; *erodens* (with *erodere*) '(an) erodent', from the verb used figuratively from its basic sense 'to eat away'; *exedens* (with *exedere*) '(an) exedent', from the verb used figuratively from its basic sense 'to eat away'; *reprimens* (with *reprimere*) '(a) repressant' of inflammation (etc.), from the verb used figuratively from its basic sense 'to hold in check by physical restraint'; *rodens* (with *rodere*) '(a) corrosive', from the verb used figuratively from its basic sense 'to gnaw, nibble'; *supprimens* (with *supprimere*) 'suppressant' of bleeding, from the verb used figuratively from its basic sense 'to press down, hold back, contain'. Remedies are said also to have a *uis* 'a power' to produce some effect ← 'physical strength, force, violence'. Scribonius uses *uis*[328] in this way, as does Theodorus (28. 8 *reumatis*), who also attests *constringentia* (neut. pl., only at 225. 10)[329] and

[320] Only once in Celsus at 7. 23 spumans bilis aluo cum rosione redditur.

[321] At Cels. 2. 7. 6, 4. 18. 1; cf. *tortus* in Cass. below.

[322] At 88. 23 *stomachi dolorem morsūsque*; cf. 103. 15, 106. 18; otherwise, 21 times, of the bite of an animal (cf. 3. 6. 1. 3a above).

[323] In Cass. only at 131. 4. [324] In Cass. only at 9. 8. [325] In Cass. only at 134. 2.

[326] On colic and its names, in horses and humans, see Adams (1995: 274–8).

[327] Not, however, killing, even pain: cf. Hom. *Il.* 5. 900 *ἀδυνήφατα φάρμακα* 'pain-killing drugs' and note Langholf's comment (1989: 8): 'das ist keine verblaßte Metapher wie das englische "pain-killer", vielmehr ist der Schmerz . . . belebt gedacht'.

[328] See pr. 3. 5, 9; 21. 24; 83. 6. Cf. of the power of an affliction 21. 19 *uis epiphorae*.

[329] Cf. Theod. 106. 16 *constrictio uentris*.

euocatorius (e.g. 25. 17 *adiutoria*),[330] while Cassius has (e.g.) *constrictorius* (with *constrictiuus*,[331] *constringere*) 'astringent, causing to contract', from the verb used figuratively from its basic sense 'to tie up, hold together'; *deducens* (with *deducere* and *educere*) '(an) extractant' of phlegm,[332] from the verb used figuratively from its basic sense 'to lead away, draw off'; and *eiectorius* 'causing ejection from the body by vomiting, excretion',[333] from the verb used figuratively from its basic sense 'to throw out'.

(3) Metaphorical promotion to human status

I think that it is reasonable to see a metaphorical promotion even to human status in a further, small group of terms. Under physiology, Celsus uses *potentia* for the 'power, faculty' of a human sense organ ← 'power, influence, ability to do something' primarily of a human agent (‖ Gk. *δύναμις*); and similarly Theodorus and Cassius Felix have *officium* 'a bodily function' ← 'a job, function' performed typically by a human agent.[334] Cassius has also *operatio* '(the capacity for) normal functioning' of a part of the human body ← 'activity', normally of a human agent; and the further interesting image implied by *negatio*,[335] (with *negare*) 'the failure, making impossible' of a bodily function ← 'refusal, denial'.

A common image of the action of a disease appears to be that of unlawful conduct. Celsus uses *iniuria* '(an) injury' to the health or body ← 'unlawful conduct' (cf. Gk. *ἀδικέω*); and *noxa* 'harm' to the health or a part of the body, 'a disease'[336] ← 'injurious behaviour' of one person to another. Scribonius and Cassius also have *iniuria*.[337] Theodorus and Cassius attest *causatio* 'a disease' ← 'a complaint',[338] which may conceivably be a further legal metaphor (see the note on *causa* above, 3. 6. 2. 1d).[339]

Under therapeutics, I would note Theodorus' use of *potestas* (e.g. 3. 12) and *uirtus* (e.g. 53. 1) for the power of remedies and their ingredients.

[330] Notice also 209. 2 *reuocatoria emplastra*. Theodorus uses *euocare*, *reuocare*, and (63. 8) *uocare* apparently interchangeably.

[331] *Constrictiuus* in Cass. only at 130. 17.

[332] In Cass. only at 148. 10.

[333] In Cass. only at 136. 15.

[334] This use of *officium* is already in Ter. *Eun.* 729 neque pes neque mens sati' suom officium facit. In Theod. note e.g. 110. 14 *officium uentris*.

[335] In Cass. only at 166. 14.

[336] Of *phthisis* at Cels. 3. 22. 12.

[337] Once each: Scrib. 23. 8, Cass. 2. 17.

[338] In Theodorus, especially in titles, e.g. t. 21. 1, t. 48. 7, t. 82. 1, but cf. 21. 7 and 165. 5. *ThLL*, s.v., 703. 8 ff. cites examples only from Gellius, Palladius, Vindicianus, Theodorus, and Cassius Felix. In Cassius, especially in the formula of the type, Cass. 105. 13 est autem splenetica passio causatio in splene; cf. 135. 19. Perhaps rather 'cause' at 159. 6 praefocationis causatio, though this could be like *uitium elephantiae* = *elephantia*.

[339] On political metaphors in the Hippocratic corpus see Cambiano (1983), Vegetti (1983), and Langholf (1989).

(4) Metaphorical promotion of an action of the human body from involuntary to voluntary

A recurring feature of the vocabulary relating to the involuntary discharge of substances from the body is the use of compounds of *duco*, *iacio*, *mitto*, verbs which take normally an animate agent performing a deliberate action. This may be seen as a further instance of 'promotion of status', this time of the human organism from unconscious to conscious. Celsus has *eicere* of vomiting,[340] and *emittere* of the involuntary emission of a body-fluid.[341] Scribonius uses *reiectio* (only at 86. 15) and *reicientes* for 'vomiting, bringing up' (of blood, vomit, poison, etc.), from the verb used figuratively from its basic sense 'to throw, drive, back'.[342] Cassius Felix has *educ(a)tio* 'expectoration' ← 'the action of leading out' (‖ Gk. *ἀναγωγή*); *emissio* (with *emittere*) 'the involuntary emission' of a body-fluid ← 'the action of sending out, dispatching'; *reiactatio* (with *reiectare*; like *reiectio* in Scribonius) 'vomiting, bringing up' of blood, phlegm, vomit, from the verb used figuratively from its basic sense 'to throw back violently or repeatedly'.[343]

(5) Other abstract metaphors

A very old image, in Greek as well as Latin medical language, is that of disease as work or labour. This is reflected in all our authors in the frequent nominal use of *laborans* 'afflicted, being ill; the one afflicted, the patient', from the verb *laborare* used figuratively from its basic sense 'to labour, toil' (‖ Gk. *ὁ κάμνων*, *κάμνω*). All four authors have both participle and finite verb in this sense.[344]

Then there is the famous case of *deliratio* 'madness, delirium', from the verb *delirare* used figuratively from its basic sense 'to miss the balks in harrowing'.[345] Cassius attests the nominalized form *deliratio* (at 149. 10), which emerges to compete with the older *delirium*, the form used by Celsus (at 2. 6. 7, 5. 26. 31E, *al.*).[346]

[340] Cf. *eiectorius* in Cass. below.

[341] Cf. *emissio* in Cass. below.

[342] At Scrib. 47. 22–3, where Sconocchia prints *ad eos qui sanguinem ore eiciunt* (with *M*), I prefer *sanguinem reiciunt* (with *TR* and Helmreich), like *sanguinem reicientes* at 48. 19, 49. 1 (or perhaps *sanguinem aut reiciunt*): mention of the mouth is quite otiose and the corruption a very easy one. Scribonius appears to use *eicio* in this way at 62. 20 *stercus per os eicientem* (unless we should prefer *deicientem* with *R* or emend to *reicientem*) but otherwise *eicio* is not used of involuntary expulsion from the body (see Scrib. 33. 24, 42. 1, 72. 2, 95. 24, 104. 16). At Scrib. 47. 22–3, Niedermann (1916: 144) argues for *ore reiciunt*. Cf. p. 421 n. 133 below.

[343] The intensive *reiectare* survives as the verb for 'to vomit' in most of the Romance languages; see *REW* 7189 and Bambeck (1959: 68).

[344] Theodorus has *laborans* adj. at 38. 11, of the eyes, and 119. 9, of the lung.

[345] According to the *ThLL*, the verb is so used only by Lactantius and Caelius Aurelianus.

[346] Indeed, only by Celsus, according to the *ThLL*. *Deliratio* is the standard form in medical texts; conversely *delirus* is avoided by the medical writers.

An early-established Latin medical expression for the administration of an enema is *ductio alui* (with *(sub)ducere aluum*)[347] ← 'the drawing off' of water (‖ Gk. *τὴν κοιλίην ὑπάγειν*). This implies a comparison of the intestine with a pipe or water-channel and, as such, is consistent with some instances of concrete/functional metaphorical vocabulary considered in the last section (3. 6. 2. 1), such as *canalis, fistula*.

I end with a small group of terms which name invisibile processes and effects with clear metaphorical reference to a process or effect in the observable world but without necessary reference to an animate or human agent or patient; indeed, the arguments of the underlying predicates remain, it seems to me, at best loosely specified. As in the case of *ductio alui*, these are fairly 'concrete' actions and belong closely with the metaphors considered in the last section (3. 6. 2. 1). I have in mind, from Celsus, *concoctio* 'the process of digestion of food in the stomach', from the verb *concoquere* used figuratively from its basic sense 'to heat thoroughly, to cook down' (‖ Gk. *συμπέσσω*);[348] and *pulsus* 'the pulse of the blood-vessels'[349] ← 'the action of beating, striking; a beat, stroke'. *Pulsus* is also used by Cassius Felix,[350] who attests also *defluxio* (with *defluere*) 'the loss' of hair or bodily matter ← 'downward flow';[351] *digestio* of disease, growths, morbid matter (‖ Gk. *πέψις*).[352]

(6) Summary

With the exception of the last paragraph, which contains a mixed bag of images, the terms assembled in this section illustrate a single metaphorical idea: the ascription to non-physical entities (physiological processes, diseases, the effects of remedies) of actions, features, and behaviour which are proper, on the one hand, to physical things and, on the other, to animate, even human, beings. Anatomy and physiology are least well represented here, though we saw in (1) above examples of non-physical entities in these lexical fields being spoken of as if they were physical

[347] *Subducere* only once in Celsus, at 3. 4. 2, but cf. its use at Var. *Men.* 447 in a *double entendre*, which guarantees the currency of the expression already in the 1st cent. BC.

[348] Note esp. the allusion in Cels. pr. 38 to the long-standing debate on the nature of digestion, and see Lloyd (1987: 160, n. 208).

[349] In Celsus only at 3. 19. 1 *uenarum pulsūs*, with a defining genitive and in the plural; contrast its use in Cassius (n. 350).

[350] Except that, differently from Celsus (n. 349), Cassius has *pulsus* nine times, always unqualified, always in the singular.

[351] This metaphor of falling hair is already in Ovid, at *Met.* 6. 141 medicamine tactae defluxere comae; cf. *defluuium* in Plin. *Nat.* 20. 27, 29. 108, etc.

[352] See Rose, index s.v., and *ThLL*, s.v., 1121. 42 f., 51–4. *ThLL*, s.v., 1121. 26 ff., seems to mix digestion of food with that of disease and morbid matter. Note also *digestio* 'the maturing' of a fever, in Cass. only at 142. 5 postquam aegritudo [*quartana*] pepsin fecerit, id est digestionem. This sense of *digestio* is presumably a loan-translation of Gk. *πέψις* primarily 'digestion (of food)' (← 'cooking'). Cf. Lloyd (1987: 204–6).

objects (e.g. the 'beating' of the senses) and in (5) above cases of involuntary physiological processes being described by implication as voluntary (e.g. the 'sending out' of a body-fluid).

The large majority of abstract metaphorical terms relate to the fields of pathology and therapeutics, and the image of deliberate aggressive, even violent action (both by the disease against the patient and by the treatment or the doctor against the disease) is, as the examples in (2) and (3) illustrate, a consistent one. Some of the actions ascribed to disease imply a picture of an aggressive animal (e.g. *morsus, mordicatio, punctio, rosio*), others suggest the image of a human adversary, in particular of an enemy soldier (e.g. *impetus, occupatio, attemptatio, incursus*). Historians have stressed the importance of the role played by war and by gladiatorial shows in the development of Roman medicine.[353] It is perhaps not absurd to suppose that these operating environments have left their marks on the language of medicine, too, in both lay and professional circles, in metaphorical terms of this kind.[354]

It would be pointless to offer statistics for the examples in this section on abstract metaphor. Since, as I have explained, the material here is not based on a systematic study of the use of non-nominalized verbs with metaphorical meaning, a count of the data as presented above would be more relevant to Chapter 6 (nominalization and the nominal style in medical prose) than to 'abstract' metaphor. I think that the most important point to bring out concerning the distribution of these terms is that the images that we have just encountered tend to be common to at least two of our four authors. Moreover, Cassius has relatively few examples which are not already in Celsus; indeed, this section shows the largest 'overlap', or shared vocabulary, between Celsus and Cassius of any of the classes of semantic extension that I have distinguished. This may be taken to offer another provisional conclusion, namely that this type of semantic connection, once established, is most likely to survive.

3. 6. 3 SOME SEMANTICALLY NON-TRANSPARENT PHRASES

We are left with a surprisingly small group of semantically non-transparent phrasal terms. They vary in the degree of semantic opacity that they exhibit. So, for example, knowledge of the words *ignis* and *sacer* gives no clue at all to the meaning of *ignis sacer*, while *morbus maior* is at least a type of *morbus* (and is therefore only 'semi-opaque' in the terms of Cruse 1986: 39–40). They have in common nonetheless that they are lexically complex

[353] Cf. Jackson (1988: 126 ff.), with notes and further references.

[354] On an alternative source of metaphors of this sort, in 'demonistic' views of disease, see Goltz (1969), Langholf (1989), and nn. 298 and 327 above.

(comprising each two lexemes) but semantically simple: in these terms they qualify as 'idioms', as defined by Cruse (1986: 37).

Under physiology, Celsus attests *actiones naturales* (pl.) 'the physiological processes' of the human body ← (lit.) 'natural actions'.

Under pathology, Celsus has *ignis sacer*, the name of various skin-diseases, including herpes and erysipelas ← (lit.) 'sacred fire';[355] *leuitas intestinorum* 'lientery' ← (lit.) 'smoothness of the intestines' (|| Gk. λειεντερία); and two pairs of old Latin synonyms: *morbus comitialis* 'major epilepsy' ← (lit.) 'the disease of the assembly (*comitia*)' = *morbus maior* ← (lit.) 'the greater disease'; and *morbus regius* 'jaundice' ← (lit.) 'the kingly disease' = *morbus arcuatus* (lit.) 'the rainbow-coloured disease'. Scribonius uses *ignis sacer*, *morbus comitialis*, *morbus arcuatus*,[356] and *morbus regius*; Theodorus has *ignis sacer*; and Cassius attests *ignis sacer* and *morbus regius*, all as in Celsus. The only new example in the three writers after Celsus is *passio sacra* in Theodorus, an ancient name of epilepsy ← (lit.) 'the sacred disease'.[357]

3. 7 General Comparisons and Conclusions

Table 3.3 indicates the number of examples that we have seen of each type of semantic extension (with the exception of 3. 6. 2. 2, 'abstract' metaphor, and 3. 6. 3, non-transparent phrases), organizing them also by author and lexical field.

The feature of distribution that emerges most strikingly from this summary table has been noted before but I draw attention to it again: particular types of semantic extension appear to cluster markedly in certain lexical fields. Nearly all of the specific semantic dimensions within medicine (3. 6. 1. 1) relate to anatomy, two, to pathology and none, to therapeutics. Under more general semantic relations (3. 6. 1. 2), therapeutics is poorly represented among cases of ellipse and euphemism but accounts for every example of what I have called 'contextual modulation'.

I commented above (3. 6. 1. 3) on the use of *abstractum pro concreto* in term-formation in the several lexical fields: a few anatomical terms, especially in *-tus*; a good many disease-terms, in *-tus* and *-tio* in the earlier period; succeeded by numerous terms for types of treatment in Theodorus and Cassius, in *-tio* only. Concrete metaphor is in both periods an important source of terms of anatomy and pathology but much less productive of vocabulary relating to medical treatment.

[355] Cf. Boscherini (1991: 191).

[356] At Scrib. 59. 13; without *morbus* at ind. 10. 33 Ad auriginem, quod uitium quidam arquatum quidam regium uocant (cf. 67. 13).

[357] Theod. 147. 12 antiquiores sub cuiusdam religionis imagine sacram passionem nuncupauerunt. On possible reasons behind the name see Cael. Aur. *Chron.* 1. 60.

Table 3.3. Summary of distribution of types of semantic extension by author and lexical field*

	Cels.	Scrib.	Theod.	Cass.	total*
(3. 6. 1. 1) specific semantic dimensions within medicine					
(a) adjacent parts	5	–	1	3	8
(b) skin–surface	9	–	1	5	10
(c) bone ↔ body–part	10	2	–	–	11
(d) part ↔ whole	8	–	–	–	8
(e) container ↔ contents	2	1	1	1	3
(f) human & animal	1	1	3	2	4
(subtotal)	35	4	6	11	44
(g) diseased body–part	7	1	–	2	9
(h) diseases ↔ symptoms	5	3	1	3	10
(subtotal)	12	4	1	5	19
(total)	47	8	7	16	63
(3. 6. 1. 2) more general semantic relations					
(a) ellipse of head	10, 7, 2	3, 5, 3	7, 2, 1	5, 2, 1	14, 12, 6
(b) ellipse of det.	4, 9, 4	–, 5, 2	2, 7, –	3, 4, 2	5, 18, 5
(c) euphemism	7, 1, –	3, –, –	7, 2, –	7, 2, –	16, 3, –
(total)	21, 17, 6	6, 10, 5	16, 11, 1	15, 8, 3	35, 33, 11
(d) modulation (ther.)	26	7	12	13	30
(3. 6. 1. 3) *abstractum pro concreto*					
(a) deverbal	6, 12, 8	3, 11, 4	2, 7, 9	6, 12, 13	13, 29, 27
(b) de-adjectival	–, 4, –	–, 2, –	3, 4, 1	3, 8, –	5, 11, 1
(c) *concr. pro abstr.*	2, –, 4	1, –, 2	1, –, 3	1, –, –	2, –, 8
(total)	8, 16, 12	4, 13, 6	6, 11, 12	10, 20, 13	20, 40, 36
(3. 6. 2. 1) concrete metaphor	44, 16, 9	9, 12, 4	12, 7, 2	20, 16, 3	58, 29, 14

*Three figures refer to *anatomy, pathology, therapeutics*; total counts each lexeme once only.

Given Cassius' smaller numbers overall, types in which he has more examples than Celsus are especially noteworthy. The increase in absolute terms in types 3. 6. 1. 3a and b (*abstractum pro concreto*), noted above (3. 6. 1. 3b), is even more striking when calculated as a proportion of the instances of semantic extension in each author: Cassius' 42 examples represent 31% of his total of 137 (see Table 3.3), while the 30 examples in Celsus are proportionally fewer than half as many (14% of his total of 222). As noted above, this increase in the use of abstract formations with con-

crete reference is in keeping with the development of the later Latin language in general; it is also, however, strikingly apparent in our medical corpus.

The fact that Celsus has more examples than Cassius both of specialization and extension of reference (type 3. 6. 1) and of metaphor (type 3. 6. 2) may reflect in part his larger terminology, which arises in turn from the simple fact that he makes reference to a greater number of things, especially parts of the body and medical instruments. Note especially specialization of reference from outside the field of medicine (3. 6. 1. 2) where Celsus has almost twice as many examples as Cassius (Cels. 70: 39 Cass.) and specialization and extension of reference within the field of medicine (3. 6. 1. 1), where the numerical difference between the two authors is even greater, Cassius showing about a third as many as Celsus (Cels. 47: 16 Cass.).

But the numerical differences between the two authors under specialization and extension of reference do not at all correspond to the difference in size of their total Latin terminologies (approx. Cels. 673: 603 Cass.), an observation which invites further speculation. Specialization and extension of reference, in contrast with metaphor and *abstractum pro concreto*, involve the synchronic results of adjustment of reference of a quantitative rather than of a qualitative nature. Let three examples make this clear. In denoting the white of the eye, *album* makes conventional, lexicalized reference to an object that is included in its primary reference to any white or white part. The white of the eye is one particular white or white part of the many whites or white parts in the world. Similarly *pectus*, in denoting the sternum, is making reference to one physical part of its primary reference, the chest. In contrast, the difference between the primary and the medical reference of *sutura*, that is, between 'stitching' and 'cranial suture', is *qualitative* in that these referents do not stand in any way in a physical part-whole relationship, nor are they in any simple sense members of the same class of objects.

Given that technical terms in established terminologies tend, unlike ordinary words, to have a single unambiguous reference, at least within the terminology (cf. 1. 2. 2 above), it is clear that metaphorical terms will serve this purpose much better than those formed by specialization or extension of reference. This is due to the much greater conceptual difference between the medical and the primary reference of metaphorical terms. It is hard to imagine cases where ambiguity would arise as to whether 'stitching' or 'cranial suture' were intended. This is less certainly so for terms based on specialization of reference from outside the field of medicine, though usually the context would indicate the special lexicalized reference of a general term such as *album, adustum*. But terms formed by specialization or

extension of reference within medicine are quite unsatisfactory in this respect, being very heavily context-dependent for their correct interpretation.[358]

In view of this consideration of potential ambiguity, the hypothesis suggests itself that Cassius' much-reduced numbers in these classes (esp. those in 3. 6. 1. 1, but also those in 3. 6. 1. 2) reflect not a slightly smaller total Latin terminology but rather a tendency to eliminate from technical discourse words whose medical reference belongs to the same class as their primary reference and especially to reduce the use of medical words with more than one reference in the medical sphere.

[358] A corollary of this is that a single object may have more than one name in Celsus; e.g. the stomach is *stomachus, uenter, uentriculus*; cf. Jocelyn (1985: 316) on this aspect of 'the literariness of Celsus' style'.

4
Phrasal Terms

4. 1 Introduction

This chapter is about a set of medical terms which are formally not single words but noun phrases. Our authors attest a wide range of different types of medical referring-expressions consisting of more than one lexeme, which differ both formally and with regard to their status as medical terms. At one extreme, medical objects and medical phenomena are referred to, rather long-windedly, by means of clauses and phrases of various types (*si*-clauses, relative clauses, etc.), which have no reasonable claim to any status as items of a terminology (but to which I return in Chapter 6). On the other hand, our authors attest a significant number of two-word phrases (noun + adjective, noun + genitive) which have a very good claim to be regarded as, at worst, single lexical items and, at best, fully fledged medical terms. I call these latter 'phrasal terms' and devote this chapter principally to them.[1] My purpose is twofold, and concerns both vocabulary and syntax. I mean in the first place simply to identify and underline the existence of these phrases, all too easily ignored, as established items of medical terminology. Secondly, I argue that phrasal terms represent an important interface between syntax and the lexicon, and a promising focus for further work, especially in the area of word-order at the level of the noun phrase (section 4. 4. 3. 3 below); phrasal terms play also, I believe, a significant role in the development of nominal syntax and the 'scientific' style (on which I shall have more to say in Chapter 6). Finally, phrasal terms can occasionally afford some insight into authors' approaches to the business of translating Greek medical terms, especially when different phrasal terms are used by different writers.

We have already (2. 4. 4. 5 above) observed the use of Latin phrasal expressions, especially by Celsus (and to a lesser extent Scribonius), to replace acknowledged Greek medical terms. A typical example is Celsus'

[1] I have adapted the term 'phrasal term' from Lyons's 'phrasal lexeme' (1981*a*: 146). I prefer it to the label 'free compound' in order to use 'compound' always and only of monolexematic items. For other terms used for these structures and for bibliography, see Oniga (1988: 61, n. 7).

treatment of Greek *opisthotonus*, a species of *rigor neruorum* (Gk. *tetanus*) 'tetanus'. He introduces it as follows:

Cels. 4. 6. 1 [*morbus*] qui *quodam rigore neruorum* modo *caput scapulis*, modo mentum pectori *adnectit*, modo rectam et inmobilem ceruicem intendit. primum Graeci *ὀπισθότονον* . . . appellant,

but refers back to it, when this disease is mentioned much later, in the middle of book 8, with a defining relative clause which echoes closely the relevant part of the definition just quoted:

Cels. 8. 11. 2 [*a dislocation*] febres quoque et cancros et *neruorum* uel distentiones uel *rigores qui caput scapulis adnectunt* mouere consueuit.

However, this is not the only sort of case in which we find a Latin paraphrase effectively serving as a single item of terminology. The absence of a Greek term beside the Latin phrasal expression may be due to the decision of the Latin author not to include it in his text, or to his ignorance of it, or to a real gap in the Greek terminology.

To illustrate the last case first, on at least one occasion, Celsus notes that the Greeks have only one term for two distinct conditions. In one type of *hirnea* fluid distends the scrotum:

Cels. 7. 18. 7 atque eius quoque species duae sunt: nam uel inter tunicas is increscit uel in membranis . . . Graeci communi nomine, quicquid est, hydrocelen appellant.

The distinction is relevant since the two species of *hydrocele* require slightly different forms of treatment (7. 21. 2).

On other occasions Celsus may not have been aware of a Greek term. This may have been the case, for example, for the two types of *impetigo* which are not named in his account. He describes four species of this skin-disease at 5. 28. 17A (impetiginis uero species sunt quattuor) but he ascribes *cognomina* only to his second and third types: 5. 28. 17B rubrica cognominatur . . . nigrae cognomen est. The first and fourth, although described in careful detail (5. 28. 17A, 17C), are not named, either in Greek or in Latin (cf. 1. 2. 2 above).

More commonly, and not only in Celsus, it appears that a well-attested and presumably familiar Greek term has been 'suppressed' by the Latin author, in favour not of a single Latin term but of, again, a non-terminological paraphrase such as a defining relative clause. Celsus, for example, in his preface refers to veterinarians as 'ii qui pecoribus ac iumentis medentur' (pr. 65), ignoring not only the Greek word *ἱππιατροί* but also concise and lexicalized Latin equivalents, most notably *ueterinarius*.[2] A second instance is Celsus' 'medicament which is made from mulberries':

[2] For further details, see 6. 2. 3. 1 below.

the (apparently) cumbersome expression 'id medicamentum quod ex moris est' occurs twice in just this form (at 4. 7. 3 and 6. 11. 5) without mention of how to make it or of its Greek name.[3] Presumably Celsus expected his readers to recognize it on the basis of his descriptive paraphrase?[4] Scribonius offers a third example, in his preface, where in referring to an abortifacient he prefers the paraphrase 'medicamentum quo conceptum excutitur' (pr. 2. 21) to the single word *abortiuum* (e.g. Plin. *Nat.* 25. 25).[5]

In short, not every distinct phenomenon need have its own name, at least in Celsus and Scribonius. In these cases and others like them medical phenomena are denoted and even classified on the basis of longhand description and definition and without shorthand labels. There are probably stylistic factors at work here (cf. 6. 3 below), although another possible inference is that the description of the subject matter is regarded as more important than the form, or even the existence, of a name, and there are indeed other cases which support the idea that Celsus favours phrasal designations especially for their high level of descriptiveness. For instance, the Latin phrase that he uses for the bones of the shoulder blade, *lata ossa scapularum*, replaces not only a named Greek term (*omoplatae*) but even the Latin (metaphorical) name *scutula operta*, which Celsus seems to regard as a current term (8. 1. 15 nostri 'scutula operta', 'omoplatas' Graeci nominant). A more opaque Latin term is 'improved'—made more transparent—also in the case of the condition known as *aqua intercus*, for which Celsus consistently uses *aqua inter cutem*, 'undoing' the hypostasis that produced the compound *intercus*. And to denote the cecum, the blind gut, he replaces the opaque old Latin term *fundolus* (Var. *Ling.* 5. 111; André 1991: 145) with the descriptive phrasal term *intestinum caecum*. Transparency of meaning is likely to have been a stronger factor in Celsus' choice of expression than either conciseness of form or avoidance of a Greek term. Conversely, to return to the group of expressions with which I opened this discussion above, the length of the Latin phrasal equivalents of 'rejected' Greek terms—such as 'in longitudinem implicatum linamentum' (7. 28. 2; 8. 5. 1) or 'neruus ex quo testiculus dependet' (7. 18. 11; 7. 22. 5)—may be

[3] Contrast the more general designation at Cels. 6. 11. 1 of 'ea medicamenta . . . quae ex malis Punicis fiunt', a reference back to the two recipes based on pomegranate juice at 6. 10. 2.

[4] For further details, see 6. 2. 3. 1 below.

[5] This last case is, in fact, one of numerous examples in all four authors, but especially in Celsus and Scribonius, of the use of a defining relative clause to denote a class of medicaments for which there exists a single Greek term (often an adjective with the suffix -ικός): Celsus refers to sternutatories, for instance, as '[*ea*] per quae sternutamenta euocentur' (3. 20. 1), without mention of the Greek term πταρμικά (already in Hp. *Aph.* 5. 49). The other class of lexical items which receives this treatment is that of patients named with reference to their disease, as, for example, in Cels. 2. 8. 34 quos lienis male habet (= Gk. *splenetici*). I return to these lexical classes in 6. 2. 3 below.

seen as the price of the greater load of information that they bear compared with their opaque, if short, equivalents (*lemniscus* and *cremaster*, respectively): this is a price that Celsus (and, on occasion, Scribonius) are evidently prepared to pay.

Most of these longer phrasal equivalents remain quite unlexicalized in that they neither exhibit any degree of compression of information nor make appeal to other than linguistic knowledge, that is, their meanings may be correctly inferred from the meanings of their component parts. So, for example, 'neruus ex quo testiculus dependet' contains all the information that was given when this part of the anatomy was introduced:

> Cels. 7. 18. 1 dependent uero [*testiculi*] ab inguinibus per singulos neruos, quos cremasteras Graeci uocant.

Two, I believe, involve a small degree of lexicalization, namely *dentes qui secant* (for Gk. *tomis* 'the incisors') and *ora uenarum fundentia sanguinem* (for Gk. *haemorrhoïdes* 'haemorrhoids'). Since all the teeth can be used for cutting, one is obliged to know that *dentes qui secant* refers only to the four front teeth top and bottom (Cels. 8. 1. 9 *quaterni primi*), the incisors. In the case of *ora uenarum fundentia sanguinem*, it can be argued that significant lexicalization is achieved by the omission of *ani*, *in ano*, or the like. In the latter phrase there is morphological compression, too. It is shorter than the other descriptions of haemorrhoids (cf. Cels. 2. 1. 21, 2. 7. 18, 2. 8. 15, 6. 18. 9A) and consists of only two main constituents, a noun phrase (*ora uenarum*) and a determining phrase (*fundentia sanguinem*); in the latter, *fundentia* is itself a compressed version of the determining phrases used in other designations of this condition, *quae saepe fundunt* (6. 18. 9A) and *solita fundere* (2. 7. 18).

In making explicit reference in Latin to a selected salient feature of the object described but not named, these longer phrases contain all the material needed for the distillation of a new Latin name. It is conceivable that in them Celsus (or his source) was feeling for new medical terms: they are potentially new medical terms in the making. They vary in form but are sufficiently consistent to ensure that the reader will immediately recognize their referent. In the phrasal referring-expressions for haemorrhoids, for example, the elements *ora uenarum sanguin- fund-/-fus-* are constant. However, the small instance of formal compression here (*quae saepe fundunt* → *fundentia*) is isolated among the longer paraphrases; *aqua inter cutem* is even an expansion of the older *aqua intercus*, as I noted above; not one of these paraphrases resembles formally an accepted standard Latin name for an object; in form, they are not terms so much as definitions; and, with the exception of *aqua inter cutem*, none recurs in later writers.

Numerous, however, in all our authors are more-or-less fixed noun

phrases, the large majority consisting of noun + adjective or noun + genitive. Let me give three examples of phrasal medical terms from Celsus: a canine tooth (Gk. *κυνόδους*) is *dens caninus*; lientery, a form of diarrhoea in which undigested food is passed (Gk. *lienteria*) is *leuitas intestinorum*; paralysis (Gk. *paralysis*) is invariably *resolutio neruorum* in Celsus. These are single lexical items not only in function but in formal terms, too, taking their place alongside numerous and well-established Latin phrasal nouns, above all among phrasal terms in other special and technical vocabularies: for example, [noun + adjective] *nauis longa, praetor peregrinus, carduus hirundinina*, [noun + genitive] *tribunus plebis, carduus Musarum, aquae ductus, iuris dictio*. Many phrasal terms, like the three examples just cited from Celsus, supplant acknowledged Greek terms (whether compounds, derivatives, or phrasal terms themselves) in the same way as the longer phrases considered above; many others, however, do not stand expressly beside a Greek synonym, and these include phrasal terms common to all four of our authors, such as *alienatio mentis* or *detractio sanguinis*. Too little attention has been paid to phrasal lexemes in Latin. They have tended to be ignored both by lexicographers, on the grounds that they are not fixed expressions, and by syntacticians, on the grounds that they *are* fixed expressions. We shall see that from both points of view—both as items of vocabulary and as syntactic sequences—phrasal terms, although few in number, constitute an important part of Latin medical terminology. Phrasal terms will repay our close consideration, both for our present account of 'medical Latin' and more generally for studies of Latin vocabulary and word-order, before we turn to compounds and affixal derivatives in Chapter 5.[6]

4. 2 Establishing an Inventory of Phrasal Terms

Phrasal terms are here defined as lexicalized phrases which are technical terms and which occur more than once in an author in more or less the same form, especially if they are expressly synonymous with a Greek term or with a monolexematic Latin term. More than a monolexematic term, a phrasal term, while preserving a single fixed meaning, may exhibit variation of form, between authors or within the same author, whether or not it is a translation of a Greek term.[7] 'Lexicalized' (cf. 4. 1 above) is used of a phrase to mean that knowledge of the meanings of its constituent words is

[6] Note that phrasal terms and 'other collocations' (on the latter see the end of 4. 2 below) are normally cited in this chapter (as in the Index of Latin words) in the order [*Head–Determiner(s)*], no matter what the attested order(s) in our authors; on the question of word order in phrasal terms, see 4. 4. 3 below.

[7] On formal variation in phrasal terms, see 4. 3. 3. and 4. 4 below.

not sufficient for predicting the meaning of the whole phrase. The degree to which individual phrasal terms are lexicalized varies greatly: one may contrast the slightly lexicalized *os pectoris*, literally 'bone of the breast' → 'the sternum' (i.e. a particular bone of the breast) with the fully lexicalized *ignis sacer* literally 'sacred fire' → a type of skin-disease.

I have included as phrasal terms some phrases which occur once only in an author, having been persuaded by one or both of the following considerations:

(1) The phrase is explicitly said to be a current Latin expression: so, in Celsus (anat.) *scutula operta*; in Cassius (anat.) *uenter inferior, uentriculus inferior*; (path.) *aranea uerrina, febris incendiosa, inflatio aquosa, scabies squamosa; fetores narium, furores/insania matricis; plenus multitudine suci*.

(2) The phrase is lexicalized to some degree and attested in other authors with the same meaning: so in Celsus (anat.) *dentes maxillares, digitus medius, digitus minimus, digitus pollex, medicus ocularius, pili palpebrarum*; (path.) *timor aquae*; in Cassius (anat.) *digitus maior, loca genitalia*. From Cassius Felix I have included every case of the form *passio* + an (originally Greek) adjective in *-ica*, whether or not it occurs more than once.

Of the phrases and paraphrases alluded to in 4. 1 above, only those which are explicitly equated with and subsequently replace a Greek term have a claim to be counted as phrasal terms: so, for example, 'neruus ex quo testiculus dependet' for Greek *cremaster* (some instances were collected in 2. 4. 4. 5). Their claim would be based on the fact that they are explicitly defined as synonymous with an independently established term and that they recur *without* their Greek equivalent. This claim may not be rejected on formal grounds; formal constraints on the length or structure of phrasal terms are likely to be arbitrary, especially in a corpus language.[8] A legitimate objection, however, against all but two of these Latin phrases is that, as *definiens* phrases, they remain quite unlexicalized, neither exhibiting any degree of compression of information, nor making appeal to any other than linguistic knowledge. So, for example, as I noted above, 'neruus ex quo testiculus dependet' contains all the information that was given when this part of the anatomy was introduced (Cels. 7. 18. 1).[9] I suggested that there may be two exceptions, namely *dentes qui secant* 'the

[8] Note that even modern English medical terminology contains long and complex phrasal terms such as *partial deletion of the short arm of 5* (a genetic disorder); cf. 1. 2. 7 above.

[9] Cf. Col. 6. 26. 2 testium nerui, quos Graeci *κρεμαστῆρας* ab eo appellant quod ex illis genitales partes dependunt. Unfortunately, Columella does not have occasion to refer to these body-parts again at sufficient distance in the text for the choice of expression to be informative: they are referred to again a few lines later simply as *praedicti nerui*.

incisors' and *ora uenarum fundentia sanguinem* 'haemorrhoids': these two phrases may perhaps be regarded as intermediate in status between a purely descriptive defining phrase and a terminologized phrasal term. They may reasonably be seen as a further small symptom of an inchoate Latin medical terminology.

In this chapter I pay some attention also to what I have termed 'other collocations'. These are in many cases structurally identical with phrasal terms but are not included as such since (1) they meet none of the above criteria and/or (2) they are never used independently of a Greek term. Some of these other collocations occur once only in Cassius Felix as the equivalent of a Greek term (e.g. *passio pediculosa* of Gk. *pthiriasis*). Some of them (such as the last example) show a degree of lexicalization and may indeed have been conventional Latin phrasal terms, but a single appearance in a formula of equivalence with a Greek term does not, in my view, justify their inclusion as such. The other collocations include also commonly occurring but non-lexicalized phrases which are of central relevance to medical discussion (e.g. in Celsus *ualetudo secunda* 'good health', *morbus acutus* 'an acute disease'; in Cassius *umor melancholicus* 'melancholic humour', *febris acuta* 'an acute fever').[10] The more notable examples of other collocations receive a commentary alongside the phrasal terms in sections 4. 3 and 4. 4 below, on the syntactic structures and formal variability of phrasal terms.

4. 3 The Phrasal Terms and their Syntactic Structures

All but a very few of the phrasal terms collected here consist of just two words, a *head* (a noun) and a *determiner* (an adjective in agreement with the head; or a noun in the genitive standing in one of a number of syntactic relations with the head). For the sake of completeness, I set out below a list of all the morpho-syntactic types which occur, however rarely, in our authors (with one example of each) and in the sections that follow I deal, often very briefly, with each type in turn. (An asterisk beside a phrase indicates that it occurs only once in an author.)

(1) Noun + adjective or adjectival determiner	
(1a) noun + relative clause	*dentes qui secant*
(1b) noun phrase + participial phrase	*ora uenarum fundentia sanguinem*
(1c) noun + prepositional phrase	*aqua inter cutem*
(1d) [noun + genitive] + adjective	*dolor capitis diutinus*
(1e) noun + adjective	*dentes canini*
(*cf.* noun + noun	*digitus index*
and noun + [negative + adjective]	*medicamentum non pingue*)
(2) Noun + genitive	
(2a) noun + adnominal genitive	*os pectoris*
(*cf.* noun + [genitive + adjective]	*morbus intestini tenuioris*)
(2b) noun + subjective/objective genitive, *in which the noun is*:	
(i) deverbal (transitive)	*ustio solis*
	distentio neruorum
(ii) deverbal (intransitive)	*defectio animae*
	habitus malus corporis
(iii) de-adjectival	*leuitas intestinorum*
(iv) other	*custos membranae*

[10] In the absence of a reliable index and of any sort of concordance to Theodorus Priscianus, the material presented from this author in particular is to be regarded as more illustrative than exhaustive.

4. 3. 1 NOUN + ADJECTIVE OR ADJECTIVAL DETERMINER

The overwhelming majority of phrasal terms of this type are of the structure [*noun* + *adjective*] (type 1e). I deal first with the several minor types (1a–d), partly in order to set noun + adjective phrasal terms closely beside the noun + genitive type, partly because some of the minor types occur only in the earlier authors.

4. 3. 1a Noun + relative clause

I note just one example, from Celsus: *dentes qui secant* 'the incisors'. (See the remarks in the next paragraph and in 4. 2 above.)

4. 3. 1b Noun phrase + participial phrase

Only Celsus and Scribonius attest phrases of this structure (one each) which may be counted as phrasal terms: in Celsus, *ora uenarum fundentia sanguinem* 'bleeding piles'; in Scribonius, *uua diu iacens*, a condition of the uvula.[11]

It was suggested above (4. 2) that *ora uenarum fundentia sanguinem* and *dentes qui secant* (4. 3. 1a) in Celsus may be regarded as phrasal terms since they are explicitly defined and partly lexicalized. The rarity of phrases of these structures makes it likely that they are ad hoc expressions, symptomatic perhaps of an inchoate Latin terminology, holding an interesting status as naming expressions midway between the non-terminological paraphrase and the terminologized phrasal term. Insofar as *fundentia* is effectively a compression of *quae (saepe) fundunt* (cf. Cels. 6. 18. 9A),[12] *ora*

[11] Cf. *caro excrescens* 'excrescent flesh, an abnormal outgrowth of flesh' under 4. 3. 1e below.

[12] With *quae saepe fundunt* compare 2. 7. 18 ora uenarum sanguinem *solita fundere*.

uenarum fundentia sanguinem, and the other participial examples, may be said to be more developed as a term than *dentes qui secant*, although neither it nor any of Celsus' expressions for bleeding piles[13] resembles formally an accepted standard Latin name for an object: Celsus is here feeling for, but not achieving, a usable new term (Langslow 1994*a*: 306).

Scribonius is perhaps doing the same with the phrase *uua diu iacens*, which he uses on three occasions to refer to a condition of the uvula (at ind. 8. 28, 39. 17, 40. 8; cf. 104.21 *uua nimis iacens*). This may be compared with the condition intended by Celsus at 7. 12. 3A: 'uua si cum inflammatione descendit . . . si deducta sit'.

This use of a participial phrase in adjectival function in place of a relative clause is seen in a number of other collocations. Three in Celsus denote types of medicament with reference to their effect: *medicamenta pus mouentia, medicamenta urinam mouentia, res urinam mouentes*. The first, for example, replaces and compresses *medicamenta quae pus mouent* and may in turn be compressed, appearing without its head noun as *pus mouentia* (cf. *calorem mouentia, urinam mouentia*; in Scribonius *aluum mollientia*).[14]

In Scribonius I would draw attention again (cf. 2. 4. 4. 5 above) to *membrana tegens cerebrum* his expression for 'the meninges' (95. 8), which corresponds to the noun + genitive phrasal term *membrana cerebri* in Celsus.

4. 3. 1c Noun + prepositional phrase

I have noted just five examples, *aqua inter cutem* in Celsus; *dolor lateris cum febre* and *compositum ex pluribus* in Scribonius; *uomitus ex radicibus* in both Theodorus and Cassius Felix; and *membrana de canna* in Cassius.[15]

Aqua inter cutem is clearly established in Celsus as the phrasal term for Greek *hydrops* 'dropsy' (Cassius has also Gk. *hydropismus* and *passio hydropica*). Celsus does not use the phrasal term *aqua intercus*,[16] in which the compound adjective *intercus* is presumably derived by hypostasis from *inter cutem*. It is as if Celsus prefers the clarity of the indeclinable prepositional phrase.

Dolor lateris cum febre is Scribonius' Latin equivalent of Greek *pleuritis*.[17]

[13] In all of these the elements *ora uenarum sanguin- -fund-/-fus-* are constant: Cels. 2. 1. 21, 2. 7. 18, 2. 8. 15, 5. 20. 5, 6. 18. 9A, 7. 30. 3A.

[14] I return to this type in 6. 2. 3. 2 below. With this use of the present participle, compare also 5. 4. 4.

[15] Note the isolated survival of a Latin prepositional phrase in modern English medical terminology in e.g. *fissure-in-ano, fistula-in-ano*; cf. Davies (1985: 129).

[16] The *ThLL*, s.v. 'intercus', quotes examples from Plautus to Marcellus.

[17] Cf. Cels. 4. 13. 1 [*in pleuritico*] huic dolori lateris febris et tussis accedit, and Theod. 115. 10–13 pleuriticorum haec est certissima definitio. dolore insustentabili et perseueranti circa interiora lateris afficiuntur, febribus aeque acutis minime desistentibus, tussi molestissima et sputi uaria affluentia.

The equation is made at Scribonius 49. 15–16 (eis qui lateris dolorem cum febre sentiunt, quos Graeci pleuriticos uocant), and the Latin phrase is used alone on three separate occasions (ind. 9. 24, ind. 9. 28, 51. 3).[18]

Compositum ex pluribus in Scribonius is an interesting case, occurring nine times in just this form.[19] *Compositum* stands as a noun, for *medicamentum compositum* (which occurs five times in Scribonius). The whole phrase *medicamentum ex pluribus compositum* occurs just once (pr. 5. 22).

Membrana de canna (lit. 'the membrane of the pole-reed') is used for applying a medicament.[20] Cassius Felix explains the phrase as 'the round thing you find inside a pole-reed':

> 21. 10–12 [*medicamentum*] in membrana de canna illinitum appones. membrana de canna dicitur illud rotundum quod intra cannam inuenitur.

Vomitus ex radicibus 'a vomit provoked by radishes' occurs in Theodorus (146. 7; cf. 153. 7, 174. 2, 185. 1) and Cassius Felix (9. 4, 148. 11, 171. 8). Cassius equates *ex radicibus* with Greek *dia rhaphanidon*:

> Cass. 9. 4 post haec uomitu ex radicibus uteris, quod Graeci dia rafanidon uocant.[21]

From Cassius Felix I note also two other collocations of this structure, both of them descriptive anatomical designations: *pars gutturis sub mento* and *tergum inter scapulas*. Neither shows any degree of lexicalization, and *pars gutturis sub mento* is never used independently of its Greek synonym, *anthereon*. *Tergum inter scapulas* (always in the phrase *a tergo inter scapulas*) is made by Cassius to translate and subsequently to replace Greek *metaphrenum*, occurring six times in precisely this form. It is perhaps remarkable, given his apparently unrestricted use of Greek words, that Cassius did not simply borrow *metaphrenum*.

[18] At ind. 9. 28 and 51. 3 two separate conditions are denoted: *ad lateris dolorem, siue cum febre siue sine febre*. The pain without fever is not *pleuritis*, as Theodorus confirms: 117. 11–13 dolentes uero latus sine febribus et ceteris accidentibus supradictis [*115. 10–13*] pleuriticorum remotis, . . . non pleuriticos sed latus dolentes proprius appellabo.

[19] I suggest that Scribonius wrote it also at ind. 15. 16–17, where Sconocchia reads 'duo quae compescant ex pluribus et compositum unum': I propose 'duo quae compescant et *ex pluribus compositum* unum'.

[20] The phrase *de canna* presumably replaces, or is established instead of, a partitive genitive *cannae*; cf. *faecem de uino* already in Cato (*Agr.* 96. 1). On the preposition *de* and on its part in competing with and replacing the partitive genitive, see Löfstedt (1933–56: i. 145–7), Hofmann and Szantyr (1965: 58, 261–4), Adams (1976*a*: 50–1, 154 n. 13).

[21] Here *uomitus* apparently comes close to meaning 'emetic'; cf. Theod. 146. 7, where the verb used with *uomitūs ex radicibus* (pl.) is *adhibentur*.

4. 3. 1d [Noun + genitive] + adjective

Phrasal terms of this structure are significantly more common than those we have so far considered. Our four texts yield a total of nine different examples, two of them common to two authors: in Celsus: *membrana abdominis interior* 'the peritoneum', and *ōs scapularum latum* 'a scapula bone'; in Scribonius: *tunicula oculi prima* 'the cornea', *dolor capitis diutinus, dolor lumborum diutinus,*[22] *exitus urinae difficilis, inflatio intestinorum tenuium perniciosa, perturbatio oculorum sicca* (cf. *distentio oculi sicca**); in Theodorus: *tunica oculi prima* 'the cornea'; in Cassius: *membra corporis interiora, dolor capitis inueteratus/tardus**.

Tunic(ul)a oculi prima (Scrib.) = *tunica oculi prima* (Theod.), and *dolor capitis diutinus* (Scrib.) = *dolor capitis inueteratus/tardus* (Cass.) (= Gk. *cephalalgia*) are noteworthy because they occur in two authors and may, therefore, be with greater confidence regarded as having had some currency as phrasal terms.

Our authors, especially Cassius, attest also a number of other collocations of this syntactic structure, and seem in general to share a fondness for three-word noun phrases with two-term heads.[23] Note from Cassius *dolor temporum dispar**, *stridor gutturis interior**, *temperantia corporis difficilis**; and compare, for example, in Scribonius *fissurae ani diutinae* and in Theodorus *solutio uentris prolixa, commotio matricis repentina, dolor stomachi repentinus*. Instances of this sort, such as the last four, in which the adjective means 'acute' or 'chronic' are particularly common.

I would draw attention at this point also to a number of other three-word collocations in Cassius Felix with the similar structure [[*noun* + *adjective*] + *adjective*], *uena medi(an)a caua, digitus medius minor**,[24] *membrum interaneum respiratorium*. Most of them are made to translate Greek terms but they do not recur in Cassius, nor, to my knowledge, elsewhere, and may not yet with any confidence be promoted to the status of phrasal terms.

[22] *Diutinus* is a favourite word of Scribonius (14 times) and Marcellus (18 times) for 'chronic' (of pain, symptoms, conditions). Otherwise in texts with medical content it is used once by Cato (*Agr.* 157. 13 *ualetudo*), once by Celsus (2. 1. 9 *mala*) and by Pliny (e.g. *Nat.* 21. 155 *tussis*). Of *diutinus* as an epithet of diseases, the *ThLL*, s.v., 1643. 38 ff., cites examples also from Livy, the letters of Seneca and Pliny, Gellius, Valerius Maximus, and Rufinus, and observes (1643. 18) that the word is particularly common in Livy and the *archaici* Fronto, Gellius, and Apuleius. It would seem then to be an older word for 'chronic': Marcellus imports his examples in material taken from Scribonius and Pliny; the one instance in Caelius Aurelianus does not relate to pain or disease (*Chron.* 4. 63, of long, slow cooking, *tarditas coquendi*).

[23] For some examples with the structure [[*noun* + *adjective*] + *genitive*], see 4. 3. 2 below.

[24] Presumably 'the fourth finger'; cf. Gk. *παράμεσος δάκτυλος* in Rufus, *Onom.* 83 (where the fingers are listed as *ὁ μέγας, ὁ λιχανός, ὁ μέσος, ὁ παράμεσος, ὁ μικρός*), Galen 2. 264, *al.* (Durling (1993), s.v., cites 7 examples), and Pollux 2. 143.

4. 3. 1e Noun + adjective

Numerically this is much the most important type in all four of our texts. I begin by listing all the phrasal terms of this structure that I have noted, arranging them by lexical field and author. (Parentheses enclose phrasal terms whose existence is implied but not directly attested; square brackets enclose lists of 'other collocations' (on which see the end of 4. 2 above). An asterisk beside a phrase indicates that it occurs only once in that author. The numbers and distribution of the items in the following lists are summarized in Table 4.1 in 4. 3. 4 below.)

Anatomy

Celsus: *actiones naturales, arteria aspera, dentes canini, dentes maxillares**, *digitus index, digitus medius**, *digitus minimus**, *digitus pollex, intestinum ieiunum, intestinum latius** = *intestinum laxius** = *intestinum maius** = *intestinum plenius**, *intestinum rectum, intestinum tenuius, membrana interior,*[25] *ōs pectorale**,[26] *partes inferiores, partes interiores, partes naturales, partes obscenae, saeptum transuersum, scutula operta**; [other collocations: body-part + *dexter*, body-part + *sinister, cutis summa, dentes inferiores**, *dentes superiores, lac muliebre, loca inania**, *partes eminentes, partes extremae, partes superiores, uenter imus*].

Scribonius: *intestinum directum**, *intestina tenuia**, *loca muliebria**, *musculi maxillares, partes interaneae** = *partes interiores, (uena animalis**);[27] [other collocations: *cutis summa**, *intestinum extremum,*[28] *lac muliebre, molaris extremus**].

Theodorus: *loca inferiora, loca interiora, partes muliebres, uenter inferior, usus uenerius*; [other collocations: *angulus interior (oculi), lac muliebre, loca uitalia, uiscera interiora*].

Cassius: *arteria uena, cauerna auditoria, digitus maior**, *intestinum colum, loca genitalia**, *meatus urinalis**, *medulla dorsalis, membra interiora,*[29] *tunica ceratoides**, *uenter inferior**, *uentriculus inferior**, *uia urinalis, usus uenerius**; [other collocations: body-part + *dexter*, body-part + *sinister, lac muliebre, membra uitalia**].

[25] Cf. type 4. 3. 1d *membrana abdominis interior* = type 4. 3. 2a *membrana abdominis*.

[26] Cf. type 4. 3. 2a *ōs pectoris*.

[27] Scrib. 45. 13 uena in brachio quae est animalis.

[28] *Pace* André (1991: 146), not a phrasal term but an informal designation of the end of the intestinal tract.

[29] Cf. type 4. 3. 1d *membra corporis interiora*.

Pathology

Celsus: *bilis atra, febris ardens, ignis sacer, (impetigo nigra*, impetigo rubrica*),*[30] *lippitudo arida, (lumbrici lati*, lumbrici teretes*),*[31] *medicamentum malum** 'poison', *morbus arcuatus, morbus comitialis, (morbus maior*), morbus regius*, podagrae calidae** (pl.), *tussis sicca, (ulcus purum), ulcus sordidum*; [other collocations: *causa abdita, causa euidens, causa manifesta, causa obscura, morbus acutus, morbus longus, ualetudo aduersa, ualetudo bona, ualetudo secunda*].

Scribonius: *bilis atra*, caro excrescens, ignis sacer, medicamentum malum, morbus articularis*, morbus comitialis, perturbatio sicca (oculorum), podagra frigida, (podagra calda),*[32] *spasmus cynicus,*[33] *tussis arida, ulcus purum, ulcus sordidum*; [other collocations: *causa manifesta, causa occulta, ualetudo aduersa*, ualetudo bona**].

Theodorus: *cholera nigra, ignis sacer, impetigo agrestis, macula alba, (macula nigra), passio sacra, scabiae siccae, spasmus cynicus*, ulcus sordidum*; [other collocations: *aegritudo acuta, aegritudo longa, aegritudo prolixa, causa chronica, causa latens*, febris acuta, febris chronica, febris simplex, ualitudo bona*].

Cassius: *aranea uerrina*, casus prominens, collectio occulta = collectio interna*, dies critica, febris ardens* = febris incendiosa*, habitudo mala,*[34] *ignis sacer, inflatio aquosa*, lippitudo sicca, macula alba = macula candida*, macula nigra, medicamen malum*, morbus ictericus* = morbus regius*, passio cardiaca*, passio cholerica, passio colica*, passio dysenterica*, passio hepatica, passio hydropica, passio iliaca*, passio nephritica, passio phrenitica*, passio pthisica, passio rheumatica*, passio splenetica, passio stomachica*, passio synanchica, passio tetanica, podagra calida, (podagra frigida*),*[35] *scabies squamosa*, tertianus acribes*, tertianus manifestus, tertianus non manifestus, tussicula arida = tussis arida = tussis sicca*, tussis umida, ulcus sordidum*; [other collocations: *aegritudo acuta*, aegritudo longa* = aegritudo prolixa*, educatio superna, extantia riposa*, febris acuta, fel flauum, humor melancholicus, labia hiantia, passio chronia*, passio pediculosa**].

[30] Cels. 5. 28. 17B 'rubrica' cognominatur. . . . 'nigrae' cognomen est.

[31] Cels. 4. 24. 1 nonnumquam autem lumbrici quoque occupant aluum . . . atque interdum latos eos, qui peiores sunt, interdum teretes uidemus.

[32] Scrib. ind. 11. 35, 77. 15 podagra quam caldam uocant.

[33] Cf. the synonymous Latin expressions at Scrib. ind. 9. 34 *facies prauae* and 53. 16 *deprauata facies*.

[34] Cf. type 4. 3. 2b *habitudo mala corporis*.

[35] Cf. Cass. 136. 9–10 et sunt ipsius podagrae distantiae duae, est enim frigida et calida.

Therapeutics

Celsus: *calamus scriptorius, clyster oricularius, materia media, medicamentum liquidum, medicamentum non pingue, medicus ocularius*, scalper excissorius, specillum oricularium*; [other collocations: *ceratum liquidum, cibus acer, medicamentum compositum*].

Scribonius: *calamus scriptorius, linteolum carptum, lorum uomitorium*, medicamentum liquidum, scalper medicinalis**; [other collocations: *collyrium acre, collyrium compositum, collyrium lene, medicamentum compositum, medicamentum simplex, res simplex*].

Theodorus: *cucurbita uentosa, cursus cyclicus*[36] = ordo cyclicus*; [other collocations: *uinum stypticum*].

Cassius: *cucurbita cupha, cucurbita medicinalis*, cucurbita staltica, mola manualis, semina tria*; [other collocations: *acetum salitum* = acetum salsum*, consectio simplex*, detractio secunda, lauatio sicca*, mutatio alterna, scalpellus medicinalis*, tibia iniectoria**].

Note that the lists above (and the figures in Table 4.1 below) include the four phrasal terms in which the determiner is a noun in adjectival function (all anatomical terms): in Celsus *digitus index, digitus pollex*, in Cassius *arteria uena, intestinum colum*; and also the two examples in which the adjective is negated with *non*: in Celsus *medicamentum non pingue* 'a non-greasy medicament' (= Gk. *alipes*: 5. 19. 1A, 8. 3. 10, 8. 25. 5); in Cassius Felix *tertianus non manifestus* (= Gk. *nothus*, 146.20).

The primary lexical-semantic function of noun + adjective phrasal terms (and other collocations) is to denote items as belonging to a structured terminology, as members of a set or class (rarely as parts of a whole). The noun names the set, the adjective, the salient feature of the member of the set named by the phrasal term as a whole. Thus, particular teeth, fingers, parts of the intestine, and general areas of the body are named in this way (e.g. *dentes canini, digitus medius, intestinum rectum, partes interiores*), as are different types of fever, cough, ulcer (e.g. *febris ardens, tussis sicca (arida), ulcus sordidum*), and various sorts of medicaments and surgical instruments (e.g. *medicamentum compositum, clyster oricularius*).

The degree of lexicalization exhibited by these phrasal terms is in most cases slight and confined to the adjective. In *ulcus sordidum*, for example, the meaning of *ulcus* is unchanged but that of *sordidus* has to be specially understood, as Scribonius explains:

Scrib. 106. 10–11 id autem est cum candicat et quasi crustam perductam albam habet.

[36] At Theod. 149. 10; *ordo cyclicus* at 151. 16, 178. 16, 211. 13.

In the old Latin phrasal terms *morbus comitialis, morbus maior, morbus regius*, and in cases such as *impetigo agrestis* and *passio sacra* in Theodorus, or *aranea uerrina* in Cassius, the meaning of the adjective stands in a more idiosyncratic relation to that of the phrase as a whole, although the meaning of the head is unchanged: these items are members of the sets of *morbi, impetigines, passiones*, and *araneae*, respectively. I have noted only three phrasal terms whose meaning does not stand in a species–genus type of relation to that of the head: *saeptum transuersum* and *scutula operta* (both in Celsus only), and *ignis sacer* (in all four authors).

More than half of Celsus' examples name parts of the body, but in the other three authors the largest number of examples fall under pathology. In Cassius Felix, indeed, two thirds of the phrasal terms of this type (36 of 54) name diseases. This figure is somewhat distorted by the fact that 15 of these 36 are of the form *passio* + (originally) Greek adjective in *-ica*, but even without this group Cassius attests 21 disease-terms of this form. Eye-catching among them are 5 phrases in which the adjective is in *-osa*: *febris incendiosa, inflatio aquosa, scabies squamosa*, and the collocations *passio pediculosa* and *extantia riposa*.[37]

There is a significant Greek element in this set of phrasal terms. *Spasmus cynicus* (in Scribonius and Theodorus) is the only purely Greek phrasal term to be used as if it were Latin, but there are numerous examples in which either the head or the determiner is Greek. Celsus has 3 phrasal terms with a Greek head: *arteria aspera, calamus scriptorius, clyster oricularius*, as does Scribonius: *podagra calda/frigida, calamus scriptorius*, and the collocations *collyrium acre/lene/compositum*. While Celsus attests not a single Greek determiner in this type of phrasal term, Cassius Felix has many, for example *intestinum colum, tunica ceratoides, morbus ictericus, passio cholerica* (and 14 other phrasal terms with *passio* + Greek adjective in *-ica*), *tertianus acribes, cucurbita cupha, cucurbita staltica*, and, with Greek head, *arteria uena*. In contrast, Theodorus has surprisingly few: I note only the phrasal term *cholera nigra* and the collocations *causa chronica, febris chronica*, and *uinum stypticum*.[38]

As a small supplement to this section on the noun + adjective type, I note finally a further group of noun + adjective collocations which are reasonably prominent in medical description, and represent one of the Latin equivalents of Greek possessive compound adjectives. All of these phrases (8 in Celsus, 8 in Scribonius, 2 in Theodorus, 3 in Cassius) are of the form qualifying adjective + noun in the genitive singular. Apart from 3 instances

[37] These put me in mind of modern phrasal terms of the type *fibrous ankylosis, tuberculous arthritis*, although the formal resemblance may be purely fortuitous. On the suffix *-osus* and the vocabulary relating to disease, see 5. 4. 3 below.

[38] On blended Latin–Greek phrases and phrasal terms, see 2. 5. 3 and 2. 5. 5 above.

in Scribonius, the adjective always precedes. The examples I have noted are as follows:

Celsus: *mali coloris, subrubicundi coloris, mali habitūs, boni odoris, foedi odoris, mali odoris, boni suci, mali suci*.[39]

Scribonius: *coloris boni* (93. 24), *coloris incerti* (99. 1–2 *emplastrum*), *mali coloris* (ind. 10. 29, 73. 19, 87. 19), *purpureique coloris* (87. 14), *boni odoris* (24. 8, 116. 5 *boni sunt odoris*), *odoris grauioris* (ind. 16. 29), *optimi odoris* (ind. 16. 31), *uirosi odoris* (79. 16).[40]

Theodorus: *boni odoris* (132.15 *uinum*), *longi temporis* (59. 5 *impetigo*).

Cassius: *diuturni temporis, longi temporis, multi temporis*.

The three examples in Cassius are synonyms, meaning 'chronic'.[41] They are used of disease, as are the first six examples listed above for Celsus. Celsus' phrases *boni suci* and *mali suci* are used of types of food, and translate Greek compound adjectives, *euchylus* and *cacochylus*, respectively (Cels. 2. 19. 1). One of the three instances in Cassius translates a Greek word, but not a compound adjective: *longi temporis* is equated with Greek *chronius* at 62. 9 and 70. 16. Note that in the latter passage it is used attributively and stands between preposition and noun: 70. 15 *ad longi temporis tussiculas*.

The genitive in these phrases is presumably the genitive of quality, or the descriptive genitive.[42] From the end of the Republican period this genitive became more frequent, as the ablative of quality declined, in literary and popular texts alike.[43] The notable exceptions to this trend are reported to have been the *artium scriptores*: it is said that in Vitruvius, Pliny the Elder, the recipes in the *Mulomedicina Chironis*, and the Latin versions of Oribasius alike, the ablative of quality continued to predominate.[44] This claim increases the interest of the genitival phrases collected above.

Possessive compound adjectives and nouns are to be found in Latin generally, although at a very low level of productivity, but they are not

[39] Note also in Celsus in non-medical contexts: *magnae uetustatis* 'very old' (of wine, 2. 18. 11), *magni nominis* 'very famous' (of Democritus, 2. 6. 14).

[40] In Scribonius note also the genitive phrase at 102. 17–18 [*fel terrae* 'lesser centaury'] est autem tenuis multorum ramorum in rectum surgentium.

[41] Cf. Veg. *Mulom.* 1. 40. 2 perfrictio longi temporis.

[42] See Englund (1935: 40–7), Hofmann and Szantyr (1965: 67–72, 118), Jocelyn (1985: 314 and n. 153).

[43] A nice medical example in a non-medical text at Petron. 140. 6 podagricum . . . lumborumque solutorum.

[44] So Hofmann and Szantyr (1965: 118); note the example of the (much longer) ablative of quality which they quote from Scrib. 87. 15 stomacho autem tento et dolenti sunt auersoque ab omni esca. For a detailed study of gen. and abl. of quality in literary texts from Plautus to Tacitus see Vandvik (1942).

exploited by our medical authors. It is observed in 5. 2 below that *bicapita* (for Gk. *dicephalus*) is the only medical *bahuvrīhi* in our four authors. The phrases we have just examined indicate perhaps the preferred means of predicating or attributing a phrase consisting of adjective + noun. Other Greek medical *bahuvrīhis*, such as *lagopthalmus*, *ancyloblepharus*, are rendered into Latin by paraphrase.[45]

4. 3. 2 NOUN + GENITIVE

I have deliberately kept to a minimum the number of different types of genitive that I distinguish. For the purpose of presenting the material I distinguish only adnominal and 'adverbal' (i.e. subjective and objective) genitives. Of course, each group involves a series of underlying syntactic and semantic relations, which I illustrate in my comments on the material below. For each type I begin by listing the phrasal terms that I have noted, using the same layout and conventions as in 4. 3. 1 above. (Numbers and distribution of the items in the following lists are summarized in Table 4. 1 in 4. 3. 4 below.)

4. 3. 2a Noun + adnominal genitive

Anatomy

Celsus: *ceruix uesicae, fistula urinae* = *iter urinae, membrana abdominis,*[46] *membrana cerebri, ōs pectoris,*[47] *ōs uoluae, pili palpebrarum*, porta iocineris**; [other collocations: *ōs* + body-part: *calcis, coxarum, femoris, gingiuae, gingiuarum, malarum, narium, pedis, plantae, pubis, talorum*].

Scribonius: *uia spiritus**; [other collocations: *angulus oculi, foramen* + body-part: *auris, narium, primae tuniculae oculī*].

Theodorus: *meatus urinae, nerui ceruicis.*

Cassius: *natura/temperantia corporis, nerui ceruicis, ōs uentris*; [other collocations: *capilli oculorum*, cauerna narium*, membrana cordis, membrana laterum**].

Pathology

Celsus: *morbus intestini tenuioris, (morbus intestini plenioris*[48]); [other collocations: *morbus* + body-part: *oculorum, pulmonis, uentris, uiscerum,* etc.].

[45] On Latin *bahuvrīhi* compounds see Bader (1962: 123 ff.), Leumann (1977: 397–8) and Oniga (1988: 116–27).

[46] Cf. types 4. 3. 1d *membrana abdominis interior* and 4. 3. 1e *membrana interior.*

[47] Cf. type 4. 3. 1e *ōs pectorale.*

[48] Cels. 4. 20. 1 Diocles Carystius tenuioris intestini morbum *χορδαψόν*, plenioris *εἰλεόν* nominauit.

Scribonius: *epiphorae oculorum.*

Theodorus: [other collocations: *causa indigestionis, uitium asperitatis, uitium dysenteriae, uitium elephantiae*].

Cassius: *tineae capitis*; [other collocations: *passio lumbricorum*].

It emerges that phrasal terms consisting of noun + adnominal genitive are rare, except in Celsus. In all four authors phrases of this type are used above all to name parts of the body. (The converse holds as well: only two anatomical phrasal terms show an adverbal genitive (type 4. 3. 2b below).) Each author attests one example of a disease-term of this form; I have not noted any examples relating to therapeutics.

In nearly every case the genitive is broadly possessive, though one could perhaps distinguish between a partitive function (e.g. *ceruix uesicae, ōs uentris*), a local function in most of the other anatomical terms (e.g. *membrana cerebri, nerui ceruicis*) and three of the disease-terms (*morbus intestini tenuioris, epiphorae oculorum, tineae capitis*), and even a genitive of purpose in the examples relating to physiology (*fistula urinae, meatus urinae, uia spiritus*).

On the other hand, the genitive in collocations of the type *uitium elephantiae* and *passio lumbricorum* is quite different. This is presumably a defining genitive, a genitive of specification, closely comparable with the types *urbs Romae, fons Bandusiae, arbor fici.*[49] The instances in Theodorus and Cassius are identical in type with *passio bulimi* in Vindicianus (*Med.* 33) and with the two examples noted by Adams (1995: 357) from epistles in Pelagonius (*passio roboris, uitium tussis*). Adams takes the view (ibid.) that 'these circumlocutions were probably stylistically impressive, and cultivated by pretentious stylists', and this may well be true also of Theodorus and Cassius Felix.[50] One might compare in Theodorus the common use, bordering on the pleonastic, of a word for unpleasantness, discomfort, or the like, beside the medical word for the complaint in the genitive: note, for example, 22. 7 *indignatio doloris*, 25. 15 and 102. 14 *doloris inquietudo*, 125. 7 and 126. 14 *doloris molestia*, 131.15 *passionis huius molestia*, 161. 12 *constrictionis molestia*, 178. 5 *difficultas callositatis.*

In phrasal terms of this structure, we again see some Greek lexical material (though less than in the noun + adjective type). I note *epiphorae oculorum* in Scribonius and *uitium elephantiae, uitium dysenteriae* in Theodorus.

[49] See Hofmann and Szantyr (1965: 62–3) on the 'gen. definitivus (epexegeticus)', although no medical examples are mentioned.

[50] Adams is here speaking also of the type *passio coriaginosa, passio colica,* and *passio tetanica* (= *tetanus*), on which see above.

4. 3. 2b Noun + subjective/objective genitive

Three-word phrasal terms in which a complex head is determined by a genitive, of whatever type, are included below and discussed at the end of the present subsection. (Numbers and distribution of the items in the following lists are summarized in Table 4.1 in 4. 3. 4 below.)

Anatomy

Scribonius: *commissurae dentium*.

Theodorus: *officium uentris*.

Cassius: *depositio uentris*.

Pathology

Celsus: *alienatio mentis**, *defectio animae**, *difficultas spiritus*, *difficultas urinae*, *distentio neruorum*, *dolor pedum** 'gout',[51] *fissa ani**, *habitus malus corporis*, *leuitas intestinorum*, *profluuium sanguinis = profusio sanguinis*, *profusio alui = profluuium alui**, *resolutio neruorum*, *rigor neruorum*, *timor aquae**; [other collocations: *cursus pituitae*, *difficultas spirandi*, *dolor* + body-part: esp. *capitis*, *coxae*, *lateris*, *laterum*, *praecordiorum*].

Scribonius Largus: *abscisio uocis*, *alienatio mentis**, *duritia iocinoris*, *durities mammarum (muliebrium)*, *eruptio sanguinis*, *fissurae ani (diutinae)*, *odor grauis narium**,[52] *prolapsio intestini extremi*, *punctūs neruorum et musculorum*, *solutio stomachi*; [other collocations: *aspritudo* + body-part: *angulorum*, *oculorum*, *palpebrarum*; *compressio musculorum**; *contractio neruorum*; *conturbatio oculorum*; *dolor* + body-part: esp. *capitis*, *coli*, *iocineris*, *lateris*, *lumborum*, *neruorum*, *renum*, *stomachi*, *uesicae*, etc.; *fluor* + body-part: *arteriae*, *gingiuarum*, *stomachi*; *fluor sanguinis**; *inflatio* + body-part: *coli*, *stomachi*; *mutationes aquae* 'changes of water',[53] *tensio* + body-part: *neruorum*, *praecordiorum*].

Theodorus: *afflatio oris = ustio oris*, *alienatio mentis*, *difficultas urinae*, *dolor pedum** 'gout',[54] *emissio (effusio) sanguinis*, *fetor narium**,[55] *fluxus sanguinis*, *praefocatio matricis*, *saltus uenarum*, *solutio uentris (prolixa)*; [other collocations: *causatio* + body-part: *aurium*, *dentium*, *ueretri*; *dolor* + body-part; *tensio praecordiorum*].

[51] At Cels. 5. 18. 34.

[52] Cf. Scrib. 29. 19 nares grauiter olentes.

[53] Unaccountably, and without explanation, Sconocchia in the index to his edition (s.v. 'aquae mutationes') equates this phrase with *hydrops*. For changes of water in medical contexts, note Cels. 1. 5. 2 si quam minime . . . loca aquasque mutet; Col. 6. 2. 12 neque aquae nec pabuli nec caeli mutatione temptatur [*bos*]; Plin. *Nat.* 20. 50 ālio magna uis, magnae utilitatis, contra aquarum et locorum mutationes.

[54] At Theod. 221. 20.

[55] Cf. Theod. 48. 5 *fetor oris** = 47. 10 *odor insuauis oris**, which mean simply 'bad breath'.

Cassius: *alienatio mentis*, *coctio oris*, *defectus animi**, *difficultas urinae* = difficultas minctus**, *fetores narium**, *fluor sanguinis = fluxus sanguinis*, *furores/insania matricis**, *habitudo mala corporis*, *obtunsio uisus*, *paruitas pulsus*, *praefocatio matricis*, *profluuium sanguinis*, *rheumatismus stomachi*, *solutio uentris*; [other collocations: *abstinentia urinae*; *asperitates palpebrarum**; *contractio neruorum*; *difficultas respirationis**; *dilatatio pupulae**; *dolor* + body-part: *aurium*, *capitis*, *dentium*, *inguinum*, *loci patientis*, *renum*, *stomachi*, etc.; *egestiones/pituitae oculorum**; *electio flocorum**; *intemperantia corporis**; *inuersio podicis**; *laceraturae scarifationis*; *liuores palpebrarum**; *malignitas humoris**; *obuncatio unguium**; *oppressio stomachi**; *passio* + body-part: *aurium*, *capitis*, *oculorum*, *stomachi*, *uentris*, *uesicae*; *reiactatio sanguinis*; *rheumatismus* + body-part: *arteriae*, *intestinorum*, *pulmonis*, *stomachi*, *thoracis*, *uentris*; *rubor cutis**; *torpor sensus**; *tortus uentris**; *ustio solis*].

Therapeutics

Celsus: *custos membranae**, *detractio sanguinis*, *ductio alui*, *missio sanguinis*, *ratio uictūs*.

Scribonius: *detractio sanguinis*; [other collocations: *purgatio capitis*?].

Theodorus: *continentia ciborum*, *detractio sanguinis*, *incisio uenarum*, *praesumptio ciborum*; [other collocations: *mutatio aeris*, *purgatio uentris*].

Cassius: *detractio sanguinis*, *raptus cucurbitae*; [other collocations: *adobrutio arenae feruentis**, *infusio olei**, *regula uitae*].

Phrasal terms of this type have the important lexical and syntactic function of standing as lexicalized nominalizations of sentences, for example, *profluuium alui* of *aluus profluit*, *obtunsio uisus* of [morbus] *uisum obtundit* or *uisus obtunditur*, *paruitas pulsus* of *pulsus est paruus*. As we shall see in 6. 2 and 6. 3 below, it is especially in Celsus and Scribonius that the underlying sentences still appear beside their nominalizations. Given this basic function, it is not surprising that phrasal terms with subjective and objective genitives make principally names of diseases (and, more rarely, of types of treatment), which are often based on sentences describing physical states, effects, or processes; only two examples (in Theodorus and Cassius) relate to physiology.

In each of our four authors a dozen examples relate to pathology. Striking in Celsus are his three phrasal terms for afflictions of the *nerui*: *distentio neruorum* 'spasm' (Gk. *spasmus*), *resolutio neruorum* 'paralysis' (Gk. *paralysis*), *rigor neruorum* 'tetanus' (Gk. *tetanus*). Note that each translates an opaque monolexematic Greek term with a descriptive phrase. Indeed, with the exception of Cassius' *coctio oris* 'aphthous mouth ulcers' (lit. 'cook-

ing of the mouth'), all of these noun + adverbal genitive phrasal terms are straightforwardly descriptive.

When the genitive is subjective, the head—the underlying predicate—is derived from an adjective or a verb. Cases in which the base is an adjective include: *leuitas intestinorum* (Cels.), *difficultas spiritus* (Cels.), *difficultas urinae* (Cels., Theod., Cass.), *duritia iocinoris* and *durities mammarum* (Scrib.), *paruitas pulsus* (Cass.). When the base is a verb, it is hardly ever active and transitive: I have noted only *raptus cucurbitae* and *ustio solis* in Cassius. In every other case the verbal base is passive or intransitive: in Celsus *defectio animae* (= *defectus animi* in Cass.), *profluuium/profusio sanguinis, profluuium/profusio alui, rigor neruorum*; in Scribonius *eruptio sanguinis, prolapsio intestini extremi*; in Theodorus *fetor narium/oris, odor insuauis oris, fluxus sanguinis, saltus uenarum*; and in Cassius Felix *fetores narium, fluor sanguinis = fluxus sanguinis, furores/insania matricis, profluuium sanguinis, rheumatismus stomachi*.

The objective genitive is usually governed by an abstract noun (especially in *-tio*) derived from a transitive verb. Celsus has 8 examples in *-tio* (e.g. *distentio neruorum, ductio alui*), alongside *fissa ani, timor aquae, custos membranae*; Scribonius, 4 (e.g. *abscisio uocis*) together with *fissurae ani, punctūs neruorum et musculorum*; Theodorus, 8 (e.g. *solutio uentris*) with *continentia ciborum*; and Cassius Felix, 6, all in *-tio* (e.g. *depositio uentris, coctio oris*).

We should note finally the two three-word phrasal terms in which a genitive determines a complex head consisting of noun + adjective: in Celsus *habitus malus corporis* = *habitudo mala corporis* in Cassius (both for Gk. *cachexia*), and in Scribonius *odor grauis narium* (synonymous with *fetor narium* in Theodorus and Cassius: both for Gk. *ozaena*).

4. 3. 3 LEXICAL VARIATION IN PHRASAL TERMS

Like the last-mentioned examples, a number of phrasal terms in our four authors show variation in the form of one or both constituents, though it is clear that the variants are synonyms. I consider first disagreements between authors and then instances of variation within each text.

The number of clear examples of lexical variation in synonymous phrasal terms between our four texts is surprisingly small; to what extent this is representative of Latin medical texts in general is another question. Furthermore, some cases of this variation are quite banal, such as the alternation between *loca* and *partes* for 'parts of the body' in *loca muliebria* (Scrib.) ~ *partes muliebres* (Theod.) and *partes inferiores/interiores* (Cels.) ~ *loca inferiora/interiora* (Theod.).

One part of the body that is named with a different phrasal term in each

of the three authors who mention it is the urethra. The urethra is called *fistula/iter urinae* in Celsus, *meatus urinae* in Theodorus, and *meatus urinalis* in Cassius Felix.[56] These phrasal terms reflect, of course, both a difference in lexical choice of the head, and a morphological alternation in the determiner between adnominal genitive (*urinae*) and derived adjective (*urinalis*); I return to the second point below.

I note also four instances of variation between the near-contemporaries Celsus and Scribonius. The first two involve a minor difference in the form of the determiner: the rectum is *intestinum rectum* in Celsus but *intestinum directum* in Scribonius (only 72. 16);[57] and the small intestine is *intestinum tenuius* in Celsus[58] but *intestina tenuia* (pl.) in Scribonius:[59] here, I think, the basic agreement in form is at least as striking as the variation. The other two instances of disagreement are perhaps more significant. Greek *xeropthalmia* is *lippitudo arida* in Celsus (2. 1. 14, 16, 6. 6. 29, 31C) but *sicca perturbatio oculorum* in Scribonius (ind. 7. 11, 26. 8). Celsus' phrase is likely to have had some currency as a medical term,[60] but Scribonius' appears to be quite informal. The phrase *perturbatio oculorum* happens to occur once in Celsus, where it gives the impression of an incidental collocation with a quite general meaning:

> Cels. 6. 6. 8D si quis in balineo sensit maiorem oculorum perturbationem quam attulerat . . . quam primum discedere debet.

There is a similar contrast between Celsus' and Scribonius' respective renderings of Greek *ileus*: *morbus intestini tenuioris* in Celsus and *inflatio intestinorum perniciosa* (ind. 10. 18), *inflatio tenuium intestinorum* (62. 6) in Scribonius. Scribonius' phrase(s) amounts to a descriptive definition of the disease and makes at best a weak claim to be a potential Latin medical term. Celsus' *morbus intestini tenuioris*, on the other hand, has a much

[56] For these and other expressions relating to the urinary tract see André (1991: 157–58), though I do not understand the distinction that he implies between the urethra (including Celsus' *fistula/iter urinae*) and the urinary meatus (including Cassius' *meatus urinalis*). (Note also that *fistula genitalium* at Plin. *Nat.* 22. 112 refers not to the urethra but to a fistulous ulcer in the genital region.)

[57] On these phrasal terms cf. André (1991: 146), although I am not convinced by his statement that *intestinum extremum* in Scribonius (and Marcellus) is synonymous with *intestinum (di)rectum* 'the rectum'; in my view, *intestinum extremum* is an informal, unlexicalized designation of the last part of the intestinal tract, 'the end of the intestine' rather than 'the rectum'.

[58] Cf. Cael. Aur. *Chron.* 4. 34.

[59] Cf. Vindic. *Med.* 31, Marcell. 29. 1, Oribas. *Syn.* 9. 12 Aa p. 297, Isid. *Orig.* 11. 1. 131; cf. André (1991: 144).

[60] Cf. *sicca lippitudo* at Plin. *Nat.* 20. 103, 28. 169, and *lippitudo sicca* at Cass. 53. 1, 56. 19. *Sicca lippitudo* is attested also in the *signacula ocularionum*, in *CIL* 13. 10021, nos. 71 and 211. Scribonius admits only one instance of the root *lipp-*: 70. 3 *diutius lippientes* 'sufferers from chronic ophthalmia'.

stronger claim to be a medical term, a name, '*the* disease of the small intestine', which Celsus lexicalizes by equating it with Greek *ileus* at the first occurrence of the disease (2. 1. 8) and by using it in exactly this form in three later passages (2. 8. 17, 35; 4. 20. 1). In the last passage, indeed, Celsus alludes to variation in the *Greek* terms for the diseases of the small and large bowel, drawing an implicit contrast with his stable Latin phrasal terms:[61]

Cels. 4. 20. 1 Diocles Carystius tenuioris intestini morbum *χορδαψόν*, plenioris *εἰλεόν* nominauit: a plerisque uideo nunc illum priorem *εἰλεόν*, hunc *κολικόν* nominari.

I move now to consider those phrasal terms which exhibit lexical variation in one or both constituents within a single author, beginning with Celsus. There is dramatic—and in fact unique—variation in his phrasal terms for the large intestine. It has five different names: *intestinum crassius, intestinum maius, intestinum latius, intestinum laxius, intestinum plenius*, of which only the first two occur elsewhere in Latin.[62] How are we to account for these five variants in Celsus? They are likely illustrative of two general points. The first is Celsus' reluctance to use Greek terms for core items of vocabulary, of which the large intestine is surely one; even if we allow (against what I argued in 2. 2. 2. 2 above) that Celsus intends Greek *colum* on both of its occurrences to indicate the body-part, rather than its disease, it remains true that he avoids the use of this word (it is of status-type MG2). The second is that those phrasal terms which appear first in Celsus (and which he may have coined) tend to be highly descriptive. In my view, Celsus' variety of expression for the large intestine reflects not 'la difficoltà dei latini nel fissare un linguaggio scientifico' (Capitani 1975: 497) but rather a delight in *variatio* within the limits of consistent designation of both class (*intestinum*) and salient feature ('relatively thick'): Greek *colum* conveys neither.[63]

Another phrasal term in Celsus which shows formal variation, though of a different sort, in the determiner, is *os pectoris* (3 times) beside *os pectorale* (once) 'the sternum': here the variation affects only the formation of the determiner, the stems of both constituents remaining constant. The making of a derivative in *-alis* to do service for an adnominal genitive may

[61] For other observations of inconsistency in Greek medical terminology, in implicit contrast with Celsus' stable Latin nomenclature, see Cels. 3. 27. 1A, 4. 5. 2, 4. 6. 1 and cf. Langslow (1994*a*: 300–3).

[62] *Intestinum crassius* in Caelius Aurelianus (*Acut.* 3. 169, 4. 86), *intestinum maius* in Chiron (212, 213, *al.*) and the Latin Oribasius (e.g. *Syn.* 9. 12 Aa p. 297; the younger version, La, has *pinguiora*); cf. André (1991: 145), although he cites only Celsus and *CGL* 3. 598. 42.

[63] See n. 57 above on *intestinum directum* and *intestinum extremum* in Scribonius, which I do not regard (*pace* André 1991: 145) as synonymous terms in the same way as I do Celsus' names for the large intestine.

possibly be of significance in the development of the terminology, and I return to this phenomenon below.

Celsus attests also three (synonymous pairs of) phrasal terms in which the head shows lexical variation. First, he uses two phrasal terms for the urethra: *fistula urinae* and *iter urinae*. In one particular set of contexts, in which *fistula* 'fistulous ulcer' and *fistula* 'catheter' also appear (at 7. 26. 1A–C) it is likely that Celsus uses *iter* rather than *fistula* with *urinae* in order to avoid possible confusion of reference (cf. pp. 11–12 above); but *iter urinae* occurs also in three other places, where no such danger is apparent.[64] Then, in two disease-terms Celsus uses *profluuium* and *profusio* apparently indifferently with *alui* to mean 'diarrhoea' and with *sanguinis* to mean 'haemorrhage'. Theodorus and Cassius Felix show similar variation in their expressions for 'haemorrhage' (see below).

If we may trust the text, Scribonius appears to show just one instance of variation of this type, affecting the determiner, in his phrasal terms denoting the internal parts of the body, *partes interiores* (42. 22, 80. 3) and *partes interaneae* (only at ind. 16. 13).

In Theodorus, too, cases of this sort are rare. A clear example is the alternation, in reference to haemorrhage, between *emissio sanguinis* and *effusio sanguinis*. I note a second disease-term in which the variation affects the head: *afflatio oris* and *ustio oris*.

Cassius Felix presents us with six examples of lexical variation in one of the constituents. Four cases involve the determiner: Greek *xerobex* is three times *tussis arida* (t. 72. 3, 72. 4, 161. 9), twice *tussicula arida* (74. 17, 91. 8) and once *tussis sicca* (74. 13). Greek *empyema* is once *collectio interna* (90. 16) and twice *collectio occulta* (32.18, 36.2). Gk. *alphus leuce* is twice *macula alba* (t. 15. 3, 15. 4) and once *macula candida* (15. 9).[65] It is probable that *febris ardens* (142. 15) is synonymous with *febris incendiosa* (149.9; = Gk. *causus*). In the other two instances it is the head of the phrasal term that varies: on the one hand, Cassius gives *matricis furores siue insania* as alternative expressions for Greek *metromania*; on the other hand, for 'haemorrhage' he uses variously *fluor sanguinis* (5 times: 59. 9, etc.), *fluxus sanguinis* (5 times: t. 59. 8, etc.), and *profluuium sanguinis* (twice: 193. 9, 194. 3), each head, be it noted, on the same verbal root (contrast the phrasal terms for 'haemorrhage' in Celsus and Theodorus, above).

To summarize so far: the number of instances of lexical variation in phrasal terms has not decreased in Cassius Felix; indeed, such variation is still prominent in medical terminology (cf. e.g. *infective hepatitis* = *hepatitis A* and see 1.2.4 above). Examples are few and comparisons between

[64] At Cels. 4. 1. 12, 7. 25. 1B, and 7. 28. 2. On *iter urinae* 'the urethra' see Anke (1873: 589); it should be added to André (1991: 157–8).

[65] At Cass. 15. 9, manuscript *p* has *maculas albas uel candidas*.

authors must be tentative. One may perhaps observe, nonetheless, that the phrasal terms in Scribonius, Theodorus, and Cassius Felix show neither the *range* of variation seen in Celsus' phrasal terms for the large intestine (*intestinum crassius/latius/laxius/maius*) nor the *type* of variation seen in Celsus' variants *os pectoris* = *os pectorale* 'the sternum'.

There is, however, more to say about this last type of alternation. *Os pectorale* (for *os pectoris*) takes its place, in fact, in a notable group of noun + adjective phrasal terms in which the adjective is derived (especially in *-alis, -aris, -arius*) and appears to do service for an adnominal genitive or another type of determining phrase. In some cases noun + adjective phrasal terms of this type actually stand alongside or appear to have replaced a noun + genitive (or other) structure. In Celsus we find, for example, *dentes maxillares* (i.e. *dentes maxillarum* or *qui in maxillis sunt*), *specillum oricularium* and *clyster oricularius* (in effect *specillum/clyster auricularum*), and *medicus ocularius* (i.e. *medicus qui oculis medetur/qui oculos curat*).[66] A similar analysis holds of the instances in Scribonius, *musculi maxillares, uena animalis*, and *morbus articularis*, and of those in Cassius Felix: *meatus urinalis* 'the urethra'[67] (noun + genitive in Celsus and Theodorus), *uia urinalis* 'a ureter', and *medulla dorsalis* 'the spinal cord' (contrast Cels. 8. 1. 11 *spinae medulla*, 5. 26. 2 *in spina medulla*, 5. 26. 17 *medulla quae in spina est*, and Cael. Aur. *Acut.* 1.7 *medulla spinae*).

Obviously both types of phrasal term (both *os pectorale* and *os pectoris*) were available when Celsus wrote and remained in common use until the end of the Empire. Alternation seems to have been normal, between authors, within a single text, even within a single phrasal term, as we saw in the names for the urethra (above). Looking beyond our four authors, I note that the index to Bendz's edition (1990–3) of Caelius Aurelianus (compiled by Kollesch and Nickel) lists no derived adjectives but only adnominal genitives and determining phrases in collocation with *musculus, neruus*, and *uena*; a roughly equal mixture of derived adjectives and adnominal genitives with *passio* and *uitium*; and a preponderance of derived adjectives with *uia* (*mictualis, seminalis, sensualis, urinalis*). Of the veterinary writers, Vegetius appears to show a liking for the derived-adjective type, particularly (but not only) in anatomical terms: apart from *fistula urinalis* (above), I have noted *cirri tibiales* (3. 1. 2; Adams 1995: 401), *uena matricalis* (1. 10. 7, 1. 132; Adams 1995: 422), *musculi brachiolares* (1. 25. 5), *nerui in ceruice palmarii* (3. 3), *ossa maxillaria* (3. 1. 1), *partes pulmonis spiritales* (2.

[66] Cf. Cic. *De or.* 3. 132 fuisse tum alios medicos qui morbis, alios qui uolneribus, alios qui oculis mederentur. For *uulnerum medicus* cf. Plin. *Nat.* 29. 22 and cf. 29. 13 *uulnerarius*. Note also *medici pecorum* (Var. *Rust.* 2. 7. 16) ~ *medico peq(uario)* (*CIL* 13. 7965), and *medicus auricularius* (Ulp. *Dig.* 50. 13. 1. 3). There are, however, no noun + gen. or relative-clause expressions corresponding to *medicus iumentarius, medicus ueterinarius*. Cf. p. 401 below.

[67] Compare *fistula urinalis* for the urethra of a horse at Veg. *Mulom.* 2. 79. 7.

140. 1), *tunica ocularis* (2. 17. 2), *uenae iugulares* (2. 12. 2), *uenae temporales* (2. 11. 4; 2. 16. 6), *morbus subrenalis* (1. 8; 1. 15. 1, *al.*). Pelagonius, on the other hand, attests at most one anatomical example (*loca naturalia*; cf. *meatus stercoris* and *uenae ceruicis* with noun + genitive); see Adams (1995: 353–60). A full study of the alternative structures may reveal the factors influencing the choice of one or the other in a particular phrasal term, author, or context.[68]

To the extent that a derived adjective will inflect with its noun in such cases, it may be said to belong more closely with its head than an adnominal genitive (or prepositional phrase). May one go further and suggest that a phrasal term with such a derived adjective was felt to be a more solid, lexicalized unit, occupying more properly a single slot in the terminology, than a phrasal term with a more loosely connected genitive?[69] The use of *passio* in Cassius' phrasal terms may be pertinent here: with the possible exception of *passio capitis* (see below), when *passio* is part of a phrasal term for a specific disease, it is nearly always determined by an adjective, not a genitive, most often a Greek adjective in *-ica*. These are clearly lexicalized technical terms and belong to a productive morphological type which is common in Cassius' predecessor, Caelius Aurelianus, and which is found also in Christian writers, as well as in other late medical texts.[70] When, however, it occurs with an adnominal genitive, *passio* is more often than not in the plural, referring to a group of possible afflictions or a general complaint, and the collocation is not lexicalized. It is possibly significant that Cassius uses a noun + adjective phrase with a derived adjective to translate the single Greek disease-term *pthiriasis*, as *passio pediculosa* (11. 14), but an adnominal genitive in the closely comparable *passio lumbricorum* (174. 13), another parasitic condition.[71]

[68] 'Lexical field' might be added to this list of factors affecting alternations of this type: to judge from our four texts, phrasal terms for plants seem to show much less variation and a very strong preference for a derived adjective over an adnominal genitive as determiner. From Scribonius I note, for example, 18. 11–12 staphidos agrias, quam herbam pediculariam, quod eos necat, quidam appellant; 19. 13 herba nerualis, 28. 17 herba urceolaris, 44. 24 herba tiniaria; cf. Theod. 225. 15 herba pulicaris. The same may be inferred also from the material in Fruyt (1989) for names of birds and marine animals, as well as plants. On plant-names in *-alis, -aris, -arius*, see Ernout (1957*b*: 139–42).

[69] This holds generally for modern English: compare the effect of *hip bone, breast bone* with *bone of the hip, bone of the breast*. Note also cases such as *recurrent bilateral periareolar abscesses* (quoted in 1. 2. 3 above and 6. 4 below) of which the non-specialist translation uses various kinds of determination.

[70] The *ThLL*, s.v. 'passio', 618. 33 ff., cites examples from the pseudo-Apuleian herbal, Vindicianus, the Latin Hippocrates, Irenaeus, Palladius, and Chalcidius.

[71] With this alternation compare *passio roborosa* in Vegetius (*Mulom.* 2. 88. 1) with Pelagonius' *passio roboris*, both meaning 'tetanus'; see Adams (1995: 292–4). On this type of adnominal genitive cf. 4. 3. 2a above.

4. 3. 4 SUMMARY

The numbers and distribution of the noun + adjective and noun + genitive phrasal terms presented in 4. 3. 1 and 4. 3. 2 above are set out in Table 4.1. Phrasal terms of the structure noun + adjective are very much more common in three of our four authors than those of the structure noun + genitive. Of a total of 176 phrasal terms of all types, some 114 are of the noun + adjective type, nearly twice as many as those comprising noun + genitive (total 62). Theodorus alone appears to have more examples of the noun + genitive type (18 vs. 15 noun + adjective).

Table 4.1. Total numbers of phrasal terms by author, lexical field, and syntactic type*

	Anat.	Path.	Ther.	total
Cels.	23 + (8 + 0)	14 + (1 + 12)	7 + (0 + 5)	44 + (9 + 17)
Scrib.	8 + (1 + 0)	12 + (1 + 10)	5 + (0 + 1)	25 + (2 + 11)
Theod.	5 + (2 + 1)	9 + (0 + 11)	1 + (0 + 4)	15 + (2 + 16)
Cass.	13 + (3 + 1)	36 + (1 + 13)	5 + (0 + 2)	54 + (4 + 16)
Total**	45 + (13 + 2)	52 + (3 + 35)	17 + (0 + 9)	114 + (16 + 46)

*In $a + (b + c)$, a = noun + adjective, b = noun + adnominal genitive, c = noun + adverbal genitive

**Counting each phrasal term once only.

About 30 of these phrasal terms are common to two or more of our four authors. Most of this shared vocabulary relates to pathology. Of the noun + adjective type, common to all four authors are just the 2 phrasal terms, *ignis sacer* and *ulcus sordidum*, and the collocation *lac muliebre*. Three authors share *medicamentum malum, tussis sicca/arida*, and the collocation *ualetudo bona*. Attested in two authors are the following: (in Cels. and Scrib.) *intestinum tenuius, partes interiores, morbus comitialis, ulcus purum, ulcus sordidum, calamus scriptorius*, and the collocations *cutis summa, bilis atra, ualetudo aduersa, medicamentum compositum*; (in Scrib. and Theod.) *tunic(ul)a oculi prima*; (in Theod. and Cass.) *uenter inferior, usus uenerius, macula alba*, and *aegritudo acuta/longa/prolixa, febris acuta*; (in Cels. and Cass.) *febris ardens, lippitudo arida/sicca, morbus regius*, and the three-word phrasal term *habitus corporis malus* (Cels.) = *habitudo corporis mala* (Cass.).

Of the noun + genitive type, all four authors share *alienatio mentis*,[72] *detractio sanguinis*,[73] and a phrase comprising a derivative of the root *flu-* +

[72] The *ThLL*, s.v. 'alienatio', 1559. 67 ff., quotes instances of this phrasal term also from Pliny, Pseudo-Quintilian, Tacitus, the *Vetus Latina*, Cyprian, Arnobius, Chiron, Augustine, Vegetius, Caelius Aurelianus, and the Latin Oribasius.

[73] The *ThLL*, s.v. 'detractio', quotes instances of this phrasal term also from Chiron, Caelius Aurelianus, and, in an interesting reference to a proverbial usage, Pallad. *Hist. mon.* 1. 2 p. 256[B] detractione sanguinis ut dici in prouerbiis solet.

sanguinis; three attest *difficultas urinae*; and common to two authors are the following: (in Scrib. and Theod.) *solutio stomachi/uentris*; (in Theod. and Cass.) *nerui cruicis, fetor narium, fluxus sanguinis, praefocatio matricis*;[74] (in Cels. and Cass.) *defectio animae* (Cels.) = *defectus animi* (Cass.) 'blacking out',[75] *profluuium sanguinis* 'haemorrhage'.

To summarize the findings of this chapter so far: each of our four texts yields a good number of phrasal terms which show some degree of lexicalization and which are used as single items of terminology by each author. These phrasal terms represent essentially two syntactic types, noun + adjective and noun + genitive, structures which are well established in Latin phrasal lexemes generally. The number of objects named with a phrasal term by two or more of our authors is surprisingly small, but within this small subset of the vocabulary, cases in which different authors use the same phrasal term outnumber significantly instances of variation. Shared vocabulary of this sort is, then, if not particularly impressive in size, indicative of the status of certain phrasal expressions as established items of medical discourse, in some instances, even of technical terminology.

4. 4 Further Variation in Phrasal Terms

Apart from variation in lexical form (discussed in 4. 3. 3 above), phrasal terms are subject to further formal variability, in ways that single words are not, affected by their syntactic (and pragmatic) context; this is one reason for their relative neglect in lexicographical work. Phrasal terms are in principle subject to the following additional three types of formal variation:

(1) abbreviation: omissibility of one of the constituents;
(2) discontinuity: separability of the constituents;
(3) variation in the order of the constituents.

There follow some brief observations on each of the first two types and an extensive treatment of the third, namely word order in phrasal terms and other medical collocations.

[74] The *ThLL*, s.v. 'praefocatio', quotes instances of this phrasal term also from Caelius Aurelianus and the Latin versions of Soranus and Oribasius. From the last-named work note *Syn.* 9. 45 add. Aa p. 360 matricis praefocatio *nomen* sumpsit *compositum* quod suffocationem faciat.

[75] The *ThLL*, s.v. 'defectio', quotes instances of this phrasal term also from Cicero, Seneca, Quintilian, and Caelius Aurelianus.

4. 4. 1 ABBREVIATION OF PHRASAL TERMS

A constituent that is common to two or more phrasal terms which are linked by *and* or *or* may be mentioned only once.[76] This seems to be common in Celsus and rare in the other three authors; in Theodorus and Cassius I have noted only one example in each:

Cels. 5. 26. 2 ieiunum et tenuius intestinum.
Cels. 2. 7. 28 neruorum rigor aut distentio (cf. 5. 26. 26A).
Cels. 2. 10. 6 neruorum et resolutio et rigor et distentio.
Cels. 2. 1. 21 morbis acutis item comitialibus.
Cels. 2. 1. 7 febres uel continuas uel ardentis uel tertianas.
Theod. 127. 12 nerui et uicini musculi ceruicis.
Cass. 84. 3 musculorum ceruicis et neruorum.

Such cases apart, even given a clear context, the omission of one of the constituents of a two-word Latin phrasal term appears to be rare. I have noted one example each in Celsus and Cassius Felix:

Cels. 7. 26. 1C prolapsus in ipsam fistulam [*urinae*] calculus ('a bladder-stone having slipped into the urethra itself');
Cass. Fel. 194. 7 acacia . . . apposita abstinet fluxum [*sanguinis*];
(cf. Cass. 61. 10–11 sanguinis detractione facta narium fluxum [*sanguinis*] mederis);

but at least two examples in Theodorus:

Theod. 111. 4 uigiliis et febribus et alienationibus [*mentis*] adhuc molestissimis;[77]
Theod. 189. 6–7 hos continuo post cibos uomere conueniet, tunc etiam uentosas [*cucurbitas*] accipere;

and possibly a third, involving, remarkably, the abbreviation of the idiom *ignis sacer*:

Theod. 75. 8 uicinitatem enim appetendo *ille ignis* serpens oris . . . partes facilius pulsat.[78]

I would add the case of *suffusio* 'cataract', which Scribonius uses once with and once without *oculorum* (27. 23, ind. 7. 22) but which in Celsus invariably stands alone.[79]

[76] Contrast Fugier (1983: 238), who suggests that in phrases of the type *populus Romanus* no coordination is possible with *Romanus*.

[77] For *alienatio* with ellipse of *mentis*, cf. Theod. 113. 1 and 151. 8; the *ThLL*, s.v. 'alienatio', 1560. 4 ff., cites also examples from Seneca's letters (78. 9), the *Vetus Latina*, the *Physica Plinii*, and the Latin Oribasius.

[78] Perhaps compare Theod. 76. 2–3 fomenta umectantia fugienda sunt *ignem* causae et dolores augentia (so Rose with *rB* : ignis causam *b Gel.)*.

[79] On *suffusio oculorum* see Marganne (1979: 206 ff.) and (1994: 101–3); note Anke (1873: 592).

In the case of *three*-word phrasal terms, however, such abbreviation may be the rule rather than the exception. Celsus, for example, gives the peritoneum its full 'name' once only (7. 17. 1A *membrana abdominis interior*);[80] otherwise he abbreviates it to *membrana abdominis* (7. 19. 4) or *membrana interior* (7. 16. 2, 3, 4; 17. 1B).

4. 4. 2 DISCONTINUITY OF PHRASAL TERMS

It is evident that the constituents of phrasal terms may be separated, either by a connecting particle or by another independent word (a noun, verb, adverb, or adjective). In our four authors this phenomenon seems to be quite rare but I note the following examples:

Cels. 2. 8. 19 febrem autem ardentem;
Cass. 59. 9 sanguinis uero fluor;
Cels. 5. 28. 4 sacer quoque ignis;

Cels. 2. 8. 29 neruorum facta resolutio;
Cels. 7. 8. 2 distentio oriatur neruorum;
Theod. 124. 19 stomacho uentosas impono frequenter cucurbitas;[81]
Cass. 47. 14 aliqui lacte resoluunt muliebri;
Cass. 68. 11 humida intellegitur tussis;
Cass. 105. 16 corporis totius mala habitudo.

While it is hardly surprising to find *autem* and *uero* occupying second position in the clause by interrupting even a phrasal term, the hyperbaton in the second set of examples might at first sight be taken to undermine the status of phrasal terms as single lexical items.[82] On the other hand, the fact that the (fully lexicalized) idiom *sacer ignis* is interrupted by an intensifier (*quoque* at Cels. 5. 28. 4) may indicate that discontinuity is not a reliable criterion for estimating the extent to which a phrasal expression has been lexicalized.

An analysis of a sample of eleven common phrasal terms from Celsus and Cassius Felix suggests that both 'interruption' and 'abbreviation' are permissible but rare in both authors. The differences between the two writers are found to be slight and do not encourage a full study of separability and omissibility of constituents.[83] On the other hand, the results

[80] But all three elements of the 'name' are present at 4. 1. 13 and 7. 4. 3B where both times this membrane is identified with Gk. *περιτόναιος*. André (1991: 140–1) speaks of this membrane as 'sans nom latin'.

[81] Manuscript *r* omits *cucurbitas*: see below for other cases of this abbreviation of *uentosa cucurbita*.

[82] Compare Fugier (1983: 238) suggesting that expressions of the type *populus Romanus* (which fall short of the status of phrasal terms) may be interrupted only by particles.

[83] Of the sample of 11 phrasal terms from Celsus (giving 108 occurrences), 7 are 'interrupted' (on a total of 23 occasions) and 1 is 'abbreviated' (once); of the 11 in Cassius (44

obtained from a study of the *order* of the constituents in a similar sample suggest a very clear development here—and one or two surprises—and encourage me to give priority to this line of inquiry. The next section is, therefore, very much longer.

4. 4. 3 WORD-ORDER WITHIN PHRASAL TERMS

In this section, only the material presented by Celsus and Cassius Felix receives a full and systematic treatment. Comparisons and contrasts are drawn with phrasal terms and other collocations[84] in Scribonius and Theodorus, and other authors too, but these make no pretence to completeness.

So far in this chapter each phrasal term has been cited with the head first and the determiner following. This is purely conventional, for ease of reference, and says nothing about the attested word-order within our texts. A superficial reading of the texts suggests that variation in word-order is the norm for these phrasal terms; closer study reveals that certain orders are strongly preferred in unmarked situations and that many apparent exceptions may be explained by contextual or stylistic factors.

The study of the ordering of the constituents of phrasal terms and other common collocations is instructive on factors influencing word order in the noun phrase and more widely, in Latin generally. For one thing, frequently occurring phrasal terms allow one to observe the placement of the same particular pair of words in a number, sometimes a large number, of different contexts; for another thing, the determinants of word-order in medical texts are likely to be relatively easy to control, given that the world of discourse is uncluttered and the writing unemotive. Furthermore, since most phrasal terms are lexicalized, one might a priori expect them, as single items of vocabulary, to vary less readily in the order of their constituents than incidental noun + adjective or noun + genitive groups, and so hope to find in the context clues to the factor(s) causing the selection of the variant order when this occurs (as it does, even in the case of a fully idiomatic phrasal term, like *ignis sacer*).

In the discussion that follows, I take the noun + adjective and noun + genitive types in turn (4. 4. 3. 1 and 4. 4. 3. 2). In the body of these subsections I focus more on regularity than on variation in the ordering of the constituents, my concern being primarily to highlight the general patterns

occurrences), 6 are 'interrupted' (8 occurrences) and 1 is 'abbreviated' (once). These figures indicate that 'interruption' of phrasal terms is slightly less common in Cassius than in Celsus. Such a development, if real, would be consonant with the thesis of a progressive integration of phrasal terms as terminological units. Cassius offers, however, no instance of univerbation (cf. 4. 4. 3. 1d and n. 96 below).

[84] On 'other collocations' see the end of 4. 2 above.

of word-order in phrasal terms that Celsus and Cassius Felix display, and to compare these for each author first with the other author and secondly (in 4. 4. 3. 3) with the general patterns reported for Latin prose generally. Those phrasal terms and other collocations which show variation in the order of their constituents are dealt with in the appendix to this chapter (4. 6). Here for each phrase every instance of 'exceptional' word-order is quoted in context and discussed, the purpose being to explain, wherever possible, the departure from the word-order that is regular in the phrase and the text in question. It emerges that a large majority of the instances of exceptional word-order may be associated with (and perhaps explained by) the presence in the context of one or more of a small number of formal and semantic factors, so that the appendix is in effect providing support for the view that there is such a thing as a regular word-order for a given phrasal term in a given author.

4. 4. 3. 1 Word-order within noun + adjective phrasal terms

I begin with some statistics. It is apparent from Table 4.2 that both Celsus and, less markedly, Cassius Felix show a clear preference for placing an adjective before its noun, whether in phrasal terms or in other collocations.

Table 4.2. Word-order in noun + adjective phrasal terms and other collocations in Celsus and Cassius Felix*

	phrasal terms				other collocations			
	Celsus		Cassius		Celsus		Cassius	
AN	10	(9)	16	(20)	11	(2)	5	(5)
AN-1	6		1		4		–	
AN-2	1		–		1		–	
AN-3	–		–		2		–	
AN?	4		1		1		2	
NA?	2		–		–		1	
NA-2	1		–		–		1	
NA-1	1		–		–		–	
NA	–	(3)	10	(8)	–		2	(2)
Total	25	(12)	28	(28)	19	(2)	11	(7)

* Figures in parentheses count phrases which occur only once in that author.
AN = occurring in this text in the order adjective–noun without exception;
AN-1 = in the order adjective–noun with 1 exception in at least 4 occurrences;
AN-2 = in the order adjective–noun with 2 exceptions in at least 8 occurrences;
AN-3 = in the order adjective–noun with 3 exceptions in at least 12 occurrences;
AN? = in the order adjective–noun in at least 50% of cases and arguably with a basic adjective–noun order;
NA, NA-1, NA-2, NA? mean the same, *mutatis mutandis*, for the order noun–adjective.

Now it is generally true that for any particular phrasal term or other medical collocation, Celsus is much more likely than Cassius to attest both possible orderings of constituents. So it is here that we find a total of 7 phrasal terms and 7 other collocations in Celsus, but only 1 phrasal term and not a single other collocation in Cassius Felix which occur exceptionally in the order noun–adjective (These figures are the totals of AN-1 + AN-2 + AN-3, to which can be added 4 phrasal terms from Celsus, but only 1 from Cassius, which occur in this order in at least 50 per cent of cases and which have arguably a basic order adjective–noun (AN?)). Many of these exceptions may be plausibly ascribed to stylistic or contextual factors such as emphatic contrast, the presence of a complex determiner, the need to avoid ambiguity of constituent structure in the sentence—occasionally, especially in Celsus, even the desire for stylistic or rhythmic effect.[85] If these exceptional orderings may indeed be explained with reference to their context, the regular word order may be taken as strengthening the basis for believing in a strong preference for the order adjective–noun in these phrases.

I now list the phrasal terms and other collocations from Celsus and Cassius Felix in what I take to be their regular word-order, listing for each author first those items attested more than once and always in the same order; second, those which occur once only; and third, those which show variation in the placement of their constituents. In this third list in each case I use three conventions which require explanation: '(*x*:*y*)' is to be read as 'occurring *x* times in the given order and *y* times in the other order'; '?' is to be read as 'not all the exceptions to the regular order admitting of satisfactory explanation'; '!' is to be read as 'although the figures suggest that the reverse order is the regular one'. For references and notes on individual cases, see 4.6 below, where items are dealt with in the sequence in which they are given in the following lists. The findings reported in the appendix contribute in part to my assignment of a 'regular word-order' to a given phrase.

4. 4. 3. 1a Phrasal terms (and other collocations) with the regular order adjective–noun

Celsus:

Without exception: *naturales actiones, aspera arteria, oricularius clyster, canini dentes, ieiunum intestinum, rectum intestinum, liquidum medicamentum, interior membrana, inferiores partes, naturales partes, excissorius scalper*; [other collocations: *abdita causa, euidens causa, manifesta causa, obscura causa, summa cutis, superiores dentes, eminentes partes, extremae partes, superiores partes, aduersa ualetudo, secunda ualetudo*].

Once only: *maxillares dentes, medius digitus, minimus digitus, latius intestinum = laxius intestinum = maius intestinum, malum medicamentum, ocularius medicus, pectorale os, calida podagra*; [other collocations: *inferiores dentes, inania loca*].

With variation:[86] *scriptorius calamus* (3:1)?, *index digitus* (3:2), *sacer ignis* (4:1)?, *tenuius intestinum* (7:1), (cf. *plenius intestinum* (0:1!)), *arida lippitudo* (3:1)?, *media materia* (21:1)?, *interiores partes* (8:2), *obscenae partes* (1:1), *oricularium specillum* (4:1); [other collocations: *dexter* + body-part (24:2), *sinister* + body-part (22:3), *liquidum ceratum* (5:4)?, *acer cibus* (6:1), *acutus morbus* (22:1), *longus morbus* (12:1), *bona ualetudo* (4:1)].

Cassius:

Without exception: *prominens casus, occulta collectio (= interna collectio*), mala habitudo, sicca lippitudo, dorsalis medulla, interiora membra, manualis mola, cholerica/hepatica/hydropica/nephritica/pthisica/splenetica/synanchica passio, tria semina, urinalis uia*; [other collocations: *longa aegritudo* = prolixa aegritudo*, secunda detractio, superna educatio, melancholicus humor, alterna mutatio*].

Once only: *maior digitus, aquosa inflatio, colum intestinum, genitalia loca, malum medicamen, urinalis meatus, ictericus morbus, cardiaca/chronia/colica/dysenterica/iliaca/phrenitica/rheumatica/stomachica passio, calida podagra, acribes tertianus, ceratoides tunica, sicca tussis, inferior uenter, inferior uentriculus*; [other collocations: *simplex consectio, sicca lauatio, uitalia membra, pediculosa passio, medicinalis scalpellus*].

With variation:[87] *auditoria cauerna* (1:1)?, *tetanica passio* (3:1)?

4. 4. 3. 1b Phrasal terms (and other collocations) with the regular order noun–adjective

Celsus:

Without exception: none; [other collocations: none].

Once only: *digitus pollex, intestinum plenius,*[88] *morbus regius, scutula operta*; [other collocations: none].

With variation:[89] *febris ardens* (3:1), *morbus arcuatus* (1:1), *morbus comitialis* (6:2), *saeptum transuersum* (3:2), *tussis sicca* (1:1); [other collocations: *lac muliebre* (1:3!), *medicamentum compositum* (2:2)].

[85] On these and other factors see the beginning of 4. 6 below.

[86] For details see 4. 6 (Supplement to 4. 4. 3. 1a) below.

[87] For details see 4. 6 (Supplement to 4. 4. 3. 1a) below.

[88] But see 4. 6 (Supplement to 4. 4. 3. 1a) below.

[89] For details see 4. 6 (Supplement to 4. 4. 3. 1b) below.

Cassius:

Without exception: *arteria uena, cucurbita cupha, cucurbita staltica, dies critica, ignis sacer, macula alba (= macula candida*), macula nigra, tertianus manifestus, tussicula arida = tussis arida,*[90] *tussis umida*; [other collocations: *acetum salitum* = acetum salsum*, labia hiantia*].

Once only: *aegritudo acuta, aranea uerrina, cucurbita medicinalis, febris ardens, febris incendiosa, morbus regius, scabies squamosa, usus uenerius*; [other collocations: *extantia riposa, tibia iniectoria*].

With variation:[91] none; [other collocations: *febris acuta* (8:2)?, *lac muliebre* (2:1)?].

4. 4. 3. 1c Phrasal terms (and other collocations) apparently in free variation adjective–noun ~ noun–adjective

Celsus:

atra bilis (6:3); [other collocations: *imus uenter* (9:3)].[92]

Cassius:

[Other collocations: *dexter* + body-part (2:2), *sinister* + body-part (4:3), *fel flauum* (3:2)].

4. 4. 3. 1d Noun + adjective phrasal terms: summary

I summarize these lists of noun + adjective phrases in Table 4.3. Celsus shows a very striking preference for the order adjective–noun both in his phrasal terms (31:8, with 1 in free variation) and, even more so, in his other collocations (20:1, with 1 in free variation). The most notable difference in Cassius is, I suggest, the presence of 10 phrasal terms in the order noun–adjective without variation (plus 8 more occurring once only). I would record my impression that Scribonius shows only a very weak preference for the order adjective–noun in his phrasal terms and no detectable preference at all in his other collocations.[93]

In Celsus, of those phrasal terms which occur in the order noun–adjective, 3 show a participial form as their adjective: *saeptum transuersum, scutula operta*, febris ardens*. It is recognized that a participial determiner regularly follows its head in Latin.[94] Another group of phrasal terms

[90] Note 74. 13 aliud ad *siccam tussim*. I cannot explain this order; its abruptness and the use of *sicca* (cf. 5 times *arida*) may suggest that the phrase was interpolated. Otherwise *tussis, tussicula* precede their adjective without exception (8 times).

[91] For details see 4. 6 (Supplement to 4. 4. 3. 1b) below.

[92] For details on the terms in this section see 4. 6 (Supplement to 4. 4. 3. 1c) below.

[93] Note e.g. on the one hand, *malum medicamentum* (11 : 1), *sordidum ulcus* (4 : 0), *sicca perturbatio* (2 : 0), *interiores partes* (2 : 0), *comitialis morbus* (6 : 0) and *articularis morbus* (1 : 0), on the other hand, *musculi maxillares* (2 : 0), *tussis arida* (8 : 0), *ignis sacer* (6 : 1; contrast Celsus), *scalper medicinalis* (1 : 0), and *lorum uomitorium* (1 : 0).

[94] Cf. Marouzeau (1922: 119–23), Calboli (1983: 118), de Sutter (1986: 165–6).

established in this order in Celsus are the 3 old Latin disease-terms *morbus arcuatus, morbus comitialis*, and *morbus regius*. In other writers we find variation in the ordering of these phrasal terms (insofar as they can be traced in the published parts of the *Thesaurus*). There is some hint of a general shift in these phrases from adjective–noun to noun–adjective, although the evidence is meagre and far from clear.[95] This development is clearer in the case of *ignis sacer*: 0:2 before Celsus (Lucr., Verg. *G.*), *sacer ignis* in Columella (7. 5. 16) after Celsus; otherwise I know only the order *ignis sacer*, and in this form univerbation, with various spellings, takes place in various late texts.[96]

Table 4.3. Summary of adjective–noun and noun–adjective word-order in phrasal terms and other collocations*

	Celsus		Cassius Felix	
In the order	A–N	N–A	A–N	N–A
Without exception	11 + 11	0 + 0	16 + 5	10 + 2
Once only	10 + 2	3 + 0	21 + 5	8 + 2
With variation	10 + 7	5 + 1	2 + 0	0 + 2
Total	31 + 20	8 + 1	39 + 10	18 + 6
[In free variation	(1 + 1)		(0 + 3)]	

*'$x + y$' is to be read as x phrasal terms + y other collocations.

That leaves just 3 phrasal expressions in Celsus which appear to favour the order noun–adjective: *digitus pollex, tussis sicca*, and *lac muliebre*. The ordering of *digitus pollex* is unique: in the other names of individual digits in Celsus and Cassius, *digitus* follows its determiner.[97] If *tussis sicca* is indeed the unmarked order in Celsus, then he shares this phrasal term in this form not only with Cassius Felix but also with Scribonius (*tussis sicca* 8:0). Scribonius also attests *lac muliebre*, invariably (4 times) in this order (cf. 4. 6 on Celsus' ordering of this collocation).

[95] *Atra bilis*: 3 : 1 before Celsus, 0 : 2 after Celsus (Seneca and Pliny attest also *bilis nigra*); thereafter it gives way to Gk. *melancholia*. *Morbus arcuatus*: not before Celsus, 0 : 1 after Celsus (Scrib. 110), not attested with a word for 'disease' after Scribonius. *Morbus comitialis*: attested in both orders throughout antiquity, though Scribonius prefers *comitialis morbus* by 8 : 2 (so too e.g. Tac. *Ann.* 13. 16. 3, Isid. *Orig.* 4. 7. 6). *Morbus regius*: generally in this order throughout Latin, from Horace to the late glossaries.

[96] We find e.g. *ad ignisacrum* (Sex. Plac. 5. 1, *Misc. Tir.* p. 52,4), *hicnisacri* (Diosc. 1. 26), *enisacrum* (*Gloss.* 3. 363. 61). Cf. *ThLL*, s.v. 'ignis', 294. 66–74. Unfortunately, for the phrasal term *ignis sacer*, the *ThLL* refers to its article on *sacer*.

[97] In a way, the full expression is sensible only in the order *digitus pollex*, since, if *pollex* precedes, *digitus* is unnecessary (and is, in fact, usually omitted). Compare Quintilian's remark: *Inst.* 9. 4. 24 quaedam ordine permutato fiunt superuacua. His example is *fratres gemini*: if *gemini* precedes, *fratres* is superfluous, *gemini* making it obvious one is talking also about brothers.

I have ascribed free variation to the ordering in Celsus of just 1 phrasal term (*bilis atra*) and 1 other collocation (*uenter imus*).

Celsus and Cassius have 6 noun + adjective phrasal terms in common. Both attest *febris ardens*, with the participle following (see 4. 4. 3. 3); *tussis/tussicula sicca/arida*, with the adjective following (contrast Gk. *xerobex*); and *sicca/arida lippitudo*, with the adjective preceding (compare Gk. *xeropthalmia*). Each has *morbus regius* once only. A substantial agreement is that both authors prepose the determiners (although in different orders) in their equivalents for Greek *cachexia*: *malus corporis habitus* (Cels.), *corporis mala habitudo* (Cass.), the latter being closer to the Greek.[98] (On *ignis sacer*, see above.)

4. 4. 3. 2 Word-order within noun + genitive phrasal terms

As in 4. 4. 3. 1 above on noun + adjective phrasal terms, I begin with some statistics. The conventions in Table 4.4 are as in Table 4.2 above, with the substitution of G (genitive) for A (adjective).

Table 4.4. Word–order in noun + genitive phrasal terms and other collocations in Celsus and Cassius Felix*

	phrasal terms		other collocations	
	Celsus	Cassius	Celsus	Cassius
GN	1 (6)	2 (3)	–	3 (9)
GN-1	8	2	1	–
GN-2	–	–	1	–
GN?	7	2	4	2
NG?	2	2	–	1
NG-2	–	–	–	–
NG-1	–	–	–	–
NG	2 (2)	8 (1)	–	2 (12)
Total	20 (8)	16 (4)	6	8 (21)

* The conventions here are as in Table 4.2 above, with the substitution of G(enitive) for A(djective).

[98] Of the 6 possible orderings of three-constituent phrasal terms both authors show just those 3 in which the adjective precedes the noun. Each author shows a clear preference for one of these three orders: Celsus, for adjective–genitive–noun (14 times AGN: cf. 3 times ANG, once GAN); Cassius, for genitive–adjective–noun (4 times GAN; cf. once AGN, once ANG). The strength of Celsus' preference for AGN (8 times *malus corporis habitus*; 5 times *latum scapularum os*; once *interior abdominis membrana*) suggests the further comment that this is the order achieved by simply preposing the successive determiners: the genitive determines the noun; the adjective determines the complex head (genitive–noun).

4. 4. 3. 2a Phrasal terms (and other collocations) with the regular order genitive–noun

Celsus:

Without exception: *abdominis membrana*; [other collocations: none].

Once only: *mentis alienatio, membranae custos, animae defectio, ani fissa, iocineris porta, aquae timor*; [other collocations: none].

With variation:[99] *uesicae ceruix* (5:2), *sanguinis detractio* (8:1), *spiritus difficultas* (6:1), *urinae difficultas* (9:1)?, *neruorum distentio* (19:12)?, *alui ductio* (9:1), *urinae iter* (5:2)?, *intestinorum leuitas* (5:2)?, *cerebri membrana* (5:3), *sanguinis missio* (3:1), *uoluae ōs* (5:1), *sanguinis profluuium* (4:2)?, *uictus ratio* (13:4), *neruorum resolutio* (6:5), *neruorum rigor* (7:1); [other collocations: *pituitae cursus* (9:1)?, body-part + *dolor* (73:12), body-part + *morbus* (11:2), body-part + *ōs* (9:5)].

Cassius:

Without exception: *oris coctio, urinae difficultas** = *minctus difficultas**, *cucurbitae raptus*; [other collocations: *urinae abstinentia, scarifationis laceraturae, sanguinis reiactatio*].

Once only: *animi defectus, matricis furores/insania*; [other collocations: *narium cauerna, flocorum electio, olei infusio, podicis inuersio, humoris malignitas, laterum membrana, uitae regula, solis ustio*].

With variation:[100] *mentis alienatio* (1:1), *sanguinis detractio* (4:6!)?, *sanguinis fluor* (4:1), *sanguinis fluxus* (4:1)?, *pulsus paruitas* (3:2).

4. 4. 3. 2b Phrasal terms (and other collocations) with the regular order noun–genitive

Celsus:

Without exception: *fistula urinae, profusio alui*; [other collocations: none].

Once only: *pili palpebrarum, profluuium alui*.

With variation:[101] *ōs pectoris* (2:1).

Cassius:

Without exception: *depositio uentris, nerui ceruicis, obtunsio uisus, ōs uentris, praefocatio matricis, rheumatismus stomachi, solutio uentris, temperantia corporis, tineae capitis*; [other collocations: *membrana cordis*].

Once only: *fetores narium*; [other collocations: *asperitates palpebrarum, capilli oculorum, difficultas respirationis, dilatatio pupulae, egestiones/pituitae*

[99] For details see 4. 6 (Supplement to 4. 4. 3. 2a) below.
[100] For details see 4. 6 (Supplement to 4. 4. 3. 2a) below.
[101] For details see 4. 6 (Supplement to 4. 4. 3. 2b) below.

oculorum, intemperantia corporis, liuores palpebrarum, obuncatio unguium, oppressio stomachi, rubor cutis, torpor sensus, tortus uentris].

4. 4. 3. 2c Phrasal terms (and other collocations) apparently in free variation genitive–noun ~ noun–genitive

Celsus:

profusio sanguinis (8:4); [other collocations: *spirandi difficultas* (2:2)].[102]

Cassius:

profluuium sanguinis (1:1); [other collocations: body-part + *dolor* (16:12), body-part + *passio* (9:7), *rheumatismus* + body-part (8:3)].

4. 4. 3. 2d Noun + genitive phrasal terms: summary

I summarize these lists of noun + genitive phrases in Table 4.5. In Celsus the general impression is as for noun + adjective phrases: a very strong preference for the head to follow, in the order genitive–noun. (It seems that Scribonius shows a similar preference: see below.) In Cassius Felix, on the other hand, the picture is not so clear. The totals presented above imply that in phrasal terms overall both orders are equally common (ten examples of each), while other collocations prefer the order noun-genitive by a very small margin, 13:11. However, of the twelve phrasal terms in Cassius that occur more than once without variation, nine are in the order noun-genitive.

Table 4.5. Summary of genitive–noun and noun–genitive word order in phrasal terms and other collocations*

	Celsus		Cassius Felix	
In the order	G–N	N–G	G–N	N–G
Without exception	1 + 0	2 + 0	3 + 3	9 + 1
Once only	6 + 0	2 + 0	2 + 8	1 + 12
With variation	15 + 4	1 + 0	5 + 0	0 + 0
Total	22 + 4	5 + 0	10 + 11	10 + 13
[In free variation	(1 + 1)		(1 + 3)]	

*'*x* + *y*' is to be read as *x* phrasal terms + *y* other collocations.

One clear result of the above analysis is that in the noun + genitive type there is again much less variation in word-order in Cassius than in Celsus, though in both authors there is more variation in this type than in the noun + adjective type, the chief reason being, it seems, the need to avoid ambiguity in the construing of the genitive (see 4. 6 below). It is hard to

[102] For details on the terms in this section see 4. 6 (Supplement to 4. 4. 3. 2c) below.

generalize further about the ordering of noun + genitive phrases, for there appear to be examples of the same syntactic types which show opposing orders in their unmarked forms: for example, in Celsus *urinae iter* but *fistula urinae*; *alui ductio* and *sanguinis profluuium* but *profusio alui* (and in free variation *profusio sanguinis*). I would, however, record my impression that Scribonius shows, even more clearly than Celsus, a strong preference for the order genitive–noun when the noun is an abstract nominalization of a verb and when both head and determiner are simple.[103]

One type of common collocation that does permit of generalization in Celsus is body-part + *morbus* or *dolor*: *morbus* follows without exception; *dolor* follows 6 times out of every 7. The same holds in Scribonius, and with even greater regularity: *dolor* prefers to follow the name of a body-part in the genitive by 83:18, and of the 18 instances in which *dolor* precedes its genitive, 16 involve a complex determiner, a complex head, or both; with a complex determiner or as part of a complex head, *dolor* follows 11 times. For Scribonius, then, it emerges that *dolor* follows a single genitive 72 times out of 74.[104] In Cassius, by contrast, phrases of this type seem to be in free variation, with the notable exceptions of *dolor capitis* (3:1), *passio capitis* (6:1), *rheumatismus stomachi* (4:0), each of which stand in inverted order with respect to other genitival determinations of *dolor* (genitive–noun preferred by 15:9), *passio* (genitive–noun preferred by 8:1), and *rheumatismus* (genitive–noun preferred by 1:0[105]). Does the noun–genitive order of these three phrasal terms reflect something about their lexical status?[106]

[103] Note e.g. *sanguinis detractio* (3 : 0), *uocis abscisio* (3 : 0), *aquae mutationes* (4 : 0), *sanguinis eruptio* (11 : 2), *neruorum/praecordiorum tensio* (4 : 0), body-part + *inflatio* (10 : 2). The two exceptions in the last phrase involve more than one genitive (63. 19, 113. 12), and in *contractio neruorum* (3 : 0) and *conturbatio oculorum* (3 : 0), which show always the reverse order, the noun is invariably part of a complex head (cf. the beginning of 4. 6 below).

[104] The two exceptions: (1) at ind. 11. 22 ad dolorem uesicae et difficilem exitum urinae, the order may be intended to avoid ambiguous constituent structure, or it may be in emphatic contrast with *tumorem et exulcerationem uesicae* in the preceding line, or (just conceivably) it may reflect a miscopying of an original *(tumorem et) dolorem*, as in the text of the corresponding chapter at 74. 10; (2) at 33. 19 leuat aeque dolorem dentium portulaca, manuscript *T* has *dentium dolorem* and I am curious to know why Sconocchia follows *R* here. Note that the order of the major constituents is marked, verb–object–subject, which may occasion the marked order *dolor dentium* (cf. the beginning of 4. 6 below).

[105] *Ventris rheumatismus*, unmarked in this order at 102. 22 but in emphatic contrast in the other order at 103. 9 ad rheumatismum uero uentris (note the *uero*). *Rheumatismus* has otherwise always two genitives, which follow three times (68. 16, 120. 17, 130. 12: all definitions after *est*) and precede twice (125. 21 and t. 130. 11 ad uentris et intestinorum reumatismum).

[106] In the Republican and Augustan writers cited by the *ThLL*, s. vv. 'dolor', 1839. 56 ff., and 'caput', 389. 53 ff. (incl. Lucilius, Lucretius, Horace, and Ovid), 'headache' is invariably *capitis dolor* (genitive–noun), while instances from the Imperial period (incl. Pliny, Quintilian, Suetonius, Apuleius, Porphyry) show variation. This may reflect a change in progress, of which Cassius' regular noun–genitive order would represent the end-point. Note that Plin. *Nat.* still prefers the order *capitis dolor* by 88:6.

All 5 noun + genitive phrasal terms which are common to Celsus and Cassius show an adverbal genitive, objective or subjective, and, collectively, a strong preference for the order genitive–noun in both authors. (See the lists (above) and 4. 6 (below) on *mentis alienatio, animae defectio/animi defectus, urinae (minctus) difficultas, sanguinis profluuium*, and *sanguinis detractio*.)

4. 4. 3. 3 Phrasal terms and word-order in the Latin noun phrase

I turn now to compare the word-order patterns that we have just been considering in the phrasal terms and medical collocations of Celsus and Cassius Felix with the patterns that are generally to be found in the classical Latin noun phrase. My main contention is that the word-order in phrasal terms, especially in Celsus, is in some way, and to some purpose, marked and in need of an explanation or explanations, whether lexical or stylistic.

To judge from the scholarly literature,[107] there is a good measure of agreement that in classical Latin the regular unmarked position of an adjective with respect to its noun depends on the meaning of the adjective. In general terms, a *qualifying* adjective regularly *precedes*, while a *determining* adjective regularly *follows* its noun.[108] Thus we would normally expect, on the one hand, the order *facundus praetor* 'an eloquent praetor', in which the adjective is a genuine qualifier, giving additional information about its head without affecting its reference, and on the other hand *praetor urbanus* (the praetor responsible for the administration of justice in Rome), where the adjective determines the head, serving to identify a particular member of a group denoted by the head, *praetor*.

This general pattern has been borne out by detailed studies of word-order at the level of the noun phrase in particular, datable texts. A good recent example is the work of de Sutter (1986), a study of the order of noun + adjective groups of all types in Cato's *De agricultura* (2nd cent. BC, second quarter). De Sutter divides the adjectives into eleven fairly conventional semantic classes and arranges these according to the relative strength of their preferences for placement before or after a noun. He summarizes his findings in a table (1986: 173), which I imitate in Table 4.6. De Sutter finds that in Cato demonstratives and quantifiers show a very strong preference, adjectives meaning 'good', 'bad', 'big', 'small', and the like, a weaker preference to *precede* their nouns; on the other hand, adjectives denoting any other physical property, including age, colour, source,

[107] See especially Marouzeau (1922: 13–98), Hofmann and Szantyr (1965: 406–8), Adams (1976*b*: 88–90), Fugier (1983: 237 and n. 59), Pinkster (1990: 185).

[108] Regularly before the noun go also demonstrative pronouns and numerals; regularly after the noun go also complex attributes, nouns in the genitive, and possessive pronouns.

and material, prefer to *follow* their nouns and this preference is weaker when the adjective means, say, 'hard', 'soft', 'rough', or 'smooth', and stronger when it denotes the origin, composition, purpose, or destination of the noun, as, for example, in *bulbi megarici* 'Megarian bulbs', *cortina plumbea* 'a lead cauldron', *cribrum farinarium* 'a sieve for flour', *asinus molarius* 'a donkey for the mill'.[109]

Table 4.6. The regular placement of adjectival determiners in Cato *Agr.* with regard to their semantic function (after de Sutter 1986: 173)

Before head	demonstrative	(extensional meaning)
	quantifier	
	number	
	evaluation	
	dimension	
(turning point)		
	physical property	
	age	
	colour	
	origin	
	composition	
After head	purpose/destination	(intensional meaning)

The same picture emerges from the letters of Claudius Terentianus, a small corpus of texts of non-literary character written on papyrus in the early part of the second century AD. These have been studied by Adams (1977), who reports that in noun + adjective groups the adjective prefers to *follow* by 67 : 24; in most of the 24 cases in which the other order is found, the adjective is a quantifier.[110]

As to the word-order of noun + genitive groups, there is again agreement in the scholarly literature[111] that in general, in classical Latin the regular unmarked position of a determining genitive (whether possessive, sub-

[109] In fact, the raw figures offered by de Sutter (1986: 159, 164, 167) imply a rather different picture from that of his summary. In particular, he reports that adjectives of evaluation and dimension really prefer to *follow* their nouns in Cato, by 77 : 56 = 57. 9%; his statistics also for the last two groups of adjectives imply a different ordering of strength of preference, although they are almost identical: those denoting colour, age, or physical properties (and some denoting size) prefer to follow the noun by 263 : 10 = 96. 3%; those denoting origin, composition, purpose, or destination prefer to follow by 372 : 16 = 95. 9%.

[110] From a sample of 9 pages of text from each author, it emerges that the same patterns hold also for ordinary noun phrases (i. e. excluding phrasal terms) in both Celsus and Cassius, although with very different ratios in each, as these figures show:

Celsus: qualif. adjective–noun 3 : 1; noun–det. adjective 5 : 4

Cassius: qualif. adjective–noun 13 : 12; noun–det. adjective 7 : 1

[111] See especially Marouzeau (1922: 124–48), Adams (1976*b*: 73–8), de Jong (1983: 131), Calboli (1983: 118), Pinkster (1990: 185).

jective, or objective) is *after* its noun, as, for example, in *carduus Musarum, magister equitum, tribunus plebis*. This is the preferred order in Claudius Terentianus, although noun + genitive groups are not common in the letters: noun–genitive 7:3 genitive–noun (the latter including two formulae); de Sutter (1986) does not consider noun + genitive groups in Cato.[112]

Now, as we have seen, we do not tend to find these regular patterns of Latin word-order reflected in the unmarked forms of the phrasal terms (and other medical collocations) of Celsus and Cassius Felix. In the discussion that follows I shall concentrate on Celsus since the patterns in his phrasal terms are particularly striking, both adjectives and genitives showing a very strong tendency to precede their nouns: adjectives by 29:8 (in other collocations 19:1), genitives by 23:4 (in other collocations by 4:0). In Cassius' phrasal terms the adjective shows a weaker preference to precede: by 37:18 (in other collocations by 10:6); the evidence regarding the placement of the genitive is much less clear, although there is reason to think that it prefers to follow its noun in phrasal terms.

In Celsus, the marked preference of phrasal terms for the order genitive–noun is in stark contrast with those standard examples of the 'regularly' postposed genitive which are themselves technical terms: for example, *tribunus plebis, tribunus militum, praefectus urbis*. The preferred order adjective–noun is no less remarkable since in practically every case the adjective is, functionally speaking and in broad terms, a *determining* adjective, indicating a particular member (or part) of the set (or whole) denoted by the noun: for example, a set of teeth, a particular finger, a part of the intestine, a species of cough, fever, clyster, and scraping tool. How may we account for these deviations from the generally agreed basic word-order patterns for Latin noun phrases?

One line that suggests itself for the noun + adjective type is that the *descriptive meaning* of some of these adjectives overrides, for purposes of ordering, their *determining function*. If these adjectives in phrasal terms are regarded as qualifiers rather than as determiners, then their placement pattern matches that of ordinary phrases in both authors and in Latin in general. There are, indeed, phrasal terms in which the adjective describes the noun, as well as distinguishing one type or part from another: so, for example, *aspera arteria, arida lippitudo, rectum intestinum* (and the names for the other parts of the intestine). But there are many cases in which this is not true, in which the adjective gives no descriptive information about its head but indicates merely relative position (*interior, inferior*) or purpose

[112] From a sample of 9 pages of text from each author (the same as those in n. 110), it emerges that the opposite order is the more common by a small margin in both Celsus and Cassius: Celsus: genitive–noun preferred by 3 : 2; Cassius: genitive–noun preferred by 4 : 3.

(*oricularius, excissorius*). We saw just now that in Cato, adjectives denoting purpose are among those which show a very strong preference to *follow* their noun.

An alternative, more local approach is to regard adjective–noun phrasal terms as displaying an order that is, in some sense and to some purpose, marked. I think it very unlikely that this 'marking' reflects any kind of contrastive emphasis, whether syntagmatic (with respect to their context) or paradigmatic (with respect to other, absent, members of the set denoted by the noun). On the other hand, markedness of other sorts, what one might call 'lexical' or broadly 'stylistic' markedness, may perhaps be plausibly ascribed to these adjective–noun phrasal terms. I take it that sequences like *naturales actiones, aspera arteria, canini dentes* would have caught the eye and ear of a first-century reader of Celsus because their order was both unexpected in general terms in the absence of an emphatic contrast and at odds *in the text of Celsus* with the (regular) ordering of phrasal terms from lexical fields outside medicine. Compare, for example, the medical phrasal terms *excissorius scalper* and *ocularius medicus* with the non-medical, but formally similar items *atramentum sutorium* and *scala gallinaria* (always noun–adjective). If this hypothesis of 'lexical'/'stylistic' markedness is along the right lines, several questions arise. One is whether this 'irregular' order is or becomes a feature of medical Latin or high-style technical Latin generally, or whether it is and remains an optional stylistic device for lending lexical prominence, independent of their context, to certain common and/or lexicalized collocations central to any main theme of discourse. In other words, when Celsus wrote *excissorius scalper*, was he using the standard form that this expression had, at least in educated circles? Or was he deliberately employing an unfamiliar form? In the former case, why should educated speakers have constructed phrasal terms with the head in second position? Was it in order to distance the vulgar reality of head-first phrasal terms, perhaps by suggesting Greek word-order, or archaic (pre-Catonian?) Latin word-order? If, on the other hand, Celsus was employing the marked word-order of phrasal terms as a stylistic device, we might consider what effect it was intended to have. Was it, for example, comparable to the use of bold type in a modern textbook for highlighting certain terms of the subject being presented?

I do not mean to imply by putting these options in this disjunctive form that one must be right and the others wrong. Indeed, when one considers individual phrases, it seems quite likely that there was no single factor responsible for every adjective–noun phrasal term. We might have to reckon with several, including the influence of Greek word-order (perhaps for *naturales actiones* = φυσικαὶ ἐνέργειαι, *aspera arteria* = τραχεῖα ἀρτηρία, *canini dentes* = κυνόδοντες, *arida lippitudo* = ξηροφθαλμία, *media materia* =

μέση ὕλη) and the influence of Lucretius and Vergil (for the striking case of *sacer ignis*). There remain a good many for which another account must be sought, since it would not be adequate to explain them as analogical on the model of those which may be imitating the unmarked word-order of their Greek models. I am not yet in a position to suggest what this account might be, though I have indicated above some of the lines of inquiry which must be explored.

So much for Celsus. I would make one more point, a diachronic one, to bring Cassius Felix back into the picture. If one compares in Celsus and Cassius the word-order in phrasal terms with that in ordinary noun phrases containing a determining adjective, it appears that phrasal terms change much less than ordinary phrases: the strength of preference for the order noun + determining adjective in non-lexicalized phrases shifts drastically from 5:4 in Celsus to 7:1 in Cassius Felix (cf. n. 110 above), while in phrasal terms the preference for the reverse order moves only slightly, from just over 3:1 in Celsus to just over 2:1 in Cassius. In other words, a contrast in word-order between phrasal terms and groups consisting of noun + determining adjective is commoner in Cassius than in Celsus. Again, several possible explanations suggest themselves. Is this lexical conservatism, the retention of old adjective + noun phrasal lexemes in a fixed order? Or is it the synchronic application of a marked word-order to phrasal terms in order to highlight them? Again, what influence may we ascribe to Greek terminology? Here, too, light may be thrown only by further detailed study.

The conclusions of this section on word-order, such as they are, remain tentative. This reflects partly the constraints placed by time and space on pursuing the topic further in this study, but partly, too, the uncertain background of work on word-order in the Latin noun phrase against which studies such as this can be set. This background is uncertain in two related respects. In the first place, claims to date about Latin word-order within the noun phrase have, as a rule, been made with reference to large syntactic or semantic categories, of the sort referred to above, such as genitive, qualifying adjective, determining adjective, as if it were a given that these were the ultimate determinants of word-order.[113] My second concern is that some of the large figures or ratios that are given for individual authors or works are based on counting the examples of noun + adjective/genitive in one order and then the other. Statistics of this type amount to no more than statements of probability that one will encounter this or that order; any sort of explanation based on this kind of foundation

[113] De Sutter (1986) is considerably more subtle; see also Panhuis (1982: esp. 22–9), where he reviews studies of Latin word-order and argues for taking these studies beyond the analysis of members of syntactic groups.

is likely to be arbitrary until individual phrases (ideally with recurring constituents) have been scrutinized in context. My impression is that groundwork of this sort on word-order in Latin noun phrases has hardly begun, and it is slow work. De Sutter's article (1986) is a shining example in that, no matter what one makes of the theoretical account, it makes permanently available a great deal of material from a long and important text.

That said, I summarize what I take to be the important hypotheses and questions raised by this study of word-order in the phrasal terms of Celsus and Cassius Felix.

(1) A good number of phrasal terms recur quite frequently in a given text, either with unvarying word-order or with variation that may be plausibly explained with reference to one of a small set of special factors, morphological, syntactic, or semantic (see 4. 6 below); it seems plausible to ascribe to each phrasal term a basic, regular unmarked ordering of the constituents.

(2) Of the phrasal terms in Celsus a large majority shows the regular (i.e. unmarked in his text) orders adjective–noun and genitive–noun, and in Cassius a smaller majority has the regular order adjective–noun.

(3) The order adjective–noun is in conflict (weakly in Celsus, strongly in Cassius) with the regular order in these texts of groups consisting of noun + determining adjective.

(4) The order adjective–noun is also the reverse of what summaries of Latin scholarship to date lead us to expect in classical Latin and, a fortiori, late Imperial Latin, when the adjective is in determining function (in Cato, for example, there are hardly any instances of this order).

(5) The order genitive–noun is equally not what we predict in groups of this structure in classical Latin. (Celsus shows a weak preference for this order in his ordinary phrases and a very strong preference for it in his phrasal terms.)

(6) Points (3)–(5) clearly call for some sort of explanation: either our standard view of word-order in the Latin noun phrase requires some modification, or many of the phrasal terms considered here stand regularly in a marked order, although evidently not in emphatic contrast within their contexts.

(7) The latter hypothesis was assumed for present purposes; the notion that phrasal terms might show a lexically or stylistically marked word-order was developed and various possible origins of this word-order in particular cases were raised (including Greek word-order and the order of the elements of Greek compounds).

(8) It was noted that the persistence of these word-order phenomena in the fifth century AD implies some sort of linguistic conservatism, either

lexical (of certain phrasal terms in a fixed word-order) or grammatical (of an optional rule for highlighting a given phrasal lexeme by using the marked ordering of its constituents).

4. 5 Summary and Conclusions

The length of this chapter is out of proportion to the number of Latin medical terms which it covers, but one or two points have emerged from it which are potentially of quite general relevance to Latin grammar.

In Celsus' (and Scribonius') cumbersome but recurring paraphrases, we may see, it was suggested, signs of a first-century initiative, aimed at the literary elite, to forge a set of Latin expressions for talking about medical concepts which had only Greek names. In general, Celsus was inclined to explore Latin ways of dispensing with Greek terms, no matter how convenient the latter were, no matter how easy and quick to write. Provided that the Latin expression was tied to the Greek at some point and was clear in its reference and accurate in its description, brevity was a secondary consideration.

Brevity was not, however, altogether neglected, even by Celsus, who achieved significant formal compression in, for instance, his bold use of the present participle in phrases such as *urinam mouentia, ora uenarum fundentia sanguinem*. Phrases of this type represent an improvement on those such as *id medicamentum quod ex moris est*, not merely in being shorter, but also in filling a simpler syntactic slot in the sentence, in obviating the need for a new verb phrase, and, for a translator at any rate, in matching the syntactic status of the Greek. Given especially this last advantage, this type of phrase with adjectival present participle was still used by Cassius for providing handy nonce-translation equivalents for rarer Greek terms. It did not, however, achieve an important place in his set of single-word terms: for providing shorthand epithets or names of medicaments with reference to their effects, for example, the suffixes *-torius* and *-tiuus*[114] were brought into play (see 5. 4. 5 below); in other cases the Greek word was borrowed (e.g. *thermanticus, haemorrhoides*).

A small but important and permanent place was made in Latin medical vocabulary, as represented by our four authors, for a set of established two-word phrases, which I have called 'phrasal terms'. Formally these lexicalized translations of Greek terms, often Greek compounds, fitted the very old Latin noun + adjective and noun + genitive types represented by *res publica, nauis longa, pater familias, tribunus plebis, rex sacrorum*, and including the old Latin medical terms *ignis sacer, morbus comitialis*.

[114] The latter notably in Caelius Aurelianus; cf. André (1963).

Of the two structures, the less frequent noun + genitive type in Theodorus and Cassius is practically confined to conventional, terminological nominalizations of sentences (e.g. *profluuium sanguinis, difficultas urinae*). One reason for this may have been a tendency to replace an adnominal genitive in a fixed phrase with a derived adjective, the latter arguably forming a more tightly bound terminological unit with the head noun (as in *os pectorale* beside *os pectoris* 'the sternum' or *fistula urinalis* beside *fistula urinae* 'the urethra').

With regard to the form of phrasal terms, instances of lexical and syntactic variation appear to be no less common in Theodorus and Cassius than in the earlier writers, although it may be that the types and range of variation in the form of the constituents are reduced in Cassius in comparison with Celsus (cf. section 4. 3. 3). Most importantly, it emerges clearly from the section on word-order (4. 4. 3) that variation in the placing of the constituents of individual phrasal terms is much rarer in Cassius than in Celsus. A further important finding of this last section is that the basic unmarked word-order of many phrasal terms in both Celsus and Cassius is the reverse of that to be expected for noun + adjective and noun + genitive groups and may be, in some sense, lexically or stylistically marked.

4. 6 Variation in the Word-Order of Phrasal Terms (and Other Collocations)

I set out below the instances of what appears to be unusual ordering of the constituents of phrasal terms (and other collocations) in Celsus and Cassius Felix. Items appear in the order in which they are listed in the various parts of section 4. 4. 3 above; under each phrasal item, instances of 'marked' word-order are labelled (1, 2, 3 . . .), referred to, and usually quoted and commented on generally in the order in which they appear in the text, the *sequence unusual* being italicized within the quoted passages in each case.

The material in this appendix is intended to substantiate my claim that it is reasonable to ascribe a basic unmarked word-order to most, if not quite all, of the phrasal terms which show variant word-order on different occasions in the same text; this involves quite a number of phrases, especially in Celsus. Having established what seemed to be the unmarked word-order for each phrasal term and other collocation, I looked to see if the occurrences showing the reverse order could be plausibly explained with reference to one or more of the special factors which are usually associated with marked word-order in Latin—and whether any additional

factors were to be identified. I believe that the answer to both questions is affirmative, to the first with certainty, to the second with a high degree of probability and (the standard refrain) a need for more research.

In the discussion of 'exceptions' below, I make reference to the following special determinants of word-order. Of these (a) and (b) are special determinants of unmarked word-order, (c)–(i) of marked word-order; (a)–(f) will be familiar from the scholarly literature:[115]

Morphological factors

(a) *Monosyllabic head.* It is said that a monosyllabic head regularly precedes its determiner. In Celsus note e.g. the unemphatic sequences 7. 12. 1C *os gingiuae*, 7.26.4 *os pubis*.[116]

(b) *Participial determiner.* A participial determiner is held regularly to follow its head. This principle will account for the *regular* word-order of 3 of the 8 phrasal terms in Celsus which show an unmarked noun–adjective order, namely *febris ardens, saeptum transuersum, scutula operta* (cf. 4. 4. 3. 3 above).

(c) *Complex determiner (or head).* A complex determiner is supposed normally to follow its head and there are examples of this affecting regular word-order in Celsus (up to 7 in noun + adjective groups and up to 10 in noun + genitive groups), e.g. at 2. 1. 21 *morbis acutis* item comitialibus. There may be instances of the converse, of a complex determiner preceding its head, possibly for some special effect as at e.g. Cels. 2. 15. 1 in recenti uehementique praecipueque *ardente febre* (cf. 5. 28. 18B and the comments on these phrasal terms below); and on occasion a complex determiner appears to surround its head, e.g. at Cels. 3. 21. 15 et iocineri et ceteris *partibus interioribus*. Rarely a determiner may be shared by more than one head and this may also affect regular word-order, as e.g. at Cels. 2. 7. 17 uel *distentio neruorum* uel rigor. Of course, in the last two examples it is impossible to exclude, and it may be preferable to invoke the effects of the semantic determinant (f) below (emphatic contrast); moreover, in the last example (Cels. 2. 7. 17) syntactic factor (g) below (clarity of syntactic constituency) may be relevant also or instead.

Stylistic Factors (?)

In general it seems likely that aesthetic considerations will have affected word-order to some extent in Celsus' rhythmic prose. I remain tentative, however, about these factors not only because they are relatively subjective but also because I have found only 1 example in which they offer the sole

[115] See, for example, Hofmann and Szantyr (1965: 406 ff.) and Pinkster (1990: 184 ff., 285 f.), both with further references.

[116] Note also, however, the apparent exceptions in the supplements to 4. 4. 3. 2a and 4. 4. 3. 2b below.

plausible account of an unusual word-order (7. 26. 2I *distentio neruorum*). (I mention stylistic factors on a total of 6 occasions below, involving 3 noun + adjective and 2 noun + genitive groups in Celsus, and 1 of the latter in Cassius Felix.)

(d) *Chiasmus.* The achieving of a chiasmus may be a determinant on rare occasions in Celsus, e.g. at 3. 23. 4 utendumque tum uel sanguinis missione uel *ductione alui* (or does this have to do with clarity of syntactic structure, (g) below?).

(e) *Rhythm, alliteration.*[117] Rhythm and alliteration are possibly further stylistic determinants on rare occasions in Celsus, e.g. at 7. 22. 3 per plagam demittendus *digitus index* erit, which avoids a run of 5 light syllables and achieves an alliteration (but which may be in emphatic contrast, (f) below).

Semantic Factors

(f) *Emphatic contrast or antithesis.* The marked word-order lends weight to the phrase, or to one of its constituents, when it stands in some sort of semantic opposition with another lexeme expressed or implied in the context. This is probably the most familiar determinant of marked word-order in Latin, and it is certainly the factor most frequently invoked in this appendix (39 times in Celsus (23 noun + adjective, 16 noun + genitive), and 6 times in Cassius (4 noun + adjective, 2 noun + genitive)). For present purposes I content myself with 2 examples: Cels. 3. 27. 1A at *resolutio neruorum* frequens ubique morbus est (in contrast with 3. 26 attonitos quoque raro uidemus); Cels. 4. 15. 1 dextra parte sub praecordiis uehemens dolor est, idemque ad latus dextrum . . . peruenit: nonnumquam *manus* quoque *dextra* torquetur.

Syntactic factors

(g) *Clarity of syntactic constituency.* Some instances of unusual word-order in phrasal terms may be due to the author's desire in the interests of clarity to keep a case-form adjacent to the word on which it depends or to avoid possible ambiguity in the syntactic construal of a genitive. Predictably, this factor seems to arise only in connection with noun + genitive phrasal terms (on up to 24 occasions in Celsus and up to 8 in Cassius); it may account for cases such as Cels. 7. 26. 5I nihil tamen peius est *distentione neruorum* (ablative brought closer to governing comparative adjective); 7. 26. 2M ex *distentione neruorum* mortem maturant (ablative brought adjacent to governing preposition). Of course, prepositions are not always adjacent to their governed case-forms, and it seems that individual prepositions vary in the extent to which they tolerate such dislocation.[118]

[117] On rhythm in Celsus note Marx (1915: xcviii–cvi) and Jocelyn (1985: 316–19).

[118] It is interesting that in both Celsus and Cassius, of the common prepositions *ad* is the

Another variable relevant here is the degree to which the noun + genitive collocation or phrasal term has been lexicalized and subject to quasi-univerbation in the order genitive–noun (cf. n. 124 below).

(h) *Correlation with the marked ordering of the major syntactic constituents of the sentence.* There is no doubt that in Celsus a good number of examples of 'exceptional' word-order in phrasal terms occur in sentences of which the major constituents (subject, object, verb, etc.) are themselves in a marked order (on perhaps as many as 16 occasions in Celsus, 11 involving noun + adjective and 5, noun + genitive groups). This may turn out to be, if not illusory, at any rate semantic rather than syntactic conditioning, that is, it may be that these cases are all in some sense emphatic (and belong under (f) above), although they are not evidently in any straightforward lexical opposition within their context. Note, for example, in an object–subject–verb sentence, Cels. 2. 1. 14 ceteros *lippitudo arida* . . . male habet; in object–verb–subject, 1.8.2 stomachum autem infirmum indicant pallor . . . ieiuno *dolor capitis*; and in the sequence predicate–subject, 3. 24. 2 soletque accedere et sitis et *dolor capitis*. I observe these instances as they arise but reserve judgement for now on their possible significance for Latin word-order.

Linguistic Interference

(i) *Scribal error.* It goes without saying that emendation of the text is generally to be seen as a measure of last resort in a case of unexpected and unexplained word-order. On the other hand, in the case of a common phrasal term with a clear regular word-order in the text in question, manuscript authority for that regular order may carry weight against the preference of an editor who may not have had the benefit of a concordance; so e.g. at Cels. 3. 27. 1E cibus esse debet ex *materia media* [media materia *ϑ*]. (I venture to suggest below the possibility of four emendations in Celsus and five in Cassius.)

(Supplement to 4. 4. 3. 1a) Deviations from the regular order adjective–noun

Celsus

scriptorius calamus (3 : 1): At 5. 28. 12L collyrio uti non debemus, quod unam partem curet, reliquas omittat; sed eadem medicamenta arida in *calamum scriptorium* coicienda sunt, the order, unusual in Celsus although

one most frequently followed by a word other than its case-form (5% (32 out of 647) of the time in Celsus, 9.7% (37 out of 383) in Cassius) and that after *ad*, come first *cum* and then *ex* in both authors (in Celsus: *cum* 2.2% (25 out of 1149), *ex* 1.9% (13 out of 699); in Cassius: *cum* 6.7% (27 out of 406), *ex* 5.9% (19 out of 324)). It is striking that both authors agree in their 'top three' in this regard, and striking that dislocation appears to be more frequent in Cassius Felix. Clearly, these soundings raise all sorts of questions that call for further research.

normal in Latin generally, may be intended to signal that *calamus scriptorius* is in emphatic contrast with *collyrium* (factor (f) above).

index digitus (3 : 2): In each of the 2 occurrences of *digitus index*, a particular explanation of this order suggests itself (which is not the case in the 3 instances of *index digitus*): (1) 7. 19. 2 in id demittendus est sinistrae manus *digitus index*: The determiner of *digitus* is complex and surrounds its head, as it does also in a different order at 7. 20. 6 index digitus sinistrae manus. (2) 7. 22. 3 per plagam demittendus *digitus index* erit: This may be an emphatic ordering, signalling a contrast with the unspecified finger at 7. 22. 2. A possible alternative or additional consideration here, however, is stylistic: the run of 5 light syllables in **digitus erit* was worth avoiding and the alliteration of *demittendus digitus* was worth achieving (factor (e) above). I would note that in both (1) and (2) above the order of the major constituents is marked: adverb–predicate–subject (factor (h) above). In this connection notice in (2) the separation of *erit* from its gerundive and the analogous placement of the copula at pr. 42 discissum *transuersum saeptum* est, 3. 18. 17 utilis *detractio sanguinis* est, and 8. 3. 7 suspendendaque *manus sinistra* est, in all of which the italicized phrasal term (or collocation) is in an unusual order and the order of the major constituents is similarly inverted. (For the placement of the copula after a phrasal term in emphatic contrast, see under *intestinum plenius* below.)

sacer ignis (4 : 1): This old phrasal term occurs in its usual Latin order only on its first mention by Celsus (at 5. 22. 7). Perhaps Celsus' purpose was to establish the presence of this term in the text in its familiar, regular order before using it hereafter in the artificial, literary order made famous by Lucretius and Vergil.

tenuius intestinum (7 : 1): The usual Latin order (exceptional for Celsus) occurs only at 2. 8. 35 morbus *intestini tenuioris* nisi resolutus est. If we take it that the text is sound,[119] two alternative explanations suggest themselves: either this is an isolated case of 'normal', unmarked Latin word-order or Celsus is signalling by means of the inverted order an emphatic resumption of this disease, which was mentioned two 'aphorisms' earlier, at 2. 8. 34 si uero in tenuiore intestino morbus est. It is just conceivable that the inversion was prompted by the fronting of the subject before *nisi* (cf. factor (h) above) but perhaps the answer in this case lies rather in the fact that *morbus intestini tenuioris* is in effect a three-constituent phrasal term: as we

[119] Serbat accepts the reading of the manuscripts. Marx marks a lacuna, comparing Hp. *Aph.* 6. 44 *ὁκόσοισιν ἐκ στραγγουρίης εἱλεοὶ γίνονται, ἐν ἑπτὰ ἡμέρῃσιν ἀπόλλυνται, ἢν μὴ πυρετοῦ ἐπιγενομένου ἄλις τὸ οὖρον ῥυῇ*; he reports the supplement proposed by earlier editors: morbus intestini tenuioris ex urinae difficultate febre nisi resolutus est. Note, however, that Celsus translated this *Aphorism* a few sections earlier, at 2. 8. 17 et ex *difficultate urinae / morbum tenuioris intestini* ortum, si urinam per calorem mouet, leuat [*febris*]; observe the word-order of the two phrasal terms here.

noted above (4. 4. 3. 1C with n. 98), word-order in such cases appears to be more variable, although it must be said that Celsus much prefers to put the head last.

plenius intestinum (1 : 0): This phrasal term occurs once only and in the order *intestinum plenius*. I include it here (rather than as an example of noun–adjective order) allowing the cumulative evidence of all the other expressions in Celsus for parts of the intestine (including the large intestine: *latius intestinum, laxius intestinum, maius intestinum* coming once each in this order) to lead us to expect *plenius intestinum*. The inverted order occurs at 4. 21. 1 morbus qui in *intestino pleniore* est. In the context this ordering is clearly emphatic (factor (f)): having spent the last section on the disease of the *small* intestine, we are now moving on to discuss that of the *large* intestine.[120]

arida lippitudo (3 : 1): This phrasal term occurs in inverted order on its first occurrence in the text, at 2. 1. 14 ceteros *lippitudo arida* . . . male habent. If there is anything in the remark made above for *ignis sacer*, the same may apply to *lippitudo arida*. Notice again, however, that unusual word-order in a phrasal term occurs in a sentence in which the major constituents are in a marked order, the object preceding the subject (factor (h)).

media materia (21 : 1): At 3. 27. 1E cibus esse debet ex *materia media*, manuscript *f* has *media materia*, in line with the 21 other occurrences of this phrasal term in Celsus. A simple solution would be to emend the text (factor (i)), since it is not obvious that any emphasis or contrast is intended here which could occasion an inverted ordering. The emphasis, in fact, is on *cibus*, which stands in contrast with the forms of treatment which precede and with *potio* which follows; *cibus* consequently attracts and hosts *esse* (Adams 1994: 15 ff., 34 ff.). I would note, if the inverted order is retained, that the phrasal term stands outside the nucleus of the sentence.

interiores partes (8 : 2): (1) At 3. 21. 15 [*aqua*] et iocineri et ceteris *partibus interioribus* nocet, the determiner is complex and surrounds the head (factor (c)), although manuscript *f* has *interioribus partibus*. (2) At pr. 13 post haec etiam naturalium actionum, nouissime *partium interiorum*, the inverted order is likely to be emphatic or determined by a stylistic point, whether the chiasmus or the rhythm of the clausula or both (factors (d), (e), or (f)).

obscenae partes (1 : 1): At 6. 18. 1 proxima sunt ea quae *ad partes obscenas* pertinent, the ordering is emphatic, signalling a change of subject as we move from the navel to the genitals. We may continue to believe that in Celsus, *pars* regularly follows its adjective.

[120] The placement of the copula here is entirely consistent with this interpretation: on the attachment of the copula to 'emphatic' elements, see Adams (1994). Cf. also the remarks under *index digitus* above.

oricularium specillum (4 : 1): At 6. 7. 9A sin aliquid exanime est, *specillo oriculario* protrahendum est, the inverted order is probably to emphasize that we are now to use an *ear*-probe, reference having been made a few lines earlier to an unspecified *specillum*.

dexter + body-part (24 : 2): Both instances of exceptional order occur in the same sentence, at 4. 15. 1 dextra parte sub praecordiis uehemens dolor est, idemque ad *latus dextrum* . . . peruenit: nonnumquam *manus quoque dextra* torquetur. The order is due to emphasis, the right side having been specified (*dextra parte*) and the stress being on *latus* and *manus*, respectively.

sinister + body-part (22 : 3): (1) At 8. 8. 1D a dextro uero iugulo, si id fractum est, ad *alam sinistram*, a sinistro ad dextram . . . fasciari debet, the unusual order is clearly emphatic. (2) At 4. 16. 1 at lienis, ubi adfectus est, intumescit, simulque cum eo *pars sinistra*, three factors may have conspired to produce this inverted order. First, *pars* may be preposed because it is monosyllabic (factor (a) above). Second, the phrase may be emphatic: we are turning from the disease of the liver, which causes pain on the *right* side (4. 15. 1, quoted in the last paragraph), to disease of the spleen, which causes pain on the *left* side (factor (f)). Third, it is in an afterthought standing outside the nucleus of the sentence (factor (h)). (3) At 8. 3. 7 suspendendaque *manus sinistra* est, in the absence of any emphatic contrast, the inverted order may reflect the inverted order of the major constituents, the predicate preceding the subject (factor (h)). On the other hand, the reading of (again) manuscript *f* deserves serious consideration: 'suspendenda magis sinistra manus est et saepius attollenda' not only preserves the normal placement of *sinister* but also provides a pleasing chiasmus (gerundive–adverb–subject–adverb–gerundive); *manus* was anticipated and obliterated *magis*.[121]

liquidum ceratum (5 : 4): At (1) 4. 6. 3 utilius igitur est *cerato* primum *liquido* ceruicem perunguere, deinde admouere uesicas, (etc.), and (2) 8. 10. 1L ergo *cerato* quoque *liquido* id leniter est unguendum, there is clearly emphatic contrast (note the *primum* . . . *deinde* and the *quoque*, respectively). (3) At 8. 10. 7N calida aqua multa membrum id fouetur et ex *cerato liquido* perfricatur intenditurque, I cannot account for the noun–adjective word-order. (4) At 6. 18. 7A cum *cerato liquido* ex rosa facto, a complex determiner follows; it must, however, be noted that the other order occurs in a very similar context at 8. 4. 19 ceruixque molliri debebit liquido cerato ex irino facto. The other instances of what I take to be Celsus' regular adjective–noun ordering all appear to be unemphatic (4. 31. 8, 6. 18. 2G, 7. 30. 3D, 8. 10. 7A).

[121] On the possible relevance of the placement of the copula in (3), see the remarks under *index digitus* above.

acer cibus (6 : 1): At 4. 19. 3 *cibique* inflantes et *acres* utiliores sunt, we see again the common phenomenon of a complex determiner following its head (*cibi*) (factor (c)).

acutus morbus (22 : 1): At 2. 1. 21 adulescentia *morbis acutis* item comitialibus tabique maxime obiecta est, the unusual order may be emphatic (we have just had mention of *chronic* diseases), or it may be an instance of a head preceding a complex determiner (*acutis item comitialibus*).

longus morbus (12 : 1): At 2. 11. 4 opus etiam esse cucurbitula potest in *morbis longis*, the unusual order may be again emphatic. Here the contrast would be with 2. 11. 3 usus autem cucurbitulae praecipuus est, ubi non in toto corpore sed in parte aliqua uitium est: the cupping-glass is needed in certain *chronic diseases* as well as in various localized and specific afflictions (*uitia*). Note also, however, that the unusually ordered collocation stands outside the nucleus of its sentence.

bona ualetudo (4 : 1): At 6. 9. 7 idque saepe longiorem, semper annuam *ualetudinem bonam* praestat, the unusual order must result from a desire to separate the close attribute (*bonam*) from the complex adjectival predicate of *ualetudinem* (factor (g)).

Cassius

auditoria cauerna (1 : 1): The variation occurs in consecutive lines: 44. 5 ff. aurium dolores efficiuntur . . . aut ex lauacris frigidis aut aqua in ipsa *cauerna auditoria* irruenti. aut ex tumore membranae supra dictae *auditoriae cauernae* . . . dolores efficiuntur. I take it that the first occurrence is conditioned by the *ipsa*; it is probably emphatic.

tetanica passio (3 : 1): The unusual order occurs at 94. 20 perungues chalastico superius in *passione tetanica* memorato. This is presumably emphatic; otherwise *passio* follows its adjective 33 times out of 33.

(Supplement to 4. 4. 3. 1b) Deviations from the regular order noun–adjective

Celsus

febris ardens (3 : 1): At 2. 15. 1 Asclepiades etiam in recenti uehementique praecipueque *ardente febre* ad discutiendam eam gestatione dixit utendum, manuscripts $\mathcal{J}$ (again) and *T* have *febre* before *praecipueque*, and it is tempting to take the easy way out and follow their reading (factor (i)). If the word-order in *V* and *F*, followed by Marx and Serbat, is that of Celsus, its purpose is probably partly emphatic—to stress the third type of fever—and partly stylistic, the three rhyming adjectives in the remarkable complex determiner (unusually preposed) constituting a *tricolon aucton*.

morbus arcuatus (1 : 1): the order at 2. 4. 6 periculosum etiam est [est etiam $\mathcal{J}T$] post *arcuatum morbum* febrem oriri, is probably emphatic, since

we are discussing various circumstances under which fevers are dangerous. At 2.8.34 at in *morbo arcuato* durum fieri iecur perniciosissimum est, I would regard the phrasal term as unemphatic, the weight of emphasis being on the hardening of the liver.

morbus comitialis (6 : 2): (1) 2. 13. 1 et *comitiali* quoque *morbo* oppressis necessarius [*uomitus*]; (2) 4. 27. 1A [*hysteria*] interdum etiam sic exanimat, ut tamquam *comitiali morbo* prosternat. Both cases carry some stress, signalled by *quoque* in the first and *sic . . . ut tamquam* in the second case.

saeptum transuersum (3 : 2): *Transuersum saeptum* occurs on the 2 occasions where this phrasal term is explicitly equated with Greek *diaphragma* (pr. 42; 2. 7. 32) and it is possible, at least, that it is intended so to mirror the order of the elements of the Greek compound, *transuersum* for διά-, *saeptum* for -φραγμα. I note, however, that on both occasions the order of the major constituents is inverted (factor (h)): pr. 42 simul atque uero ferrum ad praecordia accessit *et discissum transuersum saeptum est*, quod membrana quadam superiores partes ab inferioribus diducit (διάφραγμα Graeci uocant) . . . (predicate–subject–copula);[122] 2. 7. 32 exque eo casu plerumque *infra transuersum saeptum, quod διάφραγμα Graeci uocant, fit abscessus* (adverb–predicate–subject).

tussis sicca (1 : 1): At 4. 13. 2 interdum etiam *sicca tussis* est, quae nihil emolitur, there is a clear emphatic contrast with the productive cough in the sentence before: 4. 13. 1 huic dolori lateris febris et tussis accedit; et per hanc excreatur, si tolerabilis morbus est, pituita, si grauis, sanguis. In the other order, at 4. 5. 2 haec [*grauedo*] nares claudit, uocem obtundit, *tussim siccam* mouet, everything is normal and unmarked.

lac muliebre (1: 3!): At 5. 21. 1B aut cucumeris siluestris pars interior ex *lacte muliebri* diluitur, we have, I think, the unmarked order. (1) At 6. 6. 8B eo magis leniri medicamentum debet, adiecto uel albo oui uel *muliebri lacte*, the phrase is inverted, as often happens in a hanging participial phrase with the participle in first position; *albo oui* is also inverted, *oui* in Celsus usually (9 : 3) preceding its head, *album* or *uitellus* 'the yolk'. (2) At 6. 6. 14 in his quoque iisdem lenibus medicamentis ex *muliebri lacte* utendum est, the phrase is in emphatic contrast with other liquids that have been prescribed in recent sections for taking up the *lenia medicamenta* (e.g. 6. 6. 11, 12). (3) At 6. 7. 1E quibus murrae quoque paulum a quibusdam miscetur uel papaueris lacrimae aut tus cum *muliebri lacte* uel amararum nucum cum rosa sucus, the phrase is probably again in emphatic contrast with the rose-oil that is to be added to the next ingredient.

medicamentum compositum (2 : 2): (1) At 5. 28. 18B ut uero ad *composita medicamenta* ueniamus, we have a clear case of emphatic contrast as we

[122] On the possible relevance of the placement of the copula here, see the remarks under *index digitus* above.

move from simple to compound medicaments. (2) At 5. 26. 23F licetque sine peregrinis et conquisitis et *compositis medicamentis* uulnus curare, the complex determiner is again emphatic and hence preposed, the resulting phrase being comparable with that denoting three types of fever at 2. 15. 1 (quoted above under *febris ardens*).

Cassius

febris acuta (8 : 2): (1) At 173. 13 curationis uero tempore maxime in *acutis febribus* . . . cataplasmandum, we have a probable case of marked emphatic ordering after *maxime*. (2) At 155. 15 cum obliuione mentis *acuta febre* iactantur, however, I have no account of the word order, unless it, too, is somehow emphatic; but acute fever was a sign in the preceding chapter (154. 5) so that there is no sensible contrast here. Might our text reflect an original 'cum obliuione mentis acuta ⟨et⟩ febre ⟨acuta⟩', with loss of ⟨*et*⟩ and deletion of one *acuta*? The anomaly may seem too small to justify such a large remedy. There is reference back to this sentence in the very next line: 155. 15–16 sequitur autem patientes ut supra diximus febris acuta, sensuum pressura . . . , with *febris acuta* in its regular order.

lac muliebre (2 : 1): At 118. 20–1 mulieribus autem et pessarium ex lacte asinino uel caprino aut *muliebri lacte* apponendum, Rose notes that manuscript *p* does not have *lacte* without specifying which. (Anne Fraisse has now kindly informed me that it is indeed the second.) This passage apart, *lac* in Cassius Felix never follows its determiner, whether adjective or genitive, and precedes in all 17 times. An easy solution is to delete the second *lacte* here, making the first *lacte* determined by three adjectives giving suitable alternative types of milk, as, for example, at 13. 16 lac ouillum seu bubulum uel caprinum, 92. 7 lac asininum seu caprinum uel ouillum. Woman's milk appears to be given emphasis by use of hyperbaton at 47. 14 aliqui lacte resoluunt muliebri, where this ingredient is in contrast with *passo* in line 13.

(Supplement to 4. 4. 3. 1c) Cases of apparent free variation adjective–noun ~ noun–adjective

Celsus

atra bilis (6 : 3): In the order *bilis atra* it is always nominative singular (2. 1. 6, 2. 6. 8, 3. 18. 17); in the order *atra bilis* it is 4 times ablative singular (2. 1. 16, 2. 8. 31, 2. 12. 1B, 3. 21. 16) and twice genitive singular (2. 7. 19, 2. 8. 15). I cannot explain the variation, unless it has to do with avoidance of hiatus/elision, which would presumably relate to rhythm (stylistic factor (e) above).

imus uenter (9 : 3): *Venter imus* occurs at (1) 4. 27. 1D Tol. 21 nonnumquam uero idem dolor etiam *uentrem imum* coxasque, etiam latera complectitur, (2) 7. 26. 5F si . . . *uenter imus* sedet, and (3) 7. 26. 5H si *uenter imus* tumet. The first (1) is clearly emphatic (note *etiam* . . . *etiam*) but I see no way of accounting for the ordering in (2) and (3).

Cassius

dexter + body-part (2 : 2) and *sinister* + body-part (4 : 3): I cannot explain this variation unless the fact is significant that *manus* and *brachium* always precede (106. 1, 109. 13, 128. 19, 142. 20, 172. 15), while all other body-parts follow (109. 10, 158. 15 *dextra pars*; 62. 5 *sinistra naris*; 65. 9 *mala*; 105. 15 *praecordiorum pars*; 131. 3 *ilium*).

fel flauum (3 : 2): *Flauum* precedes at 40. 20 (despite monosyllabic *fel*: see factor (a) above) and 145. 16 (close to 'quod Graeci xanthen cholen uocant', which may have influenced the order of the Latin). *Flauum* follows at 33. 11, 40. 8 (adjacent to 'quam Graeci xanthen cholen uocant', which clearly did not influence the Latin order) and 147. 1. Compare *fel rubeum* (1 : 1 at 145. 3, 146. 11), *fel nigrum* (1 : 1 at 16. 11, 122. 9), *fel rufum* (1 : 0 at 114. 23): in all *fel* precedes its colour adjective by 6:4. I cannot explain the variation.

(Supplement to 4. 4. 3. 2a) Deviations from the regular order genitive–noun

Celsus

uesicae ceruix (5:2): (1) At 7. 26. 1B ubi ad *ceruicem uesicae* uentum est, simul cum cole fistulam inclinatam in ipsam uesicam compellere, the *neck* of the bladder appears to be in emphatic contrast with *ipsa uesica*. (2) At 7. 26. 2H cum iam eo uenit, tum incidi [super *uesicae ceruicem*] (del. Targa), iuxta anum cutis plaga lunata usque ad *ceruicem uesicae* debet, the irregular order is probably provoked by *usque ad*, which in Celsus is always (29 times) adjacent to its accusative (factor (g)).

sanguinis detractio (8:1): at 3. 18. 17 in hac utilis *detractio sanguinis* est, the ordering may be intended to avoid ambiguous constituent structure, making it immediately clear that *utilis* is with *detractio* and not with *sanguinis*. It should, however, be noted that the phrasal term, as subject, is following its predicate (*utilis*), and that this is another instance in which exceptional order within a phrasal term occurs in a context in which the order of the major constituents is unusual (factor (h)).[123]

spiritus difficultas (6 : 1): At 2. 10. 6 quicquid denique fauces *difficultate spiritus* strangulat, the inverted order avoids ambiguous constituent structure (*fauces spiritūs*).

urinae difficultas (9 : 1): At 2. 8. 17 ex *difficultate urinae* morbum tenuioris intestini ortum, there is probably emphatic contrast between the two

[123] On the possible relevance of the placement of the copula here, see the remarks under *index digitus* above.

parallel phrases (difficulty with *urination* giving rise to the disease of *the small intestine*); alternatively, or as well, the juxtaposition of the ablative with its preposition may have played a part.[124]

neruorum distentio (19 : 12): (1) At 2. 7. 17 uel *distentio neruorum* uel rigor timeri potest, the order is inverted because *neruorum* is shared with *rigor*; there is in effect an emphatic contrast between *distentio* and *rigor*. (2) The situation is very similar at 8. 10. 1C periculose uis neruis adhibetur: nam *distentio neruorum* uel cancer sequitur, where *distentio* shares *neruorum* with *cancer*. (3) At 7. 26. 2I ex quo et sanguinis profusio et *distentio neruorum* fieri potest, inversion is admitted probably in order to achieve a chiasmus. (4) and (5) At 7. 8. 2 ne sine effectus spe *distentio* oriatur *neruorum*, and 8. 25. 3 ne cancri *distentiones*que *neruorum* orirentur, inversions may be due to the desire to isolate the genitive *neruorum* from other nouns (*spe*, *cancri*) with which it could be misconstrued. The other 7 examples of the order *distentio neruorum* occur in the ablative singular: in four of these the ablative *distentione* is thereby adjacent to its preposition (2. 8. 42, 3. 23. 2, 6. 6. 36, 7. 26. 2M); in 2 further cases the ablative is thereby adjacent to another word that governs it (*exceptus* at 2. 6. 7, *peius* at 7. 26. 5I). The inverted order in 7. 26. 5A ut *distentione neruorum* periclitatur aliquis, dum uesica eius agitatur, accompanies an unusual order of the major constituents, adverb–verb–subject (factor (h)). (I am struck by the number of instances of 'exceptional' word-order in chapter 26 of book 7.)

alui ductio (9 : 1): At 3. 23. 4 utendumque tum uel sanguinis missione uel *ductione alui*, the reason for the exceptional order is most likely stylistic, the achievement of a chiasmus (factor (d)). It also avoids ambiguous constituent structure (uel sanguinis . . . uel alui).

urinae iter (5 : 2): (1) At 4. 1. 12 tum in masculis *iter urinae* spatiosius et compressius . . . descendit ad colem, I suspect that the inversion is caused by the postponement of the complex, and emphatic, attribute. (2) At 7. 26. 1B dextra uero fistulam demittere in *iter urinae* debet, the inverted order probably has to do with the co-presence of *fistula* and *iter urinae* in the same clause: the usual name for the urethra is *fistula urinae*; this cannot be used

[124] On the other hand note 4. 27. 1D Tol. 44 ad urinae difficultatem, where the genitive separates the preposition *ad* from its accusative; cf. n. 118 above. *Ex* in Celsus precedes a word other than its ablative only in very particular circumstances, namely: (1) before a deictic pronoun, esp. *eiusmodi* (7 times, e.g. 8. 14. 2 ex eiusmodi casibus; cf. 6. 6. 8C ex eorum dierum consuetudine); (2) before an ingredient in the genitive followed by a word for a part or an amount in the ablative (13 times, e.g. 7. 20. 3 ex lini semine, 6. 18. 2D ex passi cyathis); (3) when there is ellipse of the ablative (2 times, 2. 33. 5 ex qualibet farina cataplasma siue ex tritici siue farris; 8. 14. 2); (4) before a phrasal lexeme (2 times, pr. 7 and pr. 14 ex sapientiae professoribus). With the last example cf. pr. 28 inter sapientiae professores, one of only 4 (of a total of 249) occurrences of *inter* before a word other than its governed accusative. The separation of preposition and governed case-form is probably one measure of the degree to which a noun phrase has been lexicalized into a phrasal lexeme.

here because of the danger of confusion with *fistula* 'pipe' and *fistula* 'ulcer', which also turn up in this same context. Perhaps, then, by placing *iter* between *fistula* and *urinae*, Celsus seeks to minimize the risk of confusion.

intestinorum leuitas (5 : 2): (1) On its first mention (in a list at 2. 1. 8) *leuitas intestinorum* is glossed with Greek *lienteria* and its order is surely meant to reflect that of the elements of the Greek compound. (2) On its second occurrence, again in a long list, it is part of a 'hanging nominative', outside its nucleus: 2. 1. 22 praecipueque soluta aluus et quae sequuntur hanc, tormina uel *leuitas intestinorum*.

cerebri membrana (5 : 3): (1) At 7. 7. 13B ad *membranam cerebri* peruenium eique inhaerescunt, the ordering is probably emphatic: the tunics of the eye go through to the membrane of the *brain*; (2) and (3) 7. 7. 15C quae inter *membranam cerebri* et caluariam, and 8. 1. 11 per quae *membrana cerebri* similes membranulae deducuntur: Both illustrate the tendency to 'sandwich' the genitive within a more extensive construction, in (2), the prepositional phrase of *inter*, in (3), the adjectival phrase *membrana cerebri similes*. Note also that in (1) and (2) the case-form is made to stand with its preposition (*ad* and *inter*, respectively) (factor (g)).

sanguinis missio (3 : 1): At 2. 10. 17 eaque *missio sanguinis* adeo non prodest, ut etiam noceat, the ordering is probably emphatic, highlighting a special case in which blood-letting must be stopped at once. It also achieves continuity of constituents (*ea missio*) (factor (g)).

uoluae ōs (5 : 1): At 7. 29. 5 nam si compresso *ore uoluae* id temptatum est, non emittente eo infans abrumpitur, there is clear emphasis on *compresso*, which is fronted with, it seems, accompanying inversion of its phrasal subject.

sanguinis profluuium (4 : 2): (1) At 2. 7. 2 ut aliqua parte *profluuium sanguinis* fiat, the order makes it clear that *sanguinis* is with *profluuium* and not with *parte*; (2) at 5. 26. 25B multique etiam ex *profluuio sanguinis* intermorientes, the inverted order may have been occasioned by the desire to keep the preposition with its ablative (cf. n. 124 above).

uictus ratio (13 : 4): All four instances of this phrasal term in the order *ratio uictus* are in emphatic contrast with, respectively, *peregrina medicamenta* (2. 33. 1), *potio* (4. 25. 2), *medicamenta* (5. pr. 3), and *idonea medicamenta* (6. 6. 27A).

neruorum resolutio (6 : 5): (1) At 2. 1. 12 *resolutio neruorum* (paralysin Graeci uocant) (at the end of a list of diseases), the inverted order highlights the word that models the Greek expression. (2) and (3) At 2. 8. 14 omni *resolutione neruorum*, and 2. 8. 40 omnique *resolutioni neruorum*, the head is between two determiners and adjacent to its adjective, *omnis*. (4) 3. 27. 1A at *resolutio neruorum* frequens ubique morbus est, introduces the account of paralysis and is in emphatic contrast with the first sentence of 3.

26 attonitos quoque raro uidemus. (5) At 5. 28. 2B aut *resolutio neruorum* aut distentio insequitur, the ordering is emphatic and occasioned by the sharing of *neruorum* with *distentio*.

neruorum rigor (7 : 1): At 4. 6. 1 qui quodam *rigore neruorum* modo caput scapulis [*nectit*], the order may be due to a desire to keep the adjective and noun together.[125]

pituitae cursus (9 : 1): At 6. 6. 8B ubi uero aliquis releuatus est, iamque *cursus pituitae* constitit, reliquias fortasse leniores futuras discutiunt balneum et uinum, there is probably some emphasis on the *flowing* of the rheum (some *static* rheum being among the *reliquiae*).

body-part + *dolor* (73 : 12) (This includes *capitis dolor* (23:5) and *lateris, -um dolor* (14 : 2).) I shall not attempt to explain every case of inverted order. Note, however, in particular: (1) emphatic ordering at 2. 7. 33 *dolor* etiam *pulmonis*; (2) preposition and complex determiner at 8. 12. 4 cum *dolore oculorum* et *ceruicis*; (3) preposition and complex head at 1. 3. 20 cum *dolore* et grauitate *praecordiorum*.

body-part + *morbus* (11 : 2): Both instances of *morbus* preceding its genitive are in a three-word phrasal term, *morbus intestini tenuioris*, in which word-order seems to be more variable. Under *urinae difficultas* above is quoted 2. 8. 17. On 2. 8. 35 see above under *tenuius intestinum*.

body-part + *ŏs* (9:4, not including *os pectoris*): (1)–(3) Monosyllabic *os* precedes at 7. 12. 1C *os gingiuae* (cf. 6. 15. 4 gingiuarum uero ossa), 7. 26. 4 inter urinae iter et *os pubis*, 8. 1. 27 *os calcis*, but follows at 8. 1. 25 pauloque magis ad femoris os tendens, 8. 11. 1 interdum calcis os a talo, both apparently emphatic. It follows also, however, at 8. 7. 5 and 8. 8. 2 *coxarum os*, both times in lists, where one would expect the regular, unmarked order (cf. 8. 1. 23 *in coxarum osse*). (4) At 8. 1. 27 excipitur autem crus infra *osse transuerso talorum*, the preposing of disyllabic *osse* may be due to the complex determiner (factor (c)), or to *transuersum*, which, as a participial formation, likes to follow its noun (factor (b)), or to the inverted sentence-structure (verb–subject–adverbials) (factor (h)).

Cassius

mentis alienatio (1 : 1): At 187. 17, Rose prints aliquibus et *alienatio mentis* [*efficitur*], following the implicit word-order of *c* (*aliquibus alienatio et mentiri*), although *p* has 'mentis alienatio'. The phrasal term could be taken to be emphatic here (note the *et*): is this Rose's thinking? The other instance (154. 7 *mentis alienatio*, in a list of symptoms) is not emphatic. Celsus (4. 2. 2), Scribonius (85.5), and Theodorus (109. 16–17) all have (once each) *mentis alienatio*.

sanguinis detractio (4 : 6!): (1)–(4) The order *detractio sanguinis* occurs

[125] Note, however, that ms. *P* has *neruorum rigorē* (Marx 1915, app. crit. ad loc.).

four times in the phrase *post detractionem sanguinis* (34. 21, 139. 11, 169. 24, 180. 18), where the preposition will have exerted an influence.[126] (5) At 129. 1–2 et post dies *detractionis sanguinis* expletos, I would delete *sanguinis* (not in *p*), comparing 171. 6 post iii uel v detractionis dies, and 176. 7 post vii aut xi detractionis dies. (6) At 49. 10 et si in fronte plenae ac distentae apparuerint uenae, *detractio sanguinis* per flebotomiam fieri oportet, the term is probably in emphatic contrast with the other, lesser forms of treatment just prescribed under various circumstances (*fomentabis, uaporabis*).

sanguinis fluor (4 : 1): At 86. 20 et sunt differentiae *fluoris sanguinis* numero quattuor, the ordering makes it clear that *differentiae* is with *fluoris* and not with *sanguinis*.

sanguinis fluxus (4 : 1): At t. 59. 8 ad *fluxum sanguinis* ex naribus, I cannot explain the ordering, unless it is influenced by the preposition; I would note, however, that it occurs only in a title and that manuscript *p* has 'ad narium sanguinis fluxum'.

pulsus paruitas (3 : 2): (1) At 121. 2 sequitur autem in passione constitutos articulorum perfrictio et *paruitas pulsus*, the chiastic order, if it is not purely artistic (factor (d)), makes clear that *pulsus* is with *paruitas* and not with *perfrictio* (factor (g)). (2) At 156. 22 sequitur autem aegrotos perfrictio articulorum, nimia *paruitas pulsus*, quam microsphyxian dicunt, the order is due probably to the presence of the adjective, rather than to the order of the elements of the Greek compound, for the other order occurs also just before Greek *microsphyxia* (96. 13, 154. 7). Note, however, the apparently free variation of *articulorum perfrictio* and *perfrictio articulorum* in these two passages.

(Supplement to 4. 4. 3. 2b) Deviations from the regular order noun–genitive

Celsus

ŏs pectoris (2 : 1): At 8. 2. 5 siue capitis siue *pectoris os* siue costa cariosa est,[127] the emphatic complex determiner causes *os* to follow its genitives even though it is monosyllabic. (Compare the regular ordering at 8. 1. 14 [*costae*] committuntur cum *osse pectoris*, and 8.2.6 perniciosissimum est quod in *osse pectoris* est.)

(Supplement to 4. 4. 3. 2c) Cases of apparent free variation genitive–noun ~ noun–genitive

Celsus

profusio sanguinis (8 : 4): The genitive follows the noun at 2. 1. 6, 2. 8. 15,

[126] In Cassius Felix *post* is adjacent to its accusative 103 times out of 105. The exceptions are at 101. 9 post cataplasmatis dies expletos (where *dies cataplasmatis* is to be read: see Junel 1936: 16) and 112. 13 post medicaminis potionem acceptam.

[127] Marx (1915), app. crit. ad loc.: *pectoris os siue ʃ* om. *FVP*.

2. 11. 4, 5. 26. 3A, 6. 18. 3B, 7. 12. 4, 7. 21. 1C, and 7. 33. 1, and precedes at 2. 7. 9, 2. 8. 18, 5. 26. 21A, 7. 26. 2I. I cannot explain this variation.

spirandi difficultas (2 : 2): The genitive precedes at 2. 6. 7 aut qui febre aeque non quiescente simul et delirio et spirandi difficultate uexatur, and 5. 26. 9 pulmone uero icto spirandi difficultas est. It follows the noun at 4. 8. 1 omne in difficultate spirandi consistit, and 2. 1. 23 obesi plerumque acutis morbis et difficultate spirandi strangulantur. I cannot explain this variation.

Cassius

profluuium sanguinis (1 : 1): The genitive follows the noun at 194. 3 abstinet profluuium sanguinis, but precedes at 193. 9 emorragian latino sermone sanguinis fluxum uel profluuium dicimus; in the latter case the order could be to make clear that both *fluxum* and *profluuium* are with *sanguinis* (factor (g)), or to reflect the order of the elements of the Greek compound. Otherwise I cannot see how to decide which is the 'regular' order.

body-part + *dolor* (16 : 12), including *capitis dolor* (1 : 3): The genitive precedes *dolor* at 5. 8, 35. 16, t. 44. 4, 44. 5, 48. 16, 54. 15, t. 63. 14, 63. 15, 64. 11, 65. 12, 101. 14, t. 112. 7, 114. 12, 116. 19, and 148. 19 but follows at 44. 16; 64. 13, 18; 65. 7; 109. 10; 136. 1; 159. 13; and 190. 3. It is noteworthy that the genitive always precedes *dolor* in chapter titles, where the body-part presumably has a topic-marking function (factor (f)). Otherwise I cannot explain this variation, nor can I explain why *capitis* should prefer to follow *dolor* (and *passio*: see below), as it does at 44. 13, 57. 8, and 57. 9, preceding only at t. 2. 1 ad tardum siue inueteratum *capitis dolorem*.

body-part + *passio* (9 : 7), including *capitis passio* (1 : 6): At 115. 11 omnes passiones uesicae, the order is probably influenced by the complex determiner, and avoids the possible misconstrual of *uesicae* with *omnes*. The genitive precedes at 47. 9; t. 47. 18, 19; 53. 16; t. 96. 7; 123. 22; 174. 14; 180. 2. I do not understand why the collocation of *passio* with *capitis* should favour the reverse order, but it does, the genitive following at pr. 1. 9 a principio passionis capitis and five times in the phrase 'in passione capitis' (10. 12, 16. 5, 40. 21, 62. 12, 141. 4). At 130. 9 in capitis passionibus (but *passione* in manuscript *p*), I cannot see why the order is reversed.

rheumatismus + body-part (8 : 3), including *rheumatismus stomachi* (4 : 0). The genitive follows *rheumatismus* at 68. 16, 103. 9, 120. 17, and 130. 12; it precedes at 102. 22, 125. 21, and t. 130. 11. In the last passage, a chapter title, it is presumably topic marking (factor (f)). Otherwise I cannot explain the variation (but cf. n. 105 above).

5
Compounding and Affixal Derivation

5. 1 Introduction

In this chapter I consider the numerous medical terms that show the results of Latin derivational processes.[1] These processes involve, in nearly every case, suffixation and/or conversion (the use of an adjective as a noun); there are a few examples of prefixation (5. 4. 1, 2) and a very few instances of compounding, with which I begin (5. 2). While the chapter does not pretend to be an exhaustive account of the derivational morphology of Latin medical vocabulary, it does include all the prominent types to be found in our four authors. I am concerned above all, once again, with the formation of nouns (5. 3), though some important adjectival formations also receive attention (5. 4).

The broad linguistic aims of this chapter are two. One is to indicate the more important derivational types in our four authors and to characterize their use both in medical texts and in Latin more generally. The second is to identify, where appropriate, semantic or lexical fields within medical vocabulary with which particular formations appear to have had special associations.

The hypothesis that a correlation, greater than chance and linguistically real, between suffix and lexical field existed already[2] in ancient Latin (and Greek[3]) medical terminology suggests itself on even a cursory reading of the medical texts. Take, as an opening, rather striking illustration of this point a sentence from Celsus, his erstwhile-famous[4] listing of the symptoms of inflammation:

Cels. 3. 10. 3 notae uero inflammationis sunt quattuor: rub*or* et tum*or* cum cal*ore* et dol*ore*.

[1] Of course, while some derived words appear to have been formed in the first place as items of medical vocabulary, others have assumed their attested role(s) in the medical terminology as a result of semantic change.

[2] I say 'already' because this is evident in modern technical terminologies, including that of medicine (cf. 1. 2. 6 above).

[3] Goltz (1969: 242 n. 29) sees 'Krankheitsnamen mit gleichlautenden Endungen' as indicative of the beginnings of a technical language of medicine in Greek.

[4] Marx (1915: 460, s.v. 'inflammatio') quotes the passage and adds 'quod hodieque cantant medici Latine'.

This is particularly noticeable, of course, because four rhyming derivatives belonging to the same lexical field—they are explicitly called *notae* 'symptoms'—actually occur together in a single conjunction. Instances of this sort of close co-occurrence of rhyming derivatives, at least in twos and threes, are not uncommon. They are, of course, not by themselves sufficient, nor indeed necessary, for the establishment of what I here call 'morpho-lexical sets', although they may possibly support the idea that the writer in question had some conscious awareness of a relationship between derivational morphology and the lexical structure of his terminology. The uncovering of a morpho-lexical set requires a fuller picture of a formation and its derivatives, and indeed, to return to our example, a catalogue and closer examination of masculine nouns in *-or, -ōris* in our corpus and other medical texts, and in Latin generally, reveal (5. 3. 2 below) a striking correlation between this formation and the lexical field of clinical signs and symptoms, both abstract and concrete. Or again, in Cassius Felix a particularly common and impressive suffix is *-torius, -ia, -ium* (5. 4. 5 below), and it emerges that nearly all the adjectives and (by conversion) nouns formed to verbal stems with this suffix name or characterize medicaments or other forms of treatment, that is, that this formation has a central and well-defined place in the derivational morphology of the vocabulary relating to therapeutics.

This 'morpho-lexical' or 'morpho-semantic' approach to derivational morphology is not uncontentious, in Latin philology at least. One position, fairly extreme, is represented by Leumann (1965: 68*–70*), in his remarks on suffixal derivation in the general part of the 'Lateinische Grammatik'. Given his view that the spread of a suffixal formation occurs always a word at a time by individual analogy, and given the possibility that any derivative at all can serve as model for a (potentially idiosyncratic) analogical formation, Leumann denies, on the one hand, that a suffix can possibly have a single basic meaning,[5] and, on the other, decries attempts to ascribe to a suffix multiple semantic functions as serving 'mehr einem logisch-klassifikatorischen Bedürfnis als historischer Einsicht'. In slightly more modern terms this position could be roughly characterized as strongly 'lexicalist', that is, it denies that suffixal derivation is sufficiently rule-governed and predictable to warrant any kind of rule-apparatus in the grammar, and it treats on a par opaque words and transparent derivatives, simply listing them all side by side in the lexicon.[6]

[5] I quote: 'Es folgt daraus noch weiter, dass Suffixe im wissenschaftlichen Sinn keine Gesamt- oder Allgemeinbedeutung, nicht einmal eine Gesamtfunktion aufweisen können'. Cf. Marouzeau (1922: 177): 'partant du sens, on n'aperçoit que diversité et inconséquence'.

[6] For an introduction to this issue in morphological theory, see Matthews (1991: 61 ff., 80–1) and Spencer (1991: 67 ff.), both with extensive critical bibliography.

The opposite position, 'derivationalist' in the jargon, is taken by those who believe that the structure of complex words is both regular, in part at least, and different from that of sentences; that certain affixes, their lexical and semantic properties specified, should be listed in the lexicon alongside lexical roots; and that derivatives are generated in a special part of the grammar called the DM (derivational morphological) component, basically a set of rules stipulating which affixes may be combined with which sorts of lexical root and how, and what the resulting complex forms will mean.

This position is well represented, whether implicitly or explicitly, by several (mainly French) monographs on Latin suffixes, which include sections on the meaning of the suffix and the semantics of the permitted bases. Quellet's (1969) is a good example, partly because it permits us to remain with our opening illustration, the suffix *-or*. This thorough and well-written work includes a long chapter (101 ff.) entitled 'Valeur du suffixe *-or*',[7] in which, after a review of the literature, Quellet concludes (111) that 'la valeur de la formation en *-or* reste à définir'. He then proceeds to carry out this task and gives the meaning of the suffix as (131) 'un procès autonome et imperfectif: le procès est envisagé dans son déroulement, à l'exclusion de son origine et de son terme'.

The approach of the present chapter is probably more compatible with Quellet's than with Leumann's, though it has points of contact with both. It makes frequent appeal, by implication at least, to the notion of the function of a suffix, although at a level of generality significantly lower than Quellet's about that of *-or*. For the present purpose of describing what appear to be non-random features of medical vocabulary, my interest is at the level of, in Quellet's terms, 'groupements sémantiques' and 'domaines d'emploi' of rhyming derivatives, in semantic and lexical properties of a suffix which are for Quellet (1969: 186) consequences of its basic meaning ('fonction de sa valeur'). On the other hand, the linguistic mechanism invoked below of adding new items to small lexical clusters by sometimes rule-breaking analogical creation would have commended itself to Leumann. In sum, the chapter might fairly be called weakly derivationalist, although its concerns are, in the first instance, almost exclusively descriptive and empirical.[8]

[7] Compare the reference of Giacalone Ramat (1975: 128) to 'das zentrale semantische Wert des Suffixes', in this case *-tura*.

[8] The chapter's most obvious debt is to Untermann (1977), a stimulating article on the semantic organization of the Latin vocabulary (with special reference in the section on 'morpho-semantic' sets to monosyllabic nouns and the suffixes *-ela* and *-or*), which challenges Latinists to establish further non-random correlations between word-formation model and semantic features or lexical field. I would like to believe that the chapter might contribute towards the sociolinguistic and cultural view of suffixation rightly identified as desirable by

A recent and, for our purposes, very important representative of the lexicalist position is Adams' account (1995) of word-formation in Latin veterinary terminology. After reviewing patterns of word-formation (as well as of syntax and word-order) which might have been typical of the register of late *ueterinarii*, Adams comes to negative views on all of them and concludes that we are left with 'vocabulary as the prime distinguishing feature of veterinary (medical) Latin' (1995: 653). He goes on to stress (ibid.) that he regards 'vocabulary' 'as isolated lexical items, not primarily as representatives of certain suffixal classes or formations', and (I hope it is fair to say) his approach to transparent, motivated derivatives is consistently 'atomistic', word by word (*chaque mot a son histoire*!). It is, of course, important to note that Adams is here confining himself to veterinary language as revealed by Pelagonius and that he does allow the possibility (1995: 520) that a study of Chiron 'might lead one to modify this negative conclusion about the place of derivation in veterinary word-formation at this period'. Even so, Pelagonius apart, Adams seems to attach little significance in general terms to the apparent clustering of certain suffixal formations in particular lexical fields of the medical vocabulary. In advance of his consideration of a series of suffixes (521–43, and 543–65 on diminutives), he sets out (519 f.) his general reservations on this subject, which include three points that I am obliged to consider briefly here before moving to the body of this chapter, because they strike at the very heart of its central theme and thesis.

The first concerns the presence of banal everyday words among sets of rhyming derivatives in a suffix that is claimed to be 'medical'. I quote Adams at some length (1995: 520):

> But if any such term [i.e. one with a medically relevant meaning derived in e.g. *-or*] is old and widespread in literary (as well as medical) works, it can only be described as 'medical' in the loosest sense. *Dolor*, for example, might be loosely classified as a term pertaining to 'pathology'. But it is such a commonplace word in all varieties of language that its appearance in medical writers could not be claimed as a distinctive feature of the medical language. Moreover even if (for argument's sake) it were abnormally frequent in medical texts, it is such an old word that it would be unlikely to have been regarded as medical because of its suffix; it would have to be treated as an independent lexical item, characteristic of medical texts, rather than as a suffixal derivative whose suffix conferred its medical status.

There are really two questions raised here: is *dolor* a medical term? and is its formation of any significance? I would answer yes, to both. Any technical variety of any language, ancient or modern, is necessarily rooted in the language of everyday, spoken and/or written, since this is the first language

Giacalone Ramat (1975: 129): 'jedoch fordert die formelle und funktionelle Analyse eines Suffixes auch soziolinguistische, letzten Endes kulturgeschichtlich gerichtete Einsichten'.

of its users. A technical vocabulary is bound to have some words in common with everyday vocabulary, but to exclude such words from a study of the technical vocabulary because they are generally understood is likely to be arbitrary (how is 'generally understood' to be determined?) and likely to conceal ways in which the technical vocabulary has been built upon the choices made from the options afforded by the language of everyday for *inter alia* making new words (cf. 1. 2. 2 and 1. 2. 3 above). Pain is an important symptom and a central concern of pathology. The word *dolor*, medical in virtue of its meaning, happens in medical texts to show the same suffix as many other names of symptoms (some of them everyday words), a suffix which is scarcely to be found in these texts in other lexical fields. Slowly but steadily in later medical texts the morpho-lexical set of symptoms in *-or* is afforced by new words. These may be exclusive to technical contexts, but their analogical creation depends upon the collective effect of this large set of (partly ordinary) rhymes, and that this included, in particular, the banal and ancient *dolor* is likely not only a priori but also because *dolor* often appears in syntagmatic rhyming pairs and triplets, and because the 'missing' adjective in *-idus* beside *dolor* (*dolidus*) appears in a fifth-century medical text (cf. 5. 3. 2 below).

Adams' second reservation concerns the number of new derivatives that a formation must show for it to be considered productive. He implies in a note (1995: 523, n. 236) that he regards eight new pathological terms in *-or* as 'not sufficient to establish that the suffix was very productive.' In my view, such morpho-lexical clusters are shown to have had some sort of derivational reality for native speakers by the appearance of even a single new example in the same lexical field (see e.g. 5. 3. 7 below on *serpigo*, 5. 3. 8 on *cantabries*), especially if new instances in other lexical fields are rare or non-existent. Most telling is, I think, not the number but the nature of new examples: a particularly good indication of a live morpho-lexical set is a new derivative which breaks with earlier morphological regularities of the formation but adheres to its lexical or semantic patterns (see e.g. 5. 4. 3 below on *anhelosi* 'asthmatics', 5. 3. 9 on *serpusculus*).[9] Morpho-lexical sets owe their existence not to the production of new members but to the fact that they are motivated for speakers who use them: of course, a trickle of new rhyming hyponyms is a nice thing, both for the formation and for the philologist, but, in principle, not a single new lexeme is required to show that a formation is motivated and its suffix associated with a particular meaning. Alternative evidence that a formation is motivated is of various

[9] I therefore question the approach exemplified in Skoda (1988: 286 n. 11), 'on comprendra *σταφύλωμα* comme un dérivé du verbe **σταφυλόω*, *-ῶ*, non attesté, "former des grains"', whereby an apparently rule-breaking formation (here a seemingly denominative tumour in *-ωμα*) is made to appear regular by postulating an unattested base from which it may be regularly derived.

kinds, which include, for example, phrasal translations of a single derived word in which a lexical value is given to the suffix (e.g. *medens impetigines* for *lichenicus*, at Cass. 19. 7); jocular nonce-formations in literary parodies of, say, medical language (see e.g. 5. 3. 6 below on *oscedo* and *tussedo*); or, in medical or literary texts, the apparently deliberate juxtaposition of pairs, even triplets, of rhyming derivatives in the same lexical field.[10] I draw attention to this sort of evidence suffix by suffix in the sections that follow.

Thirdly, and finally, we must address the question of the exclusiveness to medicine of a 'medical' suffix and Adams' general reservation (1995: 520) about the significance for medical Latin of suffixes which are common also in other areas:

> It might well be that a suffix used by a medical writer to form coinages was also used just as often by, say, other technical writers to create neologisms in a variety of disciplines. In such a case one could only say that the suffix was generally productive in technical registers.

Descriptively, of course, this is right, a fair comment on all the dictionary-entries collected for all technical registers. But it does not, in my opinion, reduce the importance of that suffix in an account of any individual technical register. It is evident that suffixes, no less than lexemes themselves, can have different meanings in different contexts. A suffix can exhibit something very close to 'polysemy', constituting more than one lexical cluster, whether in different registers or within a single register. Take, for example, the case of the modern English suffix *-ism*, very common, so common perhaps as to appear on its own banal, and well-motivated in several different lexical functions and in several different special and technical registers, including that of medicine. In a complete list of English words in *-ism*, the medical instances would not necessarily appear statistically significant. In a medical context, however, they take on a new status, since part of the grammar of medical English is the use and interpretation of *-ism* as a (potentially productive) suffix denoting a chronic pathological condition (e.g. *autism, Parkinsonism, hyperparathyroidism*). A nice example of this phenomenon in Greek is furnished by the suffixes *-ίτης* and *-ίας*, which dominate the formation of names of 'produits de boulangerie et de patisserie',[11] but which each furnish other morpho-lexical sets in other special areas.[12] None of the formations about

[10] On the last two types, see Langslow (1999: 204 ff., 218 ff.). Contrast the making of new derivatives occasioned by their occurrence in sequences of rhyming forms adduced by Wackernagel (1926–8: i. 49–50) as instances of 'assimilation'. He cites Plaut. *Capt.* 85 uenatici, Molossici, odiosicique et multum incommodestici; Laberius *apud* Gel. 3. 12 non mammosa, non annosa, non bibosa [for *bibax*], non procax; and Aug. *Serm.* 171. 2 diabolosa [hapax] et perniciosa consilia. My lists are of course by no means confined to such sequences.

[11] See Redard (1949: 87 ff.); cf. Hiltbrunner (1958: 164).

[12] For a swift overview, see Buck and Petersen (1945: 170, 545).

to be reviewed is exclusive to medical vocabulary. Some come close to being so, especially if one has regard to new formations in the later period. All, however, have at least one important role, lexical or stylistic or both, in medical Latin.

For each formation, before turning to the 'medical' examples, I offer first a broad-brush characterization of its morphology, function, and style and, where possible, of its development within Latin.[13]

5. 2 Compounding

Among the ancient Indo-European languages Greek was one of the richest in the ability to make new words by means of compounding, that is, of uniting two (or more) lexemes under a single word-accent. In both poetry and prose of all styles, a range of syntactic types of compound, most of them inherited, remained productive and frequent through the Classical period and well beyond.[14] Compounds are found also in Greek technical vocabularies, including that of medicine. The Greek terms mentioned or used by our four authors include a number of compounds, usually straightforwardly descriptive (e.g. *ancyloblepharus, lienteria*); occasionally metaphorical, picturesque (e.g. *lagopthalmus*).[15]

Latin, on the other hand, did not favour compounding as a means of extending the lexicon. Admittedly, one does encounter many compounds with a variety of syntactic structures in Latin authors of all periods,[16] but compounding was only marginally productive as a means of adding to the Latin vocabulary. In the literary language, only the poets continued to produce new compounds in significant numbers, usually imitating Greek models in both type and token. Prose writers introduced few new compounds to the language, even when translating Greek compounds. They were well aware that compounding suited Latin much less well than Greek.[17]

[13] For this purpose good starting-points are provided by Hofmann and Szantyr (1965: 741–5) and Leumann (1977: 273–403).

[14] On compounding in Greek see especially Debrunner (1917: 15–83); Schwyzer (1953: 425–55); Risch (1974: 181–230).

[15] On the formal means used by Latin writers to render Greek compounds, see André (1963) on Caelius Aurelianus and Cassius Felix, and Panagl (1986) on Latin translation-literature generally.

[16] Oniga (1988: 171–257) lists 962 compound lexemes accounting for 9,769 occurrences of compounds in earlier Latin literature, from Livius Andronicus to Sallust. For a full glossary of Latin compounds of all periods, especially in poetry, see now Lindner (1996). Note also Benedetti (1986).

[17] See the remarks of Cicero, *Orat.* 164; Livy, 27. 11. 5; Quintilian, *Inst.* 1. 5. 70; and Gellius, 11. 16. 1.

Given this general state of affairs, it is no surprise to find very few compounds in the medical terminology in our four authors. In their combined works, that is to say, in some 900 pages of Teubner text, in a total of well over 1,000 Latin medical terms, I have noted just the following handful of Latin compounds (here listed together in spite of the very different syntactic types represented, which are discussed separately below).

Celsus: (anat.) *occipitium* 'the back of the head', *praecordia* (pl.) 'part of the front of the human torso', *supercilium* 'the eyebrow'; (ther.) *sanguisuga* 'a leech' [Cels. +].

Scribonius: (anat.) *occipitium, praecordia*; (ther.) *auriscalpium* 'ear scraper'; *dentifricium* 'a tooth-powder, toothpaste' [Scrib. +], *sanguisuga*.

Theodorus: (anat.) *orificium* 'mouth, opening' (of a body-part or wound), *praecordia, supercilium*; (ther.) *dentifricium, sanguisuga*.

Cassius: (anat.) *occipitium, orificium, praecordia*; (path.) *bicapita* 'two-headed' (for an infection of the uvula) [only in Cass.]; (ther.) *dentifricium, sanguisuga*.

I consider first those compound medical terms which unite two nominal or verbal lexemes under a single word-accent. They number just five:[18] *sanguisuga, auriscalpium, dentifricium, orificium*, and *bicapita*. Formally *sanguisuga* belongs to the inherited type of 'Verbalrektionskomposita' represented in Latin by *agricola*.[19] It is a descriptive name for the leech, literally 'blood-sucker'. It is attested first in Celsus (5. 27. 12C), who uses it without comment; next in Scribonius, in the index (ind. 13. 8) without remark, but in the text with the note that this is what some people call the *irudo* (91. 20, in the chapter headed *Ad irudinem*); and thirdly in Pliny the Elder, who twice records it as an alternative expression for *hirudo*. At *Nat.* 32. 123 it is attributed to an unspecified group, which, given the medical context, means probably doctors and possibly Greeks (cf. *quam Graeci uocant* a few lines earlier). Most interesting is Pliny's remark in book 8 that he is noticing that the leech has started to be called 'commonly, generally' (*uulgo*) *sanguisuga*: *Nat.* 8. 29 hausta hirudine, quam sanguisugam uulgo coepisse appellari aduerto. This might be taken to imply that the word is a recent formation when first attested (in Celsus). Pliny's comments just quoted imply that his preferred term was the old opaque word *hirudo* (Plaut. *Epid.* 187, Cic. *Att.* 1. 16. 11, Hor. *Ars* 476) but this is not the case:

[18] Cf. the common ingredient *malicorium* 'pomegranate rind' [Cels. +]. Notice also these compound adjectives which, although not strictly medical terms, are of obvious relevance to disease and treatment: *pestifer* 'lethal, deadly' in Cels., *mortiferus* 'lethal, deadly' in Cels. and Cass., *lenificus* 'soothing, softening', only in Cass. and *Gloss.*, *soporiferus* 'inducing sleep' in Cass. On the use by Caelius Aurelianus of compounds in *-ficus* and *-fluus* for translating Greek medical terms, see André (1963: 52).

[19] On which see Leumann (1977: 280) and Oniga (1988: 81–8).

in fact, apart from the two lexical notes just quoted, Pliny uses *sanguisuga* nine times and *hirudo* only three.[20] *Hirudo* is very rare in Latin after Pliny. The risk of homonymic clash with *hirundo* 'a swallow' probably contributed to its replacement, which may well have been complete in all but literary circles when Celsus wrote. Columella's use of *hirudo* (6. 18. 1, 2) probably reflects a deliberate stylistic choice of the old, now literary, word; when Apuleius uses it a century later (*Met.* 6. 26), this flavour was likely much stronger.[21]

Auriscalpium and *dentifricium*, though designated by Bader (1962: 225) as 'd'origine ambiguë', belong synchronically to the common and ancient type represented by *artificium, principium*, but they differ from the latter, which are derivatives in *-ium* from *artifex, princeps*, in being primary formations, that is to say, there is no **auriscalps*, **dentifrix*; compare in this regard the action-nouns *lectisternium, sellisternium*.[22] They are no less descriptive than *sanguisuga*. *Dentifricium* ('tooth' + 'rub' + *-ium*) denotes a toothpaste or tooth powder. It is presumably a calque on Greek *odontotrimma* and is first attested in Scribonius (ind. 8. 15, 16; t. 35. 4; 35. 5, 14). *Auriscalpium* 'an ear-scraper' is also from the terminology of therapeutics but it names an instrument rather than a substance. In its formation ('ear' + 'pick' + *-ium*) it is exactly parallel to *dentifricium*, and may also originally have been a calque on the Greek term, *ὠτογλυφίς*. *Auriscalpium*, too, appears for the first time in Scribonius (29. 11; 34. 7, 12; 103. 12; 104. 21) but, of course, we may not infer either that Scribonius coined one or both of these terms or that they are recent coinages—though it is striking that their closest neighbour in Latin, *dentiscalpium* 'a toothpick', is not recorded (*pace* Bader) before Martial (7. 53. 3. 14. 22).

Auriscalpium and *dentifricium*, no less than *sanguisuga*, belong to old morpho-syntactic types but they are all recent new examples and are arguably evidence for the continued productivity, albeit at a very low level, of these types in Latin, and specifically in the Latin medical vocabulary.[23]

Orificium 'an opening, aperture' belongs to the same morpho-syntactic type as *auriscalpium* and *dentifricium*—again there is no primary agent-noun—but to quite different lexical and semantic fields. The distribution of this word is striking. It is attested first in Apuleius, who uses it four times

[20] *Sanguisuga* at 1. 32a; 20. 143; 28. 160; 29. 62, 92; 32. 67, 68, 76, 136; *hirudo* at 9. 162, 11. 116, 23. 55.

[21] On the other hand, the ancient index to Pelagonius (4th cent.) includes o. 3 *de haustu hirudinis*(!); unfortunately, we have the text only in Greek (525–7).

[22] On this type of compound in *-ium* see Bader (1962: 225–6), Leumann (1977: 294–5), and Oniga (1988: 101–2). Formally similar but syntactically quite different are: *stillicidium (uesicae/urinae)*, Pliny's expression for strangury, Gk. *στραγγουρία* (*Nat.* 25. 23; 28. 122; 30. 65, 66); *manutigium* with which Caelius Aurelianus (*Chron.* 1. 121) translates Gk. *χειραφία*.

[23] Several of these compounds survive in Romance: cf. e.g. Italian *dentifricio, sanguisuga* (and *mortifero, pestifero, soporifero*: cf. n. 18 above).

of the mouth or opening of an object (e.g. of a flagon of wine at *Met.* 2. 15). It occurs a few times in the *Vetus Latina* meaning either a part of a garment or the edge or lip of something. Otherwise, it is used to denote a body-part, or the opening of a body-part or of a lesion or morbid growth in animate beings, and this meaning, which dominates the article in the *ThLL* (s.v., 977. 6 ff.), is cited almost exclusively from veterinary and medical writers, beginning with Chiron and including Theodorus, Caelius Aurelianus, Cassius Felix, and Mustio.[24] This distribution suggests that we have here an instance of metaphorical transfer of a colloquial word from the realm of artefacts to animal and human anatomy. It is possible that there was a Greek semantic model, as *orificium* frequently translates Greek στόμιον, for example, of part of the womb (cf. Adams 1982*b*: 108, André 1991: 191), and not only in its anatomical meanings (see the *ThLL*, s.v.).

Bicapita (lit. 'two-headed', sc. *uua*) translates Greek *dicephalus* and is the one example in our authors of a Latin medical *bahuvrīhi*.[25] It belongs formally to the type represented by *bilinguus* (*-is*) 'with two tongues'. The Latin for 'with two heads' is usually and commonly *biceps*; *bicapita* furnishes one of at most three examples in Latin of *caput* ('head') forming a stem in *-capito/a-* (cf. Bader 1962: 163). Its status as a Latin medical term remains doubtful; it may be a nonce-translation of the Greek.[26]

Then there are three old anatomical terms which appear to name a part of the body with spatial reference to another part. All three are composed of a preposition plus a nominal element and can be interpreted as prepositional 'Rektionskomposita', that is, as compounds in which the preposition in first place governs the nominal element in second place: *occipitium* (*ob capite*), *praecordia* (*prae corde*), *supercilium* (*super cilio*?).[27] All three are found in Plautus and may be regarded as old Latin examples of an inherited type of compound.[28]

[24] Theod. 80. 9, of a wound; 165. 7, of a vein; 233. 12, 234. 2, of the womb; Cass. 192. 1, of the womb. *Orificium* is used, without qualification, of the anus at Isid. *Orig.* 4. 7. 39 and in late (including medical) glossaries.

[25] Note also *multiformis* at Theod. 75. 2 multiformis est cura et diligentia.

[26] On Latin *bahuvrīhis* see Bader (1962: 123 ff.), Leumann (1977: 397–8), and Oniga (1988: 116–27).

[27] For *occipitium* and *praecordia* this is not disputed; as for *supercilium*, the etymological dictionaries disagree as to whether it was formed to *cilium* 'the eyelid', or whether the latter is back-formed from *supercilium*: contrast Walde–Hofmann and Ernout–Meillet, s.v. 'cilium'. André (1991: 46–9) reviews the evidence and makes a good case for the priority of the simplex *cilium* and for the prepositional-compound analysis of *supercilium*. Other compound anatomical terms of this type, quoted by André (48), are *intercilium* 'the skin between the eyebrows', *interfeminium* 'the part of the body between the thighs', *internatium* 'the os sacrum', *interscapilium* = *interscapulum* 'the space between the shoulder blades'. Cf. Svennung (1932: 112–14).

[28] Compare the Greek type represented by εὐνάλιος and ὑποχόνδριον and see Risch (1974: 187–9) and Leumann (1977: 267).

To summarize our inventory of compound medical terms, we arrive at a grand total of eight representing three ancient inherited types (verbal governing, prepositional governing, and, marginally, *bahuvrīhi*). The recent appearance of *sanguisuga*, *auriscalpium*, and *dentifricium* illustrates the continuing productivity of this type of verbal compound in Latin and in Latin medical terminology.

5. 3 Derivation of Nouns

5. 3. 1 *-TIO* (*-SIO*), *-IŌNIS* (FEM.) AND *-TVS* (*-SVS*), *-ŪS* (MASC.)

The Latin suffixes *-tio* and *-tus* (under which I include also *-sio* and *-sus*) formed abstract nouns on verbal stems. They each represent the Latin continuation and development of Indo-European verbal abstract suffixes, **-ti-* and **-tu-* respectively, Latin *-tio* extending and effectively replacing the former. In both formations, the verbal stem is always that of the Latin **-to-* participle. I offer below separate sets of remarks on the medical words in *-tio* and those in *-tus*, but I begin by following the well-established convention of considering the two types side by side.

In studies of Latin abstract suffixation and of the vocabulary and style of individual Latin writers, the relative frequency of *-tus* and *-tio* has always attracted interest. For Latin as a whole, Carl Collin (1904: 459)[29] estimated from Georges a total of 2,000 words in *-tio* without a parallel in *-tus*,[30] 200 in *-tus* without a partner in *-tio*, and 500 instances in which both formations are attested on the same verbal stem.[31] He states that of the last group, that is, when both formations are available, Plautus prefers forms in *-tio* to those in *-tus* by a ratio of 3:2, but that *-tus* is preferred over *-tio*[32] in Cicero by the same ratio, 3:2, and in Silver Latin by 3:1; he specifically mentions Livy, Tacitus, Pliny, Quintilian, and Seneca[33] as favouring *-tus* over *-tio*. In later Latin literature, Collin notes, *-tio* overtakes *-tus* by a good margin; there are hardly any new forms in *-tus* and existing forms are used less frequently than their counterparts in *-tio*, though he excepts from this generalization Apuleius, Tertullian,[34] and Ammianus. Jerome, Ammianus' contemporary,

[29] Hofmann and Szantyr (1965: 743 b) report some of Collin's figures.

[30] Collin notes that many of these 2,000 words in *-tio* are confined to philosophical or Christian Latin.

[31] Cf. Paucker's figure (reported in Delachaux 1909: 23) of a total of 1,447 forms in *-tio* in extant Latin down to the age of Hadrian.

[32] Paucker (in Delachaux 1909: 23) states that Cicero attests a total of 859 nouns in *-tio*.

[33] Goelzer (1884: 86) also mentions Livy and Tacitus as favouring *-tus*. He registers 15 new examples of *-tus* forms in Seneca.

[34] Goelzer (1884: 86) registers 44 new examples of *-tus* forms in Apuleius and comments that the formation fades after Tertullian. It is useful to put Apuleius into context by com-

is reported (Goelzer 1884: 86) to use just 13 nouns in *-tus* but 245 in *-tio*, of which about 80 occur for the first time in Jerome. Symmachus, on the other hand, in the fifth century has, according to Haverling (1988: 79), 159 words in *-tus* (5 of them 'new') together with 351 in *-tio* (only 1 'new'), and is said to show 'some interest in the more poetic forms in *-tus/-sus* and in archaic, poetic or otherwise unusual forms' (Haverling 1988: 60). Perhaps surprisingly, forms in *-tus* remain common in inscriptions, occurring as much as half as frequently as *-tio* (Olcott 1898: 34 f., Collin 1904: 459).

Formations in *-tus* have been regarded as poetic. In his commentary on Ennius' tragedies, Jocelyn (1969: 199) remarks that these masculine abstract nouns 'were much affected by more elevated genres of archaic poetry; Ploen [1882] counted 63 in 1,940 verses of tragedy, and only 125 in 30,000 lines of comedy' (cf. Hofmann and Szantyr 1965: 743 b). This is one of the formations singled out by Bailey (1947: 135) in his prolegomena on the style of Lucretius; and Swanson (1962: 8) lists 121 such forms used by Lucretius, including a dozen hapax legomena (e.g. 4. 1242 *adhaesus*). The preference of poetry for *-tus* over *-tio* is probably due largely to metrical considerations; indeed, Marouzeau (1949: 48) took the view that the advent of dactylic metres to Latin verse severely reduced the use of *-tio*, favoured that of *-tus*, and consequently caused the functions of *-tus* to converge with those of *-tio*. Perhaps in consequence of its favoured position in the language of poetry, *-tus* is commonly said to be of higher style than *-tio*; *-tus* is rarer in Cicero's letters than in his other works, and is seldom continued in Romance.[35]

Much of the work reported in the last two paragraphs seems to take it for granted that, if there was any difference of meaning between a form in *-tus* and its counterpart in *-tio*, it was at most a stylistic or a social difference. This assumption has been challenged, most famously perhaps in 1948, by the publication of Émile Benveniste's classic *Noms d'agent et noms d'action en indo-européen*.[36] Here, on the evidence of Greek, Indo-Iranian, and Latin, Benveniste reconstructed for Indo-European a semantic opposition which existed in parallel between two types of agent-noun (in **-ter-* and **-tor-*) and between two types of action-noun (in **-tu-* and **-ti-*, respectively, the latter continued by Latin *-tio*). In Benveniste's view, **-tu-* and **-ter-* denoted the action of the verbal base as 'subjective', as emanating

paring the figures for his contemporaries, Fronto and Gellius: Fronto has 6 'new' words in *-tio* and only 1 in *-tus*; Gellius has 21 in *-tio* and 6 in *-tus*, the latter all hapax (these figures from Marache 1956: 40, 43, 152, 160).

[35] Probably a combination of metrical and stylistic considerations is to account for the very large number and proportion of *-tus* forms in Ausonius, especially in his verse: Delachaux (1909: 21–5) lists 92 in *-tus*, and only 136 in *-tio*; of the latter Ausonius uses all but 2 in prose only.

[36] Cf. the contemporary remarks of Marouzeau (1949: 50).

from the subject and as being closely and permanently associated with the subject;[37] **-ti-* and **-tor-*, on the other hand, indicated that the action of the base was 'objective', that it was not essential or intrinsic to the subject, and that its performance was incidental and each time on a one-off basis.[38] My introductory remarks on Latin *-tio* and *-tus* would have been incomplete without at least some reference to this seminal work of Benveniste, even if it turned out to have no relevance to the Latin corpus under discussion.[39] In the event, as we shall see, the lexical distribution of *-tio* and *-tus* in Latin medical vocabulary is irresistibly reminiscent of Benveniste's characterization of the semantic opposition between the two formations, and we shall return to this issue briefly at the end of this section.

I turn now to set out the material and to describe the distribution and functions of derivatives in *-tio* and *-tus* in our medical texts. Our four authors attest between them about 270 medical words in *-tio* and about 75 in *-tus*. I note the following derivatives in *-tio*:

> Celsus 59: (9 anat.) *actiones (naturales)* (pl.), *conceptio, concoctio, deiectio, digestio, generatio, oscitationes* (pl.), *purgatio* (+ concr.), *transfusio*; (25 path.) *accessio* (+ pl.), *agitatio, alienatio (mentis), anhelatio, decessio* (+ pl.), *defectio (animae), destillatio* (+ pl.), *distentio* (+ pl.), *eruptio, exulceratio* (+ pl. + concr.), *fatigatio, iactatio, inflammatio* (+ pl. + concr.), *inflatio* (+ pl.), *intentio, intermissio* (+ pl.), *motio, perturbatio, profusio, punctiones* (+ sg.), *remissio* (+ pl.), *resolutio (neruorum)* (+ pl.), *rosio, suffusio* (concr.), *suppuratio* (+ pl. + concr.); (25 ther.) *animaduersio, compositio* (+ pl. + concr.), *curatio* (+ pl.), *detractio (sanguinis), ductio (alui), exercitatio* (+ pl.), *fricatio, frictio* (+ pl.), *gargarizatio* (+ pl. + concr.), *gestatio* (+ pl.), *glutinatio, inunctiones* (pl.), *lauatio, missio, natationes* (pl. + concr.), *obseruatio, perfusio* (+ pl.), *potio* (+ pl. + concr.), *purgatio* (+ pl.), *refectio, sectio, sorbitio* (concr.), *sudationes* (pl. + concr.) 'induced sweats' and 'sweating-rooms', *unctio* (+ pl.), *ustio*.

[37] Let Benveniste speak for himself (1948: 112): '**-tu-* dénote l'action comme subjective, émanant du sujet et l'accomplissant, en tant que prédestination ou disposition interne, déploiement d'une virtualité ou pratique d'une aptitude personnelle, dirigée toujours dans le même sens . . . Le "nom d'activité" en **-tu-* est corrélatif au nom d'agent en **-ter-*. C'est la même fonction sous deux aspects: **-ter-* désigne l'agent comme voué à son activité, et **-tu-* l'activité comme manifestation de l'agent.'

[38] Benveniste's own words (1948: 112): '**-ti-* indique l'action objective, réalisée hors du sujet par un accomplissement fini en soi-même et sans continuité; apte à caractériser toute notion "effective" sur le plan noétique ou dans une acception concrète. . . . Le "nom d'opération" en **-ti-* est corrélatif au nom d'"auteur" en **-tor-*, acte posé comme accomplissement intrinsèque et objectif, réalisation chaque fois autonome; auteur défini à partir d'un acte qu'il a projeté hors de lui et qu'il transcende.'

[39] Even though, too, Benveniste's reconstruction has not found universal acceptance (cf. e.g. Shipp (1968) on *-σις* and *-τός* in Homer).

Scribonius 68: (1 anat.) *spiratio* (+ concr.); (39 path.) *abscisio (uocis)*, *accessio* (+ pl.), *alienatio (mentis)*, *collectio* (concr.), *compressio (musculorum)*, *contractio (neruorum)*, *conturbationes (oculorum)* (pl.), *contusio* (+ pl. + concr.), *conuulsiones* (pl. concr.), *correptio*, *deiectio*, *destillatio* (+pl.), *desurrectio*, *distentio (sicca oculi)*, *eruptio (sanguinis)* (+ pl.), *exasperatio*, *exulceratio* (+ pl. + concr.), *gelatio (artuum)*, *inflammatio*, *inflatio* (+ pl.), *intensio (oculorum et maxillarum)*, *irritatio*, *ligatio*, *perfrictio*, *perturbatio (sicca oculorum)*, *praefocationes* (pl.), *prolapsio (intestini extremi)*, *reiectio*, *remissio*, *sideratio*, *solutio (stomachi)*, *sternutatio*, *suffusiones* (pl. concr.), *sugillationes* (pl. concr.), *suppuratio* (+ pl. + concr.), *tensio (neruorum; praecordiorum)*, *titillatio*, *ulceratio*, *ustiones* (pl. concr.); (28 ther.) *admissio (cucurbitarum)*, *collutio*, *commanducatio*, *compositio* (+ pl. concr.), *confirmatio (dentium)*, *constrictio*, *cuneatio*, *curatio* (+ concr.), *delacrimatio*, *desudatio* 'perspiration', *detractio (sanguinis)*, *diuisio*, *gargarizatio*, *impositio*, *incisio*, *infusio*, *inunctio* (+ pl.), *oppilatio* 'stopping up', *potio* (+ pl. concr.), *praeparationes* (pl.), *purgatio* (+ concr.), *reiectio*, *relaxatio*, *remediatio*, *sectio*, *sorbitio* (concr.), *suffitio* 'fumigation', *ustio*.

Theodorus 105: (4 anat.) *conceptio*, *coniunctio (articulorum)*, *digestio*, *patratio*; (59 path.) *afflatio (oris)*, *aggregatio (lactis)*, *alienatio (mentis)*, *attemptatio*, *causatio*, *collectio* (concr.), *combustio*, *commotio*, *conclusio (urinae)*, *confusio (mentis)*, *conglobatio (umorum)*, *conspissatio*, *constrictio*, *contaminatio*, *contractio*, *debilitatio*, *declinatio*, *deformatio (coloris)*, *deminutio (pupillae)*, *depressio (capitis)*, *deriuatio* (+ concr.), *desperatio (animi; corporis)*, *digestio*, *dimissio*, *dissolutio (pupillae)*, *effusio (intestini; lacrimarum; spermatis)*, *egestio* 'passing a motion; discharge' (+ pl. + concr.), *eiectio*, *emissio (sanguinis)*, *exhalatio (inferiorum)*, *extensio (meningae)*, *fatigatio*, *grauatio*, *iactationes* (pl.), *inclinatio (matricis)*, *indigestio*, *indignatio*, *infestatio*, *inflammatio*, *inflatio*, *interceptio*, *interclusio (scybalorum)*, *laxatio*, *luxatio*, *madefactio*, *occupatio (sensus)*, *passio*, *perturbatio*, *praefocatio (matricis)*, *protractio*, *quassatio*, *resolutio (stomachi)*, *resumptio (corporis)*, *solutio (membrorum)*, *suffusio* (concr.), *tensio*, *uexatio*, *ustio* (concr.), *uulneratio* (concr.); (42 ther.) *admixtio*, *calefactio* (pl. concr.), *coagulatio*, *coctio* (concr. at 5. 15), *commixtio* (concr. at 13. 8), *compositio*, *confectio* (concr. at 6. 12), *curatio*, *datio* (concr.), *deambulatio*, *decoctio* (concr. at 12. 16), *delauatio*, *denigratio*, *detonsio (capillorum)*, *detractio (sanguinis)*, *digestio*, *euulsio*, *exercitatio*, *expositio (uentris)*, *fomentatio*, *fricatio*, *gestatio*, *incisio (uenarum)*, *infectio (capillorum)*, *iniectio*, *inspectio*, *inunctio*, *mitigatio*, *moderatio (ciborum)*, *ordinatio*, *patefactio*, *perunctio*, *ponderatio*, *potio* (+ pl. concr.), *purgatio* (concr. at 14. 1, 2), *releuatio (capillorum)*, *reparatio*, *scariphatio*, *suppositio*, *uisitatio*, *unctio* (concr.), *ustio* (concr. at 10. 15).

Cassius 135: (13 anat.) *appetitio*, *assellatio* (+ concr.), *colligatio*, *connaturatio*, *deiectio*, *depositio*, *digestio*, *egestio* (+ pl. + concr.), *exclusio*, *masticatio*, *operatio*, *respiratio*, *spiratio*; (86 path.) *abortio*, *accessio* (+ pl.), *adustio*, *agitatio (dentium)*, *alienatio (mentis)*, *amputatio*, *apprehensio*, *causatio*, *coctio (oris)*, *collectio* (concr. + pl.), *conclusio*, *confixio*, *constrictio*, *consumptio*, *contractio*, *corruptio*, *declinatio*, *defluxio*, *delectatio*, *deliratio*, *desertio*, *determinatio*, *diffusio* (+ pl.), *digestio*, *dilatatio (pupulae)*, *dimissio*, *diruptio* (+ pl. + concr.), *discussio*, *dissolutio*, *distentio* (+ pl.), *educatio*, *effusio*, *emissio*, *eruptio*, *exagitatio*, *exaltatio*, *exclusio*, *exhalatio (animae)*, *exscreatio* (concr.), *exsudatio*, *exsurrectio*, *horripilatio*, *immutatio*, *indigestio* (+ pl.), *indignatio* (pl.), *inflammatio*, *inflatio* (+ pl. + concr.), *influxio*, *insurrectio* (+ concr.), *inuersiones* (pl.), *inuolutio*, *lucubratio*, *mordicatio*, *negatio*, *obtrusio* (+ pl.), *obtunsio (uisus)*, *obuncatio*, *oppressio*, *osculatio*, *passio* (+ pl.), *perforatio* (concr.), *perfrictio*, *perturbatio*, *praefocatio* (+ pl.), *punctio*, *reiactatio (sanguinis)*, *remissio*, *resumptio (animi)*, *retentio*, *ruptio*, *solutio*, *spumatio*, *sternutatio*, *suberectio*, *subtractio (uenarum)*, *suffusio*, *superadustiones* (pl. concr.), *superinsurrectio*, *superpositio*, *tenebratio*, *tensio*, *tortio*, *uexatio*, *ulceratio* (+ pl. + concr.), *umectatio*, *ustio* (+ pl. + concr.); (36 ther.) *adobrutio*, *appositio*, *cibatio* (concr.), *collutio* (concr.), *comestio*, *confectio* (+ concr.), *conglutinatio*, *consectio*, *curatio* (+ pl.), *decoctio* (concr.), *defricatio* (+ pl.), *desiccatio*, *detractio (sanguinis)*, *euacuatio*, *exercitationes* (pl.), *expressio* (concr.), *fomentatio* (+ pl.), *glutinatio*, *inductio*, *infusio* (+ pl. concr.), *iniectio* (+ pl. concr.), *insessio* (concr.?), *lauatio*, *mutatio*, *patefactio*, *perunctio* (+ concr.), *potio* (+ pl. + concr.), *purgatio*, *refectio* (concr.), *relaxatio*, *sanatio*, *scarifatio*, *sectio* (+ concr.), *solatio*, *uacuatio*, *uaporatio* (+ pl. + concr.).

Of medical words in *-tus* our four texts attest the following instances. (I include *uultus* 'the face' with some hesitation: see Ch. 3, n. 147.)

Celsus 38: (17 anat.) *coitus*, *concubitus*, *conspectus*, *excessus* (concr.), *exitus* (concr.), *gustus*, *partus* (+ concr.), *processus* (concr.), *pulsus*, *recessus* (concr.), *sensus*, *sexus*, *spiritus* (+ concr.), *tactus*, *uisus*, *usus*, *(uultus* (concr.)); (17 path.) *abortus*, *abscessus* (concr.), *adfectus*, *aestus*, *casus*, *circu(m)itus*, *coitus* (concr.), *cursus*, *decessus*, *habitus*, *ictus* (+ concr.), *(impetus)*, *interitus*, *morsus* (+ concr.), *singultus*, *status*, *uomitus* (+ concr.); (4 ther.) *esus*, *potus*, *uictus*, *uomitus*.

Scribonius 23: (8 anat.) *(artus)* (concr.), *conceptus* (concr.) 'the foetus', *exitus* (+ pl. + concr.), *gustus*, *partus*, *sensus* (+ pl.), *spiritus* (concr. at 50. 3), *tactus*; (12 path.) *abortus*, *afflatūs* (pl.), *casus* (+ pl.), *circuitus* (+ pl.), *cruciatus*, *ictus* (+ pl. + concr.), *(impetus)*, *morsus* (+ pl. + concr.), *punctūs* (pl. concr.), *ructus*, *singultūs* (pl.), *uomitus* (+ pl.); (3 ther.) *terebratus*, *uictus*, *uomitus*.

Theodorus 31: (12 anat.) *conceptus, gressus, meatus (urinae)* (concr.), *odoratus, partus, sensus, sexus, spiritus* (concr.), *sputus* (concr.), *tactus, usus, (uultus* (concr.)); (16 path.) *anhelitus, casus, defectus, fluxus, ictus, (impetus), morsus* (concr.), *percussus* (concr. 35. 17 *caedis*), *pruritus, recursus, ructus, singultus, sonitus, status, superuentus, uomitus*; (4 ther.) *aborsus,*[40] *cursus (cyclicus), potus, uomitus* (concr.).

Cassius 41: (18 anat.) *auditus, conceptus, concubitus, consensus, fetus* (concr.), *meatus* (concr.), *minctus* (+ concr.), *odoratus, partus* (+ concr.), *pulsus, sensus, sessus* (concr.), *sexus* (concr.), *spiritus* (+ concr.), *sputus, tactus, uisus, (uultus* (concr.)); (21 path.) *adscensus, aestus, anhelitus, casus, cursus, defectus, fluxus, hiatus* (concr.), *ictus* (+ concr.), *(impetus), incursus, lapsus, morsus* (concr.), *percussus, pruritus, raptus, recursus, singultus, tinnitus, tortus, uomitus* (+ concr.); (3 ther.) *fotus, potus, uomitus* (concr.).

Table 5.1 displays the relative frequency and distribution of derivatives in *-tio* and *-tus* in the vocabulary of our four authors. All four authors have substantially more words in *-tio* than in *-tus*, Celsus by a ratio of about 3 : 2, the other three by about 3 : 1. More precisely the proportions of words in *-tio* to words in *-tus* are: in Celsus 1.55 : 1,[41] in Scribonius 2.96 : 1, in Theodorus 3.28 : 1, in Cassius Felix 3.21 : 1.[42] In their strong preference for *-tio*, Celsus and Scribonius appear to align themselves neither with Cicero (*-tus* 3 : 2 *-tio*) nor with Silver Latin (*-tus* 3 : 1 *-tio*) but with later writers in whom the use of *-tio* overtakes that of *-tus* by a substantial margin (cf. above); this is even more clearly so in Theodorus and Cassius Felix. The decline in the use of formations in *-tus* is reflected also in the total numbers of lexemes of each type in our small medical corpus as a whole (i.e. counting each lexeme once only). The last line in Table 5.1 reveals that successive authors attest many more 'new' formations in *-tio* than in *-tus*. For example, in Cassius' vocabulary relating to pathology, 55 of 86 words in *-tio* are 'new' to the corpus, while only 9 of 21 in *-tus* are not

[40] Theod. t. 240. 3 *De aborsu*, to be used as a remedy only in exceptional circumstances in order to save the life of the mother.

[41] I have suggested elsewhere (Langslow 1999: 217) that this proportion of nouns in *-tus* is strikingly high for a prose work on a technical subject, higher, I think, than that to be found in Vitruvius or in Cicero's philosophical terminology—though this is, I confess, an impression only, based on the examples and discussion in Lebreton (1901), Poncelet (1957), and Callebat (1974).

[42] In Celsus the same ratio holds in the non-medical vocabulary as in the medical part of it. Of non-medical words Celsus has 43 in *-tio*, 27 in *-tus* (= 1.59 : 1). Cassius shows a much weaker preference for *-tio* in his non-medical than in his medical vocabulary, though the numbers are probably too small to be of significance: 21 in *-tio*, 12 in *-tus* (= 1.75 : 1). As with *-tas* (5. 3. 4 below), Celsus has many more non-medical examples of these formations than Cassius but fewer in total. I am not in a position to make these comparisons for Scribonius and Theodorus.

found in at least one of the three earlier texts; or again, Scribonius has no fewer than 22 forms in *-tio*[43] but only 2 in *-tus* that are not attested earlier in the Latin record. The small numbers of new words in *-tus* accounts for the large ratio of *-tio* : *-tus* in the grand total for all four texts, 268 : 74, about 3.65 : 1.

Table 5.1. Distribution of nouns in *–tio* and *–tus* by author and lexical field

	Anat. *–tio* : *–tus*	Path. *–tio* : *–tus*	Ther. *–tio* : *–tus*	total *–tio* : *–tus*
Celsus	9 : 17	25 : 17	25 : 4	59 : 38
Scrib.	1 : 8	39 : 12	28 : 3	68 : 23
Theod.	4 : 12	59 : 16	42 : 4	105 : 32
Cass.	13 : 18	86 : 21	36 : 3	135 : 42
Totals*	22 : 28	150 : 38	96 : 8	268 : 74

* Counting each lexeme once only.

The figures in Table 5.1 suggest also some broad patterns in the lexical distribution of both formations which are common to all four authors. In the first place, in Scribonius, Theodorus, and Cassius—and the figures for Celsus are very close—both *-tio* and *-tus* are best represented in the vocabulary relating to disease, although with a bias in favour of *-tio* which increases sharply as we move from Celsus (*-tio* approx. 1.5 : 1 *-tus*) to Cassius (more than 4 : 1). On the other hand, all four authors show very few examples of *-tus* forms under therapeutics, and, what is even more striking, more instances of *-tus* than of *-tio* under anatomy and physiology. The first point, the dramatic growth in the number of disease-terms in *-tio* (Cassius' total being more than treble that of Celsus), has to do in part with the clear tendency in the later writers to favour the nominal style, including the use of a nominalization plus a supporting element instead of a single finite verb (e.g. Cass. 27. 18 [uena] *sectioni incurrerit* for, say, *secta fuerit*, or 138. 9 *post defricationem adhibitam* for, say, *postquam defricueris*; various aspects of this style are illustrated in Chapter 6).[44] The second point—the contrasting preponderance of forms in *-tus* in the area of anatomy and, especially, physiology, and their scarcity as terms of therapeutics—is discussed below.

[43] According to Sconocchia (1991: 334–5). On new formations in *-tio* in the Elder Pliny, see Flammini (1993).

[44] Hofmann and Szantyr observe (1965: 34) the striking reappearance in late medical writers of abstracts in *-tio* (and *-do*, 5. 3. 6 below) governing an accusative (rather than an objective genitive): e.g. *nares purgatio* (Oribas. *Syn.* 1. 21—but cf. the apparatus ad loc.), *loca capitis sollicitudo* (Oribas. *Syn.* 8. 14); cf. the standard example in Plautus, *Amph.* 519 *quid tibi hanc curatiost rem?*. This construction does not occur, however, in Cassius Felix.

In both *-tio* and *-tus* we find, of course, not only straightforward action-nouns but also nouns with concrete meaning; of the latter, some represent a form of semantic extension, the use of *abstractum pro concreto* (which was discussed in 3. 6. 1. 3a above); others are attested only in a concrete sense. It is worth noting that the concrete nouns in *-tio* and *-tus* show patterns of lexical distribution similar to those noted for each formation as a whole: that is to say, concrete nouns in *-tus* relate mostly to anatomy and physiology and hardly at all to therapeutics,[45] while concrete nouns in *-tio* are practically absent from the anatomical vocabulary[46] but common in the fields of disease and treatment. In fact, in Celsus, Theodorus, and Cassius Felix the largest number of examples of concrete nouns in *-tio* falls not under pathology but in the field of therapeutics, and constitutes an important morpho-lexical group—one noted also by Adams (1995: 522) in the Latin veterinary treatises—denoting types of treatment from their means of preparation (e.g. *compositio* 'a compound remedy', *decoctio* 'a decoction'), from their method of application (e.g. *gargarizatio* 'a gargle', *iniectio* 'an enema', *insessio* 'a sitz-bath') or from their intended effect (e.g. *purgatio* 'a purge', *collutio* 'a mouthwash').[47] Further examples of this type were presented in 3. 6. 1. 3a above.

From a lexical point of view, concrete disease-terms in *-tio* are a mixed bag (including e.g. terms for lesions such as *diruptio*, swellings such as *inflatio*, morbid substances such as *egestio*). I would, however, draw attention to a group of such words, which have in common that they are synonymous with and alternate with the neuter of the associated passive past participle in substantival function. These include the following: *contusio* (Scrib., 5 times) = *contusum* (Cels. 5. 28. 14C, Scrib., 8 times), *exulceratio* (Scrib., 8 times, 101. 17, *al.*) = *exulceratum* (Scrib. ind. 14. 19), *inflammatio* (Cels., *saepe*) = *(id quod) inflammatum (est)* (Cels.).[48] In view of this morphological and lexical affinity, this seems a better place than in the section on nominal present participles to allude to the 'medical' function of the substantivized neuter of the *perfect* participle. It has been observed[49] that this form is used by the medical writers to name types of physical injury, as, for instance, *adustum* 'a burn', *fractum* 'a fracture', *luxatum* 'a dislocation'. In our four authors I have noted the following examples.

[45] Only *uomitus* 'an emetic'.

[46] Only *purgatio* (Cels.) 'the menstrual discharge', *spiratio* (Scrib.) 'breath', in Cass.: *assellatio* and *egestio* both 'the faeces'.

[47] Several of them translate Greek remedy-names in *-μα, -ματος*, e.g. *ἐγκάθισμα, ἔκπεσμα, ἔνεμα*.

[48] On the last, cf. 3. 6. 1. 3a above, with n. 153 and 6. 2. 1 below.

[49] See Hofmann and Szantyr (1965: 157).

Celsus: *adustum, contusum, fissum,* [*luxatum*?],[50] *scissum.*

Scribonius: *combustum, contusum, exulceratum.*

Theodorus: *locis exclusa* (102. 3) = *locis auulsa* (102. 10) 'dislocations', ?*resoluta* (244. 12).[51]

Cassius: none.

Our small corpus would imply that this use of the perfect participle was common in the first century but had practically disappeared by the fourth and fifth centuries. The first part of this impression is confirmed by the very large number of examples of this type in the Elder Pliny: Önnerfors (1956: 23–7) lists no fewer than twelve such cases,[52] and states that there are more. On the other hand, Adams (1995: 320, 338) lists a dozen examples from much later writers, Chiron (e.g. *intortum*), Pelagonius (e.g. *percussum*), and Vegetius (e.g. *emota, extorta, eiecta*), and observes that the presence of *collectum* in *R* at Pelagonius 279. 3 (for *collectionem*) 'suggests the ease with which substantivised participles, so familiar in technical texts, might be introduced even by scribes.'[53]

As I indicated in 3. 6. 1. 3a above, there are two notable morpho-lexical sets of concrete nouns in *-tus*, namely, in Celsus, the four nouns in *-cessus* (*ex-, pro-, re-, abs-*) denoting the concrete result of movement in the given direction,[54] and secondly, a group of concrete products of bodily functions (breath, sputum, urine, etc.). The latter group relates directly to the larger pattern observed above for *-tus* nouns in general, and to what seems to be a principal lexical affiliation of *-tus*, since it is in the field of physiology that this suffix is of especial importance.

The most striking lexical set of forms in *-tus* comprises the names of the human sense-faculties and (by extension of meaning) associated sensations: *sensus* '(a) sensation', *tactus* 'touch', *uisus* 'sight', *auditus* 'hearing', *odoratus* 'smell', *gustus* '(a) taste'. This lexical set of six rhyming derivatives

[50] Only at Cels. 7. 1. 1, where the context appears to require a different meaning; see Spencer's note ad loc.

[51] On the last, see n. 319 below; the text may be corrupt at this point.

[52] His 12 are: *ambustum, attrita, contusa, conuulsa, fracta, luxata, percussa, rupta, secta, suggillata, suppurata, usta*. There are further examples, if they are all neuter, in (e.g.) the remarkable accumulation of such forms at e.g. Plin. *Nat.* 29. 33 sucidam [*lanam*] inponunt et desquamatis, percussis, liuidis, incussis, conlisis, contritis, deiectis . . . cinis eius inlinitur adtritis, uulneratis, ambustis. Note also e.g. 28. 140 rupta et conuulsa et spasmata et luxata sanat [*axungia*], and 21. 129 ambustis . . . luxatis . . . contusis . . . lapide percussis. See also Önnerfors (1993: 261).

[53] Adams (1995: 320) notes also in Pelagonius some substantival perfect participles in the vocabulary relating to therapeutics: *unctum, conditum, colatum.*

[54] *Excessus* and *processus*, both 'protruberance, projection' (*excedere* 'to project' first in Celsus), *recessus* 'a recess, receding part', and, under pathology, *abscessus* 'an abscess' (= *quod abscedit*: *abscedere* of abscesses first in Celsus).

occurs in its entirety in Aulus Gellius, 6. 6. 1: 'ex quinque his sensibus . . . uisu, auditu, gustu, tactu, odoratu',[55] and, with *aspectus* for 'sight' and *gustatus* for 'taste', already in the *Rhetorica ad Herennium*, 2. 5. 8: 'num quid aliquo sensu perspectum sit, aspectu, auditu, tactu, odoratu, gustatu'. It is also present much later in the partially preserved Latin epistle on human anatomy, ascribed to Herophilus and addressed to King Antiochus, and dated by its editors to the 'Übergangszeit von der Spätantike zum frühen Mittelalter' (Fischer and von Staden 1996: 86, 87, 89, 94), §3: 'sensibilia sunt quinque: uisus, auditus, gustus, odoratus et tactus'.[56]

The words for the senses and sensations are, of course, ancient and part of the general vocabulary. It is, however, tempting to suppose that they formed the core of and model for a larger morpho-lexical set including some words which may more properly be called 'medical'. For the suffix *-tus* is the preferred deverbative formation also for denoting natural bodily functions, including breathing (*spiritus*), the pulse (*pulsus*), sexual functions (*coitus, conceptus, concubitus*), and excretory/secretory functions (*minctus, sputus*, to which belong also *abortus, ructus*, and *uomitus*, which I have placed under pathology for obvious reasons but which are equally instances of natural expulsion of matter from the body through involuntary physical actions). The cover term *usus* 'a bodily function' is another case in point. Our texts offer examples also from the non-medical vocabulary of natural activities being nominalized in *-tus* rather than in *-tio*: these include *gressus, ingressus* 'walking', *uolatus* 'flying' (of birds), *risus* 'laughing', *fletus* 'weeping'. The first-mentioned pair, *ingressus* in Celsus, *gressus* in Theodorus (216. 1) and Cassius, mean 'walking as a function of the human body'; each contrasts in each author with a formation in *-tio*, respectively *ambulatio* in Celsus and *deambulatio* in Theodorus (171. 14) and Cassius, which mean 'walking done in the interests of good health or as a means of treatment'.

Hardly less striking than this lexical clustering of nouns in *-tus* is the extreme rarity of the formation in the vocabulary of therapeutics. I note from our texts a total of eight such instances (*aborsus, cursus, esus, fotus, potus, terebratus, uictus, uomitus*), of which only two (*fotus, terebratus*) are in origin proper to this lexical field; *aborsus, esus, potus, uictus*, and *uomitus* are primarily names of involuntary physiological processes (cf. the last two paragraphs) and have become 'terms of therapeutics' by semantic extension (so, e.g., *uomitus* 'an emetic' ← 'the action of vomiting'; so, too, *cursus* 'a course of treatment') or, quite artificially, through the system of lexical classification here employed (so, e.g., *aborsus, esus, potus*). In *fotus* and *terebratus*, however, we have to reckon with therapeutical terms made in *-tus*. *Fotus* may owe its suffix to analogy with *potus*, perhaps in particular

[55] Cf. Gel. 19. 2. 1 on pleasure, listing the senses in the order *g., t., o., u., a.*

[56] Cf. Cic. *Acad.* 2. 20 *de gustatu et odoratu*; and Tert. *Anim.* 17.

with the phrase *potui dare*: note Cass. 155. 11 fotui adhibita.[57] *Terebratus* is apparently found only in Scribonius (95. 8 terebratu exciditur quod laedit eam [*membranam*] os), and if, as I believe, there is some reason to suspect it,[58] the participle *terebratum* is an easy change ('the bone is drilled *and* cut away', rather than 'the bone is cut away *by* drilling').

Even if one allows all these possible exceptions, there is still a striking imbalance in the distribution of *-tio* and *-tus* nouns in the fields of physiology and therapeutics, and we may ask whether this apparent formal-functional opposition between the two formations is of any significance. More particularly, is the preponderance of *-tus* forms in the field of physiology, and their paucity in therapeutics, due to anything more than an accident?[59]

As I noted above, in confronting *-tu-* and *-ti-* formations in any Indo-European language one is reminded inevitably of Benveniste's classic study (1948) of agent-nouns and action-nouns in Indo-European and of his semantic distinction between the two formations. In comparing the Latin reflexes of these Indo-European suffixes, Benveniste characterizes *-tus* as denoting the verbal action from the point of view of the subject, as an aptitude or capacity, as a personal realization or practice, and *-tio* as denoting the objective fact of the performance of the verbal action.[60] It is tempting to associate this distinction with, on the one hand, the preference for *-tus* of names for sense-faculties and physiological functions, these being verbal actions which are pre-eminently natural to and inalienable from the human organism, and, on the other hand, the tendency for actions which are not necessary parts of the individual, especially those of disease and treatment, to appear nominalized in *-tio*. In addition to the pairs of words for 'walking' (above), there are even a few medical instances of suffixal 'minimal

[57] Junel (1936: 146–7) reads *fotui adhibita* also at Cass. 192. 21 (for Rose's *podici* and the nonsensical *potui* of *cp*): ipsa decoctio in encathismate, id est in balneo, supra sellam sedenti patefactis pedibus ante et retro *podici adhibita* confestim excludit quae diu tenebantur.

[58] If Scribonius' *terebra* is like Celsus' *terebra* rather than Celsus' *modiolus*, it does not itself cut away diseased bone but rather drills a series of small holes along the edge of the damaged bone, which is then cut out by driving a chisel from hole to hole: Cels. 8. 3. 4 eā [*terebrā*] foramen fit in ipso fine uitiosi ossis atque integri, deinde alterum non ita longe, tertiumque, donec totus is locus qui excidendus est his cauis cinctus sit . . . . tum excissorius scalper, ab altero foramine ad alterum malleolo adactus, id quod inter utrumque medium est excidit.

[59] On *-tio* and *-tus* in Pelagonius, see Adams (1995: 521–2). The only morpho-lexical opposition that I note in his examples is the banal *potus* 'the action of drinking; what one drinks' vs. *potio* 'a remedy that is drunk'. It is notable, however, that very few of Pelagonius' 20 derivatives in *-tus* are medical terms, while as many as 26 of his 29 in *-tio* may be so called.

[60] Benveniste (1948: 96): 'Les mots en *-tus* ont ceci en propre qu'ils convoient des notions de caractère *subjectif*. Ils énoncent le procès au point de vue du *sujet*, comme aptitude ou capacité, comme réalisation ou pratique *personnelle*. La notion est subjectivée; elle caractérise une *manière* d'accomplir, non le fait objectif de l'accomplissement.'

pairs' (forms in *-tus* and *-tio* on the very same verbal stem)[61] which seem to imply a semantic opposition of this sort. For example, Celsus attests *motus* (of the human body) 'the ability to move, movement, a movement' versus *motio* (of the human body) 'a fit of shivering, shuddering, ague' after an attack of fever. The semantic contrast between *potio* and *potus* points in the same direction: *potio* denotes especially a medicinal drink, prepared and administered by an external agent, the doctor, while *potus* is an ordinary drink, or the ordinary action of drinking. *Potus* occurs above all in the phrase *potui dare* 'to give to drink', but we never find in any author **potioni dare*.[62] This opposition is nicely illustrated in a single sentence at Theod. 200. 8 est cibus, est potus, sunt potiones uel antidota. Third, I note an analogous opposition in Caelius Aurelianus between *iactus* '(involuntary) discharge' (of semen)[63] and *iactatio* 'restless tossing and turning' as a symptom, a term of pathology (at e.g. *Acut.* 3. 194, 196, as in Cels. and Theod.).[64] On the other hand, there are, of course, medical counter-examples to both of the proposed regularities, nouns in *-tio* which name physiological processes (e.g. *spiratio, respiratio* 'respiration', *odorationis officium* at Cael. Aur. *Chron.* 2. 38, and Celsus' cover term *actiones naturales* 'physiological processes'), and nouns in *-tus* which denote 'objective' symptoms and diseases (such as *raptus* 'seizure, spasm', in Cassius and, again a cover term, *adfectus* 'an affliction', in Celsus). I note in particular that the choice of suffix on two of the derivatives attested for the first time in Scribonius—*spiratio* 'breathing' and *terebratus* 'trepanning'—is the reverse of what one would expect on a 'Benvenistean' view of their respective functions. But in setting Benveniste's characterization beside my conclusion in favour of viewing *-tus* as the preferred nominalizer of physiological processes and *-tio* as its counterpart in pathology and especially therapeutics (where *-tus* forms are strikingly few), I do not wish to suggest that these Latin suffixes have maintained until the fifth or even the first

[61] Benveniste (1948: 97–9) presents a long catalogue of instances of such 'double dérivation', which vary in quality and which include '*auditio*, "le fait d'entendre" (*auditio fabellarum*, Cic.), mais *auditus*, la "capacité d'entendre", l'"ouïe";—*cantio* "fait de chanter; chanson (magique)", mais *cantus* "chant émis" (cf. *cantum edere*); . . . *motio* "mouvement imprimé à quelque chose", mais *motus* "mouvement" comme activité de ce qui se meut; . . . *tactio* "fait de toucher": *quid tibi istunc tactio est?* (Pl. *Cas.* 406); mais *tactus* "manière ou possibilité de toucher, tact"', etc.

[62] This is perhaps surprising, given that *potio* is the base of the verb *potionare* 'to make someone to drink something' (esp. of a vet treating a sick animal); on this verb cf. Adams (1995: 503–6, 650).

[63] At e.g. *Acut.* 3. 103, 177. In this context the *ThLL*, s.v., 68. 70 ff. cites examples also from Arnob. *Nat.*, Aug., and Vindic. *Med.*

[64] Compare, on the selfsame, frequentative, stem, *iactatus* at Plin. *Nat.* 26. 14, in a therapeutic context but with reference to an inalienable property, the regular rocking motion of a hammock.

century AD the semantic distinction proposed by Benveniste. The possibility that I would raise is that the different lexical/semantic distributions of medical words in *-tio* and *-tus* may be reflecting an old functional opposition between the two formations, an opposition such as that inferred by Benveniste from larger sets of data in several languages. In particular, it is possible that nouns in *-tus* which name the sense-faculties and other intrinsic functions and abilities of the human organism are relics from a period when actions closely associated with, even inalienable from, the agent were regularly nominalised in *-tus* and not in *-tio*. The 'physiological' terms in *-tus* would then be further illustration of the resistant, unchanging nature of core vocabulary in semantic fields of the natural world, including the human body and its natural functions.[65] The (near-)absence of this type from the lexical field of therapeutics would be equally a reflection of its original function and consequent pattern of distribution. The less orderly pattern that is actually attested (and described above) for both formations would then be the result of (1) a reinterpretation of the difference between *-tio* and *-tus* as being stylistic rather than semantic, and (2) a strong bias in favour of *-tio* for making new derivatives in medical contexts.

The productivity of *-tio* is seen to a different degree in a series of derivatives which seem strictly otiose in that they stand beside a primary noun of the same, or at least very similar, meaning. Let me draw attention to three instances in particular. The medical use of *curatio*, alongside *cura*, is attested already in Cato (*Agr.* 157. 2, 8), and occupies more than half of the *Thesaurus* article on the word. That it is the 'proper' medical expression for 'treatment' is implied by its use in a metaphor in Livy:

Liv. 5. 3. 6 semper aegri aliquid esse in re publica uolunt, ut sit ad cuius curationem a uobis adhibeantur,

and expressly stated by Donatus:

Don. *ad* Ter. *Andr.* 30 'curatio' proprie medicorum est, 'cura' reliquorum.

A similar case is *cibatio* 'food, the taking of food', which can, of course, be straightforwardly related to the verb *cibare* 'to feed', *cibari* 'to take food' (attested only of animals before the *Vetus Latina* and Apuleius). The difference in meaning between *cibatio* and *cibus* is, if anything, even slighter than that between *curatio* and *cura*, and *cibatio* is practically confined to medical texts,[66] so that we may again regard the word as a medical form with a semantically empty use of *-tio*. A third good example of the same phenomenon is *causatio*, the synonym of *causa* meaning either the cause of

[65] For further possible instances of quasi-aspectual distinctions correlating with suffixation, see the sections on *-tūra* (5. 3. 3), the present participle (5. 4. 4), and *-tōrius* (5. 4. 5) below.

[66] The *ThLL*, s.v., cites examples only from Solinus, Caelius Aurelianus, Cassius Felix, and the Latin Oribasius.

a disease or the disease itself. *Causatio*, too, is hardly attested outside medical texts,[67] and is remarkable in having, in its medical senses, no underlying verb. This last oddity may be an illusion, as the medical term could have arisen, no less than *causa* (3. 6. 2. 1d above), through semantic extension from *causatio* the legal term, but, whatever its etymology, the result is the same: a medical term in *-tio* beside a synonymous primary noun—and one can give the same account of other nouns in *-tio*, including in Theodorus *ordinatio* (= *ordo* at e.g. Theod. 149. 4), *ponderatio* 'weight' (= *pondera*),[68] *uulnerationes* (= *uulnera* at e.g. Theod. 57. 6, 244. 5), possibly *ulceratio* in Cassius Felix, which is very close in meaning to the plural *ulcera*,[69] and elsewhere *significatio* 'a symptom' (e.g. in the Latin version of Alex. Trall.).[70]

I am certainly not in a position to assert that 'otiose' *-tio* is a feature especially of medical vocabulary; indeed, it seems quite likely that formations of this kind were common in other types of scientific and philosophical texts, and perhaps more widespread still. However, that some stylistic or 'technical' significance did attach to the suffix is suggested, to my mind, not only by the appearance of the lexemes we have just considered but also by instances of accumulation of rhyming derivatives, as, for example, in the following (the second an extreme case):

Scrib. 33. 13–15 uarie sedandus est [*dolor*], partim collu*tione* quorundam, partim commanduca*tione*, nonnumquam suffi*tione* aut imposi*tione* aliquorum;[71]

Ps.-Soran. *Quaest. med.* 273. 6 quae sunt generales operationes chirurgiae et quae speciales?—generales quidem sunt inci*siones* et diui*siones* et circumci*siones* aut scarifica*tio* discoria*tio* subcoria*tio* depunc*tio* consu*tio* cura*tio* subcura*tio* impunc*tio* subtrac*tio* iniec*tio* et his similia.

The same implication, of a special, formally impressive suffix, is carried too by the redundancy permitted at, for example:

[67] The *ThLL*, s.v., 703. 8 ff. cites examples only from Gellius, Palladius, Vindicianus, Theodorus, and Cassius Felix; Caelius Aurelianus does not use the word.

[68] Of measured ingredients at e.g. Theod. 47. 14 *aequa sub ponderatione*, 64. 3, 72. 2, 76. 12, 182. 21, etc.; cf. 156. 19. Adams (1976*a*: 107) notes that *aequa ponderatione* in Theodorus competes with and is preferred to the synonymous, and usual, *aequis ponderibus* only after p. 43 (of Rose's edition).

[69] Both *ulcera* (pl.) and *ulceratio* (sg.) are frequent, the latter functioning as a sort of collective of *ulcus*, which is rare in the sg.; note the pl. *ulcerationes* at 114. 23. For *ulcerationes* = *ulcera* Adams (1976*a*: 107) compares Diosc. 10. 197. 13 (and Marcell. 9. 35 *exulcerationem*).

[70] We may compare also *deliratio* for *delirium*, *desideratio* for *desiderium*, Ps.-Theod. Prisc. *Simpl. med.* 418. 10 *cruditiones uentris* (for *cruditates*), and note again in modern English the word *sortation* (for everyday *sorting*) in the terminology of the Post Office and the mechanized sorting industry; cf. n. 50 in 1. 2. 4 above.

[71] Cf. the accumulations of *-tus* at Scrib. 53. 19–20 ut ex ic*tu*, ca*su*, cona*tu* aliquo supra uires; 80. 2–4 theriace facit ad omnium serpentium mor*sus* et ic*tus* et adfla*tus* mirifice; eadem prodest et ad contu*siones* et ad conuul*siones* interiorum partium.

Cass. 37. 11 sin uero in renibus uel in uesica fuerit ulcera*tionis* causa*tio* . . .

where the arresting phrase *ulcerationis causatio* means hardly more than *ulcerum causa*.

To conclude: the irregular distribution of derivatives in *-tio* and *-tus* through the medical vocabularies of our four authors reflects two important aspects of their use in these texts. The first is a very strong preference for *-tio* over *-tus* as the productive suffix for straightforward deverbal nominalizations. The second is the presence in the Latin vocabulary of a small number of lexical clusters of formations in *-tus* and *-tio*, notably of concrete expressions for types of remedy in *-tio* (e.g. *compositio, gargarizatio*) and of names for the human senses, physiological processes, and other inalienable abilities and properties of organisms in *-tus* (e.g. *auditus, spiritus, gressus, fletus*). Examples in our texts of homoeoteleuton in *-tio* and *-tus* and of what seems to be semantically empty use of *-tio* imply, perhaps, some degree of awareness on the part of our authors of these suffixes as being in some way marked, conceivably as markers of technical discourse.

5. 3. 2 *-OR, -ŌRIS* (MASC.)

These masculine nouns in *-or* (replacing *-ōs*), *-ōris* represent the Latin development of a class of Indo-European animate *s*-stems, a type seen also in Greek in for example, *αἰδώς* (fem.) 'shame' and *ἱδρώς* (masc.) 'sweat'. The class as we know it in Latin numbers well over a hundred members. Most are originally verbal abstracts formed to stative verbs in *-eo, -ēre*; these often stand beside an adjective in *-idus*, and not infrequently also beside an inchoative verb in *-ēscere* and a factitive verb in *-ē-facere* (e.g. beside *calor, calēre*: *calidus, calēscere, calēfacere*; beside *feruor, feruēre*: *feruidus, feruēscere, feruēfacere*). Another large group comprises those formed to other types of verbs and/or adjectives, for example, *amor* (cf. *amo, -āre*; *amicus*), *angor* (cf. *ango, -ere*; *angustus, anxius*), *furor* (cf. *furo, -ere*). A few appear to be derived from adjectives, for example, *amaror* (cf. *amarus*), *lēuor* (cf. *lēuis*). A handful appear, synchronically at least, to be isolated derivationally, for example, *color, cruor, uapor*.[72]

In republican Latin, at least, the formation may have been felt to belong to a relatively high stylistic register. In a note on Ennius' tragedies, Jocelyn (1969: 195) comments: 'abstract formations in *-or* tended generally to have a lofty tone; Ploen [1882] counted 26 in 1,940 verses of tragedy, and only

[72] For lists of nouns in *-or* according to these various derivational types see Ernout (1957*a*: 24–49) and Quellet (1969: 87–94). Quellet (1969: 32–58) gives alphabetical lists of secure instances (138 words), doubtful instances (16 words), 'mots en *-or* fantômes' (12 words), and 'mots en *-or* n'appartenant pas à la formation étudiée'.

35 in 30,000 of comedy'. The formation is favoured by high poetry, tragedy and epic (Ernout 1957*a*: 53), especially by Lucretius, who attests 48 such nouns (Swanson 1962: 53–4), nearly half of those known, including rare forms such as *amaror, leuor, stringor,* and *aegror, angor, luror, pallores* (pl.), the last 4 in medical contexts.

Several studies of this formation have served in complementary fashion to indicate its lexical and semantic homogeneity.[73] The dominant group of instances of the type down to the time of Cicero has been most lately characterized by Untermann (1977: 334–5) as denoting 'Empfindungen, die als temporäre Eigenschaften eines Menschen (übertragen auch jedes anderen belebten oder unbelebten Individuums) auftreten und durch Sinnesorgane wahrgenommen werden.' This describes two of the three semantic groups advanced by Quellet (1969: 185–6),[74] namely 'un phénomène physique ou physiologique' (101 instances listed) and 'un phénomène psycho-physiologique, affectif ou mental' (29 instances listed).[75] Such a formation lent itself ideally to the service of medical writers in describing the look, the feel, the temperature, the state of mind, and other symptoms and signs of a patient's condition. Three of the four 'domaines d'emploi' that Quellet (1969: 186–90) lists as being especially characteristic of Latin nouns in *-or* are of central importance to medicine: '1. La maladie, la souffrance ou des états pathologiques divers . . . 2. L'état des êtres animés ou inanimés, ou les perceptions, impressions ou sensations de toute nature qu'ils produisent . . . 3. Les états de l'âme ou de l'esprit (sentiments, émotions, passions, dispositions)'.[76] To the first of these Quellet (1969: 187) notes: 'On voit que le suffixe *-or* a fourni à la langue médicale nombre de mots importants, dont certains présentaient sans doute le caractère de termes techniques.' This view will be developed and illustrated below.[77]

Our four authors are no exceptions in using many nouns in *-or* especially in their descriptions of diseases and associated symptoms. They attest between them a total of 39 examples belonging to medical vocabulary, of which 36 pertain to the field of pathology and are distributed as

[73] Meyer-Lübke (1893: 313–18); Marouzeau (1949: 40–1); Ernout (1957*a*); Boscherini (1959); Quellet (1969); Leumann (1977: 379–80); Untermann (1977: 333–6).

[74] The third, 'weather words', has just 4 members: *fulgor, umor* (in the sense 'rain'), *pluor, ningor.*

[75] Quellet alludes (1969: 131) to the imperfective verbal aspect displayed by nouns in *-or,* and partly on this basis contrasts them (156) with nouns in *-tio* and *-tus.* See his important discussion of 'aspect' in nominalizations (1969: 191–7).

[76] Quellet's fourth 'domaine d'emploi' is 'Des notions personifiées et divinisées' (*Amor, Ardor, Decor,* etc.).

[77] Adams (1995: 522–3) remains sceptical: 'The formation was not a fertile source of new terms in the hands of those medical writers who might be credited with developing a Latin medical terminology.'

shown in the following lists;[78] *sudor,* which strictly belongs under physiology, is often a symptom of disease.[79]

Celsus 28: *ardor, calor, color, cruor, dolor, feruor, fluor, foetor, furor, horror, languor, lēuor, (liquor),*[80] *liuor, marcor, odor, pallor, rigor, rubor, sopor, stridor, tepor, terror, timor, torpor, tremor, tumor, umor.*

Scribonius 19: *ardor, calor, candor,*[81] *color,*[82] *cruor, dolor, feruor, fluor, furor, horror, (liquor),*[83] *liuor, odor, rigores, rubor, torpor, tremor, tumor, umor.*[84]

Theodorus 22: *albores (oculorum), ardor, calor, color, dolor, errores (mentis,* 108. 18*), feruor, fetor (oris; narium), frigdor,*[85] *furor, horror, languor, odor, pallor, rubor, stridor (dentium), timor, torpor, tremor, tumor, (uapor),*[86] *umor.*

Cassius 25: *albor, calor, color, cruor, dolor, feruor, flaccor, fluor, foetor, frigor, furor, lentor, liuor, odor, pallor, putor, rigor, rubor, stridor, tepor, torpor, tremor, tumor, uapor, umor.*

Each author attests at least one 'new' example and Cassius has no fewer than six that are not in Celsus (*albor, flaccor, frigor, lentor, putor, uapor*[87]).

Nearly every word just listed was either formed or came to be used specially to denote a pathological sign or symptom, a physical or mental accompaniment to disease. A great range of symptoms is covered. These include (1) colour and complexion: *color, (decor),*[88] *liuor, pallor, rubor;* (2) mental state: *error, furor, timor, terror;* (3) sensations: *dolor, torpor;* (4) tension and relaxation: *horror, rigor, stridor, tremor,* and *languor, marcor, sopor;*[89] (5) temperature: *ardor, calor, feruor, frigor* (in the later writers),

[78] The other 3 are: *decor* 'physical appearance' (Cels.), *pator* 'openness' (Scrib. 30. 25, 31. 16), *sudor* 'sweat' (in all four authors), *liquor* 'liquid' used in treatment (Cass.); note also the therapeutical use of *uapor* 'steam' used in treatment (Cels., Theod.).

[79] See e.g. Cels. 2. 4. 5; 3. 6. 17; 5. 26. 8, 15; Scrib. 85. 16; 86. 5; 88. 8; 91. 10.

[80] Of a morbid fluid within the body at 2. 8. 32, 7. 21. 2 (twice).

[81] In Scrib. only at 35. 11 ad dentium candorem.

[82] Note e.g. Scrib. 73. 19 ad eos qui mali coloris propter haec uitia sunt.

[83] Perhaps of morbid fluids within the body at Scrib. 55. 15 ut ex eo uarios liquores subinde exspuant.

[84] Of a discharge from the eye at Scrib. 23. 5 perseuerantia umoris et pituita.

[85] The reading of *rBb* at Theod. 140. 7 si uero de frig(d)ore caput fuerit inquietatum; Rose reads *frigore* with *g.*

[86] Theod. 7. 14 on loss of hair arising from *nimietate uaporis,* 107. 7 of a harmful vapour (or heat?) within the body.

[87] In the sense of a harmful vapour (or heat?) within the body, at Cass. 169. 8–10.

[88] Note the use of *decor* 'physical appearance' in a rhyming pair as part of a *signum* at e.g. Cels. 2. 2. 2 peius tamen signum est ubi aliquis contra consuetudinem emacuit et colorem decoremque amisit.

[89] Note also *clamor* used by Celsus (7. pr. 4) and Cassius Felix (173. 7) in the context of agitation on the part of the patient.

tepor; (6) foul smell: *foetor, odor*; (7) palpable conditions: *leuor, tumor*. The cohesion of this group is seen also in the fact that Celsus and Cassius between them have just eight examples of this type which do not belong at all in the same semantic field.[90]

The examples in our four authors of medical terms in *-or* include, of course, some very common words, such as *dolor, rubor, tremor*, and some much rarer ones, for example, *albor, flaccor, liuor, marcor, pallor, sopor*,[91] *stridor*. *Fluor* and *marcor* appear for the first time in Celsus, and he is the first to use *rubor, sopor*, and *tepor* of the human body and disease. *Flaccor* 'flaccidity' (of the stomach) is a hapax in Cassius Felix (103. 16). To judge from the *ThLL*, *frig(i)dor* and *frigor* are almost in complementary distribution, *frig(i)dor* being attested exclusively, and *frigor* scarcely, in late medical and veterinary writers.[92]

Other late medical texts furnish further instances of nouns in *-or* belonging to the same semantic field, including the following. Two of the three known examples of *acror* (apart from Isid. *In Exod.* 17. 3) are in medical texts,[93] at Dioscorides 1. 137 and (admittedly in a minority of the manuscripts) at Alexander Trallianus 2. 10.[94] *Amaror oris* 'a bitter taste in the mouth' (a symptom of jaundice) is a probable correction in Caelius Aurelianus (*Chron.* 3. 69) and gives the third and last occurrence of this word in extant Latin (after Lucr. 4. 224 and Verg. *G.* 2. 247). Caelius uses *amaritudo* of bitter things (*Acut.* 2. 115, of medicaments; 2. 160, of almonds). If the reading *amaror* is correct, this is an excellent example of the deliberate choice—even, perhaps, creation—of a form in *-or* to denote a symptom in preference to an existing derivative with another suffix; (compare the nearly synonymous phrase *foetor oris*.) *Sordor* is known only from the Latin translations of Oribasius (*Eup.* 4. 42 tit. La, *Syn.* 2. 56. 4 La p. 120. 5) and glossaries (*CGL* 4. 355. 34, 375. 4, 393.11). *Torror* is another

[90] Six in Celsus (*cremor, error, fulgor, labor, pudor, uapor*) and three in Cassius Felix (*dulcor, labor, liquor*).

[91] *Sopor*, 'le synonyme poétique de somnus' (Ernout 1957*a*: 45).

[92] The *ThLL*, s.v., 1332. 66 ff. cites examples of nom. *frigor, frigores*; acc. *frigorem, frigores* from Aug., Ps-Aug., *Pass. Thom.*, Prob., Greg. Tur., Isid. and glosses, but from Ps.-Theod. Prisc. and Diosc. alone among medical texts; contrast the entry for *frig(i)dor*, and on the latter cf. Önnerfors (1993: 333).

[93] And that at Fulg. *Virg. cont.* p. 85,3 appears to involve a medical metaphor.

[94] So Quellet (1969: 34). At Alex. Trall. 2. 10 habent [. . .] rancorem et acrorem cum tusse, only 4 of the 14 manuscripts that I have checked have *et acrorem*, which is probably a later gloss on *rancorem*. *Rancor* is more widely attested (first in Pallad. 1. 20, 11. 10. 2, including as a symptom in a medical context at Marcell. 20. 63 *rancor stomachi*), but *rancorem*, the reading of 10 manuscripts, stands here for Gk. *κέρχνος* 'roughness, hoarseness' (p. 153 Puschmann) and must be an error for *raucorem*, the reading of Orléans 283 and Paris BN lat. 6882. *Raucor*, then, with the suffix *-or* stands for earlier *raucitas* (Cels., Scrib., Plin. *Nat.*); cf. Quellet (1969: 43). For *raucorem/rancorem*, Montecassino 97 has *rugura*, an example, whatever one makes of the base, of the alternation between *-or* and *-ura* in late Latin (cf. n. 129 below).

word found only in Caelius Aurelianus, again denoting a symptom, with an objective genitive in *torror corporis* (*Chron.* 3. 89) and a subjective genitive in *torror solis* (*Chron.* 5. 76) for Greek *ἡλίωσις*. Caelius again uses frequently[95] the very rare word *turbor* (beside *turbatio* to translate Gk. *ταραχή*, otherwise known only in Hil. and *Vita Anton.*). Of related interest are two 'medical' adjectives in *-idus* to nouns in *-or*: *dolidus* 'painful' (to *dolor*) which is found only in Caelius Aurelianus (*Acut.* 3. 11, 67; *Chron.* 3. 66; 5. 99); and *patidus* 'open' (to *pator*) which occurs only in Chiron (97. 177) for the usual *patulus* (which Chiron has once, at 475). These formations suggest a continuing vitality in the larger derivational paradigm.

In our authors words in *-or* are explicitly called *notae*[96] or *signa*[97] and they often occur in pairs, even in threes or fours, in listing symptoms of a disease or condition. *Rubor*, for example, comes 4 times in Cassius[98] and 12 times in Celsus[99] side by side with another symptom in *-or*. Most striking is Celsus' list of the symptoms of inflammation, which I will quote again (cf. 5. 1 above):

Cels. 3. 10. 3 notae uero inflammationis sunt quattuor: rub*or* et tum*or* cum cal*ore* et dol*ore*.

Also noteworthy, however, are passages such as the following:[100]

Cels. 3. 6. 7 si col*or* aut rub*ore* aut pall*ore* nouo mutatus est.
Cels. 4. 27. 1D Tol. 26 accedit cal*or* quidam rub*or*que et circa pubem cum dol*ore* tum*or* atque durities.
Cels. 5. 28. 11D et grauitas et ard*or* et distentio et dol*or* et rub*or* et durities et, si maior abscessus est, horr*or* aut etiam febricula permanet.
Scrib. ind. 11. 35 ad podagram cum tum*ore* et feru*ore* et rub*ore*, quam caldam uocant.
Scrib. 24. 14 ad dol*ores* cum rub*ore*.
Scrib. 28. 16 ad auriculae et tum*orem* et dol*orem*.[101]

[95] Twelve times: *Acut.* 1. 175, 2. 6, 3. 46, etc.

[96] In Celsus, e.g. 3. 10. 3 (quoted below), 4. 2. 2, 5. 26. 7–8, 5. 28. 1A.

[97] In Celsus, Scribonius, and Cassius: e.g. Cels. 2. 7. 25. Scrib. 19. 10. Cass. 26. 5, 33. 1, 109. 9.

[98] 24. 10, 26. 3, 40. 9, 82. 5.

[99] 2. 7. 22; 3. 6. 7; 3. 10. 3; 3. 25. 1; 4. 7. 1, 4; 4. 27 1D Tol. 26; 5. 28. 4A (twice), 11B, 11D; 7. 1. 1.

[100] I have noted the same phenomenon in other authors, too, especially Caelius Aurelianus: e.g. Cael. Aur. *Chron.* 3. 17 sine ullo feruore atque dolore, coming after this remarkable list of symptoms: 3. 15–16 torpor . . . feruor . . . sudor . . . coloris mutatio . . . corruptio acceptorum cum acore . . . tumor . . . dolor . . . tumor. Cf. Ps.-Soran. *Quaest. med.* p. 270. 15 oculorum stupor fit liuor etiam. Compare the rhyming triplet in the spell at Marcell. 15. 11 (quoted below). (Cf. Col. 12. 18. 3 nequem redoleat fetorem acoremue: another lexical field, the same stylistic effect?)

[101] *Tumor* and *dolor* occur side by side also at (e.g.) Scrib. ind. 7. 23; 21. 8–9; 66. 13, 20. Compare the last three examples from Cassius Felix immediately below. Might this be a conventional medical hendiadys (for 'painful swelling(s)')?

Cass. 24. 10 cum competenti dol*ore* et rub*ore* competenti (!).
Cass. 48. 19–20 aliquando cum ingenti feru*ore* dol*ores* efficiuntur, aliquando cum perfrictione et torp*ore* sensus.
Cass. 40. 9 et [*ignis sacer*] est rub*or* flammeus in superficie cutis cum dol*ore* et tum*ore*.
Cass. 47. 4–5 aduersus tum*ores* et dol*ores* et ulcerationi conueniens.
Cass. 58. 17 aliud ad tum*ores* et dol*ores* et spargendum sanguinem.

Abstract formations in *-or* are prone, no less than other deverbal and de-adjectival abstract derivatives, to develop a concrete meaning; some, of course (such as *liquor, umor, uapor*), are attested only with a concrete meaning. Thus *liuor* and *tumor* occur both as the condition of being discoloured[102]/swollen[103] and as a particular instance ('a blue spot',[104] 'a lump'[105]). *Fluor*, too, a word attested mainly in medical writers, seems to show both abstract and concrete senses.[106] In Cassius Felix *fetores narium* (translating Gk. *ozaena* at 62. 15) presumably has concrete reference.[107] Other medical examples of concretized originally abstract nouns in *-or* are *albor* 'a morbid white spot or deposit'[108] and, probably, *lentores* (pl.) 'spots of viscous material'.[109]

Symptoms can of course be as well concrete as abstract; lumps, spots, and bodily secretions may be marks of disease, just as redness, pain, and shivering. Given this, and given the presence of forms in *-or* for concrete bodily humours (*liquor, umor, (fluor)*), I am, I think, justified in including *cruor* and *sudor* in the same morpho-semantic group as *amaror, dolor,* and *tumor*. *Cruor* and *sudor* seem at first sight to stand apart both morphologically and semantically from the other medical words in *-or, -oris*, especially because they have concrete reference from the beginning of our Latin record.[110] Yet they, too, denote symptoms, accompaniments of disease, and further strengthen the links between this semantic field and masculine nouns in *-or, -oris*. I will not insist on this view of *cruor*[111] but it

[102] e.g. Cels. 5. 18. 24, Cass. 66. 18.
[103] e.g. Cels. 2. 7. 31, Cass. 130. 19.
[104] e.g. Cels. 5. 26. 31D, Cass. 59. 4.
[105] e.g. Cels. 4. 31. 3, 6, Cass. 45. 16.
[106] More abstract at e.g. Cels. 3. 6. 16, 4. 23. 2, and Cass. 61. 7; more concrete at e.g. Scrib. 64. 10, Marcell. 10. 25, and Cass. 59. 9. Scribonius is fond of *fluor* with a genitive: note ind. 8. 31 *fluor arteriae*, ind. 8. 17 *fluor gingiuarum*, ind. 8. 18 *fluor sanguinis*, ind. 10. 18 *fluor stomachi*.
[107] Cf. Theod. 45. 5 fetori uero narium sucum hederae frequenter infunde.
[108] Theod. 41. 10 (pl.); Cass. 56. 4, 12. Cf. Chiron 802 (pl.), 804, 808; Pelag. 414, 428.
[109] The conjecture of Rose (ignored by Quellet 1969: 38) for *leniores* of the manuscripts at Cass. 33. 3 (cf. Cael. Aur. *Chron.* 5. 94). *Lentor* is otherwise abstract, 'tensile strength; viscosity' (since Columella and Pliny); perhaps another meaning at Chiron 854 et sic feruescat [*mixtura*] ex lentore (?).
[110] *Cruor* is 'mot isolé' for Ernout (1957*a*: 48–9).
[111] *Cruor* occurs only 6 times in Celsus and is not common in medical writers. Notice its use in pathological contexts by Scrib. 90. 2 *ex stomacho cruorem reiciunt*, and by Plin. *Nat.* of suffusions of blood or blood-clots in the eyes (23. 49, 25. 144, 28. 72, 29. 126, 31. 100; elsewhere at 22. 127). Of all of these one can say that it refers to blood appearing under abnormal, disease-related circumstances: in Celsus in the urine (5. 26. 11), in the stool (4. 22. 1), from ulcers (6. 7. 4), from the cranium or the meninges (8. 2. 2, 3; 8. 4. 18). It is used with reference to menstrual blood by Columella and Q. Serenus.

is striking that *sudor* is used by Celsus also with the abstract meaning '(the state, process of) sweating': at 1. 6. 1 *ungi citra sudorem*, 4. 27. 1D Tol. 47 *leni frictione citra sudorem* [uti] (cf. Cels. 1. 2. 7 *citra fatigationem*), 4. 5. 9 *os fouere usque ad sudorem* (also 4. 8. 4; cf. Cels. 4. 8. 4, 6. 7. 4 *usque ad lassitudinem*, Cass. 10. 1 *usque ad ruborem cutis*). This usage is perhaps in virtue of this perceived link between the suffix *-or* and names of symptoms both abstract and concrete. (On *concretum pro abstracto* cf. 3. 6. 1. 3c above.)

Celsus uses several forms in *-or* for the first time in Latin expressly to render some Greek medical terms: *rigor neruorum* translates *tetanus* (2. 1. 12); *marcor* is in close association, at any rate, with Greek *lethargus* (3. 20. 1), as is *foetor oris* with Greek *ozaena* (3. 11. 3; cf. *foetores narium* at Cass. 62. 16); and *timor aquae* translates *hydrophobas* 'hydrophobia' (Cels. 5. 27. 2C).[112] In the last example it is noteworthy that Celsus uses his rarer word for 'fear', *timor* (6 times : 37 times *metus*) to name the condition of hydrophobia, and *metus* to describe it:

Cels. 5. 27. 2C aquae timor . . . miserrimum genus morbi in quo simul aeger et siti et aquae metu cruciatur.

It is tempting to infer that the selection of the form of a (new?) technical term may be determined by the preference of its lexical field for a specific derivational pattern and this preference prevails even though (or especially if?) it leads to the choice of a relatively rare expression.

Ernout (1957*a*) has showed for Latin generally how over the period separating Plautus from the Vulgate, the word *timor* ousted its synonym *metus* in virtue of its belonging to a large, semantically homogeneous group of rhyming derivatives in *-or, -ōris*. In our four Latin medical writers (and other medical texts) the number, the distribution, and the new examples of these derivatives show that medical Latin went even further than Latin generally in the post-classical period by maintaining and developing *-or* as a prominent and productive formation, in the face of potential competition from other suffixes, notably *-tas*.[113] The evidence we have seen encourages a belief in a highly motivated morpho-lexical group of abstract *and* concrete nouns (conceivably in association with some relative outsiders, like *clamor* and *stridor*), all of which denote symptoms or conditions of a patient and are often explicitly called *signa* or *notae*.

[112] As, too, at Scrib. 81. 25 and Cael. Aur. *Acut.* 3. 98, 113, and compare *aquae pauor*, with the same suffix, in Plin. *Nat.* 25. 17, 29. 98.
[113] Cf. Quellet (1969: 185, n. 1).

5. 3. 3 *-TŪRA (-SŪRA, -ŪRA), -AE*

The suffix *-tura* (under which I include also *-sura* and *-ura*) forms nouns on verbal stems, denoting both the (abstract) performance of the verbal action (e.g. *pictura* 'the action of painting') and the (concrete) result of the action (e.g. *pictura* 'a painting'). It forms also terms for magistracies (e.g. *censura, dictatura*) and other occupations (e.g. *lanistatura* 'the management of gladiators'), and a small group of nouns with apparently collective meaning (e.g. *armatura* 'a troop, troops', *foliatura* 'foliage'). This formation is common already in Plautus and good numbers of new examples appear in every period of Latin until the end of antiquity.[114]

Benveniste (1948: 101 ff.) regarded *-tura* as an extension of *-tus* and as denoting the carrying-out (on a regular basis) of the ability or activity inherent in the agent that is typically named with a nominalization in *-tus* (see 5. 3. 1 above). This view finds support in the large number of nouns in *-tura* for professions and various technical activities, especially those relating to the artisan's workshop (e.g. *fictura, pictura, textura*) and to agriculture (e.g. *cultura, curatura, uectura*) (cf. Giacalone Ramat 1974: 269). On the basis of this apparent association of *-tura* with technical languages, Marouzeau (1949: 42–3)[115] proposed a sociolinguistic, rather than semantic, opposition between *-tura*, relatively low-class, and *-tio*, its counterpart in the literary language. This suggestion is not taken up or borne out in the full and systematic study of Latin nouns in *-tura* made by Giacalone Ramat (1974).[116] In contrasting *-tura* with *-tio* and with *-tus*, she draws attention instead (1974: 275–6; cf. 1975: 122–6) to the fact that the deverbal nouns in *-tura* are (1) based nearly always on a verb denoting a concrete activity, and (2) normally have a durative-iterative aspectual value (cf. Benveniste 1948: 101–4); neither (1) nor (2) is characteristic of derivatives in *-tio* or *-tus*.[117] Giacalone Ramat lists (1974: 269–70) four lexical groups which particularly stand out among nouns in *-tura* (of which the first two were mentioned above): (1) 'mestieri, attività e tecniche di vario

[114] Giacalone Ramat (1974: 266) gives the following figures for first attestations of nouns in *-tura*: before 100 BC: 30; 1st cent. BC: 62; 1st cent. AD: 42; 2nd cent. AD: 15; 3rd cent. AD: 43; 4th cent. AD: 43; after AD 400: 75.

[115] And cf. Zellmer (1976: 1–11) (1st edn 1930) and Hofmann and Szantyr (1965: 744 h).

[116] Cf. Giacalone Ramat (1975) on instances of the formation in archaic Latin, a development of part of her larger study (1974: 244–56); see also Zellmer (1976) and the 1930 edition.

[117] Could verbal aspect be the key to the use of the suffix in the four names of veterinary procedures in the Prices Edict of Diocletian (7. 20–1: *aptatura, depletura, purgatura, tonsura*)? With the exception of the last, these words do not occur in veterinary texts, which have instead *depletio* and *purgatio* in the same sense (Adams 1995: 61–3, 524–5). The Edict could perhaps be referring in an aspectually marked way (with *-tura*) to the (professional) performance of the procedure at any time by any person; the *-tio* counterparts in the technical treatises would then be, naturally enough, unmarked forms denoting, in context, routine operations.

tipo usate da artigiani'; (2) 'attività relative al mondo agricolo e all'allevamento degli animali'; (3) 'termini relativi all'arte culinaria'; (4) 'processi e stati di competenza della medicina, ferite, lacerazioni, infiammazioni, ecc.' The last is, of course, of special relevance to our present concerns and I return to it below.

Our four authors attest between them a total of 23 forms in *-tura* relating to medicine.

> Celsus 8: (anat.) *commissura* 'a joint of the human skeleton', *iunctura* 'a juncture or joint in the human body', *sutura* 'a suture of the skull'; (path.) *fractura* 'a fracture', *scissura* 'a crack in the skin'; (ther.) *mixtura* 'the process of mixing; a ready mixture', *sutura* 'stitching', *uinctura* 'bandaging, a bandage'.
>
> Scribonius 3: (anat.) *commissura (dentium)* 'where the teeth meet the gums' (86. 21, 90. 25); (path.) *fissura* 'a split in soft tissue' (101. 16); (ther.) *alligatura* 'a bandage' (97. 10).
>
> Theodorus 5: (anat.) *natura* 'the penis;[118] the womb'; (ther.) *ligatura* 'a bandage' (84. 2), *lotura* 'the action of washing' (10. 14), *rasura* 'the action of shaving' (43. 15), *scissura* 'a cut' (made deliberately, 41. 3).
>
> Cassius 11: (anat.) *capillatura* 'the hair of the head',[119] *natura* 'the penis' (cf. n. 118); (path.) *percussura* 'a bite, sting' (168. 5), *pressura* 'a weighing-down' (155. 16), *rasura* 'a scraping sensation; a shred, scraping' (122. 12, 177. 9), *strictura* 'constriction' (73. 10, *al.*); (ther.) *diuisura* 'an incision' (27. 8), *incisura* 'an incision' (27. 14), *laceratura* 'a cut made in scarifying' (12. 18, *al.*), *ligatura* 'a bandage' (29. 1), *limatura* 'a fine powder' (66. 2, 174. 17).

A number of these words in *-tura* make their first appearance and/or are mainly attested in medical writers. *Fractura* 'a fracture' is already in Cato (once only, at *Agr.* 160) and is subsequently found in Celsus, Pliny, and later medical and veterinary writers, especially (so the *ThLL*, s.v.) Vegetius and Caelius Aurelianus.[120] The form *scissura* and the use of *sutura* for a

[118] But I wonder whether this euphemism was felt to be a derivative in *-tura* in quite the same way.

[119] The first attested usage of *capillatura* is to denote (Plin. *Nat.* 37. 190) a hair-like flawing in a gem, and it is tempting to relate this meaning to that of *fractura* 'a fracture' and *sutura* 'cranial suture' (see below). Later, from the *Vetus Latina* onwards, the word is used of 'the hair on the human head' and, in this sense, is a nice late example of a collective noun in *-tura*, a type well known already in the republican period, notably in Vitruvius (Giacalone Ramat 1974: 251–3; 1975: 128). The meaning 'human hair' is found also in the Vulgate and some Christian writers including Tertullian, Caelius Aurelianus, and Cassius Felix; cf. André (1991: 214). Note also *capillatura* as (apparently) a disease of the bladder at Anon. *De ues. uit.* 261. 7.

[120] *Fractura* in its abstract sense, 'the action of breaking', and in figurative senses is also well attested in Christian Latin.

suture of the skull and of *uinctura* for a medical bandage occur first in Celsus. Both *alligatura* and *fissura* appear first in Scribonius and, applied to trees, in Columella (*Arb.* 8. 3, 8. 2), and are apparently confined to medical and agricultural texts, *alligatura* being frequent in Chiron. *Incisura* 'an incision' (of the place cut or the incision itself) is attested first in Columella and Pliny and then in Cassius Felix, the Latin Oribasius, and especially Caelius Aurelianus (who uses it also with abstract meaning; cf. *ThLL*, s.v., 926. 41 ff.). *Ligatura* is used in a general sense, of any kind of binding, from the *Vetus Latina* onwards, but it is common in reference to medical bandages in later medical and veterinary texts (*ThLL*, s.v., 1381. 57 ff.), and metaphorically in Christian writers (*ThLL*, s.v., 1381. 72 ff.). *Limatura* is found only in Sextus Placitus and later medical writers and once in Gregory the Great. *Percussura* 'a blow, wound' occurs in the *Vetus Latina* and the Vulgate, including in non-medical contexts, but is cited mainly from later medical and veterinary writers, including Chiron (673, 703) and Vegetius (2. 20. 1, 2. 45. 8) and the Latin versions of Dioscorides (6 times) and Oribasius. *Pressura*, too, is found largely in Christian and medical texts.[121] *Strictura* as a term of pathology, 'constriction',[122] is attested in Gargilius Martialis (2. 29), Chiron (4, 148, *al.*), Vegetius (2. 112. 3, 2. 129. 4), Marcellus (22. 19, *al.*), Caelius Aurelianus (*Acut.* 1. 70, *al.*), Cassius Felix, and the Latin Soranus (44, 67, 142; Ps.-Soran. 197). *Diuisura* 'a surgical incision' is attested only in Caelius Aurelianus (*Acut.* 3. 37, 133) and Cassius Felix (27. 8).[123] *Laceratura* 'a cut made for purposes of scarification' is found only in Cassius Felix (five times, always with *scariphatio* or *scariphare*, e.g. at 12. 18 minutas uel densas scarifationis laceraturas dabis, quas Graeci amychas uocant).

It emerges, however, that our four authors attest between them only a small proportion of those words in *-tura* which have 'medical' meanings and which occur mainly or only in medical/veterinary texts, chiefly of the third century and later.[124] Other members of this very impressive group of

[121] Notably in the *Vetus Latina*, Tertullian, and Cyprian, and, of the medical/veterinary writers, in Chiron, Vindicianus, Caelius Aurelianus, the Latin Soranus, and the Latin Dioscorides; so the material of the *ThLL* in Munich.

[122] In archaic and classical Latin, *strictura* means 'a mass of wrought iron' (Lucilius, Varro, Vergil, Pliny, Nonius, Servius), in Christian Latin, 'pressure, suffering' (Tertullian, Iuvencus, Ambrosius, Prudentius, Augustine, Rutilius); so the material of the *ThLL* in Munich.

[123] Pliny (*saepe*) and Palladius (11. 12. 7) use the word of a natural process or state in plants and trees (cf. *ThLL*, s.v., 1632. 9 ff.). *Diuisura* has also an anatomical sense, at Chiron 21 ad ipsam diuisuram geminarum uenarum, 25 in media diuisura codae; cf. Veg. *Mulom.* 1. 27. 2.

[124] This is noticed already by Niedermann (1912: 328–9). On *-tura* in veterinary Latin, see Adams (1995: 524–5) and (1995: 61 n. 193) on the interesting form *pletura* 'excess of blood', which, if it was perceived as a derivative in *-tura*, stands apart from the main morpho-lexical group and appears to be a back-formation from *depletura* (probably motivated by the Greek word for the condition, *πληθώρα*).

'medical' words in *-tura*, which happen not to be attested in our small corpus include: (anat.) *cauatura* 'a hollow' (Chiron 16, Marcell., Veg.; also in a pathological sense), *coniuncturae* 'cranial sutures' (Vindic. *Epit. alt.* p. 481. 14), *pertusurae* (pl.), of holes in the pelvic face of the sacrum (Vindic. *Epit. alt.* p. 481. 19; André 1991: 199); (path.) *combustura* 'a burn' (*Vetus Latina*, Vulgate, Christian writers, late medical and veterinary writers from Gargilius Martialis to the Latin Dioscorides, including Chiron and Pelagonius), *constrictura* 'a constriction' (Cael. Aur., Diosc.), *luxatura* 'a dislocation' (Chiron, Veg., Marcell., Oribas.), *praecisura* 'a cut' (Chiron, Soran., *Antidot. Brux.* p. 371. 27), *quassatura* 'an injury caused by shaking' (Veg.?, *Phys. Plin.*); (ther.) *inductura* 'an application' (Cael. Aur.), *infusura* 'a perfusion' (Ps.-Theod. Prisc., Oribas.), *ustura* 'cautery' (Cael. Aur.). This list is far from exhaustive,[125] and there is besides a further large group of derivatives which are attested only in the Latin versions of Dioscorides (*elixatura, exitura (?)* 'a disease of the nails', *exsucatura, infectura, intritura, inunctura, scarifatura, superunctura*) and Oribasius[126] (*confractura, contritura, contusura* 'a contusion', *effersura* 'inflammation', *excorticatura, incauatura, inustura (?), lauatura, morsura* 'a bite',[127] *plasmatura, spargura* 'swelling, distention',[128] *subtritura* 'a partial abrasion', *uoluitura*).

A semantic feature which stands out as being common to nearly all of the words highlighted in the last two paragraphs (in at least some of their uses) is that of concreteness (cf. Giacalone Ramat 1974: 275–6).[129] More interesting, perhaps, is the semantic field which appears to emerge when they are assembled and studied as rhyming derivatives. One might characterize this field (or set of related and complementary meanings) as concerning the physical and structural aspects of the body, both in sickness and in health, the joining and the separating, the damage and the repair, of human tissue. It cuts clean across the three lexical fields used in this study, and my customary separation of anatomical, pathological, and therapeutical terms certainly tends to obscure this arguable semantic link between (e.g.) *commissura, iunctura* 'a joint' (anat.),[130] *fractura* 'a fracture',

[125] See further the lists in Giacalone Ramat (1974: esp. 261–3, 269–70).

[126] See Mørland (1932: 88–90).

[127] Alternating in the translations with *morsus*, and reflected in Romance (e.g. Ital. *morsura*).

[128] *Plasmatura* and *spargura* are made to originally Greek stems, the latter to that seen in Gk. *σπάργησις*, 'swelling, distention'.

[129] In this regard it is important to keep separate the smaller set of forms in *-ura* which appear from the 3rd century on (surviving sporadically into Romance) as doublets of (orig.) masc. *-or, -ōris*: so, e.g., *feruura, ardura/arsura, albura, nitura*; these are related to intransitive verbs (or adjectives: note Ital. *caldura*) and denote (abstract) states. On this group, which is not represented in our authors, see Corti (1953), Quellet (1969: 61 ff.) with bibliography, Giacalone Ramat (1974: 260).

[130] These two near-synonyms both occur in medical and veterinary texts. *Commissura* (which is not noted by André (1991: 78–80) in his section on joints) appears to be

luxatura 'a dislocation' (path.), and *(al)ligatura* 'a bandage', *incisura* 'an incision' (ther.). It would, of course, be safer and less contentious to divide this 'semantic field' into smaller and clearer lexical sets: joints in the body (*commissura, iunctura, sutura* 'cranial suture'), traumas (*combustura, fissura, fractura, luxatura, percussura, scissura, strictura*),[131] surgical incisions (*diuisura, incisura, laceratura*), and bindings and bandages (*alligatura, ligatura, sutura* 'suturing', *uinctura*).[132] This would, however, ignore the fact that the same formation is productive in late[133] medical and veterinary circles of words for healthy body-parts, traumatized body-parts, and physical means of repair of those body-parts. One might almost say that *-tura* is the nominalizing suffix of the 'hands-on' medical practitioner, especially perhaps of the (orthopaedic) surgeon.

While I have not noted instances of homoeoteleuton in *-tura* in our four authors, there are many striking examples in other medical and veterinary texts, which deserve to be illustrated:

Marcell. 36. 74 (*the very last clause of the whole work*) et luxa*turis* et frac*turis* solidandis utilissimum est;
Chiron 997 frac*tura* aut luxa*tura* si quod iumentum inciderit;
Cael. Aur. *Chron.* 1. 134 us*turam* atque inci*suram* partibus adhibens;
Oribas. *Syn.* 3. 42 omnes percus*suras* uel contri*turas*;
Oribas. *Syn.* 3 add. Aa p. 905 ad frac*turas* et ad luxa*turas* et ad flex*uras* nodorum.

5. 3. 4 *-TĀS, -ĀTIS*

The suffix *-tas* forms (1) abstract nouns on adjectival stems denoting especially properties (e.g. *sani-tas*); (2) certain social and official terms on stems of nouns denoting persons (e.g. *ciui-tas*). For present purposes only type (1) comes into question. New examples of this formation appear in good numbers in all periods of Latin, especially in late Latin (Hofmann

commoner earlier on (from Cic. *N.D.* 2. 139; 2. 150) but is still in Vindicianus (*Gyn.* p. 430 Rose (*G*)). *Iunctura* is favoured by Christian writers but is also used by Marcellus and the Latin versions of Dioscorides and Soranus. On the two words in the vets, see Adams (1995: 391 ff.).

[131] *Fixura* and *laesura* belong to this same lexical field but are to be found almost exclusively in Christian, rather than medical, writers.

[132] A further lexical set of nouns in *-tura*, relating to therapeutics, is of prepared medicinal substances (and their means of preparation): note, e.g., *colatura* 'a strained liquid' (Cael. Aur.), *cribratura* 'sieving' (Philum.), *elixatura* 'a boiled preparation' (Diosc.; cf. *elixura* in Apic.), *exsucatura* 'squeezing out' (Diosc.), *limatura* 'a fine powder' (Cass.), *mixtura* 'mixing; a mixture' (Cels.), etc.

[133] This chronology is confirmed by soundings in Pliny, who appears to favour the substantival neuter participle (5. 3. 1 above) for denoting traumatic injuries, and to use rather few medical words in *-tura*. It is noticeable that several of Pliny's words in *-tura* are agricultural terms relating to the treatment of trees: note e.g. *diuisura, circumfossura, circumcisura, incisura* (the last also of human *nerui* at *Nat.* 27. 123).

and Szantyr 1965: 743 c), and it remains productive in Romance, above all in French (cf. *santé, cité*).[134]

Nouns in *-tas* are numerous in all four of our authors, and in other medical writers as well,[135] especially in the field of pathology. I have noted a total of 48 'medical' examples in our four authors.

Celsus 20: (anat.) *facultas* ('concr.' + pl.), *uoluntas*; (path.) *asperitas* (concr.) 'a rough patch', *cruditas* (+ pl.), *cupiditas* 'an urgent physical need' [Cels.+], *debilitas, deformitas, difficultas* (esp. *urinae* [Cels.+]) (+ pl.), *foeditas, grauitas, hilaritas* (of a type of insanity), *imbecillitas, infirmitas, integritas* 'freedom from fever' [Cels.+], *leuitas (intestinorum* [Cels.+]), *maturitas* (of an ulcer, etc.), *raucitas* [Cels.+], *salubritas, sanitas, surditas.*

Scribonius 9: (anat.) *facultas (spirandi*, 31. 10); (path.) *callositas* (concr.) [Scrib.+], *deformitas, difficultas* (+ pl.), *diuturnitas, grauitas (capitis; uentris), imbecillitates* (pl. 63. 20), *raucitas (arteriae), siccitas (stomachi).*

Theodorus 27: (anat.) *extremitas (intestini)* (concr.), *facultas (lactandi)*; (path.) *aduersitas, asperitas, callositas, difficultas* (including *urinae*), *foeditas, fragilitas, hilaritas, imbecillitas, incommoditas* (+ pl.), *iniquitas, insomnietas, maturitas, necessitas* (+ pl.), *nimietas, nuditas, obscuritas* (+ pl.), *prolixitas, sanitas, siccitas, tarditas (ad sanationem), tenuitas, uentositas* 'faecal gas', *uetustas*; (ther.) *potestas* (of ingredients of remedies), *parcitas* (36. 8 *uini et carnium*).

Cassius 23: (anat.) *carnositas, neruositas* (concr.) 'the network of nerves', *summitas* (concr.) 'an extremity' (+ pl.); (path.) *ariditas, asperitas* (+ concr.), *callositas* (concr. + pl.), *debilitas, difficultas, ficitas* (concr.) 'a type of ulcer', *hilaritas, imbecillitas, insensibilitas, insomnietas, limositas* (concr.), *malignitas, natiuitas, nimietas, paruitas (pulsus), sanitas, saxietas* (concr.) 'a scirrhus, hard swelling', *siccitas, surditas, uentositas* (concr. + pl.).

It would seem, to judge from the number of forms listed above, that *-tas* is, in our four authors as in Latin generally, the unmarked nominalizer of adjectives as *-tio* is of verbs (in contrast with *-tudo* (5. 3. 5 below) and *-tus* (5. 3. 1 above), respectively). The presence in Cassius of seven forms in *-tas* with concrete meaning (cf. only one each in Celsus and Scribonius) is further illustration of this tendency of later Latin (cf. 3. 6. 1. 3, 5. 3. 1, and 5. 3. 3 above). Again, however, the first examples of concrete meaning are attested early: *asperitas* 'a rough patch' is already in Vitruvius (10. 15. 7) and Celsus, *callositas*, in Scribonius.[136]

[134] On this formation see Hofmann and Szantyr (1965: 743 c) and Leumann (1977: 373–5). There is to my knowledge no recent study of the suffix.

[135] See Vietmeier (1937: 19) on Caelius Aurelianus, and Adams (1995: 523) on Pelagonius.

[136] One may compare *facultas* already in Cicero (e.g. *Arch.* 2) with the meaning 'a faculty'

The lexical distribution of medical words in *-tas* is extremely uneven. In all four writers nearly every example relates to the field of pathology; (I have noted altogether 6 anat., 40 path., 2 ther.) This is a striking imbalance, quite out of proportion to the number of salient adjectives of quality in these three lexical fields of the medical vocabulary. Since it is not the case that other suffixes are used to redress the balance, so to speak, by nominalizing adjectives relating to anatomy and therapeutics, it is probable that the predominance of disease-terms in *-tas* has more to tell us about patterns of nominalization in medical discourse than about lexical affinities of the suffix (we shall return to this question in Chapter 6).

The nominalization of an adjective in *-osus* was always accomplished by means of the suffix *-tas*. Given the tendency to nominalize adjectives and verbs, and given that adjectives in *-osus* are extremely common in medical discourse, especially in the area of pathology (see 5. 4. 3 below), it is perhaps surprising that nouns in *-ositas* are not more frequent (*callositas* in Scribonius, Theodorus, and Cassius; *uentositas* in Theodorus and Cassius; *carnositas, lanuginositas, limositas, neruositas* in Cassius).

Two of the instances in *-ositas* (*carnositas* and *neruositas*) relate to anatomy. *Carnositas* is a hapax (Cass. 67. 12 cum uideris gingiuas bene purgatas, cephalico medicamento ad carnositatem uteris si forte minutam inueneris) and probably stands for Greek *σάρκωσις* '(the promotion of) the growth of flesh, fleshiness'. *Neruositas* has its predictable abstract sense 'fibrous toughness, strength' only in Pliny (*Nat.* 19. 9); otherwise it is known only as a late medical term with concrete meaning, the network of nerves, occurring four times in Cassius (e.g. 2. 16 [*cephalaea*] causatio neruositatis membranae pericraniu) and also in Caelius Aurelianus and the Latin versions of Soranus and Alexander Trallianus.

Two other anatomical terms in *-tas* are concrete, *extremitas* 'the end, extremity' (of the intestine at Theod. 122. 8) and *summitas* 'tip, extremity' (of the hands, feet, fingers, throat in Cassius[137]). They are synonymous with the substantival neuter of their underlying adjectives (*extremum*,[138] *summum*) and, along with *medietas* 'a half' (cf. Cass. t. 2. 3 ad [*capitis*] medietatis dolorem quem emicranion uocant), form a small set of nouns in *-tas* for concrete component parts.

Nouns in *-tas* relating to therapeutics appear to be very few. Apart from the metaphorical use of *potestas* to denote a 'power' or active property of a

(i.e. that which makes something doable), not strictly concrete, admittedly, but showing the same sort of semantic development from the purely abstract 'state of being able to be done, easiness'; cf. 3. 6. 1. 3b above, with n. 177.

[137] Six times in all, Cass. 60. 16 (expressly for Gk. *acra*), 81. 5, 121. 16, 156. 2, 170. 10, 175. 15. The *OLD*, s.v., records another concrete sense, 'surface', from Balb. *Grom.* (time of Trajan), and the abstract meaning 'culminating state' from Apul. *Pl.* 2. 5.

[138] Used as such by Theodorus at 167. 14 *extrema femorum*.

simple or compound remedy, I have noted only *parcitas* 'sparingness, moderation', which is used by Theodorus and Caelius Aurelianus with reference to the patient's diet (Theod. 36. 8 his uini et carnium parcitas indicenda est; Cael. Aur. *Chron.* 3. 118 ciborum parcitate; cf. Gk. *ὀλιγοσιτία*).[139]

Of disease-terms in *-tas* it is worth drawing attention to two groups, although these are not exhaustive of the examples listed above. There is a large and expanding group of words for symptoms or conditions, in which the underlying adjective is predicated of the afflicted body-part or function (e.g. *ariditas, difficultas, foeditas, grauitas, malignitas, raucitas, siccitas*), or of the patient (e.g. *cruditas, cupiditas, hilaritas, integritas, sanitas, surditas*), or of the pathological condition itself (e.g. *diuturnitas, prolixitas, uetustas*, all 'chronicness', and *maturitas, natiuitas, tarditas*)—note that all terms of this third type have to do with the origin and course of the condition through time. Then there is a smaller set of words which have the more general meaning of, roughly, 'disease, infirmity'[140] (e.g. *imbecillitas, infirmitas* in Cels., *difficultas* in Scrib. at 81. 30), of which Theodorus shows a characteristically rich variety (*aduersitas, imbecillitas, incommoditas, iniquitas, necessitas*),[141] while Cassius Felix has none.

Mention was made in 3. 6. 1. 3b above of *limositas* 'slime' and *uentositas* 'faecal gas, intestinal wind', the meaning of which is in each case very close to that of the base-noun (*limus, uentus*); the case of *neruositas* (above) is similar, although here the derivative has at least a plural-collective meaning ('the set of nerves'). There is a further lexical pair of concrete disease-terms in *-tas* (*asperitas, callositas*), which is augmented in Cassius by two 'rule-breaking' formations on substantival bases (*ficitas* and *saxietas*), translating two (rhyming) Greek terms (*sycosis* and *scirrosis*, respectively). *Ficitas*, an ulcer in the eye resembling a fig ripe to bursting, occurs only in Cassius, although he implies that it is an established term (Cass. 55. 2 ad sycosin, quam nos ficitatem dicimus). *Saxietas*, a scirrhus or hard swelling, occurs three times in Cassius (108. 12, 181. 9, 184. 13) and is found also in Vindicianus and Caelius Aurelianus (in both in the form *saxitas*).[142] Greek words in *-ōsis* are not often translated by a Latin form in *-tas*,[143] and this

[139] The word is rare but is found as early as Sen. *Cl.* 1. 22. 2 ciuitatis . . . mores . . . corrigit parcitas animaduersionum.

[140] On (near-synonymous) words for 'disease' in general see 3. 5 above, with the references in n. 15.

[141] Note also the rare form *aegrotitas* at *Antidot. Brux.* 177, p. 393. 10.

[142] The root, *sax-* 'stone', perhaps suggests rather Gk. *ακῦρος* masc. 'stone-chippings' than *ακίρος* masc. 'hard (perh. chalk) land overgrown with bushes, scrub' (or *ακίρρος* 'chalk' [*Suda*]; cf. *ακῖρός* 'hard, cancerous') but Erotian (*σ* 53, p. 82. 1–3 N) records *ακῦρος* and *ακῖρος* as synonyms; probably the two Greek words had fallen together. See André (1963: 61) and Skoda (1988: 267–71).

[143] See André (1971).

fact may further highlight the significance of this small morpho-lexical set of nouns in *-tas* denoting growths.

The increased tendency in the later medical writers to nominalize adjectives as well as verbs is not immediately apparent from the length of vocabulary lists alone: Celsus already has at least 20 'medical' nouns in *-tas* (not significantly fewer than the 27 in Theodorus and the 23 in Cassius). Nonetheless, I believe that this tendency is reflected in the later writers, both quantitatively, in the more frequent use of nouns in *-tas*, and qualitatively, in the nature of the nominalizations and in the appearance of new items. The more eye-catching nominal phrases in the later period, in which a noun in *-tas* replaces an adjective include:

Theod. 37. 16 si enim siccitas palpebrarum emerserit (cf. Cels. 7. 7. 15D si sicci oculi esse coeperunt).
71. 15 quae [*uulnera*] . . . procurata uetustate, chironia fiunt.
74. 8 in qua [*callositate*] semper est tarditas uulneribus ad sanationem.
76. 4 afferre utilitatem.

From among the new items in *-tas*, I draw attention, in closing, to the word *nimietas* 'excess, an excessive amount'. The utterly general and unremarkable meaning of this word makes it, to my mind, all the more interesting that it should so clearly favour medical texts and, in other authors, medical contexts:[144] of the 63 occurrences of the word that I have discovered, no fewer than 39 are 'medical'.[145] The most striking medical use of *nimietas* is with the genitive of the name of a symptom, notably one in *-or, -ōris*. Of this construction there is 1 example in Theodorus, 3 in Caelius and 6 in Cassius Felix, as well as 2 in Ammianus and an example in Du Cange, the latter in medical contexts. I quote a selection of instances:

Theod. 135. 16 sudoris feralis nimietate.
Cael. Aur. *Acut.* 1. 65 nimietate furoris (cf. ibid. 2. 35, 3. 47).
Cass. 133. 20 si nimietas fuerit doloris, Filonium antidotum in potione dabis (cf. 10. 10, 35. 10, 84. 15, 95. 8, 134. 21).

[144] Adjectival *nimius* is very common in medical and veterinary texts, especially in accounts of the causes of disease (excessive heat, cold, work, eating, drinking, etc.). For some examples from Pelagonius and brief discussion, see Adams (1995: 158, 212).

[145] Starting from the unpublished material of the *ThLL* in Munich, I have to date found the following examples of *nimietas*: first in Apuleius (7 times, at least 1 medical), Tertullian (1), Arnobius (3) of verbosity, Macrobius (1) of hyperbole, Ammianus (6, 2 medical), Palladius (7, 2 medical), Marcellus (3), Vindicianus (1), Theodorus (3), Caelius Aurelianus (14), Cassius Felix (8), the Latin Soranus (1), Anthimus (2), Anon. *De physiog. Lat.* (4), Cassiodorus (several); plus Du Cange (1, medical); there are 2, 1 medical in the *Lexicon mediae et infimae latinitatis polonorum* ed. M. Plezi (Bratislava, 1953–). *Nimietas* is not, according to the indexes and concordances, in Quintilian, Minucius Felix, Symmachus, the Latin Panegyrics, the *Codex Iustiniani*.

Ammian. Marcell. 19. 4. 2 nimietatem frigoris aut caloris, uel umoris uel siccitatis, pestilentias gignere philosophi et illustres medici tradiderunt.
id. 30. 6. 5 internis nimietate calorum combustis.
Vehementia Miracula B. Simon. de Lipn. vol. 4. Jul. p. 570 col. 1 ex nimietate doloris.

If the accumulation of collocations of this type is anything more than an accident, if *nimietas . . . -ōris* had a medical ring to it, the earliest example in the above list (Ammian. Marcell. 19. 4. 2) is presumably indirectly quoting already-established medical phraseology. How old was this collocation in medical circles? It is impossible to know, but it happens that one occurrence of *nimietas* in Apuleius is with a symptom-word in *-ōris*:

Apul. *Met.* 2. 16 formido ne neruus rigoris nimietate rumpatur,

with jocular reference to an erection. If part of the joke here is the use of a phrase with medical resonance, we have a *terminus ante quem* of about the middle of the second century.

5. 3. 5 *-TŪDŌ, -INIS*

The suffix *-tudo* forms abstract nouns on adjectival stems (e.g. *aegritudo* from *aeger*), rarely on adverbs (e.g. *necessitudo* from *necesse*) and nouns (e.g. *partitudo* from *partus*).[146] Till (1935: 57) lists a number of forms in *-tudo* that occur for the first time in Cato; Hofmann and Szantyr (1965: 744 d) characterize the formation as 'volkstümlich und archaisch'; Marouzeau (1949: 41) states that by the classical period *-tudo* was much in decline as a productive suffix. While Cicero (*N.D.* 1. 95) does not express a preference between *beatitas* and *beatitudo*, finding them both *omnino durum*, Aulus Gellius (17. 2. 19–20) in the aesthetic of his age senses that Cato's use of *duritudo* is better suited than *duritia* to *dicere grauius*, just as *sanctitudo* in Claudius Quadrigarius has *nescioquid dignitatis maioris* than *sanctitas* or *sanctimonia*. An archaic, and possibly poetic, feel to many words in *-tudo* may have motivated Tacitus' selection in the *Annals* of *claritudo* and *firmitudo* in preference to *claritas* and *firmitas* which he favours elsewhere (Löfstedt 1933–56: ii. 276–7). This is perhaps borne out by the findings of Sblendorio Cugusi (1991: 416 ff., 461–2) for Apuleius, who uses 37 nouns in *-tudo*, of which few are ordinary words and many show a 'preziosità' and 'ricercatezza'. But the suffix may have had the power to convey a stylistic effect already in Plautus' day, to judge from the emphatic use of *macritudo* in the following paratragic context:

[146] Sblendorio Cugusi (1991) offers a very full presentation of the material, word by word and author by author, chiefly from the beginning of the Latin record to the 2nd cent. AD but with some information on the later period.

Plaut. *Capt.* 133

HEGIO: quis hic loquitur?
ERGASILVS: ego, qui tuo maerore maceror
macesco, consenesco et tabesco miser;
ossa atque pellis sum misera—macritudine.

Löfstedt adds (ibid.) that forms in *-tudo* are common also in late Latin. Important for present purposes is Sblendorio Cugusi's comment (1991: 34) that these derivatives have a marked tendency to be used with special meanings, above all in technical terminologies, of which she mentions in first place the 'terminologia medico-agricola'.[147]

In terms of numbers of derivatives, *-tudo* is much less important than *-tas* (5. 3. 4) in making medical nouns on adjectival stems. Our four authors attest between them just 11 medical examples. But they merit brief mention here as 10 of these instances are names of physical or mental conditions and this argues for taking them closely beside our examples in *-edo* (5. 3. 6) as being typical of disease-terms. Of disease-words in *-tudo* I note the following from our four texts.

Celsus 5: *aspritudo, lassitudo, lippitudo, sollicitudo, ualetudo.*

Scribonius 3: *aspritudo, lassitudo, ualetudo.*

Theodorus 6: *aegritudo, inquietudo, lassitudo, plenitudo, sollicitudo, ualitudo*, and (anat.) *altitudo.*

Cassius 5: *aegritudo, fortitudo, habitudo, lippitudo, plenitudo*, and (anat.) *altitudo.*

Celsus is the first to attest *aspritudo* 'roughness' (3 times), 'a rough patch' (once)[148] and 'trachoma of the eye' (9 times). *Aspritudo* is the standard term for trachoma (Gk. *τράχωμα*) also in Scribonius and later medical texts to the end of antiquity, including inscriptions, among them the *signacula oculariorum* (*CIL* 13.10021). The latter corpus also attests as an absolutely standard pathological term the old word *lippitudo* (which is at least as old as Plautus; Sblendorio Cugusi 1991: 146 f.). In these same inscriptions, the term for clearness of vision is standardly, and very frequently, *claritas* and only once *claritudo* (no. 6); this might suggest that *-tudo* was more at home in words for diseased conditions. It is at least conceivable that Celsus is deliberately drawing attention to the suffix in his collocation of these two

[147] Listing under this heading *acritudo, amaritudo, aspritudo, firmitudo, fortitudo, lassitudo, lippitudo, maestitudo, sollicitudo, grauitudo, partitudo, scabitudo.* (According to Sblendorio Cugusi (1991: 349–51, 387), Vitruvius attests 17 and the Elder Pliny, 27 nouns in *-tudo.*)

[148] At Cels. 5. 28. 15, in this meaning synonymous with *asperitas*, which Celsus uses once only (6. 5. 1). In later medical writers trachoma is rendered by *asperitas (palpebrarum)*, e.g. Theod. 38. 11, Cass. 55. 1, *Antidot. Brux.* p. 365. 9. On *aspritudo* see Sblendorio Cugusi (1991: 73–4).

ophthalmic disease-terms at 6. 6. 27 nonnumquam etiam ex aspritudine lippitudo fit, ipsam deinde aspritudinem auget.[149]

Aegritudo is an old word for mental anguish, at home in the literary language from the time of Plautus and Pacuvius, and in the language of philosophy from Cicero (e.g. *Tusc.* 3. 61, for Gk. *λύπη*) until late imperial Latin.[150] It emerges, first in Pomponius Mela, Columella, and Pliny, as a synonym of *morbus* 'physical illness' (a technical use, according to Sblendorio Cugusi 1991: 51), and is one of the standard words for disease in later medical writers, including Pelagonius, Vindicianus, Theodorus, Caelius, Cassius, and the Latin versions of Soranus and Oribasius (see Adams 1995: 573 and notes).

Inquietudo is found only in Apuleius (*Mun.* 18) until much later, when it is found in Ammianus (28. 2. 4) and the medical writers Theodorus, Marcellus, and Caelius Aurelianus, meaning generally 'disturbance, indisposition'.[151]

Fortitudo is a perfectly common word,[152] but its use in Cassius Felix is very striking:

Cass. 128. 7 morbus regius est fortitudo fellis cum totius corporis insumptione.

Its apparent sense here is something like 'a strong attack' and this may be a unique use of the word, as the meaning 'physical force', said to be common in later Latin, will not really fit this context, and the passages quoted beside Cassius in the *ThLL* (s.v., 1170. 74 ff.) are not convincing parallels.

Valetudo can mean (1) good health, that is, the condition of being *ualens* [Plaut. +], (2) state of health, good or bad [Cic. +], (3) ill health [Afran. +]. All three uses are to be found in Celsus[153] and Theodorus.[154] In Scribonius I have found only senses (2) and (3),[155] and in the second *Antidotarium Bruxellense* only sense (3) 'disease' (p. 391. 20, 30). Sense (3) is the best attested in imperial and, especially, late Latin (see the figures in Sblendorio Cugusi (1991: 266 ff.) on the use of the word by (e.g.) Velleius Paterculus, Curtius Rufus, the Younger Pliny, Tacitus, Pseudo-Quintilian, and Justinus), though one should note also that it is the only sense of the word already in Vitruvius (1. 4. 4; 2. pr. 4), and dominant in Livy.

Habitudo 'condition, state', like *ualetudo* in the sense 'state of health', is

[149] Note also Cels. 3. 23. 3 [*cauendae*] lassi*tudines* sollici*tudines* negotia omnia.

[150] For details see Sblendorio Cugusi (1991: 47 ff.).

[151] So at Theod. 18. 6, 25. 16, 102. 14, 141. 7. The *ThLL*, s.v., 1803. 7 ff., gives also the meaning 'insomnia', citing *inter alia* Theod. 161. 18 si fluxus sputorum inquietudines et uigilias procurarit, although the two accusatives here need not be synonymous. See also Sblendorio Cugusi (1991: 129).

[152] Cf. Sblendorio Cugusi (1991: 116 ff.).

[153] I have noted of sense (1) 8, of (2) 36, and of (3) 14 occurrences.

[154] Sense (1): 189. 12; sense (2): 4. 11, 219. 4; sense (3): 1. 12, 145. 16.

[155] Sense (2): 3. 10 (*Epist.*), 4. 20 (*Epist.*), 61. 6; sense (3): 1. 110. 13.

essentially neutral, denoting a parameter, a state of the body that may be healthy or unhealthy. The word is very rare before Apuleius,[156] and is thereafter especially common in late and Christian Latin and is found among the medical writers in Marcellus, Caelius Aurelianus, Cassius Felix, and the Latin Oribasius. In Cassius it forms part of a pathological term in the phrasal term *mala habitudo corporis* which renders Greek *cachexia* 'a malaise, a bad habit of the body'.[157]

I deal more briefly with our remaining three words. *Lassitudo* is common up to, and including, the time of Apuleius, although in the first century it is largely confined to Celsus, Scribonius, Columella, and Pliny, and the letters and dialogues of Seneca. This distribution, and the fact that the word reappears in Chiron, may hint at a medical association, but *lassitudo* is not quoted from other late medical texts and the *ThLL* article implies that the word is rare after the second century AD. *Plenitudo*, conversely, is very rare before AD 200 and is then most frequent as an item of Christian Latin vocabulary, in the sense of spiritual fullness; it is also, however, very well attested, in a physical sense, in late medical/veterinary texts (esp. with the genitive of a body-part or body-fluid, e.g. *capitis, corporis, sanguinis*, or *humoris*).[158] *Sollicitudo*, finally, a favourite word of Cicero, is attested from Plautus and Terence until late antiquity. Celsus uses *sollicitudo* (4 times) in an unremarkable way, of the anxiety of the patient; Theodorus, on the other hand, attests a quite different use of the word, as one of his many synonyms of *morbus*: note, for example, 149. 1–2 in hac enim sollicitudine uini penitus praesumptio prohibenda est.[159]

Other disease-words in *-tudo* include:[160] *tabitudo* (Plin. *Nat.* 22. 129), *scabitudo* (figuratively of the mind at Petron. 99. 2) and later *scabritudo* (*Med. Plin.* 1. 18, Marcell. 8. 195, Ps.-Apul. *Herb.* 74. 1), *laxitudo* (Chiron 763, once in Jerome and several times in the Latin Dioscorides), *muc(c)itudo* (only at Chiron 169 *muc(c)itudo humoris*),[161] *raucitudo* (see

[156] *Habitudo* is found only in Terence (*Eun.* 242) and the *Rhet. ad Her.* (4. 10. 15) before Apuleius, who uses the word 10 times.

[157] So, too, at Ps.-Soran. *Quaest. med.* 199 (cf. 198). Celsus has always *malus habitus corporis*, a derivative in *-tus* marking, as often, a term that belongs essentially to the area of physiology (cf. 5. 3. 1 above). Compare the collocation of *habitus et habitudo* 'habit and countenance' at Apul. *Met.* 1. 20 and 9. 39.

[158] The material of the *ThLL* in Munich includes examples from Chiron, Vindicianus, Vegetius, Marcellus, Theodorus, Caelius, Cassius, the *Phys. Plin. Bamb.*, and the Latin versions of Hippocrates, Oribasius, and Rufus.

[159] I think that the meaning 'disease' is at least as likely as 'anxiety' also at Theod. 150. 2–3 scotomaticorum et epilempticorum paene similis est in isdem casibus sollicitudo; contrast Sblendorio Cugusi (1991: 244).

[160] For further references on these words see Sblendorio Cugusi (1991), s.vv.

[161] The *ThLL* glosses this hapax as 'mucida materies'; Adams (1995: 524) allows that it 'may have been a medical/veterinary coinage' and notes similar associations for *laxitudo*.

Sblendorio Cugusi 1991: 469), *limpitudo* 'a shining quality' (Latin Diosc. 5. 157, p. 238. 28),[162] *uiscitudo* (Diosc.) and *siccitudo* (Latin Oribas.).

The clustering of derivatives in *-tudo* in the vocabulary relating to disease is unmistakable, but, as with *-tus* and *-or* (5. 3. 1 and 5. 3. 2 above) and *-(it)ies* (5. 3. 8 below), so in the case of *-tudo*, we should be prepared to recognize, in addition to this clear lexical function, a stylistic point to the continued use and proliferation of these forms in the medical prose of late antiquity.

5. 3. 6 *-ĒDŌ AND -ĪDŌ, -INIS*

The suffix *-edo* formed abstract nouns, originally as *-do* on verbal stems in *-ē-* (e.g. *torpedo* 'lethargy, numbness' from *torpēre*: cf. Gk. *ἀλγηδών* from *ἀλγεῖν*),[163] and secondarily on adjectival and nominal stems (e.g. *dulcedo* 'sweetness; irritation'). Leumann (1977: 367–8) observes that these formations denote especially conditions of physical and mental irritation or discomfort. The total number of formations in *-edo* and *-ido* in Latin is small; I have counted (in Gradenwitz 1904) 33 in *-edo* and 8 in *-ido*. Some forms, however, appear for the first time in later writers.

In this instance, in our corpus, it is only in Theodorus and Cassius that a rhyming group of disease-terms strikes the eye and ear.[164] Celsus attests only the old word *grauedo*, which he shares with Scribonius. Both use it with its old meaning 'cold in the head' (since Plaut.; Cels. 2. 1. 14, 4. 5. 2, *al.*, Scrib. ind. 8. 8, 32. 12); Scribonius attests also the more recent sense 'a feeling of weight, oppression' (first in Scribonius, at 47. 23, 50. 11, of the stomach). Furthermore, Celsus uses *torpor* rather than *torpedo* for 'numbness, lethargy', and, although *dulcedo* 'irritation' is attested already in Grattius (408; and possibly Laevius, *Poet.* 27. 6: cf. *ThLL*, s.v.), Celsus uses it only with the meaning 'sweetness'.[165] *Aspredo* in Celsus is no more than a conjecture of Daremberg (at 5. 28. 2B) and is probably to be rejected from this text, although it is read in Chiron (see below). Scribonius uses also the word *libido* in the sense 'a strong urge, need' (at 60. 14, 72. 14, to defecate). A further relatively old pathological item is *uredo* 'a burn, burning itch' applied to humans in Pliny (*Nat.* 9. 147) and, figuratively of love, in Apuleius (*Met.* 4. 31) but of the scorching of plants already in Cicero (*N.D.* 3. 86, where it rhymes with *grando* 'hail').

[162] Cf. *limpido* at *Antidot. Brux.* p. 371. 11; compare the doublets *oscetudo–oscedo* (below).

[163] On the early history and prehistory of the formation, see now Meiser (1993: 264 ff.).

[164] On the other hand, there is surely a medical ring to the humorous nonce-formation *absumedo* at Plaut. *Capt.* 904 *quanta sumini absumedo*, in a series with *pestis, labes, calamitas, lassitudo*; and cf. *frigedo* 'bodily cold' at Var. *Men.* 77.

[165] Although there are perhaps overtones of the developed sense at Cels. 5. 26. 10 *in uentrem cubandi dulcedo*.

Confirmation of a medical flavour to forms in *-edo* are two striking formations in Apuleius and Aulus Gellius, respectively, which merit quoting in context. Apuleius is describing some diseased and badly-treated horses and mules:

Apul. *Met.* 9. 13 ceruices cariosa uulnerum putr*edine* follicantes, nares languidas assiduo pulsu tuss*edinis* hiulci.

Tussedo is a hapax, clearly made to rhyme with *putredo* in the previous clause; *putredo* and *nigredo*, too, are attested first in Apuleius. A second pathological hapax[166] is Gellius' *oscedo* 'a morbid tendency to yawn, the gapes, *Gähnsucht*':[167]

Gel. 4. 20. 9 [*A man who had yawned in court swore*] inuitissimum sese ac repugnantem oscitatione uictum tenerique eo uitio quod 'oscedo' appellatur.

Theodorus attests 4 disease-terms in *-e/ido*: *acredo, grauedo, putredo* (pl. at 69. 18), and *crepido* 'a crack, split in soft tissue'.[168] Cassius Felix has 5 examples: *acredo, grauedo, nigredo, putredo*, and *raucedo*. Other late pathological terms include:[169] *aspredo* (Chiron 53); *faredo*, a type of ulcer (*Phys. Plin.*); *sordedo* (Oribas. *Syn.* 2. 56. 4 Aa p. 120. 5M, 2. 56. 10 Aa p. 121. 7M; cf. Mørland 1932: 92), *serpedo*, a skin-disease (Isid. *Orig.* 4. 8. 5); *albedo* (*Antidot. Brux.* p. 365. 10); and *scabredo* 'scabbiness, itch' in Saint Jerome, in close proximity to *calig(in)o, -are* and *impetigo, -inis*, two other disease-words bearing a 'medical' suffix:

Hieron. *Vita Hilar.* 11 Migne = 5. 4 Bastiaensen–Smit sentiens autem caligare [caliginare *R*] oculos suos et totum corpus impetigine uri et pumicea quadam scabredine contrahi, ad superiorem uictum adiecit oleum.

There is also the hapax *corcedo*, clearly an enlarged form of the disease-term *corcus*, in a spell at Marcell. 22. 1 *corce corcedo stagne*.

Even in medical and veterinary writers, not all instances denote diseases or irritations: note, for example, *albedo* 'whiteness' (e.g. Chiron 533), *pinguedo* 'richness' (e.g. Plin. *Nat.* 18. 304), 'fatness' (Pelag. 24. 4, *al.*), *salsedo* 'saltiness' (Pallad. 11. 14. 2).[170] Nonetheless, especially in view of the small total of such formations in extant Latin, even a handful of late

[166] But cf. *CGL* 2. 476. 4 *oscetudo χάσμησις*; compare the doublets *limpido–limpitudo* (above).

[167] See Holford-Strevens (1988: 104, 224–6).

[168] The last (only in Theodorus, 93. 16, 165. 6) is presumably based on the *crep-* in *crepo, -are* 'to break (with a noise), pop, burst' and *crepulus* 'split open' (cf. Chiron 664).

[169] Cf. *rubedo* 'redness' (Firm. *Math.* 2. 12).

[170] Note also the loanword *terēdō* (Gk. *τερηδών*) [Vitr. +], applied to various species of destructive worm-like creatures, including ship-worm, clothes-moths, wax-moths and maggots, and appearing as a kind of canker of the teeth at Cass. 68. 1 [*tumor*] qui ipsam buccam perforet, quod Graeci teredona uocant.

'pathological' entries such as those in Theodorus Priscianus and Cassius Felix indicate an association between motivated words in *-edo* and disease. I have noted one probable instance of deliberate pairing of rhyming derivatives:

Theod. Prisc. 165. 6 [*the first two steps leading to internal bleeding*] fit primo crep*ido*, fit insequenti putr*edo*.

Ernout (1941: 191) observes the existence of Latin doublets in *-go* beside a number of forms in *-e/ido* (e.g. *albugo/albedo, robigo/rubedo, serpigo/serpedo, urigo/uredo*), and it is to the *-go* suffixes that we now turn.

5. 3. 7 *-ĀGŌ, -ĪGŌ, -V̄GŌ, -INIS*

The suffix *-ago* is seen in a large number of derivatives, nearly all denominative, belonging to many different lexical fields (note e.g. *capillago* 'the hair', *similago* 'fine wheat flour') but including especially names of plants (e.g. *plantago* 'plantain') and diseases (see below); one or two forms in *-ago* may be deverbative (e.g. *uorago* 'chasm', *forago* '?awl'). In *-igo* are formed nouns with abstract and concrete reference mostly on stems of nouns (e.g. *mell-igo* 'bee-glue') and adjectives (e.g. *rob-igo* 'rust; blight on corn'), but also to verbs, primarily in *-īre* (e.g. *origo* 'source', *prurigo* 'itch'; but cf. *urigo* 'a burning itch'). Finally, *-ugo* forms nouns exclusively on nominal stems (e.g. *ferr-ugo* 'iron-rust'; *asper-ugo* a species of the plant *lappago*).[171]

De Meo illustrates the *-go* suffixes in his chapter on the language of agriculture (1986: 45–7), laying stress on the number of names of plants,[172] and of diseases of animals and plants that are so formed. Ernout (1941: 189–191) and Adams (1990: 122, 124)[173] emphasize the role of these suffixes in forming names of human and animal diseases, and it is this that I should like to develop. This is again a small group of words in our medical texts but it belongs to a larger and quite prominent clustering of words in *-go* which denote diseases, including human diseases, especially *skin*-diseases, and especially in *-igo*.[174]

This morpho-lexical association emerges not only from reading medical texts but also from findings based on all the words given by Ernout (1941). He discusses a total of 102 words (58 in *-ago*, 34 in *-igo*, 10 in *-ugo*). Of this

[171] For more generous illustration see Leumann (1977: 368–9).

[172] Cf. Ernout (1941: 190) and (1957*b*: 136–8), and Fruyt (1989: *passim*).

[173] Cf. Adams (1995: 337): '[*-go*] is another old formation, perhaps again no longer productive by the late period, which traditionally included pathological terms', although he finds (1995: 523) that in Pelagonius these suffixes form 'a mixed bag' of derivatives.

[174] With the favouring of esp. *-igo* by disease-terms, compare the productive group of 'illness' verbs in *-io,-ire*, e.g. *febrire, prurire, singultire, tussire*; cf. Leumann (1977: 556) and below. Contrast the view of Adams (1990: 124, n. 31) that the three suffixes were 'in free variation'.

total, 31 denote some kind of disease, be it in plants, animals, or humans, (6 in *-ago*, 22 in *-igo*, 3 in *-ugo*); and, of these 31, 24 denote specifically types of skin-disease, surface blight, and the like.[175] The 30-odd in question are the following (for references and discussion of most individual forms, see Ernout, s.vv.).

-ago:

surface affections: *coriago* 'a skin disease of animals', *mucilago* 'mould', *patago* '?an open sore',[176] *pustulago* 'a pustule', *putrilago*[177] 'rottenness, putrefaction';[178] other diseases: *lumbago* 'lumbago', and (not in Ernout) *titillago* and *uerago*, both in Chiron (Adams 1995: 338).

-igo:

surface affections: *albigo* '?leucoma',[179] *aurigo* 'jaundice', *depetigo* 'a kind of skin-eruption', *impetigo* 'a kind of skin-eruption',[180] *intertrigo* 'a sore place caused by rubbing', *lentigo* 'a pimple, freckle',[181] *mentigo* 'an eruption on the mouth of sheep', = *ostigo*,[182] *pendigo* 'a type of superficial abscess', *porrigo* 'a scaly skin-condition', *prurigo* 'irritation of the skin', *robigo/rubigo* 'rust; a blight on plants; a foul deposit in the mouth or on the teeth, tartar; a corroding sore',[183] *scalpurrigo* 'itching', *serpigo* 'a skin-disease, herpes', *uitiligo* 'a number of forms of skin-eruption', *urigo* 'a burning itch';[184] other diseases: *caligo* 'mistiness of

[175] The *OLD*, s.vv., associates *-igo* with disease-terms and *-ugo* with surface accretions.

[176] This form cannot be regarded as entirely secure. The meaning is uncertain but made plausible by Adams (1990: 121–5), who suggests analysing the word as *pat-* 'to open' + *-āgo* (rather than, with Ernout (1941: 172), as a replacement of *patāgus*, a hapax of unknown meaning, taken to be a loan from Gk. *πάταγος* 'clatter, crash'!). The noun *patago* is attested only in glosses but its existence is supposed also from the verb *pataginare* 'to suffer from a *patago*' at Pelag. 335. Cf. Adams (1995: 497). It is the only derivative with a single light syllable before the suffix.

[177] If the base of this word is *putris*, the extended suffix *-ilago* presumably arose through morphological resegmentation. Leumann (1977: 369) refers the suffix to the word *similago* (cf. Ernout (1957*b*) but for pathological terms we should bear in mind *mucilago* (close in meaning to *putrilago*), of which the base (*mucil-*) may have been taken from the adjective *mucilentus*.

[178] For another surface phenomenon note *oleago* (*CGL* 2. 588. 29 nitor in corpore ex oleo uel sudore).

[179] Only at Chiron 77, the usual form being *albugo*.

[180] Of animals (e.g. Col. 6. 31. 2) and plants (e.g. Plin. *Nat.* 17. 223), as well as of humans (first in Cels., though Ulp. *Dig.* 21. 1. 6. 1 attributes *impetiginosus* to the jurist Trebatius (1st cent. BC)).

[181] First in Pliny (e.g. *Nat.* 20. 9); it is probable that Celsus used *lenticula* with the same meaning.

[182] *Mentigo* and *ostigo* are given as synonyms by Columella (7. 5. 21), who attributes the latter to *pastores*.

[183] On the skin of sheep at Calp. *Ecl.* 5. 76.

[184] For another surface phenomenon note *clustrigo* (*CGL* 3. 599. 20 quod super lacte nat

the eyes',[185] *claudigo/clodigo* 'lameness', *esurigo* 'a strong urge to eat', *surdigo* 'deafness', *tentigo* 'priapism', *uertigo* 'dizziness'.[186]

-ugo:

surface affections: *albugo* 'leucoma; scurf, dandruff',[187] *aurugo* 'jaundice', *ferrugo* 'iron-rust'.[188]

Turning now to our four authors, we find a total of 11 different disease-terms in *-go* distributed as follows.

Celsus 5: *caligo, impetigo, porrigo, prurigo, uitiligo.*

Scribonius 6: *aurigo, impetigo, intertrigo, porrigo, prurigo, uertigo.*

Theodorus 2: *caligo, impetigo.*

Cassius 7: *aurugo* (*v.l. aurigo*), *impetigo, lentigo,* (*mucilago*, presupposed by *mucilaginosus* at 122. 11), *pendigo, prurigo, uertigo.*

Of these 11 words, all show *-igo* except *aurugo* and *mucilago*. It may be relevant that the latter belongs to a different lexical field; at all events, it is confined, both noun and adjective, to late medical texts.[189] The form *aurugo* is attributed to Varro (*Gram.* 415) and is said by Ernout (1941: 184) to be more common than *aurigo*. If *aurigo* is the rarer form overall in our Latin record, it is all the more striking that secure or probable instances of it appear above all in medical writers, including Scribonius Largus (59. 13; 67. 12, 13), Gargilius Martialis (*Med.* 8), Marcellus (20. 17, 29. 11; *v.l.* at 22. 20, 27. 7), Pseudo-Theodorus (*Simpl. med.* 403. 15, 405. 12, 419. 7), Caelius Aurelianus (*Chron.* 3. ind., 3. 67, t. 3. 68) and the *Antidotaria Bruxellensia* (p. 379. 10, 391. 3, 399. 21). It is a variant (reported by Rose for *c*) also at Cassius Felix 128. 10, where Rose prints *aurugo*. Like the hapax *albigo* at *Mulomedicina Chironis* 77, the variant *aurigo* may be a deliberate assimilation of an earlier form in *-ugo* to the morpho-semantic group of surface affections in *-igo*.

Of the 10 forms in *-igo* in our authors, 8 denote morbid surface lesions,

quasi oleum); the same idea is arguably present even in *scaturrigo*, a gushing discharge of water on the surface of the ground, a bubbling spring (metaphorically of a swarm of ants).

[185] This can also be regarded as a surface affection; see below.

[186] Derivatives are attested only from the word in the medical sense (*uertigino, -are* in Chiron, *uertiginosus* in Cass.).

[187] But 'the white of an egg' at Cass. 63. 5. Pliny uses *albugo* about 28 times to denote an eye-disease (e.g. 20. 40, 21. 171, 22. 22, 24. 19, 28. 65, 29. 118) but apparently only once to mean scurf (26. 160 *albugines in capite*).

[188] *Lanugo* 'the first down on the face of the pubescent male' is, of course, no pathological condition but here again we see one of this group of suffixes being used to form a word for a growth on the skin-surface.

[189] *Mucilago*, to Anon. *De ues. uit.*, the *Antidot. Brux.*, the Latin Philum., and the Latin Oribas.; *mucilaginosus* to Cass. and the Latin Diosc.

affections, or sensations (*prurigo*). *Caligo* may possibly be seen in the same way. Some of the language associated with *caligo*, not only in medical writers, clearly implies that it is something laid over the eyes rather than a condition internal to them.[190] This leaves only *uertigo* outside this formal-semantic grouping.[191]

A good handful of names of surface affections in *-igo* make their first appearance relatively late in the Latin record. This implies that, for certain speakers at least, the formation was clearly motivated, marginally productive, and anything but moribund even in the later imperial period; (contrast Adams 1995: 337.) The latecomers I have in mind include, apart from *albigo* (above): *lentigo* [Plin. +], *pendigo* [Veg. +], *uermigo* (only in Chiron; ignored by Ernout), *urigo* (Veg.; on its use in a sexual context see below), *serpigo* (very late; medieval).[192] Two other disease-terms in *-igo*, both of them late, rare, and confined to veterinary/medical texts, denote other kinds of affliction: *clodigo/claudigo* 'lameness' (Col. (ed. cj.), Chiron, Veg.), *surdigo* 'deafness' (Marcell. t. 9, 9. 66, 71). These might suggest a widening of the perceived lexical function of the suffix to include other areas of the vocabulary relating to disease.

It is striking that Columella expressly attributes no fewer than four words in *-go* to *pastores* or *rustici* (4. 24. 4 *suffrago* 'shoot, sucker'; 6. 5. 3 *consiligo*, a root; 6. 13. 2 *coriago*, a disease of cattle; 7. 5. 21 *ostigo* = *mentigo*, a disease of sheep). Adams (1995: 344, 346, 567) infers that the formation was once productive in peasant speech, and indeed *mentigo*, *ostigo*, *coriago*, and *clodigo* are not attested of humans. Rural dialects may have been the source of the many plant-names in *-go* but we have, I think, no reason to suspect a rustic origin of disease-terms in *-igo*. Names of diseases, especially of surface affections, in *-igo* constitute a striking morpho-semantic group more in human than in animal (or plant) pathology. The only one of Columella's 'rustic' or 'shepherds'' words to fall within this group—*ostigo*—is presumably the result of a pretty crass resegmentation of its motivated and well-formed (urban?) synonym *mentigo*: a surface affection (*-igo*) on the chin (*ment-um*), reanalysed as *men+tigo*. It seems to me more probable that the notable lexical sets that we have seen in this section evolved in interactions within literate communities of doctors and of

[190] For example, *offundere oculis* at Liv. 26. 45. 3, figuratively of the mind at Cic. *Pis.* fr. 3, *Tusc.* 5. 6.

[191] It may be connected by way of *caligo*, as *uertigo* is associated with *tenebrae oculorum*, a near-synonym of *caligo* at Scrib. 52. 7 quibus subito tenebrae obuersantur oculis cum uertigine quadam, and Plin. *Nat.* 7. 41 oculorum uertigines tenebraeque.

[192] Cf. Ernout (1941: 181) and Du Cange, s.v. Note its presence in the medieval Spanish list of medical synonyms edited by Mensching (1994), p. 165, line 30 zerna, i. infirmitas que dicitur serpigo uel impetigo. It is reflected also in Ital. *serpigine*, Prov. *serpige*.

veterinarians, either with a relation of dependence of one group on the other,[193] or independently in each.

I have noticed only two possible instances of deliberate accumulation of the *-go* suffixes in our four authors. The better of the two is in Scribonius:

Scrib. ind. 15. 32 ad lepram, quae quasi impet*igo* est cum prur*igine* cutis, simplicia quattuor.

Two disease-terms in *-igo* occur at a short interval also in Celsus:

Cels. 2. 8. 18 dolores capitis quibus oculorum cal*igo* et rubor cum quadam frontis prur*igine* accedunt,

but I doubt whether this is a conscious pairing of rhyming derivatives in a 'marked' suffix. A better case might be the coupling of the two eye-diseases *albugo* and *caligo*, which Pliny goes in for at least three times in his 'medical' books (e.g. Plin. *Nat.* 24. 19 *oculorum albugines caliginesque inunxere*; cf. 28. 171, 32. 98). Nor can I adduce any artificial or humorous formations in *-igo* to support the notion of the formal-semantic grouping developed above. There are, however, a few apparently artificial words in *-igo* which denote itches or urges and are most probably analogous on *prurigo*. These include: *esurigo* (Var. *Men.* 521); *scalpurrigo* (Solin. 32. 25); *tentigo* in the satirists (Hor. *S.* 1. 2. 118, Mart., Juv.);[194] *urigo* of a sexual itch in Apuleius (*Met.* 1. 7, 8. 29).[195]

5. 3. 8 *-IĒS* AND *-ITIĒS*

The suffix *-ies* formed abstract nouns on a verbal base (e.g. *scabies* 'itch' on *scabere* 'to scratch': not productive in Latin); and concrete and abstract nouns on nominal stems (e.g. *materies* 'matter, substance'; *pauperies* 'poverty', *luxuries* 'luxury'), the latter sometimes alternating with forms in *-ia* (cf. *materia*, *luxuria*). The longer suffixes *-ities* and *-itia* formed abstract nouns to adjectives, denoting especially properties (e.g. *amarities* 'bitterness', *stultitia* 'foolishness'). Forms in *-ities* had become very rare by the classical period, yielding, already in archaic Latin, and especially in prose, to *-itia*. Of these three suffixes only *-itia* is regularly productive of new forms in post-classical Latin.[196]

Words in *-ies* and *-ities* may have had a poetic ring to them, especially if a variant in *-ia* or *-itia* was available. Forms in *-ies* are absent from Plautus,

[193] On linguistic transfers from human to animal medicine, see Adams (1995: 349, *al.*).

[194] *Tentigo* occurs also much later, in Caelius Aurelianus (*Acut.* 3. 115, *Chron.* 1. 68)!

[195] And later possibly in Pelag. 234 (so Adams 1995: 338, 523; ignored by Ernout), unless *uligo* is preferable, as at Chiron 53–4 (so Fischer 1980: ad loc.); cf. Veg. *Mulom.* 3. 52. 1.

[196] For more generous illustration see Leumann (1977: 285, 296). Hofmann and Szantyr (1965: 744 g). On the history and prehistory of Latin *-(it)ies* see Brosman (1987) and Schrijver (1991: 382–90).

Terence, and Cato (Swanson 1962: 53); those in *-ities* are hardly to be found in classical prose but are commoner in poetry, especially in Vergil, metrical considerations evidently playing a part in hexameter poetry. Lucretius, too, attests some striking examples.[197] Marouzeau (1949: 47) cites Charisius' view (1. 57. 4 ff. (71. 6 ff. Barwick)) of the flavour of *canities* as compared with *canitia*: canities autem poetico decore in leuitatem soni corrupta est; porro prosae orationi, πεζῷ λόγῳ, cum poetica mollitia parum conuenit.

Another possible overtone of words in *-(it)ies*, instead of or in addition to poeticism, seems to have been stately archaism. It is worth recalling the aesthetic reaction to them of the Elder Pliny as reported by Charisius: 1. 118. 15 ff. (151. 18 ff. Barwick) 'amicities', ut 'planities', 'luxuries', 'mollities' et similia, ueteri dignitate. According to Marouzeau (1949: 47), most of the later formations in *-ities* are to be found in Apuleius, 'imitateur prétentieux de la langue ancienne'. Marouzeau continues (ibid.), 'c'est seulement grâce à une affectation d'archaïsme que cette formation menacée se trouvera survivre jusqu'à la fin de la latinité'. Marouzeau was presumably thinking of archaizing literary writers such as Ausonius[198] and Symmachus[199] rather than the corpus of late medical and veterinary writers, although, as we shall now see, the latter group deserves some of any credit due for seeing these formations through to the end of antiquity.

Although, as noted, *-ies* is a vestigial formation, barely productive—indeed, practically obsolescent—in the historical period, the medical vocabulary preserves a small but striking group of disease-words in *-ies*, some of which belong to a lexical field that may be characterized as states of decay of (human) tissue. The significance of this group is enhanced by the fact that a few new medical examples seem to have been created in the imperial period.

In our four authors I note the following instances.

Celsus: *caries, macies, materies* 'morbid matter', *sanies, scabies*.

Scribonius: only *scabies*.

Theodorus: *macies, sanies, scabies*.

Cassius: *macies, sanies, scabies*, and *cantabries*.

At the core of this morpho-semantic group are *macies, sanies*, and *scabies*, all of which are ancient,[200] appear in literary texts in the classical period,[201]

[197] Including *amicities, durities, notities, spurcities*.

[198] Note e.g. *Prof.* 10. 13 *puerities*.

[199] Note e.g. *Epist.* 5. 85. 3 *luxuries*, *Epist.* 9. 17 *segnities*; cf. Haverling (1988: 72).

[200] *Macies* is first in *Incertorum fragmenta tragica*, Lucretius, Cicero; *sanies* in Ennius, Pacuvius, Cato; *scabies* in Lucilius, Cato, Varro.

[201] All three occur in Vergil and Horace, for example; *macies* and *sanies* are in Lucretius and Cicero, *scabies*, in Tacitus.

and persist largely in veterinary[202] and medical texts in late antiquity.[203] Much the same is true of *pernicies* and *rabies*, although they are more widespread in the later period, not being confined to medical authors.[204] It seems that Celsus is the only medical writer to use the word *caries*, and his repeated application of it to human bone is apparently without parallel.[205] On the other hand, the fifth-declension form *materies* (in the sense of liquid matter, esp. morbid matter, in the human body), is cited by the *ThLL* also from Vindicianus and Caelius Aurelianus.[206] I would draw attention also to two further forms in Columella, which show the same suffix and some, at least, of the same semantic features: *subluuies* 'fouling' (of the hoof, Col. 7. 5. 11, 12, twice paired with *intertrigo*) *proluuies* 'a (morbid) flux' (Col. 6. 7. 1, 4, from the intestine).

The view that these words retained some degree of motivation, and their suffix some semantic association with the idea of decay, receives support in the late appearance of *uermicies* and *cantabries*. *Cantabries* (= Gk. *pityriasis*, built on *cantabrum* 'bran' (= Gk. πίτυρον)) denotes a skin-disease of the scalp characterized by the production and shedding of scales resembling flakes of bran. The word occurs just twice in Cassius Felix (t. 13. 9, 13. 10) and in two late glosses (3. 598. 34, 3. 601. 15), where it is equated with the Latin disease-term *furfures* (Plin. *Nat.* 20. 101, *et saepe*, and later medical writers). *Vermicies* occurs only in the *Mulomedicina Chironis* (697) and is one of several expressions for a condition affecting the hoof of a horse, a condition characterized by the growth of a crumbly excrescence which

[202] From Pelagonius, Adams (1995: 524) cites *macies, rabies, sanies*, and *scabies*; Chiron attests *sanies* and *scabies*, and *uermicies* (below).

[203] All three occur also in e.g. Caelius Aurelianus; the Latin Soranus, on the other hand, has none of them. According to the material of the *ThLL* in Munich, *sanies* is found (after the period covered by the *OLD*) outside medical/veterinary works only in Petrus Chrysologus, Gregory the Great, and Isidore, *scabies*, in the *Vetus Latina*, Ausonius (figur.), Jerome, Augustine, the *Vitae patrum*, and Pseudo-Origen, *Tractatus*.

[204] The material of the *ThLL* in Munich includes instances of *pernicies* from *Med. Plin.*, Chiron, Pelagonius, Marcellus, the *Phys. Plin. Bamb.*, and the Latin versions of Hippocrates and Pseudo-Dioscorides.

[205] The *ThLL*, s.v., 456. 51 ff. cites examples with reference to the human body only from Lucilius, Celsus, and a scholiast to Horace. *Caries* 'a dry rot' is an old word (first in Turpilius and Afranius), which is used especially of wood (from Vitruvius and Ovid through to Tertullian, Ammianus, Jerome, and Isidore), also of soil (Columella), and, by transfer of sense, of the taste of old wine (Plin. *Nat.*), of inactivity (Symmachus), of neglect (Ammianus). It is clearly stylistically elevated: note its appearance in this inscription from Africa commemorating the restoration of a temple of Venus: *CIL* 8. 12285 ueternosa caries squalorque taeterrimus ita possederat [*templum*].

[206] See the *ThLL*, s.v., 459. 8 ff.; other medical uses of *materia, -ies* at 457. 76 ff. (the nutritional substance of food) and 458. 1 ff. (of medicaments). Servius remarks that *materies* at Verg. *A.* 11. 328 is *antique dictum*, and the editor of the *ThLL*, s.v., 448. 29 ff., notes that '-ies praeualet apud script. ueteres et poetas differentia sensus nusquam intercedente'.

in treatment has to be burnt back until sound bone is reached. Adams (1990: 125–31) has saved *uermicies* and its synonyms from lexicographical oblivion. He argues convincingly (1990: 127–8) that *uermicies* is morphologically *uermic+ies*, rather than *uerm+ities* with a misspelling. Whatever the precise genesis of the stem *uermic-*, we have here a second late-imperial (horse-)medical hapax in *-ies* for a disease involving decay of tissue.

To the same semantic field belong the few medical words in *-ities*. It is probable, I would suggest, that it was the influence of disease-terms in *-ies* that accounted for the unexpected selection of a handful of forms in *-ities* in preference to their otherwise victorious rivals in *-itia*. Celsus attests *durities* (often with the concrete sense 'an induration', e.g. 6. 5. 1), its opposite, *mollities*, and *nigrities* 'black decayed material'. *Nigrities* is found elsewhere only in the Latin Oribasius (*Syn.* 1. 31 Aa p. 85. 23),[207] while *durities* occurs (usually with concrete meaning) also in Scribonius (at least 9 times),[208] Columella (6. 14. 4), the Elder Pliny (*Nat.* 24. 24),[209] Suetonius (*Nero* 34, in a medical context),[210] Chiron,[211] Vegetius,[212] Marcellus (*-ies* 6 times, *-ia* more often), Caelius Aurelianus (*-ies* 21 : 23 *-ia*), and Cassius Felix (26. 3, 4, 26. 19, 43. 17). To the same morpho-semantic group belong *scabrities*[213] and *sordities*,[214] and just possibly *caluities*.[215] The higher stylistic level of a doublet in *-ities* may perhaps be seen in the replacement of Chiron's *planitia* (78) with *planities (cicatricis)* by Vegetius (*Mulom.* 2. 19).[216]

[207] Cf. *nigredo* at Cass. 66. 18, 177. 19, and *nigror* at e.g. Gel. 2. 26. 14.

[208] In the singular the manuscripts agree on *-itie-* 9 times (including at ind. 10. 31, where in *T* *-itia-* is corrected to *-itie-*) and on *-itia-* 5 times; in the further 9 places where the manuscripts disagree Sconocchia prints 6 times *-itiam* (following *T* 4 times and *R* twice) and 3 times *-itiem* (following *T* twice and *R* once).

[209] It appears, however, that Pliny much prefers *duritia* to *durities*, and *scabritia* to *scabrities* (below), though I have not looked for variant readings.

[210] Suet. *Nero* 34 *ex duritie alui cubantem* 'ill in bed with constipation': is *durities* here an archaism or a medical word? Cf. Suet. *Claud.* 14 *duritia legum*.

[211] *-ies* at Chiron 621, 653, 700, 891, but 14 times *-ia*, of which 8 are in the singular.

[212] *-ies* at Veg. *Mulom.* 1. 50. 1, 4. 15. 2, but 4 times *-ia*.

[213] Col. 7. 5. 8; Plin. *Nat.* 23. 9, 27. 18, 31. 100; and in one of the *signacula oculariorum* (*CIL* 13. 10021. 45). Cf. *scabritia*, which appears to be much commoner than *scabrities* in Pliny, and *scabritudo* in Marcellus 8. 195 and the pseudo-Apuleian *Herbarius* 74. 1.

[214] Fulg. *Myth.* 2. 16, Diosc. 2. 208. 10; probably by haplology for **sordid+ities*, rather than directly, and anomalously, to the nominal stem of *sordes*. Cf. Ernout (1957*a*: 40).

[215] In medical writers at e.g. Cael. Aur. *Chron.* 4. 15 in a list of symptoms, Oribas. *Syn.* 8. 23, but quite frequent in late Latin generally. At Petron. 108. 1, I take it to be used for humorous stylistic effect but in the late period I wonder whether this is an instance of overlap between 'medical' and 'literary-archaizing' uses of *-ities*.

[216] Cf. also *pinguities* in the (unpublished) *Anonymus Bruxellensis* (§10) discussed by Armelle Debru in the forthcoming proceedings of the Nantes Colloquium (cf. 1. 1 above, n. 11) (edited by J. Pigeaud).

It may be reasonable to suppose that Celsus has deliberately juxtaposed rhyming derivatives in *-(it)ies* in a couple of passages in order to highlight these stylish medical suffixes:

Cels. 8. 2. 2 ubi car*ies* nigr*itie*sue in summo osse est;
Cels. pr. 41 [*part of the case of the Empirici against vivisection*] nam colorem, leuorem, moll*itiem*, dur*itiem*, similiaque omnia non esse talia inciso corpore, qualia integro fuerint; (cf. pr. 24 dur*itiem* moll*itiem*).

5. 3. 9 . . . *LVS*, *-Ī*; . . . *LA*, *-AE*; . . . *LVM*, *-Ī*: DIMINUTIVES AND OTHER *-LO/LA*-SUFFIXES

This section includes all nouns ending in . . . *lus*, *-i*, . . . *la*, *-ae* and . . . *lum*, *-i*, regardless of the origin of the *-lo-* / *-la-* part of the word. Some of these *-l-* formations are not motivated, in the sense that one cannot analyse the whole word as being composed of a stem that occurs in other word-forms plus an *-l-* suffix with a more-or-less recognizable function (be this syntactic, e.g. to derive a noun from a verb, or semantic, e.g. to indicate a diminutive, or a pejorative, form). The majority, however, are formed with one of these groups of familiar suffixes:[217]

('diminutive' suffixes:) *-ulus*, *-a*, *-um* (e.g. *glandula*), *-culus*, *-a*, *-um* (e.g. *auricula*), *-unculus*, *-a*, *-um* (e.g. *homunculus*); and *-ellus*, *-a*, *-um* (e.g. *patella*), *-cellus*, *-a*, *-um* (e.g. *auicella*), *-illus*, *-a*, *-um* (e.g. *axilla*), *-ullus*, *-a*, *-um* (e.g. *ampulla*);
(deverbal suffixes:) *-lus*, *-la*, *-lum* (e.g. *sella*), *-ulus*, *-ula*, *-ulum* (e.g. *tremulus*), *-ela* (e.g. querela), and locative-instrumentals[218] in *-bulum*, *-bula* (<**-dhlom*, **-dhlā*) (e.g. *stabulum*), *-culum*, *-cula* (<**-tlom*, **-tlā*) (e.g. *poculum*).

(Note that I refer to the first group of suffixes, and to their derivatives, as 'diminutives' (henceforth without quotation marks), whether or not the suffix appears to convey the meaning 'small'.) Both groups of suffixes are treated together because of their striking formal similarity (note, e.g., Latin *-culum* < **-kelom* and **-tlom*) and because it is often not possible to separate the two types, even historically. Further, it emerges that words in . . . *lus*, . . . *la*, . . . *lum* belonging to well-defined lexical groups are formed with suffixes of both types, and furthermore accompanied by unmotivated forms ending in the same way.

The observation that diminutives play an important part in Latin

[217] On which in general see Hofmann and Szantyr (1965: 772–7), Ettinger (1974: 1–46), Leumann (1977), pp. 305–11 on the 'diminutives', 311–14 on the other formations in *-lo-* / *-la-*; Serbat (1975) on 'locative-instrumental' *-bulum*, *-culum*, etc.; all these works include extensive further references.

[218] Serbat's 'médiatifs', (1975: 14).

technical vocabularies is an old one. Eduard Wölfflin makes it in his essay on the Latinity of 'the African' Cassius Felix but cautions wisely (1880: 408): 'Aber in dieser Frage bringen die einzelnen lateinischen Schriftsteller ihren individuellen Geschmack zur Geltung, so daß es für jedes Wort der Detailuntersuchung bedarf.' Some careful and detailed remarks have been made: Einar Löfstedt, for example, considers (1911: 310–12) some instances among the architectural terms of Vitruvius. More often, however, discussion has been more general: Hanssen, for instance, notes (1952: 103) that 'the usage of diminutives was firmly rooted in the language of Roman agriculture' and, after presenting lists of diminutives from Cato and Varro, observes (1952: 107): 'What strikes us is the technical character of most of these words.' Regrettably, this remark is not followed up.

Zucchelli (1970: 146) identifies briefly the technical language as one of the areas of the Latin vocabulary especially rich in *non-diminutive* formations in *-lo-*: 'appartengono più genericamente al linguaggio tecnico,' but he is not more specific about the technical areas in question.[219] He concludes his chapter entitled 'Semantic interaction between Latin diminutive and non-diminutive formations in *-lo-*' with two paragraphs on the influence of non-diminutive forms in *-ulus* on the diminutives (1970: 149–50), a theme to which we shall return.

Diminutives in medical writers in particular have received some attention in the scholarly literature. Helmreich noted (1884: 321–2) Celsus' careful distinction between *cucurbita* 'gourd' and *cucurbitula* 'cupping-vessel', a distinction which Celsus may have devised himself (so Helmreich) but which, already in Scribonius and Pliny, is quickly forgotten. Marx in his prolegomena (1915: xcvii) glanced briefly at diminutives in Celsus. He considered them to be drawn especially from the language of the patient's bedroom, from that of the doctor or anxious relative (e.g. *febricula, tussicula*).[220] In second place he singled out words for foodstuffs and the like, as being often formed with diminutive suffixes: for example, *cerebellum* 'animal-brain (as food)' versus *cerebrum* 'the human brain'.[221] He drew attention to Celsus' single use of *auricula* beside his usual *auris*[222] and the presence of the diminutive in the derivative *oricularius* (*clyster*,

[219] Zucchelli does, however, mention (1970: 146, n. 73) the languages of religion and of agriculture and pasturing.

[220] I would add that homely or popular language may be seen also in Celsus' occasional use of a diminutive in similes, where he has recourse to a comparison with, presumably, more familiar objects in order to make clear the nature of a symptom or a medical condition: cf. e.g. *lanulis similes* (7. 27. 1); *quasi uerrucula* (5. 28. 14B). Much later *uerrucula* is found as, so to speak, a 'tumour in . . . *la*' interchangeable with its base: see Chiron 80 and Adams (1995: 563). On diminutives in Celsus, see also Camoletto (1986: 136–8).

[221] His examples, *radix, caulis*, strictly of parts of plants, vs. *radicula, coliculus*, of food, are less satisfactory: see n. 228 below.

[222] On this pair, see immediately below.

specillum). Finally, he suggested that Celsus used *manipellus* for 'handful' in order to avoid homonymy with another technical word with which he, Celsus, as a writer on *res militaris* also, was very familiar, namely *manipulus* the infantry unit.

Much more recently Önnerfors (1991: 400–2) has offered two more general remarks about the use of diminutives in medical texts. For the first he takes as his starting-point a remarkable spell in Marcellus, which deserves to be quoted:

Marcell. 15. 11 exi, si hodie nata, si ante nata, | si hodie creata, si ante creata; | hanc pestem, hanc pestilentiam, | hunc dolorem, hunc tumorem, hunc ruborem,[223] | has toles, has *tosillas*, | hunc panum, has *panuclas*, | hanc strumam, hanc *strumellam* | hac religione | euoco, educo, excanto | de istis membris, *medullis*.

Önnerfors infers that the diminutives here (italicized) have the same reference as their respective simple forms but that their meaning is different in that they convey a stronger impression of the idea of disease than their shorter base forms, 'simplement par leur étendue' (1991: 400). I should prefer to say, instead or in addition, that they have this meaning in virtue of the particular suffix in which they are extended, since, as we shall see, it is likely that words in *-lo/la-* for tumours form a well-motivated and productive morpho-lexical group, still in late Latin. This is itself a point in favour of taking the reference of these diminutives as being no different from that of their respective bases; we shall consider below a number of clear instances of this phenomenon, in this and other lexical fields. The second of Önnerfors' general remarks is based on his perception of a difference in reference between *auris* and *auricula* in medical texts. It is that a second group of diminutives in medical use (different from that just illustrated from Marcellus) may have the semantic effect, common in diminutives in preclassical and classical Latin, of changing the reference of the base, in virtue of a 'fonction *différenciatrice*' (1991: 402; emphasis original). Önnerfors says no more and may be taken to imply by his silence that this change of reference is in principle quite idiomatic and unconstrained. We shall consider below instances of non-diminutive semantic modification by diminutive suffixes and see that there probably are, in fact, regularities and constraints operating on this morpho-semantic group.[224]

Adams has devoted more than twenty pages (1995: 543–65) to diminutives in Pelagonius and veterinary terminology, in which, typically, there is much of value on the language of human medicine, too, and to which frequent reference is made below. I have tried to keep in mind his concluding stricture (565), which is reminiscent of Wölfflin's (1880: 408)

[223] Compare the instances of accumulation of words for symptoms in *-or* assembled in 5. 3. 2 above.

[224] On the particular and rather notorious case of *auris–auricula*, see below.

quoted above: 'In discussing diminutives in any text one must begin by considering each example as a special case, before resorting to generalisations.'

In what follows I distinguish the following types of words in . . . *lus*, . . . *la*, . . . *lum*.

(1) *Diminutive formations*

(1a) *Diminutive formations which seem to denote a small instance of the referent of the base-word*: *uenula* 'a small vein': *uena* 'a vein'; *corpusculum* 'the (poor, dear) little body'[225] (of the unborn child): *corpus* 'the human body'.

(1b) *Diminutive formations whose reference is no different, as far as one can determine, from that of the base*: *hamulus* = *hamus* 'a hook' (in surgical operations at Cels. 7. 20. 4; 7. 30. 3B; 7. 31. 2, 3).[226]

(1c) *Diminutive formations whose meaning stands in an unpredictable relation to the meaning of the base*: *cucurbitula* 'a cupping-vessel': *cucurbita* 'a gourd'; *scalpellus* 'a surgical cutting instrument': *scalper* 'a surgical scraping instrument'.

(2) *Other motivated -lo-/-la- formations*

(2a) *Deverbative, especially instrumental, nouns*: *regula* 'a rod, ruler': *regere* 'to fix the line of'.

(2b) *other, arguably motivated, formations*: *pus(t)ula* 'a pustule': *pus* 'pus'.

(3) *Other words in . . . lus, . . . la, . . . lum where a suffix may not, synchronically at any rate, be clearly identified*: *ala* 'the armpit', *oculus* 'the eye', *scapula* 'the shoulder blade'.

I have not attempted an exhaustive categorization of the semantic relations that might be argued to exist between the base and the derivative in each case;[227] such a list of semantic relations is likely to be untidy and, worse, subjective. The main purpose here, let it be repeated, is to indicate the medical items denoted by derivatives in . . . *lus*, . . . *la*, . . . *lum* and to explore possible formal-semantic relations between these formations and important lexical groups within the medical terminology.

(1) *Diminutive formations*

(1a) *Of diminutives carrying the added semantic feature 'small'*, I have noted in our four authors the following instances.

[225] Apparently not otherwise of a dead body in medical texts, although this use is attested in late texts of various sorts (cf. *ThLL*, s.v., 1026. 36 ff.).

[226] On diminutives of this type (1b) in Cassius Felix, see Wölfflin (1880: 407–9).

[227] Contrast Zucchelli (1970: 71–110).

Celsus: (anat.) *caruncula* 'a piece of flesh', *corpusculum* (7. 29. 6),[228] *habenula* 'a small strip of skin', *membranula* 'a fine membrane', *radicula* (of hairs, warts), *squamula*, *uenula*; (path.) *calculus* 'a small stone in the bladder',[229] *cicatricula*, *febricula* (at e.g. 2. 8. 6–7), *rimula*, *uaricula*, *uerrucula*; (ther.) *canaliculus*, *lamula*, *malleolus*, *paxillus*, *pyxidicula*, *utriculus*.

Scribonius: (path.) *deiectiuncula* 'a slight attack of diarrhoea' (33. 5), *febricula* (37. 24?); (ther.) *fasciola* (31. 15 *tenuis*), *pilula* (e.g. 42. 2–7).

Theodorus: (ther.) *saccellus* (50. 16).

Cassius: (anat.) *squamula*, *squamilla* (13. 13); (path.) *uesicula*; (ther.) *doliolum*, *floculus*, *saccellus*, *sacculus*, *tubulus*, *utriculus*.

Nearly all of these words denote small or slight examples of the object denoted by the base in each case. Celsus attests in a small number of words two other types of diminutive modification, which merit brief attention.

In the case of *caruncula*, the modification seems to be that the derivative denotes a piece of the base.[230] *Caruncula* means 'a piece of *caro*' (*caro* being always a mass-noun) and, being qualified by *multae magnaeque* (Cels. 7. 27. 7), is clearly not restricted to small pieces of flesh.[231] *Lanula* may originally have meant 'piece of wool', although synchronically it cannot be so regarded, since *lana*, too, may mean 'piece of wool', especially as it occurs commonly in the phrase *inuolutum (in) lana*, just like *lanula* at Celsus 6. 9. 6. In Pliny (at e.g. *Nat.* 31. 127: *lanae emolliunt, spongiae coercent*), *lana* is plainly 'piece of wool'. The *ThLL* glosses *lanula* as 'lana modica' and, on balance, it seems safer to regard *lanula* in Celsus, too, as a 'small' diminutive.[232]

[228] Note that, in Celsus at least, availability of a 'small' diminutive (type (1a)) is not excluded by the (lexicalized) metaphorical use of the same 'diminutive' form (type (1c), below): e.g. *corpusculum* 'particle' and 'little body', *radicula* 'radish' and 'little root'. The latter and *coliculus* (below) sit ill with Marx's characterization of them as 'food'-diminutives; cf. n. 221 above.

[229] Or should this be regarded as lexicalized ('bladder-stone', as it were) and listed under (1c) below? The base *calx* is not used of bladder-stone, so that one could see the diminutive suffix as marking a morbid growth (see below) rather than small size. On *calculus*, see Loicq (1960).

[230] Compare Zucchelli's relationship of 'sostantivazione' (1970: 78–80) between base and derivative; he compares Latin *aquola* 'some water' (cf. *aqua*) and Italian *ghiacciolo* 'a piece of ice' (cf. *ghiaccio*).

[231] In contrast with *caruncula* (beside *caro*), *pisciculus* seems, in 3 of its 4 occurrences in Celsus, to be a collective singular '(little) fish(es)' in opposition to individual *pisces*. This is especially clear when it stands in parallel with the mass-noun *caro* at Cels. 4. 5. 6 adiciendus est cibo pisciculus aut caro (cf. Cels. 4. 5. 8).

[232] I venture to raise the possibility that *membranula* means 'a piece of membrane' (for applying a medicament) at Cels. 5. 18. 34 hisque membranulam inlitam imponebat. On

A further type of diminutive modification apparently originating in 'small' diminutives is that of belonging to an animal[233] or of being edible. This is not strictly medical but is not without interest. Celsus attests *capitulum, cerebellum, petiolus, trunculus*, and *ungula* (the last also at Cass. 189. 1 *ungulae mulinae*, in a recipe),[234] all denoting edible parts of animals. Note especially their striking accumulation in this single sentence:

Cels. 2. 22. 1 [*lenes res*] in ung*ulis* trunc*ulis*que suum, in petio*lis* capit*ulis*que haedorum et uitulorum et agnorum, omnibusque cereb*ellis*.

(1b) *Of diminutives which appear to mean the same as the base*, I have noted the following instances.

Celsus: (anat.) *articulus, auricula, corpusculum, pellicula, tuberculum*; (path.) *febricula, pediculus, tuberculum, tussicula*; (ther.) *caliculus, hamulus, manubriolum, lectulus, linteolum, panniculus, pellicula, rudicula, serrula, spatula*.

Scribonius: (anat.) *auricula, testiculus, tunicula (prima oculi* 22. 10; cf. 23. 25 [*v.l. tunica*][235]); (path.) *panicula* (44. 1);[236] (ther.) *linteolum*.

Theodorus: (anat.) *articulus* 'joint' (102. 1), *ascella* 'armpit' (29. 2), *particula* 'body-part' (20. 1); (path.) *papilla* (cf. *papula*), *tussicula* (e.g. 168. 2), *uesicula* (61. 10 = 60. 11 *uesica*); (ther.) *bacula* 'head of a probe' (38. 12 = 45. 12 *baca* (Gk. πυρήν)), *cannula* (44. 7), *fasciola* (e.g. 102. 7), *linteolum, spatula* (85. 2, for stirring).

Cassius: (anat.) *articulus, auricula, testiculus*; (path.) *febricula, glebula, papilla, pediculus, saniola, sordicula, tuberculum, tussicula, uermiculus*; (ther.) *cribellum, fasciola, lectulus, linteolum*.

Here are diminutives both with and without the base being attested in the same author. The majority, in fact, occur in isolation and we cannot be sure if a distinction between base and diminutive was intended. Celsus has 19 diminutives of this type in his medical terminology, 7 of which alternate with their bases in his text, without any apparent difference of meaning: *auris, tuber* 'natural protruberance' and 'hard tumour',[237] *tussis, hamus, lectus, linteum, pannus*. Cassius has 16 such diminutives (8 in common with Celsus), 7 alongside apparently synonymous bases: *auris, cribrum, febris, pellicula* and *uesticula* in Pelagonius, possibly 'piece of skin' and 'piece of a garment', see Adams (1995: 543–4, 559).

[233] On *brachiolum* the forearm (i. e. the upper part of the foreleg) of a horse, see Adams (1995: 546–9).

[234] On *cerebellum* and *ungula* see Adams (1995: 551–2, 544–5).

[235] Synonymous with *tunica oculi prima* at Theod. 38. 4.

[236] Both *panicula* and *pannus* (ind. 16. 12, 113. 9) occur after *ad strumam*.

[237] See Adams (1995: 553) on Pelagonius' use of *tuberculum* = *tuber* and *pulmunculus* = *pulmo* (another kind of swelling).

papula (if this is, indeed, the base of *papilla*), *sanies*,[238] *sordes, tussis*. Note at least 2 examples of the base alone in Celsus (*fascia, uermis*), the diminutive alone in Cassius (*fasciola, uermiculus*).[239]

Celsus and Cassius sometimes qualify one of the diminutives listed above (1b) with a word for 'small' or 'slight': note, for example, *febricula leuis* (Cels. 3. 18. 17, 3. 22. 3), *febricula modicissima/tenuis/parua* (Cass. 60. 23, 90. 20, 157. 1, 179. 18).[240] This may seem at first sight to offer good support for the view that the diminutive is synonymous with the base, additional linguistic means being required to express the diminutive modification. Adams, however, (1995: 553–4) raises the possibility (with reference to Hanssen 1952: 124–5) that these collocations are hyper-characterized, that the diminutives in fact retain their original force and that the adjective is strictly redundant. In the case of *febricula* I think it is clear that the diminutive *can* be synonymous with the base, both in Celsus and in Cassius;[241] in Celsus it can evidently also be a true 'small' diminutive.[242] The hypercharacterization—if that is what it is—may well have started with ambiguous diminutives of this kind and then spread by diffusion. I acknowledge again, however, that some of the words listed under (1b) may belong in fact under (1a).

Conversely, it has been claimed that *auricula* belongs not under (1b) but, in at least some of its uses, under (1c). Of course, *auricula* eventually replaces *auris*, the latter having no reflex in Romance, but, in the words of Adams (1995: 550), 'the relationship between *auris* and *auricula* in recorded Latin is a complicated one, with full synonymy by no means the norm.' Adams notes (1995: 550–1) the use of the diminutive to denote (1) the lobe of the ear (e.g. at Sen. *Apoc.* 9. 4); (2) the ear as displaying a special characteristic (such as redness, or belonging to an animal; cf. Hanssen (1952: 117 f.); (3) the inner ear. The last goes back to Ihm's note in the *ThLL*,[243] and has been developed especially by Önnerfors (1989:

[238] With *saniola* = *sanies* compare in Pelag. 252 *duritiola* = *durities* and see Adams (1995: 552).

[239] In the non-medical vocabulary note *coliculus*, which occurs twice in Celsus: at 6. 11. 5 the text is uncertain, but at 2. 32 it is clear that the word denotes a part of *lactuca aestiua*. It may mean 'young (small) shoot' and belong under (1a); it appears here because it seems to mean the same as *caulis*. *Caulis*, on the other hand, (twice of *holera*, once (*col-*) of *uerbenae*) is each time clearly intended as a foodstuff, rendering this pair, too, unsuitable as instances of Marx's 'foodstuff'-diminutives; cf. nn. 221, 228 above.

[240] Cf. Cels. 7. 4. 4D *habenula tenuis* (cf. 7. 7. 8G), Scrib. 31. 15 *fasciola tenuis*, Theod. 129. 1 *minutos pisciculos*. Adams (1995: 554) adduces Pelag. 57 *linteola minuta*.

[241] Note Cels. 3. 22. 10 in omnibus longis difficilibusque febriculis; and the alternation between *febris* and *febricula*, with the same reference, at Cass. 128. 13–16.

[242] Note Cels. 2. 8. 6–7 optimum est febrem omnino non esse; secundum est tantulam esse . . . et tussis minuitur, et sitis atque febricula desinunt.

[243] S.v. 'auricula', 1495. 22 ff., 'in medicina maxime de interiore aure'.

146–7), (1991: 401–2), (1993: 326). Adams (ibid., n. 340) is rightly sceptical whether this is a real instance of specialization of reference. He adduces the frequent use of the phrase *in aurem* 'into the ear' (in Pelag. and the *Phys. Plin. Bamb.*)[244] and its alternation in the latter with the synonymous use of the dative *auriculae* as instances where base and diminutive are interchangeable, and suggests that 'it is in the case or prepositional frame in which they occur that the difference lies'. I would add that none of our four authors shows any hint of a semantic distinction between *auris* and *auricula*.[245]

(1c) *Of diminutives whose meaning stands in an unpredictable relation to that of the base*, in our four authors I have noted the following instances.

Celsus: (anat.) *capillus, capitulum, glandula, iugulum, lingula, mammula, maxilla, musculus, patella, pupilla, scutula (operta*, pl.), *tonsillae, uentriculus*; (path.) *carbunculus, furunculus* (?), *lenticula, surculus*; (ther.) *cucurbitula, lenticula, mitella, modiolus, pastillus, penicillus, scalpellus, surculus*.

Scribonius: (anat.) *articulus* 'joint' (cf. *artus* 'limb'), *maxilla, musculus, tonsillae*; (path.) *carbunculus, furunculus* (?); (ther.) *globulus, pastillus, patella, penicillus*.

Theodorus: (anat.) *capillus, mamilla* (cf. *mamma*), *iugulum, particula* 'penis' (130. 14), *pupilla*; (path.) *carbunculus, feruunculus* (27. 15: *fur- B*), *hordeolus* (42. 7 (Gk. *κριθαί*)); (ther.) *penicillus*.

Cassius: (anat.) *capillus, folliculus, iugulum, maxilla, musculus, pupula, uentriculus*; (path.) *carbunculus, fossula*; (ther.) *lenticula, penicillus, rotula, scalpellus*.

The large majority of these are metaphorical: that is, the diminutive makes metaphorical reference to the base, indicating that it resembles the base in some way (e.g. *scalpellus* is a sort of *scalper*, but with a different function). Friedrich treated (1916) this relationship as germane to the true diminutives and Hakamies argued (1951: 16 ff.) that it was the original function of diminutive formations. Contrast Zucchelli, who regards this relation (1970: 73–6: 'Rapporto di somiglianza') and the relations treated below as having nothing to do with true diminutives.

Other clear examples include: *capitulum* 'head (of a bone)', *glandula* 'acorn(-like swelling in neck or groin)',[246] *cucurbitula* 'gourd(-like instrument)', *pastillus* 'bread-roll(-like medicament)'. *Iugulum* is included here,

[244] Note also Scrib. 30. 16–17 *infundere in aurem*.

[245] The occurrences are as follows (*auris* : *auricula*): Celsus 77 : 1; Scribonius 4 : 4; Theodorus *saepe* : 0 (esp. in bk 1, ch. 8, 'De aurium causatione', pp. 21. 1–24. 7); Cassius 17 : 1; the single instance of *auricula* in Cassius is clearly of the whole, external, healthy ear: 171. 3 in utraque capitis parte iuxta auriculas.

[246] Cf. Adams (1995: 328, 553).

though it could be a deverbative instrumental formation to the root of *iungere* 'to join', because in coining the term *os iugale* (for the arch of the upper face, Cels. 8. 1. 7) Celsus clearly has the noun *iugum* in mind. In Cassius it is doubtful if *fossula* (an ulcer) and *rotula* (a tablet) are more than nonce-formations; they each occur once only in Latin in this meaning and are likely calques on, respectively, Greek *bothrion* and *trochiscus* (cf. 3. 6. 2. 1d above).

A number of diminutive forms function, in our corpus and in Latin generally, both as my type (1a) or (1b) and as my type (1c): for example, *musculus* is common both as '(wee) mouse' (type (1a)) and as 'muscle' (type (1c)). This raises a set of questions concerning the origin of the various semantic types of diminutives, the diachronic and syncronic relations between them, and their proper place in a descriptive grammar of Latin.

For a word such as *musculus* 'muscle', at least two alternative historical explanations are available of the metaphorical meaning. Either, (i), the metaphor (*muscle resembles mouse*) arose through comparison with the reference of the base (*mus* 'mouse') and was accompanied (signalled?) by the formation of a diminutive of type (1c), all this occurring quite independently of the other diminutive of type (1a) or (1b) (*musculus* '(wee) mouse'); or, (ii), the metaphor (*muscle resembles (wee) mouse*) arose through comparison with the reference of the diminutive of type (1a) or (1b) and was not accompanied by any derivational suffix.

Now, while there are many examples in Latin, medical vocabulary included, of development (ii), it is not easy to find secure cases of type (i), since beside nearly every metaphorical diminutive (1c) is attested a diminutive of type (1a) or (1b). This could lead one to suppose that all metaphorical diminutives have developed their metaphorical usage by way of a diminutive of type (1a) (in a simile such as, 'It's like a little mouse!') or (1b) (especially in popular language?). This, however, while allowable as a starting-point, will not explain the other relations observed between base and type (1c) derivative (see below). Of the examples of metaphorical diminutives given above, *glandula*, for one, is not attested with the meaning 'small acorn' or 'acorn', but only with the metaphorical use 'a gland'. If, though, we were to allow the possibility of **glandula* 'a (small) acorn', it is not easy to see how this question could be decided in particular cases, let alone in the general case. For the present, however, it seems not unreasonable to allow the possibility that the diminutive suffixes marked also metaphorical and other unpredictable extensions of meaning.[247]

[247] I would venture this account also of *apertiuncula* 'open wound' (Pelag. 324; not in the *ThLL*), and of *pulmunculus*, a swelling on the withers of a horse, dispensing with a 'small'-diminutive stage ('small opening', 'small lung'); but cf. Adams (1990: 124; 1995: 308, 327, 552–3). On metaphorical extension of meaning without change of form, see 3. 6. 2 above.

As I mentioned just now, metaphor apart, there are clearly other relations at work between base and derivative. One such is that of the derivative belonging in close physical proximity to, or as part of, the base: for example, *mammula* 'nipple' to *mamma* 'breast'; *maxillae* 'lower jaw' to *malae* 'upper jaw'; *uentriculus* 'stomach' to *uenter* 'abdomen; bowels' (cf. Zucchelli's 'Rapporto di appartenenza a qualcuno', 1970: 76–8).[248]

(2a) *Of deverbative, especially instrumental, nouns in . . . lus, . . . la, . . . lum* in our four authors I have noted the following instances.

Celsus: (path.) *periculum*; (ther.) *fibula, nouacula, regula, specillus, uinculum, uulsella.*

Scribonius: (anat.) *sella* 'faeces'; (path.) *periculum*; (ther.) *fibula, ligula* 'spoon',[249] *pistillum, specillum.*

Theodorus: (path.) *querela*;[250] (ther.) *nouacula, pistillum* (15. 8).[251]

Cassius: (path.) *periculum, querela, serpusculus, uerticula*; (ther.) *nouacula.*

Apart from Cassius' two diminutives formed apparently on a verbal base (*serpusculus*, a skin-disease, and *uerticula*, a twist in the intestines), there are few notable instances of this type in our authors. Not surprisingly, most denote instruments which are used also or especially in medicine: *fibula, nouacula, regula, uinculum, uulsella*, etc.

(2b) *Of other, arguably motivated, formations in . . . lus, . . . la, . . . lum* in our four authors I have noted one possible example, and that a doubtful one: *pus(t)ula* (Cels., Scrib., Cass.) may have been regarded as built on *pus* 'pus'. The preferred spelling in the manuscripts of Celsus is *pusula*.[252]

(3) *Of other words in . . . lus, . . . la, . . . lum where a suffix may not, synchronically at any rate, be clearly identified*, I have noted the following instances.

Celsus: (anat.) *ala, angulus, collum, fistula, malae, medulla, oculus, pilus, scapula, talus*; (path.) *callus, fistula, macula, malum, papula*; (ther.) *baculum, ferulae, filum, fistula, olla, tabula.*

Scribonius: (anat.) *angulus (oculi), collum, oculus, pilus*; (path.) *callus, fistula, macula, malum, papula*; (ther.) *ampulla, olla.*

[248] On *capillus* (to *caput*?), see Nyman (1977); cf. Brüch (1957/8). In the non-medical vocabulary, note *palmula* 'a date', to *palma* 'the date-palm' as fruit to tree; (cf. Zucchelli's 'Nomi di piante e parti di queste' and 'Rapporto tra la materia e il prodotto' (1970: 41, 95–6).

[249] Cf. *ligula* the tongue of a shoe (my type (1c)) at 97. 1.

[250] Rose prints *querella* but *querela* appears to have better manuscript support: Theod. 125. 12 -ella *Rose* : -illa *V* -ela *cett.*; 140. 20 -ellis *Rose* : -elis *rBg (Gar.)* signis *b*.

[251] Notice also *flabella* (pl.) 'fans' at Theod. 134. 19, and *strigilla* at Ps.-Theod. *Addit.* p. 271. 11.

[252] With the *-t-*, cf. *pustella* in Garg. Mart., Sex. Plac., and glosses (Strodach 1933).

Theodorus: (anat.) *angulus, collum, molae* 'molars' (pl., 49. 2), *oculus, pilus, scapulae* (pl.), *talus*; (path.) *papula.*

Cassius: (anat.) *ala, angulus, collum, gula, malae, medulla, oculus, pala, scapula, talus*; (path.) *fistula, macula, papula*; (ther.) *ampulla, filum, olla.*

A total of 25 unmotivated medical words in *. . . lus, . . . la, . . . lum* includes at least 2 noteworthy formal-lexical sets. In pathology, there is a potent little clutch of words in *-ula* for spots, sores, ulcers, and the like: *fistula, macula, papula, pustula*.[253] Under anatomy, 7 parts of the body are named in opaque disyllabic forms in *. . . lus, . . . la*: *ala, gula, mala, molae, pala, pilus, talus*; there are four more in *. . . ulus, . . . ula*: *angulus, fistula, oculus, scapula* (and the isolated *collum, medulla*). Notice especially *pala* 'shoulder blade', which joins this group only in late Latin as a result of a metaphorical extension from the meaning 'spade'.[254]

That concludes our review of the words in *. . . lus, . . . la, . . . lum* in our four authors. Table 5.2 summarizes their distribution by the formal and semantic categories distinguished above. In our four texts, of a total of 138 'medical' words in *. . . lus, . . . la, . . . lum*, Celsus has 92, Scribonius, 37, Theodorus, 31, and Cassius, 60.[255] In three authors, diminutive formations, in whatever function, account for about two thirds of the total (63 in Celsus, 20 in Theodorus, 38 in Cassius); in Scribonius they account for only about a half (19 of 37). Each text has also a significant number of unmotivated forms in *. . . lus, . . . la, . . . lum*, but the (type 2) deverbative formations feature hardly at all in the medical terminology of any of our authors.

It is difficult, and perhaps anyway not desirable, to make generalizations about the use of words in *. . . lus, . . . la, . . . lum* in a given author. I would, however, draw attention to the low total of forms in Theodorus and, in particular, to his avoidance of the diminutives of *auris, testis*, and *tunica (prima oculi)*.

In the presentation of the material above, I suggested one or two morpho-lexical sets within the various morphological and semantic categories; in concluding this section, I should like to remove the divisions imposed above, to cut across the various types that I have leant on, and to

[253] *Fistula* retains this meaning alone in Cassius, being used no longer for 'catheter' or 'urethra', as it was in Celsus (cf. 1. 2. 2 above); note, however, *fistula* and *fistella* of a tube in Pelagonius and cf. Adams (1995: 554).

[254] Note also *mela* (Gk. *μῆλα, τά*) 'the tonsils' (status-type B) at Alex. Trall. 2. 7 (the reading only of Angers 457); cf. Rufus *Onom.* 64, who gives *μῆλα* as synonymous with *παρίσθμια* and *ἀντιάδες*.

[255] Of course, the figures are exaggerated slightly by the principle of counting different meanings of one lexeme as worthy of separate mention. For example, in Celsus *corpusculum* appears twice, both under (1a) as 'the poor/dear/little body' (of the unborn child) and under (1b) as 'particle' (= *corpus* in the same sense, although not attested in Celsus).

Table 5.2. Distribution of nouns in . . . *lus*, . . . *la*, . . . *lum* by author and type*

		Cels.	Scrib.	Theod.	Cass.	total**
1	a	19	4	1	9	28
	b	19	5	11	16	34
	c	25	10	9	13	36
		63	19	21	38	98
2	a	7	6	3	5	14
	b	1	1	0	1	1
3		21	11	8	16	25
Total		92	37	32	60	138

* On the types here distinguished cf. the start of 5.3.9 above.
** Counting each lexeme once only.

consider lexical clusters of words in . . . *lus*, . . . *la*, . . . *lum* taken as a single set.

Two morpho-lexical groups in particular stand out: names of morbid spots, growths, swellings, and the like; and items of therapeutic hardware.[256] Of the former we have seen the following instances: (diminutives synonymous with the base) *panicula, tuberculum*; (metaphorical diminutives) *carbunculus, furunculus (?), hordeolus, lenticula*; (unmotivated forms) *fistula, macula, papula, pus(t)ula* (alongside the 'small' diminutives: *calculus* (?), *uaricula, uerrucula*,[257] *uesicula*). *Serpusculus* is a rule-breaking formation but it shows the same suffix and belongs to the same lexical set. If *uariolatus* (Cass. 38. 6) is indeed 'pustulous' (Sabbah 1984*a*: 110), then we can add **uariola* (cf. *uarus*).[258]

Items of therapeutic hardware that we have seen include: (diminutives synonymous with the base) *bacula, cannula, cribellum, fasciola, hamulus, linteolum, panniculus, rudicula, spatula*; (metaphorical diminutives) *cucurbitula, modiolus, penicillus, rotula, scalpellus*; (deverbatives) *fibula, ligula,*

[256] Under therapeutics there is another such lexical set, recognized by Adams (1995: 555), 'of diminutives domiciled in culinary and medicinal recipes indicating varieties of small edible objects'; he deals with *offula, pilula, pastillus, globulus*, of which our corpus includes all but the first.

[257] Apparently synonymous with the base at Chiron 80 (Adams 1995: 563).

[258] On diminutives denoting swellings see Hakamies (1951: 111–14) and Adams (1995: 552–3). Adams (1995: 562–3) lists some additional terms from Chiron. Note *duraniolus* at *Antidot. Brux.* I p. 375. 3; and the rhyming derivatives at *Antidot. Brux.* I p. 375. 6 *carbunculis clauulis et furunculis*. This morpho-lexical set is reflected in modern medical terminology: I note from the index of the *Oxford Textbook of Medicine* (2nd edn., Oxford 1987) e.g. *phlyctenula, trabeculae*.

nouacula, pistillum, regula, specillum/us, uulsella; (unmotivated forms) *ampulla, ferulae, olla* (alongside the 'small' diminutives: *canaliculus, doliolum, floculus, lanula, malleolus, paxillus, pyxidicula, tubulus, utriculus*).[259]

Diminutives and other words in . . . *lus*, . . . *la*, . . . *lum*, are so numerous and widespread in both the medical and the non-medical vocabulary of our four authors and in Latin generally that it may seem at first sight unrealistic to try to argue for anything approaching lexical orderliness as far as these formations are concerned.[260] Indeed, I accept in large part the mainly negative conclusion of Adams (1995: 565),

> that diminutives cannot be treated as in any sense peculiar to or characteristic of medical/veterinary registers. *Veterinarii* certainly exploited the possibilities of the diminutive formation, but they were no different in this respect from practitioners of other *artes*, and many of the diminutives discussed above were domiciled in other registers as well.

In closing, however, I would reiterate two points of a more positive nature. First, the significance of the morpho-lexical sets highlighted just now should not be underestimated. If smaller semantic clusters of rhyming derivatives are easy to find and may be just an everyday fact of life in human language, still, the groups of disease- and equipment-terms listed above are of a different order of magnitude, and are coherent and prominent enough to rank as distinctive characteristics of the medical vocabulary, even if their formation is quite unremarkable.

Second, obviously but, I think, importantly, diminutives are not by any means the only Latin words in . . . *lus*, . . . *la*, . . . *lum*. Nouns with stem-final *-lo- / -lā-* arise from several sources, which, I would argue, flow together, encouraging the retention of old forms and the formation of new ones. Old, morphologically opaque or barely motivated words (such as *ferulae, fibula, macula, pusula*) are abundant in well-defined lexical fields where also familiar, perhaps homely, diminutives (*carbunculus, tuberculum*; *fasciola, penicillus*) and metaphorical diminutives (*cucurbitula, hordeolus, lenticula, modiolus*) are common. While the metaphorical use of 'diminutives' as technical terms is not restricted to Greek and Latin,[261] in Latin it is arguably the other types of words in . . . *lus*, . . . *la*, . . . *lum* of

[259] Cf. Adams (1995: 554–7), who discusses *fistella, linteolum, fasciola, scalpellum*.

[260] Certainly, in Celsus and Cassius we find many diminutives in the non-medical vocabulary, too, naming animals and plants and their parts, and other objects of all sorts, some 'technical', some not. I have noted in Celsus at least 31: *adulescentulus, bullula, capitulum, capriolus, cerebellum, coliculus, conchula, feniculum, lapillus, lenticula, manipellus, masculus, micula, musculus, nubecula, palmula, particula, pellicula, petiolus, pisciculus, puella, pulticula, radicula, ramulus, (semi-)circulus, sertula, spiculum, surculus, truncului, uitellus, ungula*; and in Cassius at least 15: *asellus, capitella, cauernula, coliculus, faecula, feniculum, lenticula, masculus, palmula, particula, ramulus, spaerula, uitellus, ungula, uulpecula*.

[261] On Slavic, for example, see Müller-Ott (1972).

non-diminutive origin—especially type (3)—that underlie the favouring of the *-l-* 'diminutive' suffixes almost to the exclusion of all others, the numerous unmotivated forms supporting the productive suffixes, the latter encouraging the retention of opaque sets.

5. 4 Derivation of Adjectives

Suffixation will dominate our discussion in this section, too, but three types of prefixed adjective merit a brief word: those in *sub-*, *per-*, and *prae-*. Although I do not count them as medical terms, I devote a paragraph to each type because they have such an important place among (especially) Celsus' descriptive adjectives, above all those used of disease and symptoms.[262] Formations of this type are traditionally treated as compounds (as so-called nominal determining compounds) since the first element in each case is identified with the free-standing preposition of the same form, which is held to modify adverbially the sense of the adjective. I treat them here, rather than next to compounds in 5. 2 above, not with any theoretical axe to grind, but because synchronically, at least, they are more like affixal derivatives than compounds: their prefixes have meanings different from the homonymous free forms, *sub*, *per*, and *prae*, and are almost synonymous with certain suffixes (*sub-*, with the *-lo-* diminutives, *per-* and *prae*, with the superlatives), with which they sometimes alternate or combine.[263]

5. 4. 1 *SVB-* 'SLIGHTLY'

Already in Plautus it is possible to weaken the sense of an adjective or adverb by prefixing *sub-* to it. If the formation was ever restricted to colour-terms (so Leumann (1977: 401), citing *sub-aquilus*, *subniger*, *subrufus* from Plautus), it rapidly broadened in scope, yielding (e.g.) in Cato *subacidus*, *subcauus*, in Terence *subtristis*, *subpaetulus* 'slightly squinting', *subsimus* 'slightly snub-nosed' in Varro. Latin adjectives of this type often translate Greek adjectives in *ὑπο-* which show the same semantic modification through the same formal means.[264] But even if Latin *sub*-adjectives began as loan-translations of Greek forms, the type did not remain a lifeless calque, but produced from early on adjectives to which no attested Greek

[262] On these three types see the brief remarks of Leumann (1977: 401–2).

[263] Notice e.g. *subturpicula* (Cic. *Att.* 4. 5. 1), *suffusculus* (Apul. *Met.* 2. 13. 1), *perpessimus* (in the older version of Oribasius; Mørland 1932: 150).

[264] On this type in Greek, see Schwyzer (1953: 434, 436) and Schwyzer and Debrunner (1950: 532–3). Debrunner (1917: §46) appears to underrate the productivity of this formation in Greek by characterizing it as essentially deverbative.

form corresponds (e.g. *subtristis* in Terence, *subiratus*, *subrusticus* in Cicero, *subsurdus* 'somewhat dull, flat' in Quintilian).[265]

This formation was certainly available to and exploited by Celsus as a productive means of making adjectives with their sense weakened. He provides the first attestation of 14 of his 17 examples, and of these 14, 8 are attributed to Celsus alone by the *OLD* and Forcellini. *Sub-* adjectives are rare in Scribonius and Theodorus, as in most later medical writers (with the notable exception of Oribasius),[266] but Caelius Aurelianus and Cassius Felix attest between them 8 forms (5 each),[267] 3 (*subalbidus*, *-austerus*, *-liuidus*) shared with Celsus, 1 (*subamarus*) with Cicero (*Inv.* 1.25) and Scribonius (88. 6), and the others unknown to the *OLD* and Forcellini; probably the formation had an elevated or archaic flavour in the late period. I have noted the following examples.[268]

> Celsus: *sub-albidus+*, *-asper***, *-austerus+*, *-caeruleus***, *-crudus*, *-cruentus***, *-durus*, *-liuidus***, *-niger*, *-pallidus***, *-pinguis***, *-ruber***, *-rubicundus+*, *-salsus+*, *-similis+*, *-uiridis+*, *-umidus***.
>
> Scribonius: *sub-amarus*, *-uiridis* (of two plasters, 92. 21, 93. 13).
>
> Theodorus: *sub-pinguis* (88. 7 linimentum, 215. 14 flegma).
>
> Cassius: *sub-acer*, *-albidus*, *-amarus*, *-austerus*, *-longus*.

These adjectives relate to the semantic fields of taste, size, and, especially in Celsus, colour. André (1949: 224–5) reports that colour-terms in *sub-*, attested already in Plautus, are found from the time of Cicero only in prose and above all in technical prose, Vitruvius, Celsus, and Pliny accounting between them for 79% of all attested occurrences, Celsus alone for 50%. With regard to the meaning of *sub-* in colour-adjectives, André (ibid.) notes the fact that 9 times out of 10 Celsus uses such terms in describing ulcers, pustules, and their noxious discharges, things which 'sont le plus souvent d'aspect grisâtre ou noirâtre': he proposes that *sub-* means essentially lacking luminosity and intensity, that these colours are effectively 'gris teintés' and that they may be translated with 'grey-X' or 'X-grey'.

Celsus uses two colour-terms in *sub-* (both hapax legomena) to translate Greek adjectives in *ὑπο-*: *subruber* for *ὑπέρυθρος* at 2. 4. 8 and *subpallidus* for

[265] Compare the parallel but clearly independent use of *upa-* which emerges in Sanskrit, though not found in the *Rigveda*.

[266] I note in Chiron, *sub-lacrimans*, *-ruber(?)*, *-turbulentus*; in Soranus (Muscio), *sub-acidus*, *-liuidus*; in Pseudo-Soranus, *sub-spissus*, *-tremulus*; in Marcellus, *sub-dulcis*; in Vegetius, only *sublacrimans*; in Pelagonius, none. The Latin Oribasius, however, attests at least seven forms: *sub-ardens*, *-calidus*, *-fungidus*, *-siccus*, *-siligineus*, *-spumosus*, *-stypticus*; on Oribasius see Svennung (1932: 125–6).

[267] In the index of Caelius Aurelianus, I note *sub-albidus*, *-austerus*, *-dolens*, *-inanis*, *-liuidus*.

[268] In these lists words followed by ** are found apparently only in Celsus, those followed by + apparently first in Celsus in extant Latin.

ὑπόχλωρος at 2. 4. 9 (for the Hippocratic originals see Marx's edition (1915), ad locc.). Many of the other *sub*-adjectives listed above have parallels in Greek *ὑπο*-formations known from Greek medical prose: note, for instance, in the *Index Hippocraticus* (Kühn and Fleischer 1989) *ὑπόλευκος, -μακρος, -μέλας, -πυρρος, -σκληρος, ὕφαιμος*, and with *subamarus* in Scribonius and Cassius compare *ὑπόπικρος* (Diocl., fr. 43, Gal. 6. 612). As I noted above, in Latin generally this type of *sub*-adjective seems to have been productive quite independently of Greek. In the case of the examples in Celsus and the few in our other medical authors, it is certainly not possible to show that all or even a majority of the Latin forms owe their presence in Latin medical texts to the existence of Greek models in *ὑπο-*; on the other hand, Greek influence in this set of technical prose texts cannot, I think, be ruled out.

5. 4. 2 *PER-* AND *PRAE-* 'VERY, EXTREMELY'

A colour is denoted also by 3 of Celsus' 14 intensives in *per-*,[269] which, along with *prae-*, constitutes a suffixal counterpart to *sub-* 'slightly' (5. 4. 1) by adding the meaning 'very, extremely' to the adjective or adverb to which it is prefixed.[270] The other *per*-adjectives in Celsus denote a wide range of physical properties. Of these adjectives, 9 are not found in Latin before Celsus, and, of these, 4 occur in his work alone. To the following list of Celsus' intensives in *per-*, I add immediately his 6 examples of intensive adjectives in *prae-* (among which *praetutus* appears to be a hapax).[271]

Celsus, *in per-*: *per-angustus, -asper**, -candidus, -crassus**, -exiguus, -infirmus, -liquidus**, -macer+, -maturus+, -modicus+, -pallidus**, -siccus+, -uetus, -uiridis+.*

Celsus, *in prae-*: *prae-diues, -dulcis, -frigidus, -grauis, -tutus**, -ualens.*

Notice what is presumably deliberate *variatio* in Celsus' apparent avoidance of *praecalidus* [Tac. +]: 4. 12. 5 neque praefrigido neque nimis calido. This looks very similar to the instances of *variatio* cited by André (1951: 144 n.) from Cicero (*Brut.* 105 ualde dulcem et perfacetum; *Ver.* 2. 4. 110 pulcherrima ac perampla). On the other hand, Celsus is content to use closely together pairs of intensives in *per-*, or a *per*-adjective with its counterpart in *sub-*. Note, for instance, the following:

[269] Only two other colour-terms in *per-* are found in Latin: *-niger* once in Plautus (*Poen.* 1113) and *-albus* twice in Apuleius (*Met.* 1. 2, 5. 28); see André (1949: 223–4).

[270] On these formations see especially André (1951), and also Axelson (1945: 37 f.), who is reported with additions by Hofmann and Szantyr (1965: 164).

[271] For the conventions in the following lists, see n. 268 above.

Cels. 5. 26. 20E *per*liuidus aut *per*pallidus;
Cels. 5. 26. 20E *sub*rubicunda aut *per*albida;
Cels. 3. 6. 7 oculi aut *per*sicci aut *sub*umidi.

It is perhaps remarkable that Celsus is the only one of our four medical authors to attest either of these intensive formations. In Scribonius, Theodorus, Cassius (and Caelius Aurelianus: see below), *per-* and *prae-* occur only as preverbs with verbs and participles, *per-* meaning generally 'through' or 'completely' and *prae-* meaning always and only 'in advance, before (in time)'; these uses of both preverbs are present also in Celsus but will not concern us further at this point.

Intensive *prae-* has been said (Hofmann and Szantyr 1965: 164) to have become in post-classical Latin a prosaic prefix beloved of the Elder Pliny and later medical writers. The last part of this statement is puzzling. André (1951: 150) cites new intensive forms only in *per-* from the Latin Oribasius (*per-melancholicus, -pessimus*)[272] and the *Medicina Plinii* (*per-calidus, -lippidus, -utiliter*); the index to Marcellus yields just one intensive in *prae-* (*praegrandis*) but three in *per-* (*per-commodus, -modicus, -uetus*);[273] *praesauciatus* in Caelius Aurelianus (*Acut.* 1.39) means not 'very much weakened' but 'previously weakened'.[274] Pelagonius appears to attest neither *per-* nor *prae-* intensives. The epithet 'prosaic', too, hardly chimes with the evidence, at least with that assembled by André (1951); note in particular André's observation (1951: 151) that *prae-* intensives are early on characteristic of old poetry and in imperial Latin further cultivated by poets in imitation of Vergil and Ovid. On the other hand, it is certainly true that Pliny is an enthusiastic user of *prae-* intensives. According to André (1951: 145), Pliny attests altogether 117 occurrences of 26 *prae*-adjectives (André lists 23), including *praedulcis* 21 times; by contrast, he seems to use no more than 9 *per*-intensives,[275] so that his preference in this small regard is the reverse of Celsus' (*per-* 14 : 6 *prae-*). Celsus' favouring of *per-* over *prae-* aligns him with Lucretius (alone among earlier poets), with Cicero, and with republican Latin generally;[276] Pliny represents the extreme case of the growing taste for *prae-* intensives under the principate and early

[272] Mørland (1932: 150) mentions also *perturpidus*, which he equates with *perturpis* (the latter only at Cic. *Cael.* 50).

[273] Oder's index yields the same pattern for Chiron: *per-minutatim, -modicus, -saepius*, and *praeualidus*, the last being relatively well attested in prose and verse from Vergil (*G.* 2. 190, *al.*) on. Vegetius, on the other hand, has *praeferuidus* and *praerigidus*, both of them very rare and literary.

[274] Although André (1951: 149) lists it as an instance of 'intensive' *prae-*.

[275] Önnerfors (1956: 48–9) lists *per-gracilis, -tralucidus, -uetus, -uiridis, -mirus, -multae, -paruus, -rarus, -celeber*. Contrast André (1951: 145, n. 3), who ascribes to Pliny only the first 4 in this list.

[276] Down to the death of Cicero, André (1951: 151) notes 198 intensives in *per-* but only 13 in *prae-*.

Empire.[277] Probably individual taste will have influenced a writer's choice of one formation or the other (cf. André 1951: 145), although André goes perhaps too far in inferring (1951: 143–4) that *per-* is no more characteristic of 'la langue familière' than *prae-* is; on the other hand, he does allow that, in the case of particular words, use in high poetry may have given forms in *prae-* a stylistically higher tone. This may be borne out by their rarity in medical texts,[278] where, however, forms in *per-* (and *sub-*) remain part of the stock-in-trade of descriptive adjectives.

5. 4. 3 *-ŌSVS, -A, -VM*

The suffix *-osus* forms adjectives on, nearly without exception, noun-stems, with the meaning 'provided with, rich in' or 'resembling' (e.g. *formosus* 'endowed with beauty, beautiful', *aquosus* 'rich in water, well-watered'; *cadauerosus* 'like a corpse, cadaverous'). Numerous 'new' words in *-osus* appear at all periods of Latin and it comes to be one of the most productive suffixes furnished by Latin to Romance.[279]

From our earliest texts, many of the words in *-osus* derived from concrete nouns belong to the language of agriculture and medicine (Ernout 1949: 80); medical examples already in Plautus include *cicatricosus* 'covered with scars', *lienosus* 'affected by a disorder of the spleen', *podagrosus* 'affected with gout', *ulcerosus* 'covered with ulcers',[280] and Cato attests, for example, *fistulosus* 'ulcerated', *morbosus* 'sickly', *seniosus* 'languid, debilitated', *ueternosus* 'dropsical'.[281] Ernout (1949: 82) notes that adjectives in *-osus* are very common in Latin poets of all periods, above all in Vergil, in whom 'ils sont un élément important de la description pittoresque'. But Ernout is quite rightly against characterizing words in *-osus* as a whole as belonging to a single register of Latin, 'poetic', 'Vulgar', or whatever: 'en realité elles se trouvent à tous les degrés de la prose et de la poesie' (Ernout 1949: 81).

Ernout contrasts (1949: 102) the high level of productivity enjoyed by *-osus* with the struggle to survive faced by *-ulentus*. He argues that *-osus* was so successful in part because it was used to translate the Greek suffixes

[277] Between the death of Cicero and AD 100, André (1951: 152) notes 40 new intensives in *per-* and 43 in *prae-*.

[278] See again the figures above and cf. n. 273 above on Chiron and Vegetius.

[279] On this suffix see Ernout (1949), André (1971: 119–21), Leumann (1977: 341–2), Adams (1995: 338–9).

[280] In a medical metaphor at Hor. *Carm.* 1. 25. 15 cum tibi . . . libido . . . saeuiet circa iecur ulcerosum; and cf. Tac. *Ann.* 4. 57 ulcerosa facies (of the aging emperor Tiberius).

[281] Note the meaning of the last, as in Donatus on Ter. *Eun.* 688; the word more usually means lethargic, similar to Gk. *lethargicus*, although distinguished from the latter at Plin. *Nat.* 28. 230. On its meaning generally and in Cato, note Paul. Fest. p. 369M ueternosus dicitur qui graui premitur somno. Cato ueternosum hydropicum intellegi uoluit, cum ait 'ueternosus quam plurimum bibit, tam maxime sitit'.

-όεις, -ήεις, -ώδης (and *-οειδής*) (1949: 81, 82-4; cf. André 1971: 119-21)—and, one might add, bore a significant formal resemblance to Latin *-osus*. This translation of Greek words often looks like a mechanical process of substitution: note, for example, *bituminosus, terrosus* for *ἀσφαλτώδης, γεώδης* in Vitruvius, *cerosus, petrosus*, for *κηρ(ι)ώδης, πετρώδης* in the Elder Pliny;[282] and this tendency, in Ernout's opinion (1949: 80), underlines 'l'absence d'originalité de la science ou de la technique latine, même dans un domaine où on pourrait lui supposer quelque indépendance, comme l'agriculture'. This view, however, ignores an important medical use of *-osus* which has no parallel in Greek words in *-ώδης* (see below).

Adams (1995: 338) characterizes *-osus* as 'one of the most distinctive adjectival formations in medical/veterinary texts'.[283] In what follows, I deal first with the large group of descriptive adjectives in *-osus*, which qualify and occasionally help to name diseases, symptoms, and, less commonly, body-parts; and secondly with the smaller set of forms in *-osus* meaning '(one) affected by the disease denoted by the base'.

Of our four texts, those of Celsus and Cassius Felix in particular are coloured by numerous adjectives in *-osus* built on stems that are medical terms in the fields of anatomy and pathology, and meaning 'consisting in, characterized by, containing', and in Cassius, also 'resembling',[284] the concrete object or substance of the base. I have noted a total of 42 forms on a 'medical' base in our four authors.

> Celsus 14: (anat.) *carnosus, cartilaginosus, medullosus, musculosus, neruosus, uenosus*; (path.) *biliosus, callosus, cariosus, muccosus, perniciosus, pustulosus, rabiosus* 'suffering from rabies' (of a dog), *uitiosus*.
>
> Scribonius 8: (path.) *biliosa* (neut. pl. as noun), *callosus, glutinosus* (also neut. pl. as noun), *perniciosa (inflatio), pilosus, rabiosus* 'suffering from

[282] André (1971: 120–1) gives further examples. On adjectives in *-ώδης* in Hippocrates, see op de Hipt (1972).

[283] Of words in *-osus* 'with a pathological meaning', Adams lists (1995: 339) 4 from Columella, 9 from Pelagonius, and about 25 from Chiron.

[284] The latter meaning, which allows a form in *-osus* to introduce a simile, is not to be found in Celsus, who distinguishes between adjective in *-osus* and *similis* + noun. Note e.g. Cels. 4. 18. 1 aquae similis [*bilis*]: cf. *aquosus* 'like water' [Plin. *Nat.* +] in Cassius of *phlegma* (3. 1), *sanguis* (62. 10), *al.*; Cels. 2. 8. 24 araneis similia [*subsidentia*]: cf. *araneosus* 'like cobwebs' (Plin. *Nat.*);. Cels. 7. 14. 1 carcinomati similis [*caro*] and Cels. 7. 7. 7B quasi carcinoma: cf. *cancerosus* in Cassius (66. 17) of *ulceratio* and Gk. *carcinodes* 'resembling cancer' in Celsus and Cassius; Cels. 4. 27. 1D Tol. 35 muccis furfuribusque similia: cf. *furfurosus* [color] 'like bran' (Plin. *Nat.*) and *muccosus* 'slimy, mucous' [Cels. +]; Cels. 5. 28. 19B lanugini similes [*pili*]: cf. *lanuginositas* in Cassius (53. 13). Other similes of this type in Celsus include: Cels. 2. 7. 12 quasi capillos . . . quasi harenam . . . quasi sanguinem, 2. 8. 33 quasi maculis quibusdam, 5. 28. 7A quasi glandulae; they cluster particularly in this same chapter of book 5, in descriptions of various growths and swellings: cf. 5. 28. 3A, 3B, 14A, 17A, 17B, 19B. On the use of simile in descriptions of disease, ancient and modern, see Goltz (1969: 252–6).

rabies' (of a dog), *sabulosa (harena)* (73. 14, in a kidney), *spumosa* (neut. pl. as noun).

Theodorus 6: (path.) *dolorosus* (195. 4 *singultūs*), *fumosus* (195. 4 *odor quidam*),[285] *scabiosus* (95. 10 *unguis*),[286] *serniosus* (38. 10 *oculi*), *uiscosus* (119. 2 *pinguedo* 'fatty mucus', 134. 5 *sudor*, 216. 7 *umor*), *uitiosus* (51. 5 *dentes*).

Cassius 26: (anat.) *arteriosus, articulosus, capillosus, carnosus, cartilaginosus, glandulosus, membranosus, musculosus, neruosus*; (path.) *aquosa (inflatio), caliginosus* 'causing blurred vision' (of the south wind),[287] *callosus, cancerosus, glebosus, incendiosa (febris), mucillaginosus, pediculosus, pendiginosus, saniosus, spumosus, squamosa (scabies), uenenosus, uirosus, umorosus, utriculosa* (a species of dropsy), *zernosus*.[288]

As we have noted already for the very productive suffixes *-tio, -tus*, and *-tas, -osus* has even greater prominence in the medical vocabulary of Cassius than it has already in Celsus. On occasion the same meaning is expressed in a paraphrase by Celsus, but in an *-osus* adjective by Cassius: compare the rare form *capillosus* 'covered with hair',[289] in the phrase *capillosis in locis* (Cass. 12. 12, 13. 13), with the relative clause at Cels. 6. 3. 2 *in is partibus quae pilis conteguntur*; there is also the fact that Celsus tends not to use *-osus* with the meaning 'resembling' but in similes uses rather *similis* + noun, or the like (cf. n. 284 above). Another interesting difference between these two authors, in respect of adjectives in *-osus* both medical and non-medical, is the almost total absence from Cassius of words either built on abstract bases or with abstract reference: with the exception of *periculosus*, all of Cassius' non-medical forms in *-osus* have concrete reference, relating to shape, colour, texture, viscosity, and the like.[290]

In Cassius Felix 3 (perhaps 4) adjectives in *-osus* belong to phrasal terms (cf. p. 220), all names of diseases: *febris incendiosa, inflatio aquosa, scabies squamosa* (note also *(hydrops) utriculosa* at 181. 7); we may compare the phrase *inflatio perniciosa* in Scribonius (at ind. 10. 18 ad *εἰλεόν*, quod est inflatio intestinorum perniciosa). One is struck by the superficial resemblance to modern medical phrasal terms, such as *pernicious anaemia, tuberculous arthritis, tuberous sclerosis, venous hypertension, fistulous withers* (in horses).

[285] 195. 3–4 odor fumosus quidam, quem aliqui carbunculum appellant: this is mysterious.

[286] Cf. Ps.-Theod. *Addit.* 294. 17, 24, 28.

[287] Cf. *grauedinosus* 'causing catarrh' (of *eruum*, vetch) at Plin. *Nat.* 18. 139.

[288] Of other, 'non-medical', forms, Celsus has 23, Scribonius, 5, Cassius, 17.

[289] The *ThLL*, s.v., cites examples only from Prob., the physiognomici, Cael. Aur. and Cass. Fel.

[290] Of the 17 found in Celsus and not in Cassius, 8 are abstract: *copiosus, curiosus, laboriosus, negotiosus, otiosus, spatiosus, studiosus, tumultuosus*.

A use of *-osus* peculiar to medical and veterinary[291] language was to denote those afflicted by a particular disease. Our authors attest the following examples.

Celsus 2: *calculosi, lienosi*.

Scribonius 6: *calculosi, furiosi, iocinerosi, lienosi, suspiriosi, torminosi*.[292]

Theodorus 4: *alopeciosi, elefantiosus*,[293] *herniosi, pediculosi*.

Cassius 4: *anhelosi*,[294] *suspiriosi, tenebrosi, uertiginosi*.

This medical use is seen already in Plautus' use of *lienosus* and *podagrosus* 'affected with gout'.[295] Other republican examples include *ueternosus* (Cato, *Orat.* 121, Ter. *Eun.* 688) and, in Cicero, *grauedinosi* (*Tusc.* 4. 27)[296] and *pituitosi* (*Fat.* 7). Among the later medical instances I have noted are: *locosa* 'a woman suffering in the genitals' (Sex. Plac. 3.*a*.4 *ad locosas*),[297] *malandriosi* 'those suffering from ulcers particularly on the legs'[298] (Ps.-Theod. Prisc. *Addit.* 292. 19, 28), *suspiriosus* 'one suffering from asthma' (singular at *Antidot. Brux.* p. 385. 7), *uentriculosus* 'suffering in the stomach' (Cael. Aur. *Chron.* 4. 19). Adams (1995: 338–9) quotes a good number of examples from veterinary texts or contexts, including 4 from Columella, 7 from Pelagonius, and about 25 from Chiron. His examples include 3 Latin derivatives on Greek bases (*bulimosus, ozaenosus, strophosus*), which are hard to parallel in human medicine. In the examples from our corpus we see this feature only in Theodorus (*alopeciosi* and *elefantiosus*) and Pseudo-Theodorus (*malandriosi*, above).[299]

This group of adjectives (and nouns) in *-osus* comprises two types, according as the base is the name of a disease or of a body-part. The former type is commoner and its formation straightforward. The adjective in *-osus* made to the disease-name means 'characterized by, having the disease'. It is applied to the afflicted body-part or to the whole patient, human or animal (cf. *rabiosus* 'suffering from rabies', of a dog in Celsus and Scribonius), and may then be used as a noun by ellipse of the word

[291] Indeed, Adams (1995: 339) suggests that 'the use of the formation to denote those afflicted by a particular disease was more a feature of veterinary than of medical Latin'.

[292] Two juxtaposed at Scrib. 75. 19 ad calculosos, lienosos, hydropicos.

[293] Singular at 95. 10, plural at t. 99. 10; note the *v. l. elefanciacis* in *b*.

[294] Strikingly on a verbal base, *anhelare, anhelatio, anhelitus*.

[295] Note esp. Plaut. *Poen.* 532 podagrosi estis ac uicistis cocleam tarditudine; cf. *Mer.* 595.

[296] This word, Cicero observes, can mean 'prone to colds', as well as 'actually suffering from a cold': dicimus grauedinosos quosdam non quia iam sint, sed quia saepe sint.

[297] Cf. Ps.-Ant. Musa *Vett.* 29 ad mulieres locosas, quibus loca frigore uexantur; and contrast Cels. 2. 8. 16 quae locis laborat.

[298] On *malandria* see André (1985*a*) and Adams (1995: 317–18, 341).

[299] Our oldest recorded instance, *podagrosi* in Plautus (and Lucilius), may be a comic formation; Celsus, Scribonius, Seneca, and Pliny avoid it and there are no medical writers among the later authors who use the word; cf. Ernout (1949: s.v.) and Langslow (1999: 206).

for 'man' or 'woman'. I would draw attention to the rare form *anhelosi* 'asthmatics'.[300] This is taken by Ernout (1949: 32) as an extended form of the adjective *anhelus* 'panting, gasping; causing breathlessness'.[301] It could alternatively be from the stem of the verb *anhelare* (cf. *anhelatio*). Either way it is an unusual formation, and one which confirms the quasi-lexical function of *-osi* as denoting 'a group of people suffering from a disease specified in some way by the stem'. It effectively replaces *anhelatores* favoured by the Elder Pliny. Compare especially Plin. *Nat.* 23. 121 *anhelatoribus ac suspiriosis* with Cass. 93.20 *anhelosi uel suspiriosi*.[302]

The second type, in which the base denotes the location of the disease, is rarer (in our corpus only *lienosus* and *iocinerosus*),[303] absent in fact from Theodorus and Cassius, and its formation is less obvious. Adams (1995: 339; cf. 284) compares the 'old form of metonymy in the medical language' by which a body-part term comes to denote the body-part in a diseased condition (e.g. *glandula* 'a gland' → 'a swollen gland'; cf. 3. 6. 1. 1g above). In other words, I take it, these words in *-osus* are made in fact not to body-part terms but to (homonymous) disease-terms: *lienosus* being '(one) characterized by (*-osus*) a diseased spleen (*lienis*)'. It is worth adding that this type was probably supported by the common Greek terms *hepatici* and *splenetici* denoting patients suffering in the liver and spleen, respectively. An alternative possibility is that words such as *lienosi* were generated following lexicalization of the suffix as 'those suffering from a disease specified in the base', the notion of disease then being marked by the suffix *-osi*.

One member of the first type (i.e. based on a disease-term) has an unexpected meaning in Cassius Felix. *Scabiosus* in Theodorus means 'affected with *scabies*' and is applied to fingernails: Theod. 95. 10 scabiosos ueluti elefantiosus si quis forte ungues habuerit;[304] in Cassius Felix, however, *scabiosus* is synonymous with Greek *psoricus*, it means 'for treating *scabies*' and it is the only adjective in *-osus* in any of our authors to be used of a medicament in this way: Cass. 22. 5 [*scabies simplex*] curatur medicamento scabioso, quod psoricon dicitur. The probable explanation is that *scabiosus* shows an extension of meaning from '(one) suffering from *scabies*' to '*for* one suffering from *scabies*' and hence 'against *scabies*'. This semantic extension will have been analogical on the range of meaning seen in many words in (Graeco-Latin) *-icus*, which denote, with the name of a disease

[300] Cf. Cass. 93. 20 asthmatici dicuntur latino sermone anhelosi uel suspiriosi; the *ThLL*, s.v., cites otherwise only Cael. Aur. and the Latin Diosc.

[301] Attested largely in the poets from Lucretius onwards: note especially Lucr. 4. 875 *sitis*; Verg. *G.* 2. 135 *senes*, *G.* 3. 497 *tussis*.

[302] Cf. Plin. *Nat.* 21. 156, 22. 105.

[303] Adams (1995: 339) notes only 3 from veterinary texts: *gambosus* and *lienosus* in Chiron, *suffraginosus* in Columella.

[304] So, too, in Ps.-Theod. *Addit.* p. 294. 17, 24, 28.

(D) as the base, both '(one) suffering from D' and 'for the treatment of D' (see 5. 4. 6 below).[305] This use of *-osus* is, however, while perfectly understandable, exceptional, and moreover not what we expect in Cassius, in whom a Greek therapeutical term in *-ικός* of which the base is a noun denoting the *target* of the treatment is regularly translated with a Latin derivative in *-alis*:[306] *scabiale (medicamentum)* is the form expected at 22. 5.[307]

I note finally the only other therapeutical term to show the suffix *-osus*: *uentosa (cucurbita)* 'a cupping-vessel' (lit. 'a windy gourd'), the name 'windy' referring probably to the rush of air that was audible when the instrument was removed.[308] *Ventosa* is attested in Theodorus as part of a phrasal term with *cucurbita* at 124. 19–20 stomacho uentosas impono frequenter cucurbitas (cf. 126. 13, 131. 18, 153. 20, 188. 17), but alone (with ellipse of the head) at 116. 11–12 (apparently its first occurrence in the text) adhibemus etiam uentosarum suis temporibus aptissimum adiutorium (cf. 189. 7). The antiquity and authenticity of the term *uentosa (cucurbita)* are guaranteed by its occurrence in Juvenal (14. 58) and by its survival in Romance (French *ventouse*, Italian *ventosa*), but it is very rare in Latin.[309]

5. 4. 4 SOME ADJECTIVAL AND NOMINAL USES OF THE PRESENT PARTICIPLE

The focus in this section is on some uses of the present participle as a noun;[310] it stands here, rather than in 5. 3 above, because these uses all

[305] Might one give the same account of *glutinosa* [potio] *ad uulsos* in Pelagonius (463; cf. 368), if it is synonymous with *glutinatoria* [potio] *ad uulsos* (Pelag. 84)? See Adams (1995: 530). Is this another case of *-osus* for *-ικός* (*κολλητικός*?)? Or could the two phrases, although with identical reference, have slightly different meanings, *glutinatoria* 'which has the power to glue up, the effect of gluing up' but *glutinosa* 'like glue'? With the latter compare Pelag. 475, a remedy *πρὸς πνευμονίαν καὶ βουβσούς*, which requires boiling *ὥστε γενέσθαι αὐτὸ εἰς ὁμοιότητα κόλλης*.

[306] Cf. in Cassius Felix e.g. *tussicularis*, *oralis*, *podicalis*, *localis* (for *βηχικός*, *στοματική*, *δακτυλικός*, *τοπικός*).

[307] *Scabialis* was restored by Heraeus at Pelag. 323, where Fischer prints *resinae cauealis lib.*; this is the only instance of the word cited by Georges.

[308] On the use of cupping-vessels, see Jackson (1988: 72–3) and (1994: 182–4), with further references.

[309] The *ThLL*, s.v. 'cucurbita', cites for *uentosa*, apart from Juvenal and Theodorus, only Isidore (*Orig.* 4. 11. 3 guua, quae a Latinis a similitudine cucurbita, a suspirio uentosa uocatur) and a glossary (*CGL* 5. 654. 5 cucurbita uentosa). See also Helmreich (1884).

[310] Excluded are the few present participles in our authors which stand alone denoting the patient but which do not identify or name a particular type of person or people, as do the other examples given below, but rather function as a one-word verb phrase with temporal or modal meaning: e.g. Cels. 1. 8. 2 nolentium uomitus 'involuntary vomiting', lit. 'vomiting of those not wishing (it)' (cf. Hofmann and Szantyr 1965: 386), or Cass. 176. 8 pridie a cena obseruantibus

depend on the availability of the adjectival participle (and because they are closely related to the 'medical functions' of *-osus* above and *-torius* and *-icus* below). The substantival use of the present participle arose (1) through ellipse of a head noun in common fixed collocations with adjectival participle (e.g. *serpens* for *bestia serpens*); (2) because the participle denoted a quality or activity proper to persons and so came to stand for the persons themselves (e.g. *amans*). Hofmann and Szantyr (1965: 156) state that the substantival present participle is common at all periods of Latin in all case-forms except the nominative singular. The substantival use of the neuter singular is said to occur chiefly in philosophical definitions; that of the neuter plural is of course much commoner, although no mention is made in this—or any—connection of Celsus or of other medical writers.[311]

The nominal use of the present participle has two chief lexical functions in the medical terminology of our four authors, the one relating to pathology, the other to therapeutics.[312] The first is to denote patients, whether (a) in a general way, often in the singular, (e.g. *laborans, patiens, cubans*), or (b) more specifically, usually in the plural, of all those who suffer from a particular complaint; cases of (b) may be single words (e.g. *dentientes, insanientes, tussientes*) or two-word phrases (usually noun + participle), based on a phrasal term and/or translating a Greek compound (e.g. *latus dolentes* (cf. *lateris dolor*), *sanguinem reicientes* (cf. Gk. *haemoptyici*)). I note also (c) a third set of phrases (generally longer ones) in which the participle means simply 'those people with . . .', 'those suffering from . . .', and performs hardly more than a derivational (category-changing) role (e.g. *iecur durum habentes*); I return to type (c) in 6. 2. 3. 2 below. In our authors I have noted the following examples.

Celsus: (a) *aegrotantes* (only at pr. 35), *cubans, iacens, laborantes* (+ sg.), *periclitans*; (b) *aestuans, dentientes, insanientes* (+ sg.; including 2. 12. 1B *cum tristitia insanientes*), *lippientes* (+ sg.); (c) 1. 3. 19 *imbecillum stomachum habentes*; *laborantes* (+ determiner; 2 examples): 5. 25. 14 *ex partu*; 6. 6. 38 *sic*.

Scribonius: (a) *laborantes, languentes, periclitantes*; (b) *febricitantes, lippientes, (praegnantes)*, 55. 17–18 *non continentibus cibos*; 62. 20 *stercus per os deiciens*;[313] *dolentes* (+ acc.; 2 examples): 18. 2 *auriculam uel dentem*, 81. 17 *latus*; 55. 16 *ad bilem atram generantes* (cf. *melancholici*); 49. 6 *sanguinem ab urina reddentes cum dolore* (cf. 74. 22); 48. 19 *sanguinem reicientes* (cf. 49. 1); (c) *habentes* (+ acc.; 8 examples): 47. 11 *lienem et iecur durum* (cf. 59. 13), 48. 20 *stomachum solutum* (cf. 110. 27), 49. 1 *stomachum imbecillem*, 57. 5 *(iocinerosi) duritiam*, 58. 11 *lumborum perpetuum dolorem*, 70. 4 *scabiem, ignem sacrum, papulas*; *laborantes* (+ abl.; once): 49. 6 *uesica renibusque*.

Theodorus: (a) *aegrotantes, laborans*; (b) *bulimans, febricitantes, febrientes, latus dolentes (sine febribus), de uapore dolentes* (222. 17), *de stomacho iactantes* (167. 19), *parturientes, rheumatizans* (159. 11), *tussientes, uigilantes*; (c) *indignantes* (+ abl.; 1 example): 184. 6 *causā splenis*.[314]

Cassius: (a) *aegrotantes* (+ sg.), *laborantes* (+ sg.), *patientes* (+ sg.); (b) *aquam timentes, (partum) concipientes, febrientes, sanguinem spuentes, tussientes*; (c) *laborantes (sub)* (+ abl.; 10 examples): 128. 6 *morbo regio*, 144. 19 *emitritaeo*, 12. 1 *macronosia*, 113. 12 *minctus difficultate*, 114. 20 *cachexia*, 157. 10 *syncope* (cf. 157. 17; 158. 2), 142. 13 *sub tribus quartanis*, 169. 11 *sub melancholico humore*.

This function is well represented also in Pliny, in all three types. Önnerfors (1956: 125–6) mentions (type (a) above) *aegrotantes, conualescentes*; (type (b) above) *insanientes, singultientes, sitientes, tussientes* (all from 'disease-verbs' in *-io, -īre*), with the phrases *cruenta excreantes* (29. 43), *pura excreantes* (24. 145), *sanguinem excreantes* (20. 27, *et saepe*), *sanguinem reicientes* (24. 43), *sanguinem uomentes* (26. 136), and I would add *difficile spirantes* (20. 143). He also refers to (type (c) above) *febres habentes* (28. 130), *morbum regium habentes* (27. 66), and I would add *ulcus habentes* (29. 102), *lentiginem habentes* (30. 16), and *laborantes* + ablative (4 examples from books 20–6): 20. 228 *inflatione et torminibus aut opisthotonico*, 21. 140 *taeniarum uitio*, 22. 115 *articulario morbo et neruorum infirmitate*, 23. 23 *uertigine*.

Some of these substantival participles denoting patients are clearly old and persistent items of vocabulary, both of type (a), words for 'the patient' quite generally (e.g. *aegrotans, laborans*), and of type (b), those signifying sufferers from a particular condition (e.g. *febricitantes, tussientes*). Those of type (a) present quite a large set of synonyms. Those of type (b) include some variant forms (e.g. *febricitantes* ~ *febrientes, sanguinem reicientes* ~ *sanguinem spuentes*). The greatest diversity, however, appears under type

'(give the antidote to the patients) after they have abstained from taking dinner the night before'.

[311] On the uses of the present participle see Marx's index (1915: 445); Önnerfors (1956: 124–6); Hofmann and Szantyr (1965: 80) on the type *amans patriae*, (1965: 156–7) on the substantivization of participles, (1965: 383–7) on the use of the present participle in general in Latin; J. N. Adams (1973) and (1995: 526–9); Leumann (1977: 582–3).

[312] Relating to anatomy I have noted only *eminentia* 'projecting parts' (Cels. 5. 26. 23F, 8. 10. 2D; cf. twice *excessus*) and *procedentia* 'the processes of a bone' (Cels. 8. 1. 27; cf. 15 times *processus*).

[313] Cf. n. 133 in 6. 5 below.

[314] This would be the only known example of *indignantes* used substantivally; note that *V* omits *causa* and *B* has *splenibus indignantibus*, i. e. with adjectival participle (as at 55. 1 *faucibus*, 87. 10 *loca*, 174. 13 *epatis*). For *indignari* = *aegrotare* the *ThLL*, s.v., 1186. 36 ff., cites only Theodorus.

(c). The fact that Pliny and Scribonius agree in using substantivally both *habentes* and *laborantes* + (disease-name) determiner suggests that Celsus' near-avoidance of both reflects a deliberate stylistic choice;[315] the same may apply to Theodorus.[316] Cassius attests 10 examples of this use of *laborantes*, none of *habentes*.[317]

Before leaving pathology I note also the few instances of the substantival neuter plural of the participle denoting pathological phenomena. These are represented in Celsus by just a handful of incidental nominalizations, such as *abscedentia* 'incipient abscesses' (only at 5. 18. 21), *terrentia* 'alarming symptoms' to the doctor (only at 3. 2. 5), 'causes of terror' to the patient (only at 3. 23. 3), *torquentia* 'things causing torment' (only at 7. 27. 8).[318] Theodorus[319] and Cassius, on the other hand, attest a very important lexicalized form of this type, namely *accidentia* 'symptoms'. Cassius uses this word only once in its own right (115. 13), just a few lines after he appears to establish *accidentia* as a new Latin synonym for Greek *symptomata*:

Cass. t. 115. 2 ad ea quae uesicae accidunt, quae a Graecis symptomata appellantur, nos uero accidentia dicere poterimus.

This is curious, as Theodorus uses *accidentia* very frequently and without apology, hesitation, or explanation.[320] This use of the participle appears to occur only in Theodorus, Caelius, and Cassius.[321] Might it have been coined by Theodorus' great teacher, Vindicianus (1. 4. 5 (ix) above)?

[315] Curiously, Celsus admits both *habentes* and *laborantes* + determiner in adjectival function: 3. 2. 3 morbis tales notas non habentibus; 5. 20. 4 naturalia . . . cancro laborantia, 5. 28. 16C hominibus quoque [opp. *pecoribus*] scabie laborantibus.

[316] Theodorus also admits *laborantes* + determiner in adjectival function, at 175. 3–4 hoc epaticis conuenit, sed sub quadam solutione laborantibus, 248. 1 uiris hoc uitio laborantibus.

[317] For expressions of the type *morbum habeo*, which date from Plautus (*Cur.* 400) and Cato (*Agr.* 157. 9), see the *ThLL*, s.v. 'habeo', 2403. 23ff. However, no examples are quoted there of the substantival participle, and I find none in the indexes of Marcellus, Caelius Aurelianus, the *Medicina Plinii*, Chiron, Pelagonius, or Vegetius; cf. however the Latin Soranus (Muscio) p. 65. 18, p. 73. 6 and Ps.-Soran. *Quaest. med.* p. 261. 13 and *Puls.* p. 280. 6.

[318] It is important to note, however, that in Pliny this form of the participle is more prominent in disease-terms than in naming groups of medicines (its prime function in Celsus: below). In books 20–6 I have noted in substantival function *erumpentia* (20. 103), *excrescentia* (20. 93, *al.*), *liuentia* (20. 55), *suppurantia* (22. 122, 142).

[319] From Theodorus I note also the following remarkable substantival participles: 244. 11–13 omnibus ut arbitror sub constrictione passionibus praetractatis, ad *resoluta* et *sub effusione laborantia* descendemus.

[320] Singular (*speciale accidens*) at 109. 18 and 111. 8. In parallel with *indicia* at 104. 7 passiones interiora possidentes in hoc uolumine [*i. e. book 2*] aut accidentibus conuincentur aut prodentur indiciis; as a synonym of *signa* at 120. 1, of *querellae* at 138. 13.

[321] It is not noted in the indexes to Chiron, Marcellus, or the *Medicina Plinii*. The *ThLL*, s.v. 'accido', 298. 21ff., quotes only Theodorus and Caelius Aurelianus. The latter uses *accidens* 'symptom' 17 times in the singular and 39 times in the plural. Note also the synonymous feminine *accidentia* at Cael. Aur. *Chron.* 3. 16 and Oribas. *Syn.* 5. 47, 7. 51.

The second clear lexical function of these substantival present participles (in the neuter, nearly always in the plural) is to provide compressed (generally monolexematic) names for classes of medicines or foodstuffs, grouped and named according to their therapeutic effect (e.g. *erodentia, glutinantia, urentia*).[322] Within our corpus, while adjectival participles in this function are reasonably common in all four authors, this use of the substantival participle is almost exclusive to Celsus. I have noted the following instances.[323]

Celsus 15: *adurentia* (+ adj.), *calfacientia* (+ adj.), *comprimentia* (+ adj.), *erodentia* (+ adj.), *exedentia* (+ adj.), *extenuantia* (+ adj.), *glutinantia* (+ sg., + adj.),[324] *implentia* (+ adj.), *inflantia* 'food causing flatulence' (+ adj.), *refrigerantia* (+ adj.), *reprimentia* (+ adj.), *rodentia*; *calorem mouentia, pus mouentia* (+ adj.), *urinam mouentia* (+ adj.).

Scribonius 1: *aluum mollientia* (only at ind. 11. 8 = t. 70. 1).[325]

Theodorus 1: *(mediocriter) constringentia* (only at 225. 10).[326]

Cassius 1: *phlegma deducentia* (only at 148. 10).

These neuter participles represent one end-point of a short scale of formal compression applying to names of the type *medicamenta quae extrahunt*. The first stage of compression is the replacement of the defining relative clause with a participle (*medicamenta extrahentia*); then the head is omitted and we have a new neuter noun, *extrahentia*. Celsus uses these names of classes of medicaments (or nutriments) as defined terms, and the desire for brevity, implied in the concept of the defined term,[327] is a plausible key to his relatively frequent choice from among the available referring-expressions of these maximally compressed forms; he uses the 15 participles listed above on a total of 58 occasions as nouns (and a further 33 times as adjectives). From books 20–6 of Pliny, I note *erodentia* (*Nat.* 24. 89, as in Celsus) and *urentia* (20. 181), which show that Celsus is not quite alone in the first century in this absolute use of the neuter participle. It remains, however, at first sight striking that this use of the participle is virtually absent from Scribonius, Theodorus, and Cassius (with just one

[322] The following discussion owes much to Adams' very fair response (1995: 526–30) to this section of my thesis (Langslow 1991*b*: 239 ff.).

[323] In the following list, '(+ adj.)' indicates that the participle is used also as an adjective; '(+ sg.)' means that the participle is used as a noun also in the singular.

[324] Note also the final relative clause at Cels. 7. 4. 1B *medicamentum quo glutinetur*.

[325] Cf. in adjectival function 105. 6 *exulcerantia medicamenta*.

[326] There is a possible second substantival example at 180. 8–10 sollicitius interea praecordiorum cura gerenda est *fouentibus epar* [fouentibus *rVB Gel.* : fomentis *Gariopontus* in fomentis *b*]. Cf. in adjectival function 25. 13 *extenuantes curae*, 67. 14 *glutinantia adiutoria*, 76. 2 *umectantia fomenta*, 127. 3 *similia cetera aspere prouocantia*.

[327] This is pretty well explicit at Cels. 2. 18. 1 (quoted in 3. 5 above).

example each), while Celsus has a dozen or more, of which I have found only 3 in other later texts.[328] In fact, I think, the rarity of these participles outside Celsus is not really so surprising: there are two important points to note regarding their use in our small corpus. First, it may be that they are absent from Scribonius simply because, in writing the *compositiones* of individual remedies, he seldom has occasion to refer to *classes* of medicaments.[329] Second, Theodorus and Cassius do quite frequently name classes of remedies, sometimes with relative clauses, sometimes with adjectival participles doing service for the relative pronoun and finite verb,[330] and sometimes in a maximally compressed, monolexematic, form. By this time, however,[331] the preferred form for a monolexematic name (or adjective) of a class of medicines is either a Latin derivative in *-torius* (in the neuter as a noun) or a Greek loanword in *-icus* (see 5. 4. 5 and 5. 4. 6 below).

How may we explain this development? At least two possibilities suggest themselves, which need not be mutually exclusive. One is based on the fact that the number of feminine abstract nouns in *-ntia, -iae* (of the type *abundantia, ignorantia, essentia, excellentia*) increased very greatly in the later period.[332] Although this formation is not especially prominent in Theodorus or in Cassius Felix, potential ambiguity in the nominative and accusative may have discouraged the substantival use of the present participle in the neuter plural in particular. A second possibility is that there was a difference of meaning—stylistic or semantic or both—between the substantival participle and other verbal nouns, such as *-torium*. One plausible semantic opposition between the two formations (one which is taken up in 5. 4. 5 below) would concern the category of verbal aspect: perhaps the participle was unmarked and denoted especially those persons or things which perform the verbal action incidentally or temporarily, while the derivative in *-torium* (e.g. *adiutorium* 'a remedy', *exclusorium* 'an abortifacient') was marked, and signified things which have it as an

[328] *Erodentia* in Pliny (above); *extenuantia* in both versions of the Latin Oribasius, *Eup.* 4. 5. 3, p. 531; *refrigerantia* in Ambrose.

[329] He does, however, have 5 defining relative clauses which could have been replaced by adjectival or substantival participles: note e.g. Scrib. 92. 7 *quae nauseam faciunt*, and cf. 56. 3, 70. 6, 83. 1, 92. 8; (see 6. 2. 3).

[330] For examples of these clausal and phrasal referring-expressions see 5. 4. 5 below, and, for Cassius Felix, Adams (1995: 527–8), but note that he includes expressions which are not strictly comparable with noun phrases and adjective phrases, namely 'full sentences stating explicitly the function of the medicament', headings of the type *aliud ad X*(acc.) or *aliud X*(dat.) *conueniens*, gerundival complements of the type *medicamentum faciens ad X curandum* (i. e. as part of an adjectival phrase).

[331] If it is a question of time rather than of style: see 5. 4. 5 below on the suffix *-torius* in Pliny.

[332] See Hofmann and Szantyr (1965: 744 f) and Leumann (1977: 291), both with further references.

intrinsic part of themselves to perform the action of the verb at any time. This is certainly consistent with the continued use by Theodorus and Cassius of the substantival participle to denote patients, who are (it may be supposed) temporarily and incidentally ailing; alternatively, these participial forms are simply unmarked with respect to aspect. With very few exceptions in Theodorus and Cassius, classes of remedies which have it in themselves to have a given effect receive single-word names in *-torius* or (Gk.) *-icus*.

On the other hand, J. N. Adams (1973: 119–20) denies—at least for the Republic and early Empire—such a semantic distinction between the substantival present participle and agent-nouns (whether lexicalized, like e.g. *discipulus*, or in the productive suffix *-tor, -toris*). He suggests rather that this use of the participle, especially in place of existing verbal nouns, is stylistically determined: in Cicero it is frequent only in the treatises, and it enjoys a great increase first in the early imperial period in technical prose and history, probably under Greek influence. In particular the unnecessary use of the participle in this manner, in place of an *existing* verbal noun, savoured of Greek influence. It may be possible to apply the first part of Adams' account to Celsus' fondness for neuter participles to name sets of medicaments, and his avoidance—if he knew them!—of their synonyms in *-torium*, which may have had low prestige in the first century; (the latter are used freely by Pliny: see 5. 4. 5 below.) This could perfectly well be a stylistically motivated choice but it would be based, in part at least, on Latin stylistic considerations, since the Greek originals will have been, for the most part, not participles but adjectives in *-ικός*.[333] Moreover, it is not demonstrable that any of Celsus' neuter participles are replacing anything but Greek terms; that is, they are not obviously 'superfluous' (cf. J. N. Adams 1973) from the point of view of an educated speaker of Latin.

I should note also at this point that Celsus' two co-occurring pairs of substantival present participles and verbal nouns (*discentes* beside *discipulus*, *curans* beside *medicus*) are both nicely distinguished in lexical, rather than stylistic, meaning. *Discipulus* (4 times) is always of one great Greek physician as the pupil of another great man; *discentes* occurs just once, in a different kind of context and with a different meaning:

Cels. pr. 74 incidere autem uiuorum corpora et crudele et superuacuum est, mortuorum discentibus necessarium: nam positum et ordinem nosse debent.

Here, I think, *discentes* could not be replaced with *discipuli*, since the sense is clearly 'those who are learning', rather than '(official) students', and the accent is on the performance of the action of the verb at that particular time. (The participle could, on the other hand, be replaced by *ad*

[333] And note *exedentia* for Gk. *septa* at Cels. 5. 19. 18.

discendum, for example.) *Curans* is used by Celsus 9 times as a noun, each time meaning 'the one treating the patient on the spot';[334] *medicus* occurs 103 times, meaning always 'the (professional) doctor'. The *curans* is always present at the scene in question; the *medicus* need not be. The *medicus* is often a famous Greek, rarely Roman, practitioner (e.g. 3. 14. 1), often belonging to the remote past (e.g. pr. 66); the *medicus* writes books about medicine (e.g. 4. 7. 5), names diseases (e.g. 3. 3. 2), prescribes treatment (e.g. 4. 13. 3); the *curans* is and does none of these things. *Curans* is used 4 times out of 9 of the one treating making an error or being guilty of negligence;[335] *medicus* does not occur in such a connection. It should be recalled that Celsus wrote for heads of households who, in the absence of professional physicians, may have treated their families and slaves themselves (cf. 1. 4. 1 above). They would then be *curantes*, not *medici*; *medici* were also *curantes* when they were treating patients but *curantes* were not necessarily *medici*.

The lexical oppositions *curans—medicus* and *discens—discipulus* centre on verbal aspect. They do not, of course, exclude the possibility that, say, *refrigerans* (Celsus) and *refrigeratorius* (Pliny) differed in the middle of the first century stylistically rather than, or as well as, semantically. Equally, as noted above, the choice of formal means implied in the last sentence (between *-ntia* and *-toria*) may not have been available to Celsus for deriving from *medicamenta quae refrigerant* a monolexematic noun of this type: *refrigerantia* could have been stylistically neutral when Celsus wrote, becoming stylistically marked only when (before AD 79) *refrigeratorius* became available. Further, a stylistic difference between the two formations would not preclude a coexistent semantic opposition, nor does either sort of distinction rule out other constraints, lexical, morphological, or syntactic, on the use of either formation. For example, as Adams notes (1995: 528), while *-torius* could not easily take as its base a verb phrase consisting of verb + direct object, for the participle this was no problem: it is presumably for this reason that Cassius Felix uses *phlegma deducentia* rather than **phlegma(tis) deductoria*—although it remains of interest to note that this appears to be the only substantival case of this sort in Cassius (and Theodorus), all other such participles to phrasal verbs being adjectival (e.g. Theod. 165. 19 *cibi calefacientes meningam*, 234. 16 *adiutoria conceptionem procurantia*; Cass. 56. 17 *xerocollyrium acuens uisum*, 192. 6 *pessarium menstrualem sanguinem prouocans*).[336]

[334] Similarly, in the two occurrences in Cassius Felix of substantival *inspiciens* of the doctor (162. 10, 181. 11) the emphasis is clearly on his action of inspecting in those particular circumstances.

[335] With this context, cf. *CIL* 3. 3355 for someone who died *per culpam curantium*; for this use of *curare*, cf. *ThLL*, s.v., 1503. 65 ff.

[336] So, too, Theod. 126. 14, 127. 3, 132. 14, 155. 2, 207. 16, 230. 2, 236. 4, and all the examples from Cassius Felix collected by Adams (1995: 527); contrast Plin. *Nat.* 21. 128 et ideo [*medici eum recipiunt*] uomitorium aluosque soluentem, 'as an emetic and a purge' (tr. Jones).

5. 4. 5 *-TŌRIVS (-SORIVS), -IA, -IVM*

The suffix *-torius* (under which I include also *-sorius*) originated in the formation of denominative adjectives in *-ius* to agent nouns in *-tor, -toris* (e.g. *(nauis) mercator-ia* 'a merchant ship', *praetor-ius, senator-ius*, etc.). The new suffix arising by reanalysis of these types went on to yield: (1) a small group of *denominative* adjectives built on the nominal stems of names for officials in *-tus* (e.g. *legatorius* from *legatus*, like *senatorius*); (2) *deverbative* adjectives meaning, roughly, '(well suited to) performing or promoting the action of the verbal base' (e.g. *(unctiones) sudatoriae* 'for promoting sweating').[337] Numerous examples of type (2) appear in imperial Latin, especially in the later period. It is type (2) alone that concerns us here.

Celsus appears at first sight to have 5 examples of the suffix, all in the field of therapeutics. Of 4 of these, however, all on the fringes of the medical terminology, the natural morphological analysis is: agent noun in *-tor* + *-ius*: *pistorium (opus)* 'bread and pastries'; *scriptorius (calamus, atramentum)* 'a writing-pen' and 'ink'; *sutorium (atramentum)* 'leather blacking'; *uenatorium (uenenum)* 'poison for hunting'. The phrasal term *excissorius scalper* ('a scraping tool that is good for cutting out') contains the only clear example in Celsus of the single deverbative suffix *-torius, -ia, -ium*.[338]

So this type is there, barely, in the therapeutical terminology of Celsus; it is there in 2 new examples in the same broad lexical field in Scribonius Largus: *sternutorium* 'a medicine used to provoke sneezing' (ind. 6. 10); *uomitorium (lorum)* 'a strap used to provoke vomiting' (85. 19). Theodorus Priscianus attests 5 examples of this type: *adiutorium* (25. 1, 3, 17), *euocatorius* (25. 13, 17; 76. 3 adverb *euocatorie*), *exclusorium, purgatorium* (32. 2), *suppositorius*. The big surprise comes in Cassius Felix, who attests 26 examples of this formation,[339] 2 relating to anatomy, 1 to pathology, 22 to therapeutics: (anat.) *auditoria (cauerna)* 'the external auditory meatus', *respiratorium (membrum)*; (path.) *dimissorius (dies)* 'the day on which a fever declines'; (ther.) *adiutorium, calefactorius, condigestorius, confortatorius, constrictorius, desiccatorius, discoriatorius, eiectorius, excallatorius, glutinatorius, incensorius, iniectorius, masticatorius, mollitorius, purgatorium, putrificatorius, relaxatorius, sessorius, sternutatorius, strictorius, suffumigatorius, superinunctorius, suppositorius*.

[337] On this suffix see Leumann (1977: 300–1) and, on its use in the medical and veterinary writers, the important remarks of Adams (1995: 526–30).

[338] Cf. the 'types of sieves for sifting' in Plin. *Nat.* 18. 108 cribrorum genera . . . excussoria.

[339] I exclude *stratoria* (neut. pl.) 'bedding'.

Our words in *-torius* fall into three morpho-semantic types.

(1) Those made to a verbal stem with active meaning denoting an action or power. This type is much the most numerous, including *excissorius* in Celsus, four of the five in Theodorus (*adiutorium, euocatorius, exclusorium, purgatorium*) and the large majority in Cassius Felix (e.g. *mollitorius, desiccatorius*).

(2) Those on a stem (nominal or verbal) denoting the goal of a means of treatment. This includes our oldest example of 'medical' *-torius*, *sudatoriae unctiones* 'inducing *sudatio*' (Plaut. *St.* 226); the only two examples of the formation in Scribonius, *uomitorius* and *sternutorius*, based probably on *uomitus* and *sternumentum* and to be interpreted as 'for achieving a vomit/sneezing-fit';[340] and, related to the latter, *sternutatorius* in Cassius Felix.[341]

Another clear instance of this rare type is *delacrimatorium* '(a medicament) for producing tears', which occurs frequently in the *signacula oculariorum* collected in *CIL* 13. 10021.[342] Since the verb *delacrimo* means 'to shed tears', the base of *delacrimatorius* must be either an unattested causative **delacrimo* 'to cause to shed tears' or the nominalization *delacrimatio* 'watering of the eyes'; the latter would stand in the same relation to *delacrimatorius* as I suggested above that *uomitus* and *sternumentum* do to *uomitorius* and *sternutorius*. An alternative analysis of these three words would be to recognize a causative force in the suffix; this would permit a straightforward derivation from the intransitive verbal stem in each case: *uomo/sternuo/delacrimo* + *-torius* with an interpretation 'which causes to vomit/to sneeze/to shed tears'. It may be that I am being pedantic in putting these few examples under a separate morpho-semantic heading. Perhaps they arose by analogy with a familiar derivative such as *dormitorium (cubiculum)* 'bedroom', in which *-torius* happens to do little more than indicate that the action of the verb is somehow the goal or purpose of the referent of the noun: thus perhaps *uomitorius* is 'for vomiting (*uomere*)', *sternutorius* 'for sneezing (*sternuere*)'. It remains, however, important to note that the

[340] Note the etymology of *uomitorius* in Pliny: *Nat.* 20. 107 quem uomitorium uocant ab effectu; cf. 26. 67 minus uomitorius (comparing species of tithymallus). Another example of type (2) found first in Pliny is *amatorius* 'inducing love' (note e.g. Plin. *Nat.* 9. 79 amatoriis . . . ueneficiis, Suet. *Cal.* 50. 2 amatorio . . . medicamento).

[341] Perhaps the sole instance of an adjective in *-torius* in Caelius Aurelianus belongs here: *Acut.* 3. 86 mictoria medicamina, quae appellauit diuretica. Cf. André (1963: 48).

[342] Note especially nos. 172 *thalasseros delacrimatori(um)*, 211 *diapsoricum delacrimator(ium)* and 144 *dlcmtrus* (i. e. *delacrimatorius*) twice; more abbreviated forms in *CIL* 13. 10021, nos. 6, 41, 94, 109, 115, 163, 166, 202. Cf. also Marcell. 8. 200.

interpretation of these three words, at least, is significantly different from those in types (1) and (3).

(3) Those made to verbal stems which must be interpreted as passive, indicating (in the four clear cases) the manner of application of a medicament (e.g. *suppositorius* 'to be inserted from below', *masticatorius* (on an originally Greek stem) 'to be chewed').

One word, *iniectorius*, occurs in Cassius Felix both as type (1) and as type (3): with *tibia* 'a pipe that is for injecting (a medicine)' (127. 6), and with *trochiscus* 'a tablet that is to be inserted' (133. 12).

One word, *sessorius* in Cassius, appears to be on a nominal base but cannot belong to type (2). It means 'for treating the anus' (*sessus* 'the anus' = Gk. ἕδρα) and translates Greek *hedricus*. It is possible to view this as a case of the mechanical rendering of the Greek suffix *-ικός* with Latin *-torius* without consideration of the meaning of the derivative. If this is so, it is exceptional, as Greek words in *-ικός* for medicines named after the part of the body which they are intended to treat are usually rendered by a Latin formation *-alis*: compare *auricularis* for Greek *otice* '(a medicine) for the ear', *oralis* for Greek *stomatice* '(a medicine) for the mouth', and *podicalis* for Greek *dactylice* '(a medicine) for the anus' (synonymous with *sessorius*), and notice the cover-term *localis* for Greek *topicus* '(a medicine) for a particular part of the body'. The existence of this well-motivated type in *-alis* makes me reluctant to claim *sessorius* as an instance of a morphologically irregular form serving as evidence for the quasi-lexical function of a suffix. On the other hand, I am not convinced[343] that the verbal origin of *sessus* ('the action of sitting' →) 'a seat' (→ **'the buttocks'?: cf. 3. 6. 1. 3a) → 'the anus' accounts for this formation in *-torius* instead of expected **sessualis*.

Before going any further I must address two important questions raised by Adams (1995: 529) about the status of these words in Cassius Felix. First, to what extent does Cassius use adjectives in *-torius* just as ad hoc translation-equivalents of Greek adjectives in *-ικός*? Secondly, do his adjectives in *-torius* have any currency as Latin terms, or do they remain merely glosses on Greek words? The full picture seems to be as follows.

Of Cassius' words in *-torius*, 15 translate Greek terms in *-ικός* which are mentioned in the text (all but the last 2 in the following list on a verbal stem with active meaning (type (1) above)): (anat.) *respiratorius* = *anapneusticus*; (path.) *dimissorius* = *aneticus*; (ther.) *calefactorius* = *thermanticus*, *condigestorius* = *sympepticus*, *confortatorius* = *tonoticus*, *constrictorius* = *stalticus*, *eiectorius* = *diaphoreticus*, *excallatorius* = *ectyloticus*, *glutinatorius* = *colleticus*, *incensorius* = *causticus*, *mollitorius* = *malacticus*, *putrificatorius* = *septicus*, *relaxatorius* = *chalasticus*; *sessorius* = *hedricus*,

[343] As I appear to have been when I wrote my thesis (Langslow 1991*b*: 267).

sternutatorius = *ptarmicus*); 4 translate Greek terms in *-τος* given in the text (all on a verbal stem with passive meaning (type 3)): *suffumigatorius* = *hypocapnistus*, *superinunctorius* = *hyperenchristus*, *suppositorius* = *hypothetus*, (*strictorius* = *tiltus*). Three more translate various Greek forms that are mentioned in the text: *iniectoria tibia* = *eneter*, *discoriatorius* = *ecdorius*, *masticatorius* = *masomenum*. The remaining 5 forms are not set by Cassius beside Greek words; probably 3 of these translate Greek derivatives in *-ικός*: *adiutorium* = *βοήθημα*, *auditorius* = *ἀκουστικός*, *desiccatorius* = *ξηραντικός*, *iniectorius* (in its passive sense) = *ἐνετός*, and *purgatorium* = *καθαρτικόν*. Thus, in 18 out of 27 cases (I count *iniectorius* twice), or for 2 words in every 3, Cassius uses a Latin adjective in *-torius* to render a Greek adjective in *-ικός* and, on 18 occasions, (including 15 when the Greek word is in *-ικός*) the Greek word is in the text along with its Latin equivalent in *-torius*.

What now of the relative status in the text of Latin adjectives in *-torius* and their Greek equivalents? Adams notes (1995: 529) that, after glossing *malacticus* by *mollitorius* at 189.19, Cassius Felix on the next page (190. 7) uses the Greek term on its own. That is to say, to revert for a moment to the typology introduced in Chapter 2, *malacticus* is a Greek term of type ML1, one that is preferred to a Latin terminological equivalent. In all, 8 of the words in *-torius* in Cassius Felix appear to translate Greek terms of type ML1:[344] *condigestorius* (97. 7, 143. 22), *dimissorius* (145. 19, 147. 7), *eiectorius* (24. 17, 136. 15, *al.*), *excallatorius* (31. 7, 32. 1), *glutinatorius* (87. 18, 89. 4), *incensorius* (20. 18, 32. 16), *mollitorius* (189. 19, 190. 7), *sessorius* (178. 9, 22). In a further 7 cases, the Greek and Latin equivalents appear side by side and once only (my type ML2): *discoriatorius* (20. 17), *masticatorius* (64. 4), *putrificatorius* (20. 18), *respiratorius* (85. 19), *sternutatorius* (171. 6), *superinunctorius* (59. 3), *suppositorius* (127. 9). Three more Greek terms of type ML3 answer to Latin words in *-torius*: *confortatorius* (twice equated 97. 7, 101. 10; cf. Greek alone 102. 14, Latin alone 108. 4), *constrictorius* (thrice equated 69. 14, 121. 22, 174. 15), *suffumigatorius* (four times equated 36. 14, 70. 14, 95. 9, 188. 16). Two words in *-torius* alternate in the text with their Greek synonyms without being expressly equated with them: *calefactorius* (136. 14, 140. 19) and *relaxatorius* (84. 18, 184. 16, *al.*). Finally, as already noted, 5 words in *-torius* have no Greek equivalent in the text: *adiutorium*, *auditorius*, *desiccatorius*, *iniectorius*, *purgatorium*.

In sum, it is true to say that Cassius Felix uses a majority (18 of 27) of his adjectives in *-torius* to translate Greek adjectives in *-ικός* and that roughly the same number (17) never stand independently of a Greek term (usually, but not only, in *-ικός* or *-τος*). It is especially striking that not a single adjective in *-torius* in Cassius is actually preferred to, and made to replace, its Greek equivalent. On the other hand, *-torius* is by no means a

[344] For the Greek word in each case see above.

slavish 'translationese' equivalent of *-ικός*; forms in *-torius* render a range of other Greek forms and the Latin suffix appears to acquire, as we shall see, its own independent semantic and lexical properties. Nor is it at all the case that Greek terms in *-ικός* are automatically translated by Latin forms in *-torius*. As I have suggested elsewhere (Langslow 1991*c*: 195–6), the suffixes used in Latin equivalents of Greek terms in *-ικός* appear to show sensitivity to the lexical field of each term: we find, for example, words in *-ικοί* for sufferers from a particular disease rendered by a derivative in *-osi* or by a present participle (e.g. *tenebrosi* for *scotomatici*, *sanguinem spuentes* for *haemoptyïci*); *-ικός* words for remedies named after the body-part or disease for which they are intended are typically translated by a derivative in *-alis*/*-aris* (e.g. *localis* for *topicus*, *tussicularis* for *bechicus*; see 5. 4. 6 below).

I conclude this excursus by listing those words in *-torius* in Cassius Felix which are used by him independently of a Greek term. There are 8: *adiutorium*, *auditoria (cauerna)*, *calefactorius*, *confortatorius*, *desiccatorius*, *iniectorius (trochiscus)*, *purgatorium*, *relaxatorius*; of these all but *iniectorius* are found in other texts, mainly medical. In addition, the following 5 words, though tied to a Greek term in Cassius, are attested also in other writers: *constrictorius* (Soran., Diosc.), *glutinatorius* (Pelag., Oribas., *Gloss.*), *incensorius* (*Gloss.*), *sternutatorius* (cf. *sternutorius* in Scrib.), *suppositorius* (Hist. Aug. *Car.*).

Latin adjectives in *-torius* are well attested as epithets and names of medicaments in other medical writers, too. I have noted 5 instances in the index to the revised *CML* edition of Marcellus: *calefactorius*, *delacrimatorius*, *digestorius*, *purgatorius*, *suppositorius*. Mørland (1932: 120–2) lists a good number that are found in the Latin Oribasius, especially in the older version of the translation. These include: *abstractorius*, *infrigdatorius*, *repressorius*, *retentorius*, *solutorius*, *subtiliatorius*. These and other late examples would, I suppose, all be liable to the suspicion that they are artificial translators' words, and this makes the evidence of the Elder Pliny on this formation all the more important.

Apart from *amatorius* and *uomitorius* 'emetic, serving to provoke vomiting' (*Nat.* 20. 107, 21. 128, 26. 67; see above), Pliny uses no fewer than 10 adjectives in *-torius* to denote the action of a medicament. Six qualify the nouns *uis* 'essential power' or *natura* 'nature', which are attributed to medicinal substances: *adstrictoria uis* (24. 115), *concalfactoria uis* (21. 141, of the iris), *discussoria uis* (30. 75, of pigeon droppings), *excalfactoria uis* (21. 120, of the scented rush),[345] *extractoria uis* (24. 87, of the common reed), *refrigeratoria uis* (22. 90, of sow-thistle).[346] A further 2 qualify *medicamenta*:

[345] Cf. with *uis* 23. 86, 26. 86, 28. 52; with *uires* 24. 106; with *natura* 23. 152; 25. 71, 152; 26. 117; 31. 92.

[346] Cf. with *uis* 25. 151; with *natura* 22. 145.

exulceratorius (23. 126) and *suppuratorius* (28. 51).[347] Two more appear in the neuter as nouns (both in a single paragraph of book 28): 28. 63 *absolutorium eius mali dicitur* and *pronos urinam reddere mitigatorium habetur*. Never does Pliny appear to show any hesitation over, or apology for, the use of any of these forms; none either glosses or is glossed by a Greek term.[348] Without any warning in Celsus or Scribonius, here, before AD 79, is type (1) fully fledged in the medical parts of an encyclopaedia. Presumably Pliny found the words in his sources. Why are they not in Celsus or Scribonius? Either they did not know them, or they chose not to use them, in the latter case—which is, I think, a priori more likely—presumably on stylistic grounds.

When Celsus describes the *uis* of a medicament, he uses the gerund, so, for example, 5. 18. 25 malagmata quae anastomotica Graeci uocant, quoniam aperiendi uim habent; 5. 26. 35C quodcunque medicamentum extrahendi uim habet (cf. Plin. *Nat.* 24. 87 *extractoria uis*); 5. 27. 4 [*acetum*] refrigerandi uim habet tamen habet etiam dissupandi; 8. 4. 11 [*emplastrum*] per se reprimendi uim habet.[349] Pliny uses the gerund also: for example, 24. 117 [*rubi*] uim habent siccandi, adstringendi, and even an infinitive: 26. 134 uis eius [*equisaeti*] spissare corpora. There is an example of an *ut*-clause in Aulus Gellius, 17. 15. 4 utriusque [*ellebori*] esse hanc uim, ut humores noxios . . . extrahant.

The lexical distribution of forms in *-torius* in our four medical texts is very well defined. All but three (*auditorius, respiratorius, dimissorius*) of this impressive group of words are names or descriptive epithets of actions or effects of medical treatment, specifically of medicaments in every case except *excissorius scalper* (Celsus) and *uomitorium lorum* (Scribonius). Furthermore, there is, I believe, a semantic feature common to all members of types (1) and (2) above, including now *auditorius, respiratorius, dimissorius*, and all the names/epithets of medical treatments except those on a passive verbal base (type (3)). The meaning that they all appear to share is the quasi-aspectual force of indicating a natural, essential, and inalienable power or property of a body-part, an instrument or, most often, a medicinal preparation. This is particularly clear in words in *-torius* for actions of medicaments. In Pliny, as we have seen, these are most often epithets of *uis/natura (medicamenti)* and I believe that this *uis*, this essential power, is to be heard in the suffix when the adjective qualifies *medica-*

[347] The latter presumably belongs to type (2) above: 'for effecting *suppuratio*'; this may apply to *exulceratorius*, too, although it need not, as *exulcero* is transitive.

[348] The only overlap with Gk. *-ικός* is *adstrictoria uis*, which is presumably synonymous with *styptica uis*, *natura* (*Nat.* 21. 166, 32. 111; cf. 24. 120); on Pliny's therapeutic forms in *-icus*, see 5. 4. 6 below.

[349] Celsus uses also *facultas* (12 times) of the power of a medicament but never with a qualifier.

mentum directly (e.g. *exulceratoria medicamenta*) or, by ellipse of the noun, stands for a (class of) medicament (e.g. *mitigatorium*). This is borne out by the use of *consuescere, posse, solere, ualere*, and other verbs in uncompressed expressions of medicinal properties in medical writers of all periods (*consuescere* at Cels. 1. 7. 1, 2. 25. 1, 4. 7. 12, 4. 27. 2, 5. 26. 34B, 6. 6. 14; *posse* at Cels. 5.18.1 est tamen quod refrigerare possit). Note the use of *solere* in this passage of Scribonius:

Scrib. 56. 3–4 eae res quae stomachum constringere *solent*.

Pliny has just one example of *ualet* with a dependent infinitive in a structure of the type that underlies a derivative of the form verbal base + *-torius*:[350]

Plin. *Nat.* 34. 177 [*sandaraca*] *ualet* purgare, sistere, excalfacere, erodere, summa eius dote septica;

but Theodorus has several, including these:

Theod. 26. 10 sunt namque adiutoria quae et euocare et in maturitatem cogere parotidas uel apostemata *ualeant* haec;
Theod. 68. 3 puluere colletico et [*om. b*] qui *frequenter* [*om. B*] sanguinis fluxum *ualeat* prohibere (cf. 65. 6, 101. 1 *ualeat*, 29. 3 *ualeamus*, 72. 11 *ualeas*);

and Cassius Felix uses the subjunctive of *ualere* 12 times in just this sort of relative clause, sometimes to gloss a Greek adjective, sometimes in a free-standing expression. Here is one example of each:

Cass. 16. 3 adhibebis adiutoria metasyncritica, id est quae renouare *ualeant* temperiem corporis naturalem;[351]
Cass. 36. 19 oportet adhibere quae *ualeant* ulcera sordida purgare.[352]

Theodorus shows, in this context as often, a variety of synonymous expressions,[353] including these:

Theod. 25. 9–10 his adhibitis quae mitigare *consuerunt*;
Theod. 246. 2–3 speciebus quoque quas nosti *competenter posse* constringere;
Theod. 20. 12 omnes confectiones quae mediocriter calefacere *possint* (cf. 25. 1, 28. 14, 169. 4 *poterunt*, but note the app. crit.);

[350] Note, however, the remarkable distribution of the form *ualet* in Pliny: 23 times in the whole of *Nat.*, of which 18 times in the medical books (from 20. 70 to 34. 177) and in the medical sense 'it is good for, good against'.

[351] Cf. Cass. 35. 19, 36. 5, 93. 15, 120. 12.

[352] Cf. Cass. 73. 12, 88. 4, 91. 6, 119. 16, 121. 10, 193. 14.

[353] Cassius, no less typically, shows less variety: he has only one instance of *possint* in precisely this context, at 88. 3 cum uino styptico dabis et cetera quae similiter constringere uel conglutinare possint; compare, however, 102. 12 ff. aliquando uero si *plus uirtutis* ipsum uinum habere uolueris, quo *possit* uires laborantis depositas erigere, species tonoticas admiscebis. Note also the use of *nouisse* at 37. 8–9 diureticas . . . potiones dabis id est quae per urinam purgare *nouerunt*.

the auxiliaries *consuescere, (competenter) posse, solere*, and *(frequenter) . . . ualere* (above) and *nouisse* (n. 353) are telling indicators of the aspectual force perceived in the medicinal properties of remedies and, I suggest, expressed in Latin *-torius*.

This semantic interpretation can apply equally well to the three examples of *-torius* in Cassius Felix which do not have to do with forms of treatment: *auditoria (cauerna)* and *respiratorium (membrum)* name body-parts which carry out natural and inalienable functions of the human being;[354] the *dimissorius dies* is that on which, in the natural course of things, a given type of fever always abates.

It is more difficult to give this semantic interpretation of those epithets of medicaments in type (3) above (*masticatorius, superinunctorius*, etc.), which signify, on a verbal stem with passive meaning, the way in which the remedy is to be applied. Clearly, there can be no question here of the suffix denoting an essential *uis*. It is perhaps more plausible to see in this small group of words extended forms of the *-to-* participle[355] (note especially *strictorius* at Cass. 28. 18 moto tilto, uel strictorio, ori uulneris immisso[356]). The form of the extended suffix may, I suggest, have been influenced by their lexical function of describing a type of medicament, the most important marker of which in quantitative terms in the late period was *-torius*.

Of possible instances of conscious accumulation of therapeutical terms in *-torius*, I would draw attention to the following:

Theod. 25. 17 sunt adiu*toria* haec euoca*toria* quae post doloris impetus adhibenda sunt;
Cass. 20. 17–19 tolluntur uero periculose [*stigmata*] medicamento discoria*torio*, quod Graeci ecdoreion uocant. est enim causticae et septicae uirtutis, id est incen*soriae* et putrifica*toriae*.

I do no more than allude to the suffix *-tiuus, -a, -um*,[357] although it occurs in the later medical writers in the same lexical field and function as *-torius*, because Theodorus and Cassius have each just a single medical form in *-tiuus*, namely *abortiuum* (Theod. 240. 4) and *constrictiuua (cibatio)* (Cass. 130. 17).[358] Indexes of other medical writers reveal larger numbers of examples of this formation. Several adjectives in *-tiuus* occur in the Latin

[354] For another anatomical example, note Ps.-Soran. *Isag.* 5. 4 *emunctoria humorum* 'those parts which secrete humours, Ausscheidungsorganen' (cf. Gurlt 1898, iii, glossary).

[355] If this is right, they are akin in this respect to forms in *-īcius*: see Adams (1995: 533–4) on some forms in *-icius* in Chiron.

[356] 'A pledget (of) plucked (lint)': Latin *stringo* for Gk. τίλλω but *-torius* for *-tos*, although the meaning is purely that of the passive participle. It is interesting to note the archaic form *strictiuus* 'picked' (as opposed to windfall), of fruit (Cato, *Agr.* 146. 1): is this another case of *-torius* ~ *-tiuus* (cf. below)?

[357] On this suffix see Breitmeyer (1933), Malkiel (1941), and Leumann (1977: 303–5).

[358] The latter perhaps significantly in a quotation (unplaced) from Galen (verbatim from a Latin version?); Cassius has 3 times *constrictorius* (69. 14, 121. 22, 174. 15).

versions of Oribasius, where forms in *-torius* are also found (cf. above), some of them in the same lexical functions as the latter.[359] Those attested by Caelius Aurelianus have received special attention because some of them correspond to Cassius' forms in *-torius* (e.g. *constrictiuus, purgatiuus*) and because Caelius does not himself use derivatives in *-torius* (with the sole exception of *mictorius*, n. 341 above).[360] From this state of affairs in two important fifth-century texts, Adams (1995: 529; cf. 646, 648) infers that

> both writers were clearly casting about for methods of coining native Latin substitutes for the *-ικός* adjectives which had long been entering Latin. That they should each have adopted a different strategy suggests that suffixal derivation as a means of coining medical terms was subject to personal whim, and not exclusively the product of conscious agreement reached by professionals attempting to construct a formal medical vocabulary.

This is a strong view, and an important one because it cuts to the heart of the question of the status of 'medical Latin' as a more-or-less stable and identifiable idiom. Failing a survey of *-tiuus* in medical contexts, along the lines of this section on *-torius*, I cannot refute this view. Even so I would note the logical alternative which it ignores, namely that one of the suffixes is 'standard medical Latin', the other, a variant, stylistic or otherwise. I hope that this section has at least shown that 'medical' *-torius* is a plausible contender for the former label, that it is neither a purely-mechanical device of Cassius Felix for rendering certain Greek terms in *-icus* nor confined to his medical prose but rather an old (1st-cent.) and widely attested formation with recurrent and well-defined lexical and semantic characteristics in the medical domain.[361]

5. 4. 6 GREEK *-ικός, -ή, -όν* → LATIN *-ICVS, -A, -VM*

This final section may appear, at first sight, out of place. After all, its substance depends, in the first place at least, not on Latin word-formation but on lexical borrowing, on the assimilation into Latin of very large numbers of Greek medical terms in *-ικός*. Fruyt (1987*b*: 261) has counted 478 adjectives in *-ικός* that are borrowed from Greek to Latin.[362] The overwhelming

[359] Mørland (1932: 123–4) mentions from the older version *amputatiuus* and *adaperitiuus*, and *expellitiuus* and *repellitiuus*, both for Gk. *βηκτικός* 'detergent', and from the younger version *confortatiuus* and *reparatiuus*.

[360] See Bendz (1945: 55–6) and (1964: 87), and André (1963: 51–3).

[361] Indeed, in the summary of his section on word-formation in Pelagonius, Adams (1995: 541) states that *-torius* is 'the best candidate in medical, if not veterinary, Latin' to be regarded as an 'adjectival suffix which can be described as especially characteristic of the technical language'.

[362] She excludes derivatives of proper names. She gives (268–74) a complete catalogue of loanwords in *-ικός* arranged by period of first attestation, indicating author and subject area.

majority of these belong to the terminologies of the scientific, technical, and intellectual disciplines (e.g. *aulicus, grammaticus, graphicus, historicus*; cf. Marouzeau 1946: 172), and, of these, it is medicine that claims the largest number (133 = 27.8 per cent of the total of 478).

If it were simply a question of the borrowing of numbers of Greek words which happen to show the same suffix, it would be hard to defend including these adjectives in the present chapter on Latin derivational morphology, as well as in Chapter 2 on the status of Greek loanwords in Latin medical vocabulary; this point is well made by Adams (1995: 340). I remain of the view, however, that it is legitimate to speak of the *suffix itself* being borrowed and Latinized, essentially for three reasons. First, the 'borrowing' is very orderly: it is concentrated in certain lexical fields and the suffix appears to perform one of a small number of well-defined quasi-lexical functions. Secondly, the loanwords in *-icus* are clearly well motivated for Latin speakers: this is implicit in the frequent coexistence of the Greek base with the Greek derivative in *-icus*, both items appearing as unremarked, fully integrated loan-terms of status-type B in the typology of Chapter 2 (e.g. *dysenteria–dysentericus, hydrops–hydropicus, lethargus–lethargicus, podagra–podagricus, pthisis–pthisicus*, etc.). On occasion the motivation of terms in *-icus* is even made explicit, as for example at Cass. 19. 7 trochiscus appellatus a Graecis lichenicos, id est *medens impetigines*. Thirdly, although this is not well illustrated in our four authors, there is reason to believe that *-icus* takes on a life of its own in Latin before the end of the Empire in the West, serving ultimately to form new derivatives with the same meanings on Latin stems. I return to some of these points below.

It has been suggested that the extensive borrowing of Greek adjectives in *-icus* may have been favoured by the presence in Latin of indigenous formations in several separate but very similar suffixes. Both Leumann and Fruyt handle these all together with 'Greek' *-icus*, and accordingly I begin with a brief sketch of the relevant Latin types (following Fruyt 1986: esp. 257–61).[363] Latin words ending in *-icus* comprise the following groups:

(1) adjectives in *-icus* formed to adjectives and nouns: especially ctetics formed to ethnics (e.g. *Gallicus* to *Gallus*); adjectives formed to nouns from the political, military, and social sphere (e.g. *ciuicus, dominicus, hosticus*);

(2) adjectives in *-(a)ticus* formed to nouns, in the republican period 10 out of 13 denoting origin or habitat (e.g. *siluaticus*); and verbs (only

[363] On these suffixes see especially André (1972) and Leumann (1977: 336–41); on the republican period, Fruyt (1986); on Gk. *-ικός* in Latin, Fruyt (1987*b*) and, in the veterinary and medical writers, Adams (1995: 339–40); on suffixal borrowing from Greek, Fruyt (1987*a*); on the Greek suffix *-ισκος* in both Greek and Latin, Murach (1921).

erraticus, uenaticus, uolaticus); Fruyt defends a Latin development of this suffix, parallel to that of Greek *-τικός*;

(3) small, isolated, non-productive groups of nouns and adjectives formed to verbs (*medicus, mordicus, uomica*); adjectives (*unicus*, perhaps *tetricus, lubricus*); nouns (*modicus, triticum*); perhaps including hybrids (*tunica*?) and loanwords (*brassica*?).

Our four authors attest at most 11 medical terms in the *Latin* suffixes in . . . *cus*. It is highly unlikely that native Latin *medical* words played any significant role in favouring the borrowing of Greek terms in *-ικός* in this area. The only motivated formation in *-icus* on a verbal base in the field of therapeutics is the word *medicus*. One can, however, add a longer list of Latin ctetics used especially of foods and plants and minerals (which are used as ingredients of compound medicaments: e.g. *herba cantabrica, malum punicum*);[364] and the following handful of medical nouns and adjectives in various suffixes ending in . . . *cus*, . . . *ca*, . . . *cum*.

Celsus: (anat.) *uesīca, umbilīcus*; (path.) *lumbrīcus* 'an intestinal worm', *rubrīca* 'a type of impetigo', *uerrūca*, (*uesīca* 'a blister'); (ther.) *medicus*.

Scribonius: (anat.) *uesīca*; (path.) *lumbrīcus, uerrūca, uomica*; (ther.) *medicus*.

Theodorus: (anat.) *tunica (oculi), uesīca, umbilīcus*; (path.) *lumbrīcus*, (*uesīca* a blister); (ther.) *medica, medicus*.

Cassius: (path.) *lumbrīcus, tetricus (sudor)*; (ther.) *calabrica* 'a surgical dressing', *medicus*.

In *-icus* from Greek *-ικός*, of a grand total in our four texts of about 115 *forms* (I do not for the moment distinguish different meanings), Celsus has 22 (of which only 10 are used independently of a Latin gloss); Scribonius, 25 (19 of them independent of a Latin gloss); Theodorus, 68 (61 independent), and Cassius Felix, 85 (60 independent). Here are the instances that I have noted.[365]

Celsus: (anat.) none; (path.) diseases: nouns: *cardiacus* (3. 18. 16,[366] 3. 19. 1), *hydropicus* (5. 18. 2),[367] *phreniticus* (3. 20. 1), *ἡπατικός, κοιλιακός,*

[364] These are, in fact, legion in the medical books of the Elder Pliny: could it be that they prepared the ground for the reception and Latinization of medical words in (Gk.) *-i(a)cus*?

[365] In the following lists of material note that the Greek alphabet is used as a visual aid to highlight words which are never independent of a Latin gloss, and that words denoting patients are given in the nom. pl. masc. with a note '(+sg.)' if they occur also in the singular; unglossed forms in *-icā* are neut. pl.

[366] Cels. 3. 18. 16 ne imbecillitate in cardiacum incidat: for *in morbum incidere*, cf. Cels. pr. 60, 3. 6. 4.

[367] Cels. 5. 18. 2 si materia extrahenda est, ut in hydropico, in lateris dolore, in incipiente abscessu: if this were Pliny, who frequently lists patients and diseases together (see Önnerfors

κολικός, περιπλευμονιακός, πλευριτικός; adjective: κυνικὸς (σπασμός); patients: *hydropici, lethargici, phrenetici, podagrici*; (ther.) people: nouns: *[chirurgicus]*,[368] *empiricus*; treatments: nouns: *arteriaca* (fem.), *basilicum*,[369] *colice, psoricum*; ἀναστομωτικά, βασιλικόν,[370] διαιτητική, ἐπισπαστικά, κεφαλικόν, φαρμακευτική.

Scribonius: (anat.) none; (path.) patients: *cephalalgici, cholerici, coeliaci, hydropici, opisthotonici, paralytici, pthisici, pleuritici, stomachici, tetanici*; δυσεντερικοί, ἐπιληπτικοί, μελαγχολικοί, σκοτωματικοί; disease: *(spasmus) cynicus*; poison: *toxicum*; (ther.) people: noun: *diaeteticus*; treatments: nouns: *arteriace, basilice, colice, diaitetice, psoricum, stomatice, stratioticum*; ἐπισπαστική, κεφαλική, σποδιακόν.

Theodorus: (anat.) none; (path.) patients: *apoplectici, arthritici, cachectici, cardiaci, chronici*,[371] *coeliaci, colici, diaphoretici, diarrhoïci, dysenterici, empyïci, entheastici, epilemptici, hepatici, hydrophobici, hydropici, icterici, ischiadici, lethargici, lienterici, melancholici, paralytici, peripleumonici, phrenitici, pthisici, pleuritici, podagrici, scotomatici, splenitici*,[372] *stomachici, synanchici, syntectici*; ἀσθματικοί, ἐμπροσθοτονικοί, ὀπισθοτονικοί, ψοαλγικοί; other adjectives: *aneticus, chronicus, typicus*; καρδιακός, ὑστερική (πνίξ); (ther.) people: adjective: *logicus*; nouns: *chirurgici, methodici, physici*; treatments: adjective only: *analempticus, colleticus, pyroticus, thermanticus, tonoticus*; adjective and noun: *amycticus, aromaticus, catharticus, catholicus, causticus, chalasticus, cyclicus, diureticus, paregoricus, stalticus, stypticus*; nouns only: *arteriaca* (fem.), *basilicum, hypnotica, physica, ptarmica, theriaca* (fem.), *xerantica*; κεφαλικόν, συκωτική.

Cassius: (anat.) adjectives: ἀναπνευστικός, νωτικός, οὐρητικός; (path.) diseases: adjectives with *passio*: *cardiaca, cholerica, colica, dysenterica, iliaca, nephretica, phrenetica, pthisica, rheumatica, splenetica, stomachica, synanchica, tetanica* (cf. 67. 17 *ictericus* (*morbus*)); nouns (sc. *passio*): *arthritica, colica, iliaca, hydropica, ischiadica, psoeadica*; (cf. 128. 12) *icterici* (sc. *morbi*)); patients: *arthritici* (+sg.), *asthmatici, cardiaci* (t. 156. 16), *colici, coeliaci, dysenterici, dyspnoïci, epileptici, haemoptyïci, hydropici, icterici, ischiadici, lienterici, lethargici, nephretici, paralytici, peripleumonici, phrenetici, pthisici* (t. 90. 7), *pleuritici, podagrici* (+sg.), *psoeadici, splenetici, synanchici* (t. 81. 3), *tetanici* (t. 83. 19); ὑδροφοβικοί, ὀρθοπνοϊκοί,

1956: 15–18), we might consider taking *hydropicus* as 'a sufferer from dropsy' (though the plural of the patient would be usual); Celsus appears not to mix patients and diseases.

[368] Bracketed by Marx at Cels. 5. 28. 7; Celsus uses 4 times *chirurgus* 'surgeon'.

[369] A salve of Euelpides, at Cels. 6. 6. 31A and B.

[370] A black plaster, at Cels. 5. 19. 3.

[371] As an adjective or a noun of disease; as a noun of patients.

[372] Svennung (1941: 126) reads *spleniaci* with most of the manuscripts; cf. below.

σκοτωματικοί;[373] other adjectives: *aneticus, cholericus, criticus, melancholicus, phlegmaticus, plethoricus, typicus*; καχεκτικός; (ther.) people: adjective and noun: *logicus*; treatments: adjectives: *apocrusticus, causticus, ceromaticus, chalasticus* (+noun), *colicus, colleticus, cyclicus, diaphoreticus, diureticus, ectyloticus, hedricus, hydropicus, ischiadicus, malacticus, metasyncriticus, nephreticus, pleuriticus, stypticus, syringiacus, thermanticus, tonoticus, trachomaticus*; nouns: *arteriaca, catharticum, cephalicum, physicum, psoricum, splenicum, theriaca*; ἀνωτερικός, βηχικός, κατωτερικός, ἐμπυωτικός, ἐπουλωτικός, λειχηνικός, ὀξυδερκικός, πταρμικός, σηπτικός, σταλτικός (+noun), στοματικός (+noun), συμπεπτικός, συγκριτικός, τοπικός; nouns: ὠτική, ὀζαινικόν, παιδικόν, στατικόν.

The use of Greek terms in *-icus* seems to offer a possible isogloss between the terminologies of human and veterinary medicine. The figures reported by Adams (1995: 339–40) suggest that such forms were employed much more rarely in veterinary contexts, and perhaps not at all in the early Empire: no examples in Columella, books 6–7; 6 examples in Pelagonius (79 Teubner pages); 28 examples in Chiron (some 300 Teubner pages). Even Celsus and Scribonius in the first century attest more instances than Pelagonius in the fourth, although the former are probably quite restrained in their use of Greek terms of this type; this emerges from a comparison with book 20 (the first 'medical' book) of Pliny the Elder, which is of about the same length as Pelagonius' *Ars ueterinaria* and contains at least the following 20 names of diseases or of patients suffering from them:[374] *cardiaci, coeliaci, dysenterici, enterocelici, hydropici, icterici, lethargici, melancholici, opisthotonici, orthopnoïci, paralytici, peripneumonici, phrenitici, pleuritici, pthisici, podagrici, spastici, splenici, stomachici, tetanici.*

It emerges very clearly that Greek medical words in *-ικός*, borrowed into Latin have three chief lexical functions: they describe or, as nouns by conversion, name (1) diseases; (2) patients suffering from a particular disease; (3) medicaments and other types of treatment. A fourth group, much smaller, is of terms denoting medical practitioners after their school or speciality (*empirici, logici, methodici; chirurgici, diaetetici*; and the cover-term *physici*—cf. Latin *medici*!). The presence of this formation in the vocabulary relating to anatomy and physiology is minimal: three examples in Cassius Felix in Greek phrasal terms which are never used without a Latin gloss (85. 19 *anapneusticon morion*, 84. 10 *noticos myelos*, 131. 12 *ureticoi poroi*).

The dual use of *-icus* (and *-iacus*) in the field of pathology, to denote both diseases and sufferers from disease, is attested already in republican Latin. *Coeliacus*, for example, is used of the disease at Cato, *Agr.* 125 id est ad

[373] See below on unclear cases of the masc. pl. as noun denoting patients or cases of the disease: *icterici* (128. 12), *ischiadici* (181. 2), *phrenetici* (155. 20), *pthisici* (179. 16).

[374] On this ambiguity see below.

aluum crudam et ad lateris dolorem et ad coeliacum, but of those afflicted by it (in this case bees!) at Var. *Rust.* 3. 16. 22 is [*Menecrates?*] ait, cum sint apes morbidae propter primoris uernos pastus . . . coeliacas fieri. In our corpus it is clearly the disease at Cels. 4. 19. 1 in ipsius uentriculi porta . . . is [*morbus*] qui ⟨et acutus est⟩ et longus esse consueuit: coeliacus a Graecis nominatur, but the sufferers at Scrib. 59. 19 ad coeliacos, id est qui subito et multa deiciunt (and the latter also at Theod. 204. 16 and Cass. 123. 21). The distribution of these two lexical functions in our four authors is very uneven, and appears as follows (diseases : patients): Celsus 8 : 4, Scribonius 0 : 14, Theodorus 0 : 36, Cassius 18 : 28. Disease-terms in *-icus*, then, are found in only two of our four authors. In Celsus they are distinguished from his four words for groups of patients by being always in the singular; and indeed their use in Cassius is restricted (with perhaps three exceptions) to the feminine of the adjective (with *passio* understood or, more frequently, expressed). The clearest exception is at 179.16 in pthoes, hoc est in pthisicis, et in cachexies, id est corporum malis habitudinibus, where, given the text as it stands, *pthisici* must be a disease-term, 'cases of *pthisis*'. The other two exceptions are *ictericus morbus* (Cass. 67. 17 f. cum ingenti pallore ictericum morbum simulante, nam Graeci icteroden uocant) and, more interesting because substantival, *icterici* at 128. 12 et sunt ictericorum distantiae duae. This ought to mean, 'And there are two different types of jaundice'. In the eight other partitions of this kind with the word *distantia* in Cassius, the thing categorized is clearly a disease;[375] on the other hand, it is otherwise always singular. In view of the plural (*ictericorum*), and of the opening statement in this chapter (49), Cass. 128. 6 icterici dicuntur morbo regio laborantes, we should perhaps translate 128. 12 (above) as, 'And there are two types of sufferers from jaundice'.

There are two other contexts in Cassius in which a substantival plural form in *-ici* occupies a slot usually filled, in unambiguous cases, by a disease-term. The first is in the ablative after the preposition *in*, in comparisons and cross-references, as, for example, at Cass. 155. 20 in curationibus uero primitus sicut in freneticis scarifabis, or 181. 2 dia thapsias sicut in ischiadicis uteris (cf. 159. 6, 171. 7, 177. 7). The normal case, with a disease-term after *in*, is seen, for example, at 174. 15 sicut in dysenteria, 96. 4 sicuti superius in cephalaea passione, 141. 4 sicuti superius in passione capitis. There is, however, one clear instance in which a word for sufferers follows the *in*, namely at 147. 11 praecordia eorum cataplasmabis, sicut in quartanariis, 'as in the case of *those suffering from* quartan fever'.

The second context which calls for comment concerns phrases of the

[375] Note the phrase *et sunt distantiae passionis* . . ., at Cass. 158. 16, 168. 17, 181. 6, and cf. 75. 7, 83. 20, 136. 9, 139. 21, 158. 21.

form *ad -icos* in titles such as t. 156. 16 *ad cardiacos*, t. 128. 5 *ad ictericos*, t. 154. 1 *ad phreneticos*, t. 90. 7 *ad pthisicos*, t. 81. 3 *ad synanchicos*, t. 83. 19 *ad tetanicos*, of which Cassius attests 11 in all. Presumably, the meaning in each case is 'for the treatment of those suffering from X', but I note again that in unambiguous cases it is (nearly) always a disease-term rather than an expression denoting patients that follows the *ad*. Beside the 11 titles just mentioned, we find no fewer than 67 chapter-titles of the form *ad* + disease and only one unambiguous instance of *ad* + patients (at Cass. t. 2. 3–5 et ad uertiginosos, quos ilingiontas appellant, et ad tenebrosos, quos scotomaticos dicunt). This use of *ad* + patients, including forms in *-i(a)cos*, is, however, well attested in other medical writers, among them Scribonius,[376] and we may conclude on this small lexical point that in Cassius Felix (as in Theodorus and Scribonius) it is legitimate always to interpret the substantival masculine of loanwords in *-icus* as denoting patients rather than cases of disease (*icterici*, at 128. 12, and *pthisici*, at 179. 16, remaining possible exceptions). Celsus may, then, be alone in our corpus in using disease-names in *-icus*.

Before moving on to therapeutics, however, I would note the striking fact that in Cassius' text as a whole, apart from the above-mentioned chapter-titles and beside some 300 examples of *ad* + disease, there are only 5 cases of *ad* + patients and 4 of these are in effect sub-headings within chapters and have no syntactic construction (e.g. 187. 4 *aliud ad hydropicos:* . . .; cf. 55. 17, 123. 21, 125. 4). So, in his continuous prose, Cassius Felix has just a single example of *ad* meaning 'for the treatment of, to help (patients)', rather than 'for the treatment of, against (a disease)'. This solitary example is at 113. 19 trociscus . . . faciens ad ulcera . . . et ad eos qui sanguinem mingunt. I find this remarkable in view of the early confusion in Latin of the two lexically sensitive constructions taken by verbs of administering or effecting medical treatment: the dative of the patient and *ad* (*aduersus, contra*) + accusative of the disease. There are clear instances of *ad* + patients in Scribonius (see n. 376 above),[377] and the disease in the dative is found already in Cato (*Agr.* 159 *intertrigini remedium*).[378] The latter, too,

[376] Note, e.g., Scrib. 59. 19 (quoted above), 53. 5 facit bene haec compositio . . . ad eos qui . . .; 53. 14 facit et hoc medicamentum ad eos quorum . . .; and cf. ind. 9. 30 eadem ad morbo comitiali correptos, quos ἐπιληπτικούς dicunt, et furiosos; ind. 9. 32 eadem ad scotomaticos et cephalalgicos; ind. 9. 33 ad suspiriosos et ad uocis abscisionem.

[377] I have not noticed this construction in Celsus.

[378] Önnerfors (1956: 13–20) quotes examples of the disease in the dative and *ad*, etc. + the patient from the Elder Pliny. He observes that the former is commoner than the latter. His examples of *ad* + patients depend heavily on loanwords in *-ici* denoting patients and not cases of disease. Scribonius (not quoted by Önnerfors) may support this interpretation of *ad -icos* in Pliny, but Önnerfors sees this construction also already in Cato (*Agr.* 123 uinum ad isciacos sic facito). Again, it would be nice to have a Latin form in, say, *ad -osos* by way of confirmation.

however, appears to be avoided by Cassius, who seems to take pains to keep the two constructions apart, on occasion distinguishing them even in lists which combine patients with diseases. Note, for example, Cass. 97. 7–9 facit et ad debilitatem et ad tensionem stomachi passiones, et hepaticis et spleneticis. est autem et podagricis optimum.[379] This would appear to be another instance of the consistency and correctness of Cassius' medical prose.

I move now to deal more briefly with the loanwords in *-icus* relating to therapeutics. These display a clear distinction between the earlier and the later writers. The large majority are built on one of three types of stem: (1) a noun denoting the target of the remedy, the body-part, disease, or type of person for which it is particularly intended (*arteriaca, splenicum*; *colice, psoricum*; *basilicum, paedicon, stratioticum*); (2) a verb denoting the action of the remedy (*catharticus, colleticus, thermanticus, tonoticus*); (3) a verb or noun denoting the physiological effect or response elicited in the patient (*ptarmica, diuretica, hypnotica*). With the exception of *anastomotica* (Cels.) and *epispastica*, *-ice* (Cels., Scrib.), all the examples in Celsus and Scribonius are of type (1). Type (1) persists in Theodorus and is prominent in Cassius but types (2) and (3) claim the majority of instances in the later writers, especially type (2) in Theodorus.

It is striking that the four examples that I have noted in the medical books of Pliny (*causticus, septicus, smecticus, stypticus*)[380] are all of type (2) and thus align him with Theodorus rather than with Scribonius. This is almost certainly not the complete set of therapeutical *-icus* forms in Pliny,[381] but again, as in the case of patients in *-ici* (above) and of medicinal properties in *-torius* (5. 4. 5), his vocabulary does appear quite different from that of Celsus and Scribonius, and suggests either that the latter used quite different sources from those of Pliny, or that they deliberately avoided certain linguistic features in their medical discourse, or that (socio)linguistic developments, affecting the form of Latin medical prose, occurred between the 40s and the 70s of the first century.

We have seen that a single medical lexeme in *-icus* could, in principle, have three distinct medical meanings, describing or (by conversion) naming a disease (D) and/or one suffering from D and/or a remedy for

[379] Compare the title of Marcell. ch. 27 coeliacis et dysintericis et torminosis et ad intestina rupta et ad internos morbos atque incontinentiam stercoris remedia, quoted by Önnerfors (1956: 19).

[380] All occur as adjectives with *uis* 'property, power' (for one example of each see *Nat.* 20. 238, 21. 166, 27. 105, 30. 29), *causticus* and *stypticus* also with *natura* (synonymous with *uis*) (20. 130, 32. 111); *caustica* (*saepe*), *smectica* and *styptica* occur also as neuter nouns (e.g. 20. 90, 30. 29, *al.*; 24. 120, 31. 92). Presumably, *caustica* (neut. pl.) is synonymous with *urentia* (neut. pl.): cf. *Nat.* 20. 90 brassicae . . . cinis inter caustica intellegitur, and 20. 181 lepidium inter urentia intellegitur.

[381] I note also *toxica* (noun) at *Nat.* 20. 18, and *medica (uis)* (ibid.).

treating D.[382] This versatility of lexical function (borrowed with the words themselves from Greek) does not amount to polysemy since each meaning is marked by its own combination(s) of gender and number, diseases, by masuline singular (Cels.) or feminine singular (Cass.), patients, by masculine plural, remedies, by neuter plural or feminine singular. In view of this, it is perhaps surprising that Celsus, Scribonius, and Theodorus attest so few forms in *-icus* in more than one function: 3 in Celsus (*hydropicus, hydropici, phreniticus, phrenitici, colicus, colice*), just 1 in Scribonius (*colici, colice*) and perhaps 2 in Theodorus (*cardiacus, cardiaci, chronicus, chronici*[383]). In Cassius Felix, by contrast, there are more than a dozen examples which appear both as disease (*(passio) arthritica, cardiaca . . . synanchica, tetanica*) and as patient (*arthritici, cardiaci . . . synanchici, tetanici*), and 5 which are used in the name of the remedy as well (*colicus, hydropicus, ischiadicus, nephreticus, pleuriticus*).

Whether or not Greek had a part to play in their development, there are three earlier-attested Latin adjectives in *-aticus* which develop meanings to do with mental illness and which are possible models for the use of (Latin) *-aticus* with the meaning 'suffering from, afflicted by' (earlier proper only to Gk. *-ικός*: *lymphaticus* 'frenzied, distraught' is already in Plautus (*Poen.* 345) and recurs in a medical book of Pliny (*Nat.* 26. 53 *lymphatica somnia* 'nightmares'); *fanaticus*, originally 'of, or belonging to, a temple', is used of a tree struck by lightning in Paul's excerpts from Festus (p. 92M), and already in Cicero (e.g. *Dom.* 105) and Horace (*Ars* 454) to mean 'fanatic, frantic', of religious devotees inspired by orgiastic rites; and we find in the *Digest* (21. 1. 43. 6) of the jurist Iulius Paulus (2nd–3rd cent. AD) *lunaticus* 'moon-struck, epileptic'. There are three further precious indications of a functional merger between (originally Gk.) *-ικός*, and Latin *(a)ticus*. Firmicus Maternus (mid-4th cent. AD) attests *strumaticus* (adj.) 'suffering from a struma, scrofulous' (*Math.* 8. 19. 11, p. 107[v] col. 2); this is a Latin formation based on *struma* + *-(a)ticus* functioning as if it were in Gk. *-ικός*. Caelius Aurelianus attests (*Diaet. pass.* 44, p. 230) *ileaticus* 'suffering from a disease of the small intestine', formed with *-aticus* on *ileus*, the Latinized form of the Greek loanword *εἰλεός*; (in *Acut.* and *Chron.*, however, Caelius has only *iliacus*, 5 times). Clearest of all is the word *iecoriticus* used by Marcellus (early 5th cent.) several times in chapter 22 (25, 27, 29, 30, 31, 33) to mean 'one suffering from a liver complaint'. The *-i-* before the *-ticus* raises the possibility that this is not (*iecur* 'liver' + *-iticus* but *iecorit-* + *-icus*,

[382] On a possible Latin parallel to this range of meaning (perhaps modelled on Greek) in *scabiosus* 'for treating *scabies*', see 5. 4. 3 above.

[383] Theod. 134. 4 *cardiaca diaforesis*, a disease-term; t. 133. 13 *cardiaci*, patients; 138. 9 *chronica* (neut. pl. as noun) 'chronic diseases'; 163. 5 *chronici* (masc. pl. as noun) 'chronic sufferers'. The last two are the only examples cited by the *ThLL*, s.v., 1030. 59 ff. for these uses of *chronicus*.

the stem being that of an unattested **iecoritis*, which would itself be a hybrid of *iecur* + (Gk.) *-itis* (*-ῖτις*).[384] Svennung gives examples (1941: 125–6) of 'Latin' medical forms in *-iacus* to which the only known Greek correspondents are in *-ικός*. He cites *dysuriacus* in Firmicus Maternus (*Math.* 4. 15. 2), *peripleumoniacus* in Celsus, Marcellus (20. 18), and Theodorus Priscianus; *coliace* in Marcellus (29. 37, 38); *coleriacus* in Chiron (826); *spleniacus* in Theodorus Priscianus (185. 8, 209. 13); and (non-medical), on Latin stems, *miliacus* 'fed on millet' (of birds, Cael. Aur. *Chron.* 1.27); *memoriacus* 'memorial' (hapax, inscr.); *columniacus* 'columnar' (hapax, *Liber coloniarum* (5th cent.)); *comitiacus*, an official (cf. *comes*; first in the 5th cent.).[385]

That *-icus, -ica, -icum* was felt by the fourth century to be fully Latinized is seen not only in these striking adjectives applied to sufferers from disease, and not only in the very large number of forms that are borrowed (many without Latin gloss); it is clear also in the use of such forms by Cassius Felix in his own 'Latin' translations of Greek terms. For example, he translates the Greek phrase *rheumatice diathesis* by the 'Latin' *rheumatica passio* (39. 12) and he glosses *in pthoes* with *hoc est in pthisicis* (179.10).[386]

It is only for the final stage of the integration of Greek *-ικός* into Latin derivational morphology that evidence is lacking in Theodorus and Cassius Felix; that is, they attest no example of motivated derivatives in *-icus* on *Latin* stems (cf. Fruyt 1987*a*: 230, 245). Equally, their examples of verbs in *-izare* (from Gk. *-ίζειν*) all have Greek stems (e.g. *phrenetizare, rheumatizare*; cf. 2. 5. 3 and 2. 5. 5 above, and Leumann 1977: 551–2). In Latin generally, however, as we have seen, the suffixes are eventually extended by analogy to non-Greek stems (cf. Deroy 1956: 77–85, Humbley 1974: 48). As French *-ique, -iser*, English *-ic, -ize*, German *-isch, -isieren*, these suffixes assume inestimable importance in extending the vocabularies—and especially the terminologies—of the languages of western European civilization.[387]

[384] Cf. *peripleumonitici* at Marcell. 30. 34 (if correctly restored from *(peri)pleumotici* of the mss.), a form unattested in Greek.

[385] Svennung also notes (1941: 126–7) two further (non-medical) instances of *-ticus* on a Latin stem, in *primoticus* 'early' (Apic. 4. 5. 4, *Compositiones Lucenses*, L. 4), and *forasticus* formed on the model of the antonym *domesticus*. He draws attention also to Ital. *malotico* formed on the model of *aegroticus*.

[386] Compare the use of a Latin prefix with Gk. *melancholicus* in the Latin Oribasius, *Syn.* 4. 8 de leguminibus lenticla *permelancholica* est cibatio; cf. 5. 4. 2 above.

[387] Cf. Deroy (1956: 78) and Leumann (1948: 169–70).

5. 5 Summary and Conclusions

Especially in view of the length of this chapter, it will be in order to summarize the main findings and proposals before concluding. I do this first for compounds and then for affixal formations.

It is clear that compounding is in Celsus and remains in Cassius Felix utterly marginal as a means of forming medical terms. This is no surprise, given the minute importance of compounds in extending the vocabulary of Latin prose writers. Indeed, perhaps it is remarkable that we find any examples at all that hint at the existence of productive types (*bicapita, dentifricium, sanguisuga*). On the other hand, perhaps what is more impressive is the resistance that Latin medical terminology seems to show to the formation of compounds: many Greek compounds awaited translation, and their translators were at least very familiar with Greek, at best bilingual, or even native speakers of Greek—these factors might have favoured the coining of some atypical Latin formations.[388] Statistical comparison between Latin and French appears to indicate that compounding did become more frequent in later Latin, and especially in the popular registers.[389] In our small corpus of medical writers, however, compounding as a linguistic means of term-formation is insignificant.

In 5. 3 and 5. 4, 19 affixes were considered, 3 prefixes and 16 suffixes, the latter primarily with regard to their lexical constituency and the possible associated semantics.

No very striking conclusion emerged from our brief account of adjectives in *per-* and *prae-* 'very' and *sub-* 'slightly'. Those in *per-* and *sub-* are particularly prominent in Celsus, but they continue to appear in medical descriptions in our latest texts from antiquity. The role of *prae-*, on the other hand, has perhaps been overestimated for later medical prose: it is exceedingly common in Pliny the Elder but rare thereafter; it may have had stylistically elevated overtones to a late date.

The suffixal formations, on the other hand, emerged as being of paramount importance in extending the Latin medical vocabulary so as to reflect its lexical and semantic structures. It appears from their use, distribution, and lexical patterning that suffixes may signal one or more of three types of linguistic meaning. The most important, in terms of frequency, is evidently the *(quasi-)lexical* meaning that is to be inferred for all sixteen suffixes, in respect of (usually) one morpho-lexical set of medical words in each case. To several suffixes, however, we have had occasion to ascribe a

[388] Evidently this did happen in the case of Caelius Aurelianus, in whom we find e.g. *paruicollis* (for *μικροτράχηλος*), *filificium* (for *παιδοποίησις*), *aqui-, denti-, felliducus* (for *ὑδρ-, ὀδοντ-, χολαγωγός*); see André (1963).

[389] See Oniga (1988: 20, n. 24), and the comparative statistics in Mikkola (1971: 44–52, esp. 48–50).

grammatical or a *stylistic* meaning, apart from, and sometimes in addition to, a lexical function. I summarize first the twenty most prominent morpho-lexical sets proposed above, arranging them by lexical field, giving a few examples of each type, and placing doubtful ones in square brackets.

(Anatomy and physiology)

(i) *-tus* natural functions of the human organism: sense-faculties and sensations (*sensus, gustus, uisus*), physiological processes (*usus, pulsus, conceptus*), other abilities and properties (*motus, gressus, uolatus*) (5. 3. 1)

(ii) *-tura* joints and other structural features of the human body (*commissura, iunctura, sutura*) (5. 3. 3)

[(iii) *. . . lus, . . . la, . . . lum* (especially of two and three syllables) various body-parts (*ala, mala, pala, talus; oculus, scapula, ascella, medulla*) (5. 3. 9)]

(Pathology)

(iv) *-or* signs and symptoms of disease, or diseases themselves (*dolor, tumor, sudor, pallor, timor aquae*) (5. 3. 2)

(v) *-tura* traumatic injuries, including fractures, dislocations, burns (*combustura, fractura, luxatura*) (5. 3. 3)

(vi) *-tas* (a) (concrete) morbid growths (*asperitas, ficitas, saxietas*); [(b) (abstract) nominalizer of adjectives relating to pathology (*difficultas, nimietas, imbecillitas*)] (5. 3. 4)

(vii) *-tudo* various disease-terms, both specific and general (*lippitudo, aspritudo, aegritudo*) (5. 3. 5)

(viii) *-edo* various morbid conditions and states (*acredo, putredo, nigredo*) (5. 3. 6)

(ix) *-igo* surface conditions, skin-diseases (*impetigo, uitiligo, aurigo*) (5. 3. 7)

(x) *-(it)ies* decay or wasting of tissue (*macies, sanies, scabies; durities, nigrities, scabrities*) (5. 3. 8)

(xi) *. . . lus, . . . la, . . . lum* morbid spots, growths, swellings (*panicula, lenticula, furunculus, fistula, papula*) (5. 3. 9)

(xii) *-osi* (subst. masc. pl.) patients suffering from a particular disease (*calculosi, suspiriosi, tenebrosi*) or in a particular part of the body (only *lienosi, iocinerosi*) (5. 4. 3)

(xiii) *-ntes* (subst. pres. pple masc. pl.) patients, in general (*laborantes, patientes, aegrotantes*), or those suffering from a particular disease (*tussientes, febrientes, insanientes*) (5. 4. 4)

(xiv) *-i(a)ci* (subst. masc. pl.) patients suffering from a particular disease (*hydropici, phrenitici, podagrici*) or in a particular part of the body (*hepatici, splenetici, stomachici*) (5. 4. 6)

(Therapeutics)

(xv) *-tio* (concrete) types of medicinal preparation (*compositio, confectio, decoctio, gargarizatio*) (5. 3. 1)

(xvi) *-tura* (a) surgical procedures and instruments (*sutura, (al)ligatura, incisura*); (b) prepared medicinal substances (*mixtura, limatura, colatura*) (5. 3. 3)

(xvii) *. . . lus, . . . la, . . . lum* (a) items of therapeutic hardware (*linteolum, fasciola, scalpellus, penicillus*); (b) pills, tablets, and the like (*pilula, pastillus, globulus*) (5. 3. 9)

(xviii) *-ntia* (subst. pres. pple neut. pl.) classes of medicines or foodstuffs, according to their therapeutic effect (*erodentia, extenuantia, refrigerantia*) (5. 4. 4)

(xix) *-torius* (*-torium* neut. subst.) (describing) classes of medicines according to the response they provoke (*delacrimatorius, uomitorius*), their therapeutic effect (*adiutorium, purgatorium, constrictorius*), or their means of application (5. 4. 5)

(xx) *-i(a)cus*, especially *-i(a)ca, -i(a)ce, -i(a)con* (fem. or neut. subst.) classes of medicines according to their target (*arteriaca, colice, paedicon*), their therapeutic effect (*catharticus, colleticus, tonoticus*) or the response they provoke (*ptarmica, diuretica, hypnotica*) (5. 4. 6).

These suffixes certainly give a distinctive colour to the medical prose of our four texts. None of them is exclusive to medical vocabulary, as, say, *-itis* is to modern medical English. However, many of the individual members of the rhyming sets with these lexical functions are exclusive to medical vocabulary and to medical texts, and consequently have as strong a claim to be considered distinctively medical in a Latin context as, say, *-ism* does in an English context when it forms nouns denoting chronic degenerative conditions.

Descriptively these morpho-lexical sets represent a striking number of instances of the formal signalling of lexical structure—and this summary list is not exhaustive. In effect, the suffix functions in each case as a class-marker, or determiner; the members of each set are rhyming hyponyms. Sometimes even the hyperonym—the head word of a lexical set—is found

to rhyme, too, being formed with the suffix that is characteristic of its hyponyms:[390] note in particular (anat.) *sensus* 'a sense, sensation', *usus* 'a physiological function'; (path.) *laborans* 'the patient', *aegritudo* 'a disease'; (ther.) *adiutorium* 'a remedy' (and, not considered above, *localis* 'for application to a particular part of the body').

An important if ultimately unanswerable question is whether these derivational patterns had linguistic reality for users of Latin: do they reflect internalized rules of word formation? It was argued repeatedly in the foregoing sections that morphologically or syntactically abnormal or rule-breaking formations, which nonetheless belong to the same lexical set as their rhyming fellows, are strongly suggestive of an affirmative answer (*anhelosi, masticatorius, serpusculus*). Subsidiary confirmation of writers' awareness of morpho-lexical sets was inferred from the frequent phenomenon, not only in our small corpus, of conjunction, or 'accumulation' in close proximity, of rhyming hyponyms, presumably (in origin at least) for stylistic effect.

Of the 19 morpho-lexical sets just now summarized (I ignore now (iii) above), 11 relate to pathology, 7 to therapeutics and only 2 to anatomy and physiology. The smallness of the last figure reflects, I think, on the one hand, the notorious resistance to change of body-part terms and, on the other, the nature of the lexical field. The few structured sets of hyponyms in anatomical terminology (teeth, fingers, bones, parts of the intestine) are expressed, for the most part, by means of phrasal terms (cf. 4. 3. 1e above). A second point to note on the distribution of the morpho-lexical sets concerns their discreteness: of most of the suffixes considered here, each is associated with just a single set. The prominent exceptions are *-tura* and *. . . lus, . . . la, . . . lum*, and these share the other exceptional feature of making more than one morpho-lexical set in a single major field of the medical vocabulary (see (xvi) and (xvii) above). In the cases of *-i(a)cus* and the substantival use of the present participle, which form sets under both pathology and therapeutics, it is important to note the lexical-functional load borne by the category of gender (and number), in each case masculine (plural) denoting groups of patients, neuter (plural) marking classes of treatments.

Apart from their lexical function suggested above, additional stylistic meaning is likely for at least *-(it)ies* and *-tudo*, derivatives in both these suffixes having probably archaic and prestigious overtones. Conversely, the possibility was raised that, in the first half of the first century at least, forms in the suffix *-torius* had low or negative prestige, which occasioned their avoidance by Celsus and Scribonius. Stylistic meaning of a different sort, probably without lexical meaning, was proposed for *-tio* in the cases of

[390] Cf. 1. 2. 3 above, with n. 40.

derivatives whose lexical meaning differs little, if at all, from that of their respective bases, and where the suffix appears to mark the word as technical.

A possible need to reckon with grammatical meaning, finally, arose in connection with three (pairs of) suffixes, always in addition to a clear lexical meaning. The formations (and possible oppositions) in question are:

(1) *-torius* 'naturally able to perform at any time an inherent function'
vs. the substantival present participle 'temporarily or incidentally performing an action at a given time';

(2) *-tus* 'an inherent, natural, inalienable function'
vs. *-tio* 'any incidental, objective action or process';

(3) *-tura* 'the permanent ability to perform, or the professional performance of, an action'
vs. *-tio* 'any incidental, objective action or process'.

I have deliberately overcharacterized the meanings of the second member of each pair in order to raise the possibility that these are equipollent oppositions, corresponding roughly to verbal aspect. It is, however, also possible, and perhaps preferable, to think of these pairs of suffixes as 'marked' versus 'unmarked'.

A comparison of these word-formation types in our first-century Italian writers, on the one hand, and in their fourth/fifth-century African successors, on the other, appears to show really very few differences which might be taken as diachronic developments. It was suggested that the higher frequency in the later texts of some formations, notably *-osus, -tas*, and above all *-tio*, reflects not changes in word-formation but rather a stronger tendency in the later period to nominalize and compress, a syntactic-cum-stylistic development (to which we shall return in Chapter 6). Some material differences in suffixation do emerge from our four texts, and are duly recorded, but I remain uncertain as to how representative they are of medical Latin in general. In particular, taken on its own, our small corpus would suggest that medical derivatives in *-torius* and *-edo* (and some lexically ordered borrowing in *-icus*) achieve prominence only in the later medical writers. Yet we have seen that *-torius* (and therapeutic *-icus*) is well established in the Elder Pliny, and that there are pathological terms in *-edo* already in republican Latin. The suffix *-tura* alone seems to show significant quantitative and qualitative developments in its use in later medical texts. With regard to the other formations considered here, what is most impressive is the consistency of their use and behaviour over more than four centuries.

The body of this chapter ended with the suffix *-i(a)cus*. With this formation we came, in a sense, full circle to a claim made much earlier in

this study. In Cassius Felix and, one would suppose, in Latin generally in the fifth century, Greek–Latin *-i(a)cus* represents in the area of derivational morphology a blurring of the once-clear distinction between Greek and Latin forms, analogous to that in the lexicon for which I argued in 2.6 above.[391] Modern European medical—and generally scientific—terminology contains an extraordinary blend of Greek and Latin elements, lexical and derivational. The foundations of this blend are evident already in fifth-century Roman Africa.

[391] Recall Cassius' organization of Greek terms for tumours in *-ōma* (*-ēma*), as if they were part of the Latin terminology (2. 5. 3 above), and cf. Rippinger (1993) on the appropriation by medical Latin of the Greek naming-formula for remedies of the type *dia* + genitive; on the latter cf. Wenskus (1995: 185–6) and the end of 6. 2. 3. 2 below, with n. 93.

6

Towards some Relations between Terminology, Syntax, and Style in Medical Prose

6. 1 Introduction

In contrast with Celsus, the earliest of our four authors, Cassius Felix, the latest, borrows Greek terms without restriction; he prefers a monolexematic derivative to a determining phrase or relative clause; and, in general, he appears to favour a heavily 'nominal' syntax. Let me illustrate this last point straightaway by setting side by side some contrasting synonymous expressions in Celsus and Cassius. Celsus introduces remedies for loss of hair with *capillis fluentibus* (Cels. 6. 1); Cassius has the nominal equivalent, *capillorum defluxio* (t. 11. 20; 11. 21). Celsus refers to those parts of the body covered by hair with: *in is partibus quae pilis conteguntur* (Cels. 6. 3. 2); contrast Cassius' terser *capillosis in locis* (12. 12; 13. 13), in which the relative clause is replaced by a derived adjective. Of patients spitting blood, Celsus uses again a relative clause: *qui sanguinem expuunt* (2. 1. 21; cf. 2. 7. 16), while Cassius uses a substantival present participle: *sanguinem spuentes* (= Gk. *haemoptyïci*, 85. 17). The symptom of ringing in the ears is denoted only by a verb phrase in Celsus (1. 3. 20; 4. 5. 2 *sonant aures*) but always by a noun phrase in Cassius (46. 15 *ad tinnitus aurium*; cf. 3. 18, 46. 1, 47. 15).[1]

So far in this book the focus has been on vocabulary, that is, on single words and phrasal terms. In this final chapter, I return finally (as promised in 1. 2. 1; cf. 4. 3. 2b) to Jacques André's contention (1986: 9) that 'les langues techniques latines sont des langues réduites au lexique'. Here we shall consider some sets of clausal and phrasal referring-expressions which alternate with items of terminology in our four authors, which thus sit across the boundary between lexicon and syntax, and which are important gauges and determiners of the style, the nature—and possibly the age—of a piece of medical prose. To take a brief example straightaway, consider the

[1] Theodorus has both *sonare aures* (22. 13) and *sonitus aurium* (22. 14, 151. 1); cf. 6. 2. 1 below.

following introductions to treatments for 'hot' gout in Theodorus, Celsus, and Cassius Felix:

Theod. 221. 20 quibus uero sub calido tactu pedum dolor obuenerit;
Cels. 5. 18. 1 est tamen quod refrigerare possit, ad calidas podagras aptum;
Cass. 136. 13–14 utrarumque autem [*podagrarum*] sanatio ista est, in calidiori refrigeratiua, in frigidiori calefactoria et eiectoria.

Theodorus refers to the disease with a long paraphrase, which foregrounds the patients (*quibus*), avoids the Greek loan-term *podagra* (*pedum dolor*), and replaces the attributive adjective which specifies the type of *podagra* (*calida podagra*, as opposed to *frigida podagra*) with a prepositional phrase (*sub calido tactu*). The paraphrase is remarkable not only for its length but also because it must represent a conscious choice on the part of Theodorus to use a phrase as different as possible[2] from the short, simple, and obvious expression *ad calidas podagras*, although it conveys exactly the same information, and is used by Celsus in the line quoted above. Conversely, the relative clause in Celsus (*quod refrigerare possit*) is a relatively verbose equivalent of the single derived adjective *refrigeratiua* in the corresponding line of Cassius Felix (*sanatio refrigeratiua = sanatio quae refrigerare possit*); Cassius also uses the ordinary expression, rather than a paraphrase, for the condition to be treated, introducing a remedy four lines later (136. 18) with *ad calidam podagram*.

This chapter makes no claim to be exhaustive of either types or instances of non-terminological paraphrases but rather indicates the range of types of expression from which our authors choose, and illustrates some conflicting tendencies in their four texts.[3] Some of these differences may be purely individual, but others have a chance of reflecting more general patterns of development, perhaps in part chronological and technical, along a series of linguistic parameters running between two stylistic poles.[4] One pole may be characterized as being 'unscientific', in making appeal only to ordinary linguistic, as opposed to scientific knowledge on the part of the reader/hearer. In formal terms, it is wordy, descriptive, unconventional, and uncompressed, using a range of synonymous phrasal expressions based on verbs and adjectives, which take part in a richly varied syntax; for present purposes this stylistic type is referred to as 'diffuse' or 'verb-based'.[5] The opposite extreme (here termed provisionally 'compact' or 'noun-based'[6]) is

[2] The only contrast missing is the incorporation of the disease in the verb phrase (see 6. 2. 1 below): *quibus . . . pedes doluerint* would have done the trick!

[3] Cf. the brief discussion and illustration of these phenomena in Langslow (1994*b*: 233–9).

[4] On phrasal expressions in Columella and Pelagonius, see Adams (1995: 344–6, 349–50, 353–8).

[5] These are more descriptive and neutral than other possible names such as 'primitive', 'pre-scientific', 'non-scientific', 'lay', 'literary'.

[6] In preference to alternatives such as 'scientific', 'specialist', 'advanced'.

typified by a syntax that is much less varied in construction, to the point of being seriously impoverished, thanks to a more-or-less normalized terminology based on nouns and their adjectival and verbal derivatives, and that shows the results of both formal and semantic compression: semantic compression is seen in the selection of particular features of the referend to serve as the basis of its name, morphological compression, in the incorporation of these features in complex monolexematic structures of conventional form and meaning. The interpretation of prose written in the compact style may call for more specialized knowledge of the linguistic coding of the technical discipline in question than is usually commanded by the average native speaker.

Before proceeding to a more detailed analysis and discussion of the relevant grammatical and lexical features, I offer some more extensive sample passages of medical prose in order to illustrate the two stylistic poles suggested above. I begin with the 'compact' style, and with a piece from Cassius Felix (in which finite main verbs are in bold and nominalized phrases are italicized):

Cass. 187. 11–19 *praefocationem matricis* sequitur *subitus casus*, *uocis amputatio* ut obmutescant, et *apprehensio sensus*, *dentium confixio* et *stridor rapidus* ita ut *accessionis tempore* una pars oris ad alteram partem conduci uideatur, *articulorum contractio*, *praecordiorum suberectio*, *ipsius matricis* ad superiores partes *subfugium*. tunc etiam *thoracis extantia* **efficitur** et iterum *subita resumptio* ita ut omnia quae *in accessione* senserint *dimissionis tempore* recordentur.

There are three points to note here, all characteristic of the 'compact' style: first, the syntactic structure of the two sentences is very simple: [*hunc morbum*] sequitur [*signa 1–7*] tunc etiam [*signum 8*] efficitur et iterum [*signum 9*]; second, each of the nine *signa* (symptoms) involves a nominalization of a verb or an adjective; and third, the patient figures only in the subordinate clauses (*ut obmutescant*; *ut omnia quae . . . senserint . . . recordentur*), and could easily have been absent altogether, as he is in the next example. This is Caelius Aurelianus' long account of the symptoms accompanying tetanus. It illustrates the same phenomena no less strikingly—although it does open with an absolute participial phrase in which the option to nominalize has not been taken:

Cael. Aur. *Acut.* 3. 67–8 ascendente passione atque erumpente, *distentio dura et durities partium* **fiet** cum *dolore uehementi colli atque musculorum qui buccas colligant*, *rubor uultus* et *colligatio supradictorum musculorum*, *dentium quoque concubitus*—hoc est incumbens confixio—*sudor plurimus*, *articulorum frigidus torpor*, pulsus obscurus, *extensio colli*, *spiratio difficilis*, *contractio crurum atque manuum* et *infusi et destillati liquoris in os recursio per nares* **fiet**, quibusdam etiam *mentis alienatio* cum *celerrima spiratione* **sequetur**, *gutturis et pectoris stridor*.

Contrast these with the complex syntax, the frequent changes of subject, the numerous finite verbs, and the repeated reference to the patient in the following passages of Celsus:

Cels. 1. 3. 20 item prodest [*uomitus*] ei cui pectus **aestuat** et **frequens** saliua uel nausea est, aut **sonant** aures, aut **madent** oculi, aut os **amarum** est; similiterque ei qui uel caelum uel locum **mutat**; Isque quibus, si per plures dies non **uomuerunt**, *dolor* praecordia **infestat**;
Cels. 3. 23. 1 [*in epilepsy*] homo subito **concidit**, ex ore spumae **mouentur**, deinde interposito tempore ad se **redit** et per se ipse **consurgit**;[7]
Cels. 4. 22. 1 [*in dysentery*] intus intestina **exulcerantur**; ex his cruor **manat** isque **excernitur**, interdum simul quaedam carnosa **descendunt**; frequens deiciendi *cupiditas dolor*que in ano *est*. cum eodem *dolore* exiguum aliquid **emittitur** atque eo quoque tormentum **intenditur**; idque post tempus aliquod **leuatur** exiguaque *requies est*; somnus **interpellatur**; febricula **oritur**; longoque tempore id malum cum **inueterauerit**, aut **tollit** hominem aut, etiamsi **finitur**, **excruciat**;
Cels. 8. 4. 1 ubi ea [*caluaria*] **percussa**, protinus **requirendum est**, num bilem homo is **uomuerit**, num oculi eius **occaecati sint**, num **obmutuerit**, num per nares auresue sanguis ei **fluxerit**, num **conciderit**;
Cels. 8. 14. 2 si super saeptum id [*dislocation of vertebrae*] **incidit**, manus **resoluuntur**, *uomitus* aut *neruorum distentio* **insequitur**, spiritus difficulter **mouetur**, *dolor* **urguet** et aures **obtusae sunt**.

We have already seen instances of the latter stylistic pole, the 'diffuse', in 2. 4. 4. 5 above, where it was noted that Celsus, not alone, but much more than the other writers we have considered, often uses a Latin paraphrase in preference to an acknowledged Greek medical term.[8] Most of the Latin expressions in question consist of a sequence of noun + defining relative clause, as in Cels. 3. 21. 14 id genus morbi quo in uterum multa aqua contrahitur (for Gk. *ascites*), 4. 17. 2 ea quae extrahendo sunt (for Gk. *epispastica*).[9] There are a few cases in which a participial determiner replaces the defining relative clause: Cels. 5. 20. 5 ora uenarum fundentia sanguinem (cf. 7. 30. 3A; for Gk. *haemorrhoïdes*), 8. 5. 1 in longitudinem implicatum linamentum (for Gk. *lemniscus*);[10] on three occasions the semantic content of the participial phrase is purely deictic,[11] meaning

[7] Compare the heavily nominalized description of epilepsy at Cass. 168. 19–169. 1 sequitur autem patientes, ut dixi, *subitus casus*, aliquando cum *contractione corporis membrorum*, aliquando cum *oppressione*, *spumatio* etiam et *insensibilitas et tenebratio*.

[8] I list the Greek words so treated in 2. 4. 4. 5 above. For the Latin paraphrase in each case, and further references, see the Index of Greek words.

[9] Cf. 4. 21. 1 is morbus qui in intestino pleniore est (for Gk. *colicus*), 7. 18. 11 neruus ex quo testiculus dependet (for Gk. *cremaster*), 8. 12. 1 dentes qui secant (for Gk. *tomis*).

[10] Cf. Cels. 4. 8. 3 [*sulpur*] ignem non expertum (cf. 5. 18. 14A, 15, *al.*; 5. 19. 19 [*nitrum*]) for Gk. *apyrus* (5. 18. 14A).

[11] Compare Celsus' use of deictic means to avoid (so it seems) repetition of Gk. *dyspnoea* at 4. 8. 2 id quod primum est 'the type [of *difficultas spirandi*] I mentioned first'. Compare

roughly 'purpose-made for this task': for example, Cels. 7. 12. 1F ea . . . ad id facta forfice, quam rizagran Graeci uocant.[12] A further group occurs in adverbial clauses, such as: Cels. 7. 21. 2 si uero umor intus est (for Gk. *hydrocele*), 7. 23 si quando caro inter tunicas concreuit (for Gk. *sarcocele*). From these passages it is evident that, when Greek is involved, the brevity—compactness—of the available Greek term is not an overriding factor in Celsus' choice of a referring-expression for a medical object: he takes his reader back to basics, to an uncompressed description of the referend, which makes appeal only, or mainly, to linguistic knowledge.

While periphrastic Latin expressions of the types just illustrated stand out most obviously—not only in Celsus—as replacements of Greek terms with which they are expressly equated in the text, it is apparent that they fit into a more general phenomenon of Latin medical discourse, in which clausal and phrasal expressions alternate with *Latin*, as well as Greek, nominal terms, which may or may not appear in the same text. Expressions in which the lexical focus is in the form of a finite verb (or adjective + copula)—I mean complete sentences, various subordinate clauses, defining relative clauses, and so forth—alternate with and bear the same reference as constructions in which the lexical focus is a Latin nominal derivative replacing the verb (or adjective). The latter sort of uncompressed, verb-based expression is common in Cato and attested still in much later writers. Note, for example, the following long-winded references to symptoms and patients in Cato's *De agricultura*:

Cato, *Agr.* 122 (chapter heading) uinum concinnare, *si lotium difficilius transibit* (i.e. in cases of dysury);
127. 1 *ubi uoles cibum concoquere et lotium facere* (i.e. in cases of indigestion and dysury),[13] hinc bibito quantum uoles sine periculo;
156. 7 (section heading) nunc *de illis quibus aegre lotium it quibusque substillum est* (i.e. those suffering from dysury or strangury).

With the second (*ubi uoles*) in particular compare the much later (5th cent.) second-person form of *uolo* at Theod. 7. 6 *si candidare autem uelis* (capillos).[14] Notice, at this end of the 'scale', the explicit inclusion of the

Scribonius' apparent reference to *strophus* at 64. 1 as 'the other pain in the intestine' (cf. 2. 4. 4. 5 above).

[12] Cf. Cels. 7. 26. 2K uncus . . . eius rei causa factus, for Gk. λιθουλκός, which is not mentioned by Celsus but is described in detail; 8. 4. 16 forfice ad id facta (for removing fragments of bone), no Greek term and no description.

[13] Contrast, in the heading to the same chapter, the technical equivalents: Cato, *Agr.* 127. 1 ad dyspepsiam et stranguriam mederi. This was probably added later to the original recipe (cf. Boscherini 1993*b*: 33).

[14] Cf. in the same passage 7. 10 sane *si crispare delectet*; note also, with 1st-person pl. verbs of wishing, Theod. 26. 7 quibus uero per saniem digestionem *uolumus* procurari, and Scrib. 81. 15–16 quibus alioquin urinam mouere *studemus*.

reader/healer, fully and correctly addressed: 'if you (were to) wish to achieve such-and-such,[15] then do the following.' The corresponding noun-based constructions always assume the existence of the healer and the patient and are usually, though not always, shorter (on a syllable count) than their 'primitive', verb-based sources: the corresponding chapter-title in Theodorus is t. 5. 5 *De infectionibus capillorum*, and the first section heading is 5. 6 *Ad denigrationem capillorum*.

Of the large lexical categories relating to medicine, these referring-expressions belong for the most part to those of diseases, symptoms, patients, and remedies.[16] It is these that recur repeatedly in the same set of functions, positions, and contexts in medical prose, especially of the type represented in the works of Scribonius, Theodorus, and Cassius, where the aim, in part of each work at least, is to set out treatments for particular diseases ordered *a capite ad calcem*. (Celsus' encyclopaedic account of the whole field of medicine contains comparable material but is arranged differently and is much more varied.) Broadly speaking, the same information is given for each disease (typically including Greek name, position, aetiology, symptoms, treatments to use—with instructions for preparing and applying each treatment), so that a typical chapter comprises an (in illocutionary terms) invariant framework, the 'spaces' filled in with variable particulars:

> The disease is caused by *x*, *y*, *z*;
> the accompanying symptoms are *a*, *b*, *c*;
> effective treatments are *l*, *m*, *n*.

In principle, of course, the linguistic form of both framework and particulars can be endlessly varied and descriptive, as the 'diffuse' style tends to be; in practice—especially at a literary level where *non eloquentia opus est sed labore*[17]—endless repetition leads to 'compactness', to a conventional minimal framework, in which redundant information is eliminated, and in which spaces are left for the variables (causes, symptoms, treatments, etc.). These spaces are most economically filled by listing the variables in the single syntactic slot after (e.g.) *nascitur ex* [*abl.*] 'it arises from . . .' or *sequitur* [*nom.*] 'it is accompanied by . . .', and these are accordingly

[15] Cf. Var. *Rust.* 1. 2. 26 siquem glabrum facere uelis; Theod. 73. 5 si cicatricem fieri uolueris, hoc emplastrum facies. These (remote) future conditions provide, of course, an ideal context for the use of the 'future' imperative (in *-tō*), which, subsequently generalized to other syntactic contexts, becomes one of the linguistic hallmarks of medical instructions. Cf. 1. 3. 2 above, and on *-to* and other imperatival expressions in medical texts, Adams (1995: 204–8, 460–7).

[16] Celsus uses also a large number of anatomical referring-expressions of the form head + relative clause; see 6. 2. 3. 1 below.

[17] So Theodorus Priscianus in his preface (1. 9), rather disingenuously in my view, given his studied and on occasion rather striking *variatio*.

rendered syntactically homogeneous and lexically manageable, nearly always as nouns, by various means of nominalization and formal compression.[18]

In what follows, I first (6. 2) introduce and illustrate instances of synonymous diffuse and compact referring-expressions, which appear to alternate, whether within a single text or between texts; in most—though not all—cases it is probable that the diffuse expression is historically as well as synchronically prior to its compact synonym, the latter resulting from one of various regular patterns of formal compression of a diffuse structure. At the end of each subsection, having set the scene in qualitative terms for each pattern, I attempt to quantify, at least approximately, the incidence of compression (and expansion) in our four authors. In the final section (6. 3) I attempt to evaluate these phenomena in terms of Latin in general and medical Latin in particular, with reference to various factors including date of composition and stylistic register; I also offer some linguistic and stylistic comparisons, along the same lines, between ancient Latin and modern English medical prose before concluding.

6. 2 'Diffuse' Referring-Expressions and their Nominalizations

My aim here is to set out and comment on the various diffuse structures which name medical objects in an apparently quite uncompressed form of language but which alternate with or are replaced by a compressed expression based on a nominalization or some other derivative. While account is taken of lexical field, the material is ordered mainly grammatically in this section, according to the syntactic structure of the diffuse expression (and of the derived nominalization or other compressed expression).[19]

6. 2. 1 THE ALTERNATION OF A FINITE VERB-FORM WITH ITS NOMINALIZATION

The commonest type of syntactic variation between 'diffuse' and 'compact' referring-expressions involves the alternation (or replacement) of the structure [*subject* (or *object*) + *finite verb*] (e.g. *nerui resoluuntur*) with [*genitive* + *verbal noun*] (e.g. *neruorum resolutio*). The latter structure behaves syntacti-

[18] Rarely we see the opposite, an established compressed term being expanded into a clause: e.g. with *aqua intercus/aqua inter cutem* 'dropsy' compare Cels. 2. 15. 4 cum aqua cutem subit, and Plin. *Nat.* 7. 78 aquae subter cutem fusae morbus. This appears to be a pretentious literary phenomenon. I draw attention to a few further instances below.

[19] On these phenomena in Greek and Indo-European see Porzig (1942) and the bibliography in Meier-Brügger (1992: i. 159).

cally, of course, as a noun,[20] and appears either with a semantically uninteresting verb (*est, fit, oritur, nascitur*) or in a prepositional phrase (*ad neruorum resolutionem*); if an adverb modifies the verb, it will naturally appear as an adjective qualifying the abstract noun (note e.g. *qui tarde concocunt* ~ *aduersus tardam concoctionem* at Cels. 1. 8. 3). A third variant, which may be seen as intermediate between the 'primitive' sentence and its 'compact' nominalization, is the structure [*noun + attributive perfect participle*] (e.g. *nerui resoluti*). In cases of full nominalization, often the verbal noun stands alone, without an adverbal genitive, usually because the subject and/or object is understood (in e.g. *post fomentationem*, i.e. of the patient by the doctor), occasionally because the nominalized verb is impersonal or has an indefinite subject (see below on *destillat* and *abscedit*). I illustrate each structure in turn.

For a good first example of subject + verb ~ genitive + nominalization, consider Celsus' juxtaposition in successive clauses or sentences of *(pro)fluit sanguis* and *profluuium sanguinis*:[21]

Cels. 4. 11. 4 neque ignorari oportet eis quibus *fluere sanguis* solet . . . dum febris absit, non esse inutile *sanguinis* mediocre *profluuium*;
Cels. 5. 22. 6 si uero ex membrana quae super cerebrum est *profluit sanguis*, uitellus combustus et contritus inspergi debet: si alio loco *sanguinis profluuium est*, [*list of ingredients*] inspergi debet.

Notice that the italicized phrases are synonymous and that in the second passage the nominalization is the complement of a semantically empty pro-verb (in this case simply *est*), of which we shall see more examples below.

More prominent examples of this kind of alternation within the text of Celsus include 2 of his 3 phrasal terms for afflictions of the *nerui*.[22] Beside the phrasal term *distentio neruorum* 'spasm' (equated with Gk. *spasmus* at 2. 1. 12) Celsus uses the 'primitive', verb-based expression *nerui distenduntur* 5 times, in the following passages:[23]

Cels. 4. 27. 1A neque oculi uertuntur nec spumae profluunt nec *nerui distenduntur*;
5. 26. 14 multorum etiam *nerui distenduntur*;

[20] We have seen instances of this already in the noun + genitive phrasal terms which arise from the nominalization of a Latin descriptive sentence (cf. 4. 3. 2b above); the point to be stressed here is that the sentence with finite verb is actually attested alongside the substantival phrasal term. Cf. also the remarks in 5. 3. 1, p. 285 above.

[21] In all Celsus uses *profluuium sanguinis* 6 times, and a form of the verb phrase *profluit sanguis* 14 times.

[22] On the third, *rigor neruorum*, see below.

[23] Columella attests a very similar alternation: note the verb-based expressions at 6. 14. 4 intumescit collum neruique tenduntur, beside *neruorum intentio* (6. 6. 1) and *tumor ceruicis* (6. 14. 5, 6).

5. 26. 17 medullā uero quae in spina est discussā, *nerui* resoluuntur aut *distenduntur*;
7. 2. 4 at si *nerui* iuxta sunt, ignis alienus est, ne uel *distendantur* uel membrum debilitent;
8. 25. 4 sic quoque reposito osse *nerui* ⟨ubi⟩ [add. *Marx*] *distenduntur* rursus id protinus expellendum est.

The same alternation is seen in the case of Celsus' phrasal equivalent of Greek *paralysis*, which appears 11 times as the phrasal term *resolutio neruorum*, but 3 times in a finite verbal form, *nerui resoluuntur* at 5. 26. 17 (quoted immediately above) and twice in the following periphrastic forms:

Cels. 2. 10. 8 ubi *nerui resoluti sunt*;
2. 12. 1B iis quorum *nerui* parte aliqua *resoluti sunt* datur.

In the last two passages the participles are either part of the periphrastic perfect passive or, more probably, predicative adjectives. Frequently, however, a participle is used attributively as part of a noun phrase which appears to be a sort of halfway house between the underlying sentence with finite verb and the full nominalization with (or without) genitive. Note, for example, the noun phrase *nerui contracti* at Cels. 2. 17. 10 sucus, qui *contractis* aliquo morbo *neruis* opitulatur. Celsus uses the underlying verb phrase 3 times[24] but never the full nominalization, *contractio neruorum*.[25] In a number of other collocations, however, Celsus does go in for attributive participles which alternate with full nominalizations. Compare, for example: Cels. 2. 7. 16 sine modo *fusa aluus* (~ *profusio alui*); 7. 2. 6 aegrum *fluens aluus* exhaurit (cf. 2. 6. 3) (~ *profluuium alui*); 4. 6. 5 *aluus* quoque *ducta* (~ *ductio alui*); 4. 12. 5 eadem . . . quae in *faucibus exulceratis* praecepta sunt, the reference being to 4. 9. 1 in interiore uero faucium parte interdum *exulceratio* esse consueuit, and 4. 10. 1 tussis uero fere propter *faucium exulcerationem* est (cf. 4. 17. 2 auxilio renibus exulceratis sunt); 4. 13. 2 *sanguis missus* (cf. 4. 27. 1A) (~ *missio sanguinis*); 5. 26. 10 multus . . . *profusus sanguis* (cf. 4. 27. 1D Tol. 80) (~ *profusio sanguinis*).[26]

Scribonius, too, has several instances of the same phenomenon. Compare, for instance, *solutio stomachi* (ind. 9. 19; ind. 10. 8, 58. 20) with *stomachus solutus* (ind. 16. 3, 48. 19); *exulceratio uesicae* (ind. 11. 21) with *uesica exulcerata* (ind. 11. 24); *abscisio uocis* (ind. 9. 33, t. 40. 14, 53. 4) with *abscisus sonus uocis* (41. 8); *tensio praecordiorum* (ind. 16. 9, 111. 23, 112.

[24] At Cels. 2. 7. 6 [*calor articulorum*] sic est ut eo loco *nerui contrahantur*; 8. 10. 1C *nerui* musculique intenti per ossa *contrahuntur*; 8. 10. 3 necesse est minus *neruos contrahi*.

[25] The latter is, however, attested at Cass 84. 2–4 emprosthotonos autem in anteriore parte musculorum ceruicis et *neruorum* efficitur *contractio*; cf. Pelag. 246 ad dolorem ceruicis uel ad *contractionem neruorum* qui in ceruice sunt.

[26] See Marx's index (1915: 467) for a longer list of attributive participles of this sort in Celsus (not all of them in alternation with a nominalized form).

7) with *praecordia tensa* (ind. 16. 19); *exasperatio (ani)* (ind. 14. 27, t. 101. 6, 101. 7) with *arteria exasperata* (ind. 8. 29, 40. 15).[27]

Of formal and syntactic interest, partly because of their rarity, are two cases in Celsus of alternation between an intransitive verb with indefinite subject and its nominalization (without dependent genitive). His usual term (13 times) for a running cold is *destillatio* (expressly equated with Gk. *catastagmus* at Cels. 4. 5. 2);[28] 6 times, however, the lexical focus is in the finite verb-form *destillat*, which on 4 of these occasions appears to be impersonal, meaning 'there is a dripping':[29]

Cels. 4. 5. 1 *destillat* autem de capite, interdum in nares, quod leue est, interdum in fauces, quod peius est, interdum etiam in pulmonem, quod pessimum est. si in nares *destillauit*, tenuis per has pituita profluit;
4. 5. 6 igitur huic, si in nares uel in fauces *destillauit*, praeter ea quae supra rettuli, protinus primis diebus multum ambulandum est;
4. 5. 7 at si in pulmonem quoque *destillat*, multo magis et ambulatione et fricatione opus est.

The other, very similar case involves alternation between *abscessus* 'a congestion, an inflammatory condition preceding abscess' (17 times) and a form of *abscedo* with indefinite subject. The 10 examples of the latter include the following:

Cels. 2. 5. 2 ubi *quod* inter febres aliqua parte *abscessit* ad sanitatem non peruenit;
5. 18. 21 supprimitque *omne quod abscedit* id in quo est galbani [*etc.*] . . . satisque *omnia abscedentia* digerit murex;
2. 7. 8 in inferioribus partibus *aliquid abscedet* (cf. 2. 7. 30, 32;[30] 7. 12. 5; 8. 9. 1H);
2. 7. 26 si *quid abscessit*;
7. 2. 2 *quicquid abscedit*.

I would note that, in this sense, both *abscessus* and *abscedo* appear to be confined to Celsus (cf. *ThLL*, s.vv.).

In the above examples there is no doubt that the respective verb-based and nominalized expressions are synonymous. It is important to note that this is not always so. Indeed, in the case of *rigor neruorum* 'tetanus' (= Gk.

[27] And notice in Theodorus the alternation of construction within a single clause at 32. 5 *capillorum releuatio, sanguis* de naribus *prouocatus* [*procuratus b r*] . . . frequentius curauerunt (in a list of treatments).

[28] This is a standard Latin term in medical texts from Celsus to the Latin Philumenus, and is found also in Seneca, Suetonius, Ammianus, and Jerome (cf. *ThLL*, s.v., 753. 16).

[29] The other 2 occurrences are at Cels. 2. 8. 6 siquid in nares a capite *destillat*, with concrete reference ('phlegm, catarrh'), and 3. 22. 3 [*pthisis*] oritur fere a capite, inde in pulmonem *destillat*, where presumably *pthisis* remains the subject (?). The impersonal use of *destillat* is not noted by the *ThLL*, nor by Hofmann and Szantyr (1965: 414 ff.). Outside Celsus the *ThLL*, s.v., 754. 4 records *destillare* in this meaning only once in Chiron (543), in a passage where Vegetius has *defluere* (*Mulom.* 2. 32).

[30] Notice the 'compact' nominalized form in the intervening section: 2. 7. 31 fit abscessus.

tetanus), the third member of this trio of phrasal terms in Celsus, what appears at first sight to be its underlying verb phrase—*nerui rigescunt*—has a quite different meaning:

8. 10. 2D saepiusque eae [*fasciae*] resoluendae sunt, ubi in uicinia cubiti umerus fractus est, ne ibi *nerui rigescant* et inutile bracchium efficiant.

Spencer translates: 'the bandage must be taken off more frequently, or *the sinews will become fixed*' (emphasis added), and this must be right, since clearly tetanus has no place in this context: this is a particularly clear case of the substantival phrasal term acquiring a specialized meaning distinct from that of its underlying sentence.[31]

As I mentioned in the preamble to this section, the nominalized forms are incorporated in their clause either (1) in an adverbial, i.e. prepositional, phrase or (2) in the verbal nucleus with the support of a weak finite verb, intransitive or transitive, meaning 'be, become, emerge, happen' or 'do, make, cause, give', respectively.[32] Both types are well attested in all four authors and hardly require further illustration. I draw attention, however, to the relatively rare use of *dare* and *facere* in this function in Cassius Felix: note 27. 8 lucescente die simplici consectione *diuisuram dabis*; 27. 14 *incisuram facies*, hoc est rotundam, quam Graeci strongylotomian uocant; 81. 18 siquidem [*passio*] ad pulmonem *faciat decursum*.[33]

Since illustration so far has been drawn largely from Celsus, there follows a brief set of further examples of alternations of this sort, both within and among the four texts of our corpus, before some general comparison and evaluation.

Scribonius has in common with Celsus both verbal and nominalized forms of the phrase *erumpit sanguis/eruptio sanguinis* 'haemorrhage'. The relative frequency of the two forms is, however, strikingly different in the two authors: Celsus prefers the verbal form by 13:1, Scribonius the nominalization by 13:2.[34] Theodorus attests the verbal form 3 times (165. 10 cum . . . sanguis eruperit; cf. 166. 5, 168. 19), in alternation, not with *sanguinis eruptio*, but with the lexical variants *sanguinis emissio* (t. 165. 1) and *sanguinis effusio* (165. 2), and with the Greek term *haemorrhagia* (166. 1 = 168. 11 cum haemorragia emerserit).[35]

[31] In other cases this is probable but not so clear: I am thinking, for instance, of the relation between *suffusio* 'cataract' and the use of *suffundere* at Cels. 6. 6. 39A extrinsecus uero interdum sic ictus oculum laedit ut sanguis in eo *suffundatur*. Does this refer to one of the types of *suffusio* described at 7. 7. 14A–B?

[32] See the discussion and references in Hofmann and Szantyr (1965: 754–6), and below.

[33] This passage continues: et tertia uel quarta die praefocationis *ingerat necem*.

[34] Celsus has the nominalization at 7. 3. 2, Scribonius, the verb phrase at 30. 14, 45. 11.

[35] Note the numerous *cum*-clauses (which are otherwise relatively rare) in that chapter, Theod. 165 ff. Cassius has *eruptio* once (116. 20) of the bursting of a vein; otherwise he uses it and *erumpere* of the bursting of abscesses.

The phrasal term *alienatio mentis*, common to all four authors (cf. 4. 3. 4 above), occurs also in 'diffuse' forms in Scribonius and Theodorus:[36] note Scrib. 85. 28 *mente abalienabuntur* [*aegri*] (cf. 89. 20), Theod. 150. 3–4 simili *mentis* confusione *alienantur* (cf. 152. 2 si uero plus fuerint *alienati*). Scribonius and Theodorus also have in common the alternation between verbal and nominal expressions for rectal prolapse: compare Scrib. 105. 16 intestinum extremum quibus prolabitur et excidit, and t. 105. 15 ⟨ad⟩ intestini extremi prolapsionem, with the alternation between Theod. 86. 12 effusio intestini, and 91. 11 quibus uero *intestinum exierit*.

Instances peculiar to Scribonius include *gelatio artuum insequitur* (85. 6) ~ *gelantur artūs* (91. 11), and *diuturnus capitis dolor* (t. 6. 10, 52. 8, 95. 10) ~ *diu caput dolet* (18. 24), his equivalent of Greek *cephalalgia*. In Theodorus I would draw attention to the variation in succeeding lines between 22. 13 si *sonare aures* coeperint, and 22. 14 si autem isdem ex aegritudine *sonitus obuenerit* (cf. 151. 1).[37]

A notable example of alternation in Cassius Felix is *detractio sanguinis* (14 times) ~ *detrahere sanguinem* (10 times).[38] This is striking in that, while the nominalization is a well-established phrasal term, attested in all four authors, the finite verb phrase occurs only in Cassius.[39]

Instances of this sort of alternation within the text of Celsus, finally, are easily multiplied: notice *defectio animae* (7. 33. 1) ~ *deficit anima* (7 times);[40] *profluuium alui* (3. 7. 2D) ~ *profluit aluus* (2. 8. 31, 3. 6. 10); *missio sanguinis* (4 times) ~ *missus sanguis* (twice) ~ *mittitur sanguis* (67 times). The last example is of some interest. Celsus' strong preference for a form of the verb phrase (*sanguinem mittere*) contrasts with his consistent use of the nominalized form of the synonymous *detractio sanguinis* (above). It is conceivable that his choice of expression in each case reflects, on the one hand, the technical status of *detractio sanguinis* and, on the other, the everyday, non-specialist flavour of the phrase *sanguinem mittere*. The latter judgement may be borne out in the fact that the sole instance of *sanguinem mittere* in Scribonius occurs in a remedy which is said to 'fall outside the medical profession': Scrib. 20. 26 ff. nam sunt et qui *sanguinem* ex uena sua *missum*

[36] Notice the 'intermediate' participial form at Chiron 147 iam habet . . . *alienatam mentem* iumentum. Diffuse expressions of the type *mens alienatur* are otherwise rare in medical authors; for examples in literary authors from Sallust and Caesar on, see the *ThLL*, s.v., 'mens', 719. 23 ff. and s.v. 'alieno', 1565. 69 ff.

[37] For ringing in the ears, Celsus has just the verbal form, Cassius, only a nominalization (cf. 6. 1 above).

[38] For example, 49. 10–11 *detractio sanguinis* fieri oportet (cf. 61. 11, 82. 8) vs. e.g. 82. 4 oportet . . . *sanguinem detrahere*.

[39] And in the ablative absolute at Scrib. 57. 15 detracto prius sanguine. For *detractio sanguinis* see e.g. Cels. 2. 7. 33, Scrib. 38. 11, Theod. 112. 4.

[40] Cf. Cels. 2. 1. 11; 2. 17. 8; 4. 2. 2; 4. 18. 2, 4; 5. 28. 2B; 7. 3. 2.

bibant . . . quaeque eiusdem generis sunt, extra medicinae professionem cadunt.[41]

Obviously, the strongest contrast *between* authors is seen when one text shows only the verbal form, another only the nominalization. This opposition holds in, for example, the following cases:

grauius audire at Cels. 6. 7. 7A (cf. *audire tardius* at Theod. 23. 10) ~ Cass. 46. 2 ad *difficiles auditus*;[42]

*uires*que *consumit* [*spatium 'chronicness'*] at Cels. 4. 26. 1 ~ Cass. 90. 19 sequitur . . . *uirium consumptio*;[43]

si *febris* non *dimittit* at Cels. 2. 7. 35 (cf. 2. 4. 5, 4. 29. 1) ~ Theod. 247. 7 sub blanda *dimissione* releuantur [*aegri*], and Cass. 26. 9 [*febrium*] *dimissionis* tempore (cf. 187. 19);

morbum discutere at Cels. pr. 69; 3. 14. 3, *et saepe*, and *uitium discutere* at Scrib. 19. 16, 29. 22, *et saepe* ~ Cass. 60. 8 bonam *discussionem* ostendit (cf. 152. 16, 153. 19);

uexare in Celsus and Scribonius, 14 times each, ~ *uexatio* at Theod. 200. 4 and Cass. 66. 11.

Instances of a weaker contrast between texts, whether (1) only the verb in one ~ both forms in another, or (2) both forms in one ~ only the nominalization in another, include the following:

(1) *declinare* (Cels. 5. 27. 13B ubi ea [*inflammatio*] *declinauit* ~ Cass. 48. 14 *declinatione* uero facta (cf. 35. 17, 85. 10));

dilatare (Cels. 6. 6. 37A *pupilla* funditur et *dilatatur* ~ Cass. 57. 12 platycoriasis, id est *dilatatio pupulae*; cf. 39. 18, 40. 13);

fluere, of hair loss (Cels. 6. 1 *capillis fluentibus* ~ Cass. 11. 21 *defluxio capillorum contingit*; cf. 91. 1);

rumpere (Cels. 2. 10. 6 *ruptum aliquid* intus . . . *est* (cf. 5. 28. 15B *et saepe*) and Cass. 87. 9 si uena *fuerit rupta* ~ Cass. 37. 7 si uero in epate . . . *fuerit ruptio facta* (cf. 33. 17; and *diruptio* 51. 10, 86. 21, 132. 6));

decoquere (Cels. and Scrib. *saepe*) ~ *decoctio* (Theod. 12. 16, *et saepe*; Cass. 47 times vs. 40 times *decoquere*);

[41] That *sanguinem mittere* is an ordinary everyday expression is seen also in its use in two metaphors by Cicero (*Att.* 1. 16. 11, 6. 1. 2). The *ThLL* suggests that, while finite verb phrases meaning 'let blood' are widely represented in different types of Latin, the nominalized forms are practically confined to medical writers or contexts: see s.v. 'detractio', 821. 54 (including in a proverb at Pallad. *Hist. mon.* 1. 2 p. 256[8]), s.v. 'emissio', 499. 33 (exclusively medics and vets), s.v. 'missio', 1140. 10 (including a medical allusion at Suet. *Cal.* 29. 2).

[42] Cf. Cass. 46. 15, 18; 47. 1, 15. With the verbal form compare Cato *Agr.* 157. 16 auribus si *parum audies*, terito cum uino brassicam.

[43] Cf. Theod. 75. 17 si tamen *uirium* non occurrerit futura *debilitatio*.

defricare (Cels. 3 times, Cass. twice) ~ *defricatio* (Cass. twice);

diuidere (Cels., Cass.) and *incidere* (Cels., Scrib., Cass.) ~ *diuisio, incisio* (Scrib. 96. 2), *diuisura, incisura* (Cass. 27. 8, 14).

(2) *accedere* and *accessio* in Cels. (*saepe*) and Scrib. ~ only *accessio* (18 times) in Cass.;

soluere, (re)solutus and *(re)solutio* of the bowels in Cels. and Scrib. ~ only *solutio (uentris)* in Cass. (7 times).

It is not a straightforward matter to make rigorous comparisons between authors with regard to the use of verbal and nominalized forms. Nonetheless some general statements can, I think, be made and some tests applied which bear them out. In the first place, the prevalence in the foregoing discussion and illustration of examples from Celsus does not reflect a bias in my selection: the fact is that, although we should not underestimate the presence of nominalized forms already in his work, Celsus shows much the strongest tendency to use verbal forms (and, in the case of noun + genitive phrasal terms, to attest the underlying verb phrase alongside the nominal form). It is quite common for Celsus to attest only the verb-based form and for a later author to attest also or only the nominalized equivalent. Elsewhere (Langslow 1994*b*: 237), comparing verbal stems in Celsus and Cassius Felix, I noted that in many cases, list (1) below, Celsus has only the verb in the special medical usage while Cassius has also, or instead, the nominalization; instances of the converse, list (2) below, where Celsus alone has the nominal derivative of the verb which is found also in Cassius, are rare and of doubtful significance given that in nearly every case Cassius uses a synonymous nominalization on another stem.

(1) (path.) *diffusio, dimissio, discussio, emissio, fluxus, obtunsio, perforatio, perfrictio, ruptio, solutio, uexatio*; (ther.) *confectio, decoctio, defricatio, incisura, inductio, infusio, laceratura, patefactio, perunctio, sanatio.*
(2) (ther.) *compositio* (*confectio* in Cassius), *gargarizatio* (Gk. *anagargarisma* in Cassius), *inunctio* (*perunctio* in Cassius), *perfusio.*

In order to take this comparison a stage further, and to include Scribonius and Theodorus,[44] I looked at the syntactic constructions of 40 verbs which are reasonably well attested in contexts relating to disease and treatment (and each of which occurs in at least two authors). Table 6.1 indicates for each author the number of verb-stems which appear, respectively, in verbal forms only (including participles), in both verbal and nominalized forms, and in nominalizations only. In nearly every verb-stem, the 'movement' over time is 'down the scale', a nominalization appearing and the verb being abandoned. In this sample Scribonius still shows a significant number of verb-only instances (10 out of 27) but more than half of the relevant verb-stems (14 out of 27) show nominalized as well as finite forms, while in Celsus the latter proportion is less than a fifth (7 out of 38). Theodorus and Cassius have no verb-only instances and in more than a third of the cases examined in the sample (13 out of 32) Cassius attests only a nominalized form.

[44] The data for Theodorus are not complete.

Table 6.1. Patterns of nominalization by author in a list of forty verb-stems*

	Cels.	Scrib.	Theod.	Cass.
Verb only	31	10	–	–
Verb + nom.	6	14	5	19
Nom. only	1	3	3	13

* The 40 verbs are the following: (path.) *accedere, alienare, consumere, contrahere, contundere, corripere, declinare, destillare, diffundere, dilatare, dimittere, discutere, distendere, emittere, exasperare, incursare, irritare, obtundere, opprimere/premere, perforare, perfrigescere, perturbare, (pro)fluere, prolabi, remittere, rumpere, (re)soluere, uexare*; (ther.) *adiuuare, conficere, decoquere, defricare, diuidere, incidere, inducere, infundere, lacerare, patefacere, perunguere, sanare.*

Of course, the tendency of an author to nominalize is reflected not only in the number of deverbative abstract nouns in a simple list of his vocabulary but also in the frequency with which he uses them compared with verbal forms. The second row in Table 6.1 conceals some eccentric relative frequencies in the use of verbal and nominal forms, which, however, point in the same direction as the table as a whole. So, *diuisio, incisio, infusio*, and *praefocatio* occur each once only in Scribonius, the regular form of expression being based on the respective verbs. Scribonius prefers the base of the last, *praefocare*, by 8 : 1, while Cassius prefers the nominalization over the verb by 11 : 2. Equally, Cassius uses the verb *distendo* once only (49. 10) but its nominalization 4 times. Again, it was noted above that in the case of *eruptio sanguinis* Celsus much prefers the verb phrase (by 13 : 1), Scribonius, the nominalization (by 13 : 2). Or take the case of *purgatio*: 14 times in Celsus ~ 61 verbal forms (including 19 gerund(ive)s); 8 times in Scribonius ~ 13 verbal forms; 6 times in Cassius Felix *plus* 10 times *purgatorium* ~ 17 verbal forms (including 1 gerundive).[45]

Another type of syntagmatic alternation that is affected by the choice of verbal form or nominalization is that between [*subordinating conjunction + finite verb*] and [*preposition + nominalization*]. Here, too, it seems, there is

[45] Compare the exemplary nominalized expressions at Theod. 23. 12 prius tamen *purgationem uentris* procurabis, and 36. 9 *uentris purgatio* . . . fiat.

evidence of the developments sketched above. To take just one example: in both Celsus and Scribonius the preposition *post* 'after' governs a nominalization a little less than 1 case in 4;[46] in Cassius Felix this proportion is greater than one third (38 out of 105), and, more remarkably, prepositional phrases of the type *post fomentationem (adhibitam)* (e.g. 5. 2, 15. 22, 144. 15, 185. 4) actually outnumber—by about 4 : 3 (38 : 28)—temporal clauses of the type *postquam fomentaueris* (e.g. 7. 7, 10. 20); in Celsus and Scribonius (neither of whom uses *postquam*) there is a massive preponderance of clauses introduced by *ubi* or *cum*.[47]

The focus of comparison so far has been on the form of the verbal stem. In the case of phrasal expressions, another way of measuring and comparing these phenomena across texts is to take a common noun, such as *sanguis*, and consider the constructions it enters into with verbal stems. The case-forms of *sanguis* in Celsus, Scribonius, and Cassius tell the same story as the sample of verbal stems above. Counting relevant[48] instances of nominative, accusative, and genitive yields the figures in Table 6.2. In other words, *sanguis* in Celsus is much more often construed with a finite verb, but in Scribonius and Cassius Felix—in equal proportions in both—it appears more commonly in the genitive with a nominalized verb.

Table 6.2. The relative frequency of *sanguis* as subject/object and adverbal genitive

	Cels.	Scrib.	Cass.
nom./acc.	>100	7	13
gen.	40	17	34

By way of a very brief coda, I would note that the secondary replacement of a subjective or objective genitive with a derived adjective, which is common in modern scientific phrasal terms,[49] is hardly apparent in our small medical corpus. I have noted just two possible instances, both in Theodorus. The first is at Theod. 22. 7 si . . . etiam *deriuatio* fuerit *saniosa*, if this is for *deriuatio saniei* nominalizing *deriuat sanies* (cf. Cels. 6. 7. 3B *sanies profluit*); for a subjective genitive with *deriuatio*, compare Theod. 204. 5 *fit* illius *reumatis deriuatio*. The second possible example of adjective for adverbal genitive is at Theod. 222. 6 ad impetus eorum *uaporeos* (for *uaporis?*).

[46] In Celsus, 50 out of 216 (counting some pretty banal nominalizations, such as *dolor* and *uomitus*); in Scribonius, 4 out of 21 (including 43. 17 . . . antequam suppurent, et post suppurationem . . .).

[47] For an extended example of alternation between *post* + nominalization and *ubi* + finite verb, see Cels. 2. 7. 28.

[48] That is, instances in which the stem *sanguin-* functions as subject or object of a verb phrase, whether as nom. or acc. of a finite verb or as adverbal gen. to a nominalized verb.

[49] Note phrasal terms such as *atrial fibrillation* ← **fibrillation of the atrium* ← **the atrium fibrillates*.

6. 2. 2 THE ALTERNATION OF AN ADJECTIVE WITH ITS NOMINALIZATION

Closely related to the foregoing is the alternation (or replacement) of the structure [*(noun) (est) adjective*][50] with [*(genitive +) de-adjectival noun*]: compare, for example, Cels. 1. 4. 1 cui *caput infirmum est* with 1. 5. 1 ii quos *capitis imbecillitas* torquet.[51] It is much rarer than that based on a finite verb, but it is still quite noticeable, and there is a handful of striking instances in the later writers. This kind of alternation is related to that discussed in the last section (6. 2. 1) in that the [*noun + adjective*] group may be the result of nominalizing [*verb + adverb*] (e.g. *audire difficulter* → *auditus difficilis*), so that what is, in a sense, the 'output' of the last section may be the 'input' here (yielding *auditūs difficultas*). Of course, this is a quite artificial partition of a series of syntactic/lexical options. I begin my illustration of the option to nominalize adjectives with reference to the properties, common in pathology, of dryness, hardness, difficulty, and excess.

Celsus does not use an abstract noun for dryness as a disease term,[52] but uses both *aridus* and *siccus* of (a part of) the body to mean '(morbidly) dry': for example, 4. 7. 1 *corpus aridum* est, 7. 26. 5H si *lingua arida* est.[53] Scribonius uses both adjectives in the same way, albeit once only,[54] but also attests the abstract nominalization *siccitas*: Scrib. 56. 15 est stomachi uitium quod cum *siccitate* et ardore *eius* . . . consistit: auonen Graeci uocant. Cassius Felix uses both *siccitas* (4 times) and *ariditas* (twice), *inter alia* of the body and the tongue, as in the examples quoted above from Celsus and Scribonius: Cass. 149. 5 qui nimia *corporis ariditate* laborauerint, 135. 16 si uero nimia *siccitas corporis* fuerit, 152. 19 ut [*corpus*] *linguae ariditatem* ostenderit (cf. 163. 1).[55] It is perhaps surprising that, although *aridus* and *siccus* are common in his text, Cassius never uses them of (a part of) the body: if *being dry* constitutes a symptom, it is expressed always with the abstract noun.[56]

[50] Where the adjective may be either predicative or attributive.

[51] Alternation of the type *id quod exasperatum est* (Cels. 5. 13. 1) – *exasperatio* (e.g. Scrib. ind. 14. 27, t. 101. 6, 101. 7) represents a special kind of head + relative structure, which receives separate mention in 6. 2. 3. 1 below.

[52] *Siccitas* in Celsus (2. 1. 12 in siccitatibus) means 'a (time of) drought'.

[53] Cf. Cels. pr. 53 *siccum corpus*, 3. 10. 4, 5. 28. 1A, 7. 7. 15D.

[54] Scrib. 19. 4 *linguam* enim nigram, *siccam et aridam*; cf. Cels. 5. 26. 31C.

[55] In Theodorus note 9. 14 *siccitas* nimia *corporis* (cf. 37. 16) and 106. 17 *linguae asperitatem* (cf. 111. 17, 113. 14), and compare 37. 16 si enim *siccitas palpebrarum* emerserit with Cels. 7. 7. 15D si sicci oculi esse coeperunt.

[56] *Ariditas* is not a very common word in Latin, and is used mainly in the later period and

The same is true in Cassius Felix of *being hard* as a pathological condition: it is never *durus* + noun but always *duritia* (or *durities*, 17 times in all) + genitive, for example, 111. 8 aliud ad *duritiam* et tumorem *epatis* (cf. 108. 12, 15).[57] Scribonius uses both options: compare, for example, ind. 16. 20 idem prodest praecordiis tensis, *iocineri duro*, 81. 15 quorum *iecur durum est* (cf. 47. 11, 59. 12) with ind. 10. 27 ad *duritiem iocineris* ueterem (cf. 66. 13, 114. 1, *et saepe*), or t. 46. 18 cum *dura* habent *praecordia* with 114. 1 praeterea ad *iocinoris, praecordiorum duritiem* uel dolorem bene facit. He shows, however, a very strong preference for the nominalization over the adjective by 5 : 1 (25 : 5). Celsus, on the other hand, who also uses both the adjective and the abstract noun, favours the adjective by 18 : 15, and in fact only twice uses *durities* (*-ia*) with a dependent genitive (3. 24. 2 *praecordiorum* dextra parte *durities* vs. several times *dura praecordia*, 2. 17. 4, 4. 15. 1, *al.*; cf. 7. 25. 2 *durities tergoris*). With the passages above from Scribonius and Cassius compare Cels. 2. 8. 34 *durum fieri iecur*.[58]

In the case of *difficilis* ~ *difficultas*, on the other hand, Celsus shows a marked preference for [*nominalization* + *genitive*]. This is seen especially in his two phrasal terms *difficultas spiritus* (7 times) and *difficultas urinae* (10 times): for example, 2. 1. 22 in senectute *spiritus* et *urinae difficultas*. He uses the corresponding [*adjective* + *noun*] group only once, at 4. 27. 1D Tol. 86 dolor auctus et *urina difficilior*, where the adjective may have been prompted by the comparative sense. Otherwise he employs (5 times in all) expressions of the form [*verb phrase* + *adverb*], as at 2. 7. 14 *difficulter urina redditur* paulatimque (cf. 5. 26. 11, 7. 26. 2N), or 8. 14. 2 *spiritus difficulter mouetur* (cf. 4. 19. 1, 8. 5. 1). Scribonius attests 4 examples of the last type, [*verb phrase* + *adverb*] (e.g. 50. 2 *difficulter spirant*, 74. 10 *difficulter urinam reddunt*; cf. 87. 14, 88. 24), and 2 of the type [*adjective* + *noun*]: ind. 11. 22, 86. 13 *difficilis exitus urinae*, but he does not use *difficultas*. Cassius in similar contexts attests *difficultas* and *difficilis* 7 times each,[59] and once *difficulter* + verb phrase.[60] He, then, displays his typical preference for a high degree of nominalization, while Scribonius, unusually, is more 'primitive' in the higher stylistic register. The *ThLL* cites examples from only Vindicianus, Caelius Aurelianus, and Vegetius (omitting Cassius Felix) among medical/veterinary writers and in pathological contexts also from Festus, the Vulgate, Cassiodorus, Hilarius, and Gregory the Great.

[57] Cf. Theod. 184. 8 si *splen durtiam adduxerit*.

[58] The relevant part of the *ThLL* article 'duritia/durities', 2290. 52 ff., is dominated by medical writers.

[59] Five times *difficilis auditus* (above and n. 42) and twice *difficilis motus* (99. 22, 140. 6). Twice *difficultas transuorandi* (81. 7, 166. 13).

[60] At Cass. 81. 15 cum minime et *difficulter transuorare coeperint* aegrotantes, compared with (a few lines earlier) 81. 7 cum *difficultate transuorandi* praefocationem facit [*synanchica passio*]: presumably the use of the 'primitive' verb phrase is triggered by the presence of the second qualifier, *minime*.

in these particular expressions[61] than Celsus, who strongly favours the nominal end of the scale of compression.[62]

The option to nominalize the adjective *nimius* 'excessive, too much', if it was available at all in the first century, is taken only by the later writers. *Nimietas*, which is not attested before Apuleius, was illustrated and discussed in 5. 3. 4 above. Suffice it here to recall some of the striking nominalized phrases which Theodorus and Cassius go in for, such as Cass. 10. 10 ob *nimietatem umoris* (cf. 95. 8 *nimietas* redundantis *umoris*, Theod. 25. 2 ex *doloris nimietate*, and Cass. 84. 15 ob *nimietatem doloris*), and to contrast these with the more down-to-earth equivalents in Celsus (about 30 in all), at 3. 6. 4 for example, *nimius umor* (cf. 7. 18. 7; 3. 21. 2 umoris *nimia abundantia*).[63] Even in Cassius Felix, *nimius* is much more common than its nominalization (by 53 : 8) but it is noticeable that *nimius* itself nearly always agrees with a nominalization (e.g. 72. 6 *nimia thoracis constrictio*, 181. 19 *nimia potūs appetitio*), and it may be that the nominalized head prevented the nominalization of *nimius*.[64]

I briefly draw attention to three further striking instances of de-adjectival nominalizations in Theodorus (to which allusion was made in 5. 3. 4 above), *utilitas*, *tarditas*, and *uetustas*.

Vtilis is a common way of recommending a form of treatment, especially in Celsus, who uses the adjective and adverb in this way 53 times; Scribonius has it once (36. 7) and Cassius, 3 times (50. 2; 109. 14, 18). Celsus uses *utilitas* once (at 8. 4. 4 utilitatis causā posteris traditur), and Scribonius, 3 times, only in his preface (pr. 2. 9, pr. 4. 10, pr. 4. 25), in more high-flown contexts. Only Theodorus ventures the nominalization in a down-to-earth recommendation of a remedy: Theod. 76. 4 [*linimenta*] quae . . . possint *afferre utilitatem*.

Theodorus is also alone among our four authors in attesting the abstract noun *tarditas*: Theod. 74. 8 si callositas emerserit, in qua semper est *tarditas* uulneribus ad sanationem. The stem *tard-* is common in this context: the other three authors use the adverb, Celsus and Cassius use also the adjective, of changes of state in a disease or a body-part or of the action of medicaments;[65] but the nominalization is eye-catching, especially in combination with another nominalization, *ad sanationem*.

[61] Note also the adverbial clause for ischury at Scrib. 73. 24 si . . . urinam non facit (with which compare Col. 6. 30. 4 si urinam non facit, and 6. 30. 3 cum suo tempore urinam non fecerint). On the expression *si uenter non fecerit*, see Bendz (1954).

[62] Apart from medical writers, the *ThLL* cites only 4 examples of this pathological use of *difficultas* (s.v., 1094. 55 ff., one each from Tertullian, Jerome, the Vulgate, and Augustine).

[63] By contrast, and unusually for a medical writer, Scribonius uses *nimius* only once in a pathological context, at t. 72. 14 ad prolapsionem et libidinem nimiam.

[64] Although it must be noted that Cassius admits the improbable combination *nimietas callositatis* (177. 17).

[65] Celsus *tarde* 26 : 3 *tardus*; Scribonius 4 : 0; Cassius 2 : 2.

The third example, however, *uetustas* 'chronicness', Theodorus has in common with Celsus (and Scribonius). In all four authors the adjectives *uetus* and *uetustus* are well attested with disease-terms, meaning 'long-established, chronic'.[66] The nominalization appears in an arresting phrase in Theodorus: 71. 15 [*uulnera*] *procuratā uetustate* chironia fiunt, but it occurs already in Scribonius (once only), at 92. 23 ōs . . . putre *uetustate* uitii factum, and in Celsus no fewer than 5 times.[67] This last case is a salutary reminder that it is not simply a matter of multiplying nominalizations as one moves forward in time, and that lexical fashion should not be lost sight of in what seems at first sight to be purely a question of syntactic structure within the noun phrase.

6. 2. 3 THE ALTERNATION OF A DEFINING RELATIVE CLAUSE WITH A NOMINAL EQUIVALENT

All four of our authors, and especially Celsus, attest substantival referring-expressions of the form [*(pro)noun +) defining relative clause*], whether in place of a Greek term (e.g. *neruus ex quo testiculus dependet* = Gk. *cremaster*, and so in most of the examples in 2. 4. 4. 5 above) or in alternation with more compressed Latin expressions, including phrasal terms (e.g. *id os quod pubi subest* = *os pubis*).[68]

In these instances of the 'diffuse' style, the verb is in a clause which functions, usually,[69] as a determiner. The end-point on the scale of morphological compression affecting determiners is a one-word adjective (or a noun in the genitive functioning as an adjective, which may yield a derived adjective); the (pro)nominal head may be either retained, giving rise to a phrasal term (e.g. *uenae quae sub alis sunt* → *uenae subalares*) or lost, whether by lexical convention (e.g. *quos lienis male habet* → *lienosi*) or by being redundant in context (e.g. *medicamenta quae adurunt* → *adurentia*; cf. the following example). The most frequent formal means of compressing a head + relative structure (e.g. *medicamenta quae adurunt*) is to replace the relative clause with a participle functioning either as an adjective (*medica-*

[66] Celsus has both often, including *uetera ulcera* (e.g. 6. 19. 1) and *uetusta ulcera* (e.g. 6. 6. 23); *uetustus* supplies the comp. and superl. to *uetus* in Celsus. Scribonius has *uetus* very often (of *ulcera* at 94. 17, 95. 27), *uetustus* only twice, of *dolor* (ind. 10. 21, t. 63. 1). Cassius has each once only (47. 9, 53. 16). Theodorus, rather typically, ventures an unconventional synonym at 73. 9 si nimis *antiqua* uulnera fuerint.

[67] And a further 4 times in other contexts. Cassius attests a quite different use of the abstract noun, at 135. 13 stercorum uetustas (= *stercora uetera* 'old faeces', i. e. long retained through constipation); on this common construction see Hofmann and Szantyr (1965: 152), with examples and further references.

[68] For brief discussion and illustration, see Langslow (1994*b*: 234–5).

[69] The notable exceptions are 'headless' relative clauses of the type *id quod inflammatum est* (= *inflammatio*), on which see 6. 2. 3. 1 and n. 97 below (cf. n. 51 above).

menta adurentia) or, with ellipse of the head, as a substantive (*adurentia*). This already 'compact' monolexematic item may be standard currency for centuries or it may be rivalled and replaced by a competing Latin derivative (*incensorius*) or by a Greek loanword (*causticus*).

Celsus attests a considerable number of anatomical examples of this type, and his largest group of instances falls under therapeutics; in Scribonius, Theodorus, and Cassius these 'diffuse' head + relative structures belong nearly all, and in roughly equal numbers, in the lexical fields of pathology and therapeutics, where they are used especially to name, respectively, groups of patients with reference to their symptom or disease (of the type *ii qui sanguinem expuunt*, for Gk. *haemoptyïci*) and classes of medicaments and foods with reference to their physiological effect (of the type *ea quae aluum adstringunt*).[70] Some expressions (included in the lists below) do not appear to be compressed—or compressible—either in Latin or in Greek, but I focus now on those which alternate with and are replaced by synonymous 'compact' forms, whether phrasal terms, substantival participles, other one-word derivatives (e.g. in *-osi* and *-ici* (masc. pl.) for groups of patients, *-toria* and *-ica* (neut. pl.) for classes of treatments), or Greek loanwords.

6. 2. 3. 1 *Referring-expressions consisting of head + relative clause*

Anatomical referring-expressions of the structure [*(pro)noun +) relative clause*] are almost the exclusive preserve of Celsus; I have noted just two examples each in Scribonius and Cassius Felix, and none in Theodorus. A few of these anatomical examples are purely descriptive, non-terminological paraphrases, in that neither the head nor the relative clause contains lexical material related to a 'compact' synonym: for example, Cels. 6. 8. 2 id foramen quo spiritus a naribus ad fauces descendit (i.e. the nasal cavity and nasopharynx),[71] or Cass. 81. 6 loca quibus nutrimenta transuorantur (i.e. the oropharynx). In the large majority of instances, however, the head is an established term for a set of body-parts, of which the relative clause identifies a member: for example, replacing a Greek term, Cels. 8. 12. 1 [*dentes*] qui secant (= Gk. *tomis*) 'the incisors', 7. 18. 11 neruus ex quo testiculus dependet (cf. 7. 22. 5; = Gk. *cremaster*) 'the cremasteric muscle'; and, alternating with a Latin noun + genitive phrasal term,[72] 5. 22. 6 membrana quae super cerebrum est (cf. 5. 26. 3A; = *membrana cerebri*) 'the

[70] A list of the numerous referring-expressions of this structure attested by our four authors may be found in 6. 5 below; this material is summarized numerically in Table 6.3 below.

[71] For this type of expression with *foramen*, compare Col. 6. 30. 4 foramen quo manat urina, 'the urethra' of an animal, although here compact synonyms were available.

[72] See below on those which alternate with a Latin noun + adjective phrasal term.

meninges'; 8. 1. 24 ea ossa quae scapularum sunt (= *ossa scapularum*) 'the scapulae'.

Not surprisingly, this lexical characterization of head + relative structures—as [*genus* + *species*], or [*name of set* + *identification of member*]—is the norm also for those examples pertaining to pathology and therapeutics. Under pathology the commonest type by far denotes groups of patients. The head in these cases is normally either a form of the pronoun *is* (usually masculine plural)[73] or omitted (e.g. Scrib. 49. 15 eis qui lateris dolorem cum febre sentiunt, Cels. 2. 8. 34 quos lienis male habet). As for the relative clauses, I have divided them into three types according to the meaning and syntactic status of the finite verb, as follows:

(1) the verb, meaning simply 'be ill, suffer', stands alone, so that the head + relative structure means simply 'the patient': Cels. 2. 10. 7 *qui laborat*, Theod. 217. 4 *is qui patitur*;
(2) the verb forms (part of) the lexical focus in a phrase describing the symptom or disease: Cels. 1. 3. 33 *quibus iuuenibus fluxit aluus*, Cass. 113. 19 *ad eos qui sanguinem mingunt*;
(3) the verb, meaning simply 'be ill, suffer' (conversely 'make ill, attack') or just 'have' or 'be', is determined by the name of a body-part, symptom, or disease: Cels. 2. 8. 16 *quae locis laborat*, 2. 13. 1 *qui cholera laborant*, Scrib. 66.8 *qui colo infestabatur*.

A small aside under pathology: there is a notable group of headless relative clauses of types (2) and (3) which begin with *quibus* (esp. *quibus uero* . . .). Most of the examples are in Theodorus (although he has in all fewer relative clauses than the other three authors). There are no examples of headless sentence-initial *quibus* in Cassius Felix but there are some in Celsus and it is interesting that they cluster in chapters 7 and 8 of book 2, which contain a great deal of material taken more or less directly from Hippocrates (e.g. Cels. 2. 7. 27 quibus autem longae febres sunt = Hp. *Aph.* 4. 44 *ὁκόσοισι πυρετοὶ μακροί*).[74] This distribution in Celsus, the rarity of *quibus uero* in classical and early imperial prose,[75] and its frequency in Theodorus suggest the possibility that this Latin type (especially *quibus uero* . . .) is an imitation of the very frequent Greek sentence opening *οἷς δέ* . . . . Further research is necessary on this point.

Head + relative structures pertaining to therapeutics can be described in

[73] Occasionally the age or sex of the patient receives emphasis: note e.g. Cels. 3. 7. 1B si puer est qui laborat, Cass. 99. 6–7 si forte mulier fuerit quae curatur.

[74] Cf. Cels. 2. 7. 3; 2. 7. 7 twice; 2. 7. 20; 2. 7. 21 twice; 2. 7. 22; 2. 8. 20; Celsus has *quibus uero* also at 4. 31. 9 and 7. 22. 2. On the other hand, contrast Cels. 1. 3. 33 quibus iuuenibus fluxit aluus, with Hp. *Aph.* 2. 53 *ὁκόσοι τὰς κοιλίας ὑγρὰς ἔχουσιν, νέοι μὲν ἐόντες* . . . .

[75] It does not occur at all in Varro, Cicero, Livy, Scribonius, Petronius, Seneca, Pliny the Elder, Pliny the Younger, or Quintilian.

very similar terms. Their lexical function is even more clear-cut than that of the pathological expressions just considered: they denote, almost without exception, (classes of) foodstuffs or medicaments. Again, their relative clauses may be categorized according to the status of the finite verb. In parallel with the pathological examples above I distinguish three groups:

(1) the verb has a very general meaning—'help', 'be eaten'—and stands alone so that the head + relative structure means simply 'food' or 'remedy': Cels. 2. 8. 6 *ea quae adsumuntur*, 5. 26. 23H *imposito quo id* [uulnus] *iuuetur*;
(2) the verb forms (part of) the lexical focus either alone or in a phrase which describes nearly always the key active property of the foodstuff(s)/medicament(s): Cels. 3. 27. 4 *malagmata quae digerunt*, Scrib. 92. 8 *ea quae uentrem molliunt*, Cass. 147. 18 *ea quae uentrem molliunt*;
(3) a verb with a general meaning, 'cause', 'promote', 'provide' (more rarely 'cure'), is determined by a noun which forms the lexical focus and which usually denotes again the physical or physiological effect intended: Cels. 5. 26. 27B *quae pus moueant*, Scrib. 92. 7 *quae nauseam faciunt*.[76]

It is worth noting that, at least in Celsus and Scribonius, there are more salient semantic features available for identifying, and hence naming, a medicament than a patient. Groups of patients are named always with reference either to their disease (or chief symptom) or to their afflicted body-part. Classes of medicaments are named most commonly with reference to their active property, that is, their effect on the patient's body or the disease (as in the examples above), but some examples of type (2) make reference to another sort of property (e.g. Cels. 4. 12. 9 ea quae non aliena stomacho sint) or to their means of application (e.g. Cels. 5. 21. 1 ea quae feminis subiciuntur, Scrib. ind. 10. 14 pastillus qui per anum mittitur), and a few examples of type (3) refer to their 'target', that is the symptom or disease against which they are directed (e.g. Cels. 7. 19. 5 ea quae inflammationem repellant), or to their principal ingredient (e.g. Cels. 4. 7. 3 and 6. 11. 5 id medicamentum quod ex moris est, which presumably refers to the preparation called in Greek *διὰ μόρων*).[77]

[76] The verb in relative clauses of these types (1), (2), and (3), which can reasonably be taken to express purpose (the intended effect of the remedy), is sometimes in the subjunctive: commonly (though not invariably) in Celsus, much more rarely in Scribonius and Cassius Felix, and with religious regularity in Theodorus, who uses the subjunctive even of the auxiliaries *posse* and *ualere* (e.g. 20. 12 omnes confectiones quae mediocriter calefacere possint (= *calefaciens, calefactorius*) (cf. 5. 4. 5, above). The mood of the verb in this context will, I think, repay further study.

[77] Cf. in Latin *dia()moron* at (e.g.) Theod. 52. 9, 12; 197. 5; Pallad. 10. 16; *Antidot. Brux.* p. 369. 8, 16. On this type of name for medicaments, and its appropriation in Latin, see n. 93 below and Ch. 5, n. 391.

There are a few other pathological and therapeutical examples of genus–species head + relative structures, although within our small corpus they are practically confined to Celsus. These include, under pathology, Cels. 3. 5. 3 eas [*febres*] quae cotidie urgent (= *febres cotidianas*) 'quotidian fevers', 1. 9. 5 ea ulcera quae ex frigore sunt (= *perniones*) 'chilblains';[78] and under therapeutics, the 'unnamed' instrument at Cels. 7. 26. 1C id ferramentum quo in sectione calculus protrahitur, and the several branches of medicine, e.g. at Cels. 7. pr. 1 medicinae pars quae manu curet (= *chirurgia* 'surgery').

I reserve a further brief note for two other syntactic types of head + relative referring-expression. The first, which seems to be very rare, is seen at Cels. 8. 1. 24 ea ossa quae scapularum sunt (= *ossa scapularum*) and Scrib. 45. 13–14 uena in brachio quae est animalis (= *uena animalis*). On the face of it, these belong with the very common genus–species type just discussed. They differ interestingly from the latter, however, in that the relative clause does not in any way modify or paraphrase the determiner of the phrasal term (*scapularum, animalis*) so as to explain its relation to its head (*ossa, uena*), but merely includes it with the relative pronoun and copula; I fail to see any deliberate emphasis in either instance.[79]

The other aberrant syntactic type of head + relative structure is slightly more common, although virtually restricted to Celsus among our four authors. It is characterized by having an 'empty', or indefinite, head, but one may distinguish two small sub-groups, the one represented by phrases such as Cels. 5. 26. 31D id quod inflammatum est (synonymous with *inflammatio*), the other by (e.g.) Cels. 4. 4. 1 ea quae sub mento sunt (synonymous with Gk. *anthereon*). In the former the predicate of the relative clause is based on a main verb (or copula + adjective) and the whole phrase alternates with an 'abstract' nominalization with concrete meaning.[80] With the above example compare Cels. 2. 7. 34 quod suppurat (= *suppuratio*), 5. 18. 8 quae coeunt (= *coitus, collectio*), 5. 13. 1 id quod exasperatum est (= *exasperatio*);[81] a further example relates to physiology (Cels. 2. 4. 9 id quod excernitur), and one to anatomy (Cels. 8. 9. 2 id quod ex uertebra excedit = *excessus*). The second sub-group comprises just

[78] Compare the paraphrase at Col. 7. 5. 13 tuberculum cui subest uermiculus (for *uermiculus, uermicies, uermigo*, on which see Adams 1990: 125 ff.).

[79] An analogous (though more complicated) transfer of the attributive adjective from a Latin noun + adjective phrasal term into a defining relative clause is seen at Cels. 7. 4. 2A saeptum id quod transuersum a superioribus uisceribus intestina discernit (= *saeptum transuersum*) 'the diaphragm'.

[80] With this type one might compare Catul. 16. 9 si . . . quod pruriat incitare possunt [*uersiculi*], where it seems that *quod pruri(a)t = pruritus, prurigo* 'itchiness'. I owe this reference to Prof. Adams.

[81] Note also Cels. 4. 12. 1 frequentissimumque eius [*stomachi*] malum est quo resoluitur (cf. *resolutio stomachi*), which appears to show an instrumental case-relation (cf. 3. 6. 1. 3a above) between underlying verb and nominalization.

three anatomical expressions in which the predicate of the relative clause is a prepositional phrase which locates the 'unnamed' part, 'above the pubis', 'below the chin', 'between the eyebrows' (Cels. 5. 26. 19 quod super pubem est, 4. 4. 1 ea quae sub mento sunt, 8. 4. 22 id quod inter supercilia est, respectively).[82]

Finally, I notice two cases on the margins of strictly medical vocabulary, in which an author ignores an available 'compact' expression in favour of a paraphrase consisting of head + relative clause. Celsus' name for 'veterinarians' (pr. 65 ii qui pecoribus ac iumentis medentur) is descriptive and 'diffuse'; its choice, in place of *ueterinarii* or Gk. *ἱππιατροί*,[83] may be due to the stylistic considerations appropriate to the elevated language of the prose preface.

It is interesting to observe the formally analogous expressions for 'handful' in Scribonius:[84] 44. 24 [*herbae tiniariae*] fasciculus, quantum manu comprehendi possit, 76. 3 [*illecebrae*] quantum manus capit. These would seem to reflect a decision not to use *manipulus*, the word used in just this context by Cato (e.g. *Agr.* 115. 1) and still by Pliny (e.g. *Nat.* 26. 54). If we may trust the text, Celsus at one point appears to combine a diminutive of *manipulus* (*manipellus*, only here in extant Latin, according to the *ThLL*) with a similar paraphrase:

> Cels. 5. 25. 4A [*siluestris papaueris*] manipellus [manipulus *J*] qui manu comprehendi potest [qui . . . potest *del. Morgagnus*] . . . ubi . . . manipellus is coctus est.

A third set of instances showing the same structure is offered by Celsus' periphrastic expressions for 'a pinch' (of a medicinal ingredient in powdered form): 4. 17. 2 [*anesi*] quod tribus digitis sumi possit, 6. 6. 1I [*croci*] quantum tribus digitis conprehendi potest. These expressions can be closely paralleled in Columella (11. 3. 33, 43), Pliny (*Nat.* 20. 10, 151, 162; 22. 64, 133, *et saepe*), Gargilius Martialis (*Med.* 14), and Pelagonius (205. 2) and it may be that for 'a pinch', unlike 'veterinarian' and 'handful', there was no short expression available.[85]

The last three examples are excluded from the figures in Table 6.3,

[82] Fuller references regarding all these expressions may be found in 6. 5 below.

[83] Cf. Varro's terser *medici pecorum* (*R.* 2. 7. 16). *Veterinarius* appears first in Columella (6. 8. 1, *al.*), and is attested at Vindolanda (*Tab. Vind.* ii. 181. 7, 310. 11). *Mulomedicus* is not found before the 4th century, in Diocletian's *Prices Edict* 7. 20 (AD 301), Firmicus Maternus, Pelagonius, Vegetius; cf. *ThLL*, s.v., and especially, on all these terms, Adams (1992: esp. 90–5) and (1995: 571). (Note also *medicus equarius, medicus iumentarius, medicus pequarius*: Adams (1995: 53 ff.) collects the evidence.) Cf. p. 230 n. 66 above.

[84] I have not been able to find these in the *ThLL*.

[85] Pliny achieves a slightly terser form at *Nat.* 20. 193 Heraclides . . . semen tribus digitis cum castorei obolis duobus . . . dedit, and 20. 194 pari mensura ternum digitorum, although close by he has (20. 193) quod ternis digitis prenderit seminis.

which is intended to show the distribution in our four authors of the various types of head + defining relative structures identified in this section.

Table 6.3. Distribution of head + relative structures as medical referring expressions by author, type, and lexical field*

	Cels.	Scrib.	Theod.	Cass.
Anat. (1)	24 (28) – (9 + 2)	1 (1) – 1	—	2 (3) – 0
(2)	5 (10) – (4 + 1)	—	—	—
(3)	1 (1) – 1	1 (1) – 1	—	—
Total	29 (38) – (15 + 3)	2 (2) – 2	—	2 (3) – 0
Path. (A)(1)	2 (9) – 2	1 (2) – 1	1 (1) – 1	2 (10) – 2
(A)(2)	8 (15) – (1 + 1)	8 (11) – (1 + 2)	11 (13) – 1	2 (2) – 1
(A)(3)	13 (18) – (2 + 6)	18 (19) – (3 + 2)	13 (16) – (0 + 2)	3 (4) – (0 + 1)
(B)(1)	7 (8) – (3 + 2)	5 (6) – (4 + 1)	—	2 (3) – 1
(B)(2)	6 (11) – 6	—	—	1 (1) – 1
Total	35 (60) – (14 + 9)	32 (38) – (9 + 5)	25 (30) – (2 + 2)	10 (20) – (5 + 1)
Ther. (A)(1)	2 (2)	—	—	—
(A)(2)	34 (106) – (16 + 1)	17 (21) – (7 + 1)	15 (19) – 10	12 (13) – 1
(A)(3)	18 (45) – (8 + 3)	5 (6) – (6 + 1)	5 (5) – (3 + 1)	—
(B)	4 (10) – 3	—	—	—
Total	59 (164) – (28 + 4)	22 (27) – (13 + 2)	20 (24) – (13 + 1)	12 (13) – 1

* The figures, *a (b) – (c + d)*, count: *a = types (b = tokens) – (c = types for which a shorter Latin expression or a Greek word is used in one of our four texts + d = types for which only a Greek word is used in one of our four texts).*

In order to facilitate use of the table and to summarize the findings of the present section, I list here one example of each of the types referred to in the table (and in the full set of material in the appendix, 6. 5 below):

Anatomy

(1) Genus–Species	*dentes qui secant* 'the incisors'
(2) Empty/Indefinite head	*id quod ex uertebra excedit*
(3) Otiose relative	*uena quae est animalis*

Pathology

(A) Patients and afflicted body-parts	
(1) Meaning 'the patient' ('the affected part')	*qui laborat* 'the patient'
(2) With (part of) the lexical focus in the verb	*qui sanguinem expuunt*
(3) With the lexical focus not in the verb	*quos lienis male habet*
(B) Other pathological terms	
(1) Genus–Species	*is morbus qui in intestino pleniore est*
(2) Empty/Indefinite head	*quod suppurat*

Therapeutics

(A) A class of food or treatment	
(1) Meaning simply 'food', 'remedy'	*ea quae adsumuntur* 'food'
(2) With (part of) the lexical focus in the verb	*quae aluum adstringunt*
(3) With the lexical focus not in the verb	*quod calori mouendo est*
(B) Other therapeutical terms	
(All Genus–Species)	*medicinae pars quae manu curet*

This table is easier to read than it might at first appear. It may be helpful to interpret one of the entries. The first entry for Celsus in the field of anatomy—24(28)–(9+2)—reports the following: I have observed in Celsus 28 tokens representing 24 types of head + relative structures of the genus–species kind (i.e. naming a particular body-part as a member of the set denoted by the head); but at least one of our four texts attests a shorter Latin synonym for 9 of these head + relative referring expressions, and a (shorter) Greek term synonymous with 2 others. We may gain an impression of the overall lexical need to use a head + relative clause by subtracting the sum of the bracketed figures (i.e. available Latin and Greek short forms) from the first figure (types); in our example, of 24 anatomical names of this kind, at least 11 are strictly otiose, or voluntary, in that a more lexeme-like label was available.

Let me briefly run through some of the categories in the order set out above so as to draw attention to particular points in the use of head + relative expressions in our four authors.

Anatomy (taking all types together).

It was observed at the start of this section that head + relative anatomical terms are almost the exclusive preserve of Celsus. Admittedly Celsus uses in general many more anatomical terms than the other three authors but in nothing like the same proportion. The large number of shorter expressions available (18 out of 29) indicates that there is an important element of choice on Celsus' part.

Pathology (A)(1) (type *qui laborat* 'the patient'). For some reason, perhaps by chance, this type is frequent in Celsus (especially of the patient) and Cassius (especially of body-parts) but rare in Scribonius and Theodorus.

Pathology (A)(2) (type *qui sanguinem expuunt*). This type is difficult to count and the figures I offer are tentative but the overall picture seems clear: this sort is common in all but Cassius Felix. Especially prominent in Theodorus are those introduced by *quibus uero* (cf. above). Generally speaking, this type is not otiose, although there are perhaps a few Greek terms shunned by Celsus here.

Pathology (A)(3) (type *quos lienis male habet*). If we are unsurprised that

these are common in Celsus, we are very much surprised that they are no less frequent in Theodorus and even more common in Scribonius (although Scribonius uses only 1 of his 18 examples more than once, Celsus, several of his 13). On the other hand, Celsus has—as we expect by now—more examples that are strictly otiose and are used in preference to Greek terms. In Theodorus the particle *uero* is again common in this type (*qui/quos/quibus uero*); note especially his otiose paraphrases for *podagrici* and *dysenterici*.

Pathology (B)(1) (type *eae febres quae cotidie urgent*). These genus–species examples are essentially confined to our first-century authors. Most of them are otiose and are presumably intended to be elevated expressions.

Pathology (B)(2) (type *quod suppurat*). With one exception in Cassius Felix, this (rare but interesting) type with empty or indefinite head is confined to Celsus (cf. Anat. (2), and see above).

Therapeutics (A)(2) (type *quae aluum adstringunt*). Celsus attests a huge number of these (many of them recurring several or many times), although at least half of them are otiose. This is the commonest type also in Theodorus, in whom as many as two-thirds are otiose. Cassius shows us more or less what we would expect, inclining more to derivative adjectives, Greek and Latin. Only Celsus and Scribonius have examples in which the verb denotes the means of application; and Celsus alone shows cases in which the verb denotes a quality rather than an active property.

Therapeutics (A)(3) (type *quae pus mouent*). These, too, are almost exclusive to Celsus. Scribonius and Theodorus attest 5 each, all 5 in Scribonius being otiose. I saw not a single example in Cassius Felix. Notice in Celsus the *id quod ex X est* for the Greek (τὸ) διὰ *X* type (cf. 6. 2. 3. 2 below).

Therapeutics (B) (type *medicinae pars quae manu curet*). Only Celsus has genus–species examples relating to therapeutics. They name two surgical instruments and the three branches of medicine.

6. 2. 3. 2 Participial phrases and further compression of head + relative clause

In principle, all three of the large syntactic types of head + relative structure distinguished above for both pathology and therapeutics (Path. and Ther. (A)(1), (A)(2), and (A)(3) compress quite regularly in Latin to substantival and/or adjectival participles or participial phrases (types (a), (b), and (c) respectively in section 5. 4. 4 above). So, for example, to begin with pathology, beside head + relative type (1) *qui laborat* or *qui aegrotant* or *is qui patitur*, we find substantival participle type (a) *laborans, aegrotans, patiens*; corresponding to relative type (2) *qui sanguinem expuunt* (Cels.), we find participial phrase type (b) *sanguinem spuentes* (Cass.); and beside relative type (3) *qui cholera laborant* (Cels.) or *quorum iecur durum est*

(Scrib.), we find participial phrase type (c) *morbo regio laborantes* (Cass.), *iecur durum habentes* (Scrib.). Perfect participles appear in participial phrases of types (a) and (c), in all four authors but especially Scribonius. (Note e.g. Cels. 2. 12. 1B atra bile uexati (= *melancholici*);[86] Scrib. 18. 4 caligine impediti (= *caliginosi*);[87] Theod. 123. 4 occupati etenim hoc morbo molesto [*hydrophobia*] (= Gk. *hydrophobici*); Cass. (type (a) only) 96. 10 in passione constituti (= 121. 1)[88]).

As I noted in 5. 4. 4 above (where the material is collected), while substantival participles denoting groups of patients are well represented in all four authors (and in the Elder Pliny), those naming classes of medicaments are almost exclusive to Celsus. It is noteworthy, however, that 12 of his 15 examples consist of a single word (*adurentia, calfacientia, comprimentia*, etc.: see p. 349) and that his 3 substantival participial phrases (*calorem mouentia, pus mouentia, urinam mouentia*) are perhaps closer to type (c) than type (b), the lexical focus being the noun in each case and the verb having the general meaning of 'produce, give rise to'. Scribonius does venture a single example of a substantival participial phrase which is clearly of type (b) (*aluum mollientia*), in which the verb of the participle forms a compound with the noun; (cf. the single substantival example in Cassius Felix, *phlegma deducentia* at 148. 10.[89])

Both relative clauses and participial phrases were available as translations of Greek compounds and derivatives. Participial phrases commended themselves not only by being more compressed than relative clauses but also by occupying the same syntactic slot (adj. or noun) as the Greek model, and indeed as single Latin words in the same lexical fields. Cassius Felix attests no fewer than 12 such participial phrases as one-off translations of Greek terms.[90] These demonstrate the same use of the adjectival

[86] Cf. type (a) at Cels. 3. 18. 12 omnibus uero sic adfectis.

[87] Cf. 2 examples of *temptati* + abl.: 47. 11 pthisi (cf. Gk. *pthisici*), 54. 7 sideratione utralibet; and 9 examples of *correpti* + abl.: 20. 22 uitio, ind. i. 9. 30 morbo comitiali (cf. 18. 4, 52. 5, 58. 11; = Gk. *epileptici*), 52. 8 diutino capitis dolore (= Gk. *cephalalgici*), 58. 11 podagra (= Gk. *podagrici*), 81. 19 spasmo, 95. 14 angina.

[88] According to the *ThLL*, s.v. 'constituo', 523. 45, this use of *constitutus in* (+ abl.) for '(one) afflicted by' a disease is very common in late Latin, rare and even doubtful earlier. Although there are only these 2 examples in Cassius Felix, and none in Theodorus, it is common in Caelius Aurelianus (e.g. *Chron.* 3. 15; 4. 19, 27. *Acut.* 2. 85, 99) and other late Latin translations (of Hp. *Aer.* and Oribas. *Syn.* 1. 27, 6. 19, 7. 51, *al.*) and it occurs also at *Antidot. Brux.* p. 369. 13 in acerrimis febribus constitutis.

[89] This translates, but is not equated with Gk. *phlegmagogus* (15. 13). Cf. the adjectival *acuens uisum*, which translates and is used independently of Gk. *oxydercicus* (56. 17, 57. 7).

[90] Namely (see the Index & Glossary of Greek Words, s.vv.): (path.) nouns: Gk. *dysuruntes = minctus difficultate laborantes*, Gk. *haemoptyïci = sanguinem spuentes*, Gk. *hydrophobici = aquam timentes*, Gk. *icterici = morbo regio laborantes*, adjs: Gk. *cacochymus = malo humore possessus*, Gk. *dysapulota = difficile in cicatricem uenientia*, Gk. *erysipelatodes = igni sacro simulans*, Gk. *icterodes = ictericum morbum simulans*, Gk. *phlegmatici = saliuam ostendentes*; (ther.) adjs.: Gk. *anodynus*

or substantival participle, in place of the more cumbersome relative clause, which we observed in Celsus' home-made term for haemorrhoids (*ora uenarum fundentia sanguinem* ← *quae saepe sanguinem fundunt*; cf. 4. 3. 1b above).

While, however, Greek lexical and stylistic norms permit processes of morphological compression to proceed all the way to, say, *phlegmagoga* (neut. pl. adj. as substantive), Latin participial phrases (and verb phrases generally) of the type *phlegma deducentia*, cannot be made into compounds, at least not in prose. It may be that **aluimollientia, *phlegmodeducentia, *sanguifundentia* were conceivable Latin compounds of the type *arcitenens* 'bearing a bow; bearer of the bow' [Naevius, Accius +] but such compounds appear to have been unacceptable in prose. Oniga finds not a single example of this type in the prose texts he considers (down to Cornelius Nepos) and he infers (1988: 299) that they were a clear signal of poetic, especially epic or tragic, language.

On the other hand, those of type (c) (= type (3) above) in pathology and therapeutics (such as *pus mouentia, caligine impediti*) do have a chance of being compressed to Latin derivatives and of becoming more obviously usable items of terminology. This may be related to three features of their structure and meaning:

(1) the lexical focus of the phrase falls plainly on the noun (or noun phrase) that determines the participle;
(2) the latter has a general and unremarkable meaning and appears even less salient if it occurs in several participial phrases, which thereby constitute a sort of derivational set of hyponyms (e.g. *calorem mouentia* : *pus mouentia* : *urinam mouentia*);
(3) in consequence of (2), the main morpheme-boundary is felt strongly to fall between the noun (phrase) and the participle.

These three features together make for a weakened and isolated participle, which is therefore ripe for replacement by a 'quasi-lexical' suffix, such as *-torius* in one of its medical functions (cf. 5. 4. 5 above), the earliest examples of which appear to perform the function of *mouere* in the sense 'induce, stimulate' the physiological response signalled by the base: e.g. *sudatorius, uomitorius, sternutorius, suppuratorius* for **sudationem mouens* and **uomitum/sternumentum/suppurationem mouens*, the last example effectively replacing Celsus' *pus mouentia*.[91]

Two other groups of suffixal formations that may be said to represent

= *dolorem detrahens*, Gk. *haemagogus* = *menstrualem sanguinem prouocans*, Gk. *ischaemus* = *sanguinem retinens*, Gk. *lichenicus* = *impetigines medens*.

[91] Cf. *calorem mouens* (Cels.) → *calefactorius* (Plin. +)/*thermanticus* (Cass.); *urinam mouens* (Cels.) → *urinalis/diureticus* (Cass.).

compression of participles or participial phrases are patients in *-osi* (masc. pl.) and concrete nouns in *-tio* and *-tus*. In the case of *-osi*, we may start only from head + relative structures of type (3). While Greek can compress a sentence like **quibus nerui dolent/dolere solent* to a single lexicalized form, *νευρ-αλγ-ικοί*, Latin can go no further than a substantival participial phrase, **neruos dolentes* (cf. *latus dolentes*). But when the participle means just 'those who have, are affected by (a disease)', then *-osi* offers a formal means of compression: hence *quae locis laborat* → **locis laborans* → *locosa*; *quos lienis male habet* → *lienosi*; (cf. *quorum iecur durum est* → *iecur durum habentes* → *iocinerosi* ?).

It is curious that some concrete nouns in *-tio* and *-tus* appear somehow to be associated with relative-clause referring-expressions. The examples relate to pathology and therapeutics and are confined to Celsus and Scribonius (e.g. Cels. *quod suppurat* = *suppuratio*; Scrib. *quibus colluendum est* = *collutiones*). They derive from relative clauses with empty or indefinite heads and if one takes the head to be zero they fit the patterns that we have observed before (5. 3. 1) of the type:

nominative + relative clause (*loca quae exulcerata sunt*: cf. *(id) quod exasperatum est)*
→ nominative + participle (*loca exulcerata*: cf. *(id) exasperatum*)[92]
→ genitive + nominalization (*locorum exulceratio*: cf. *(eius) exasperatio*)
(which, finally, in principle at least:
→ derived adjective + nominalization (*localis exulceratio*)).

At least two other medical groups of head + relative referring-expressions are subject to regular compression of the relative clause to a monolexematic derivative. First, anatomical expressions of the genus–species type in which the relative clause specifies the location or function of the body-part alternate with phrasal terms in which the relative clause is effectively compressed to an adjective in *-alis/-aris*. Examples include: *musculi qui maxillas tenent* → *musculi maxillares*; *eae uenae quae spiritui accommodatae sunt* → *uenae animales*; *medulla quae in spina est* → *medulla dorsalis*. There is regularly an intermediate stage consisting of noun + genitive (e.g. *musculi maxillarum, medulla spinae*) and we considered noun + genitive and noun + adjective synonyms in 4. 3. 3 above. The second type is of greater interest partly because it involves a prefix rather than a suffix, partly because it is an instance of morphology being borrowed. It concerns the head + relative type *id (medicamentum) quod ex* [principal ingredient] *est*, which in our small corpus is exclusive to Celsus. Celsus is translating (and avoiding) Greek remedy-names of the form (*τὸ*) *διά* + genitive of the main ingredient (e.g. (*τὸ*) *διὰ γλαυκίου*). But what we see here is not merely the decisive

[92] With this use of the participle cf. Cic. *N.D.* 3. 74 *empto, uendito, conducto, locato*; *Part.*

establishment of the Greek terms as integrated loanwords but the assimilation of the category to Latin inflectional morphology and the appropriation and reinterpretation of the prefix *dia-* as a lexical category marker.[93] In effect, Celsus' primitive *id quod ex X est* is compressed ultimately to *dia–X–ium*. It is tempting to compare this type with old Latin derivatives in *-ium* by hypostasis from prepositional phrases of the type *occipitium, praecordia, supercilium* (and much later *intercilium*) (cf. 5. 2 above and Rippinger (1993: 302)).

One further type I should mention, on the margins of the medical vocabulary, is the alternation between a derived adjective and a defining relative clause of the form *quo X utuntur*, where *X* is a group of craftsmen or artisans and the clause serves to specify a particular species of the ingredient named by the head (as that used by the given professional group): compare in English *cobbler's blacking*, for example. Curiously, this head + relative type is best represented in Scribonius among our four authors,[94] and Cassius Felix attests a striking otiose instance (Cass. 19. 9 *melanteria qua sutores utuntur*),[95] while Celsus has more examples of (compact) noun + derived adjective (*scriptorius calamus, scriptorium atramentum, sutorium atramentum, uenatorium uenenum*) than of (diffuse) head + relative![96]

6. 3 Comparisons and Evaluation

It is high time to stand back and try to evaluate the phenomena illustrated above. This is, I think, particularly important here, since the risk is greater in this chapter than in any other of losing sight of the wood for the trees; it

[93] See Rippinger (1993) for a detailed discussion of the history of this type of pharmaceutical term in Latin. He gives (p. 296) Dioscorides as our first example of this use of διά of a remedy: in fact Celsus is earlier. On this type of remedy-name see also Wenskus (1995: 185–6) and cf. n. 77 above and Ch. 5, n. 391.

[94] With reference to the following professional groups: *coactiliarii*: Scrib. 104. 28 cinis lixiuia; *coci*: Scrib. 59. 21 rhus Syriacus, 60. 20 rhus; *coriarii*: Scrib. 29. 5 mala granata, 31. 4 mali cortex, 46. 4 balaustium, quod est flos mali granati quo c. utuntur, 73. 3 rhus (cf. *coci*!); *infectores*: Scrib. 34. 17 alumen, = Theod. 7. 1 alumen (cf. *infectiuus, infectorius*); *unguentarii*: Scrib. 67. 25 balanus, 95. 2 mali terrae sarmenta . . . (dicitur autem aristolochia clematitis); 115. 18 calamus odoratus, 115. 19 spatha; (*uenatores*: ind. 14. 1 = 98. 19 alterum rubrum medicamentum).

[95] Compare *atramentum sutorium* (24 times in Cels.), later *atramentum sutoricium*.

[96] Celsus refers to *fabri*: Cels. 8. 3. 1 id genus terebrarum (8. 10. 7G uulsella, quali f. utuntur). I have found no examples of defining relative clause with *utuntur* in Pliny *Nat.*, although *utuntur* is very common in main (and appositional relative) clauses with a professional group as subject, nearly always of course *medici* (usually understood) but also others, including *coronarii* (21. 54, 68), *infectores lanarum* (20. 59), *medicamentarii* (19. 110), *aerariae officinae chartariaeque* (18. 89), and *unguentarii* (14. 123).

is also, I fear, particularly difficult here, since the 'trees', non-lexicalized referring-expressions, are obviously harder to identify and quantify than lexemes (even phrasal lexemes), and, even granted that the statistical picture may be reliably glimpsed in samples, comparison and evaluation are likely to be hazardous because of the complex factors, some variable, others invariant, affecting the use of 'diffuse' and 'compact' expressions by a given author on a given occasion; these factors will have included (at least) the sources used, the date of composition, the stylistic aspirations of the writer, the degree of technicality of the text, and the particular context. Some descriptive results, however, may be stated with confidence and, if interpretations based upon them must remain for the moment no more than working hypotheses, it is certainly worthwhile to rehearse the various stylistic and historical suppositions involved in comparing our four authors one with another and, in a preliminary fashion, each with his Latin prose-writing contemporaries, medical and non-medical, with regard to the lexical-cum-syntactic choices considered above.

I begin with a brief characterization of our four texts, especially with regard to the phenomena that we have considered in this chapter. Of our four authors it is Celsus whose medical discourse is most frequently the closest to the 'diffuse' end of the stylistic scale. This is, I suppose, no more than we would have expected given his date of writing, his literary pretensions, and his position on the fringe of the 'medical profession', although we have yet to assess the relevance of such social and historical factors to strictly linguistic features of medical prose. There is a great deal of the 'pre-scientific' everywhere in Celsus' presentation: his style is generously varied and uncompressed, and personal from the patient's point of view, although more impersonal with reference to the physician. Verbs and primary adjectives abound; Greek is held at arm's length; phenomena are described but not named; available names—Latin as well as Greek—are rejected in favour of longer and more transparent and informative designations, including wordy determining phrases and even clauses. His several groups of 'otiose' head + relative referring-expressions (especially his anatomical terms and his headless relative clauses in pathology and therapeutics) seem especially telling of an intention to rise above, or perhaps better, to elevate, ordinary medical prose in Latin. Here he seems to be deliberately introducing diffuse elements, to be moving 'back', or 'up', to a form of presentation (in e.g. *id quod inflammatum est* for *inflammatio*; *aqua inter cutem* for *aqua intercus*) which must have appeared at once more primitive in scientific terms and more sophisticated in literary terms, the literary effect being perhaps to recall earlier writers, such as Cato.[97] But this literary

[97] With Celsus' *id quod inflammatum est*, cf. Cato *Agr.* 157. 4 *si quid contusum est*, characterized by Boscherini (1993*b*: 36) as 'espressione medica . . . ma non tecnica'.

'reaction'—if that is what it is—is only part of the picture: nearly every feature of the 'compact' end of the stylistic scale, of mature 'scientific' medical discourse, is present already in Celsus, and it may certainly not be excluded that Celsus himself contributes to the development of this style and to the establishment of its acceptability in elite Roman circles. Given our ignorance of Latin medical writings between Varro and Celsus, and our inability to date Celsus securely (in particular to gauge how much earlier he was than Scribonius and Pliny), we cannot know to what extent Celsus has worked material 'up' or 'down' to the diffuse/non-scientific or compact/scientific end of the stylistic scale. His variation may reflect simply varied style in his sources, although I incline to believe that he naturally tended to write things 'up', in the diffuse style, and that compact material has been left unedited, perhaps with the deliberate purpose of introducing authentic 'technical' colour.

Scribonius, on the other hand, appears to be much more at home in the compact, scientific style. He uses significantly more nominalizations than Celsus and significantly fewer relative clauses as part of his terminology. Again, however, the whole picture is not so very simple, as Scribonius does go in for quite a bit of *variatio* in the form of his technical referring-expressions and is not so averse to otiose, quite uncompressed synonyms for available Greek and Latin compact terms. It is likely that he, too, is deliberately—although more sporadically than Celsus—elevating or writing up standard technical presentation into a form he deemed, on the basis of his rhetorical education in Latin, to be more suitable for presentation to a patron so close to the emperor (cf. 1. 4. 2 above). My impression from reading these two first-century texts is to some extent confirmed by the measured soundings taken in this chapter: the passages which stand out in Celsus are those which he has *not* written 'up'; in Scribonius Largus it is those which he *has* attempted to elevate.

Cassius Felix—I take him next because he offers a clear standard against which to compare the maverick Theodorus—presents the least complicated picture of all in the matter of medical prose style. On every parameter that we have considered, his choice of expression tends to be the most compact and the least varied, with the fewest examples of otiose use of diffuse synonyms. Cassius Felix is evidently well educated and commands a severely correct Latin for medical purposes; his Latin is not devoid of literary ornaments but he permits himself very little syntactic variation and very few unnecessarily diffuse referring-expressions.

And finally Theodorus: what are we to make of him? As we have seen repeatedly throughout this study, so in his choices between compact and diffuse expressions, he shows a bizarre unpredictability and a bewildering—because extreme—range of terminology, from densely concentrated

scientific phraseology (often Greek) to wildly verbose paraphrase that reads like a parody of an Augustan poet! That said, with some allowance made for the extreme instances, the counts that we have made in this chapter place Theodorus closer to the compact, scientific end of the scale, and hence to his younger near-contemporary, Cassius Felix.

Above I mentioned sources, date, degree of technicality, stylistic aspirations, and context as among the factors that are probably relevant to our authors' choice of expression of all types but also, perhaps especially, of those reviewed in this chapter. Omitting only the first factor (sources) on which we have simply no evidence relevant to the present discussion, I now address some necessarily brief and tentative remarks to each of these factors in turn, acutely aware of the speculative and superficial nature of this section, with the intention not to argue for definite conclusions, but to suggest some working hypotheses and to raise some questions for future research.

There is no doubt that the time of writing is important, but the relative frequency of diffuse and compact expressions is clearly not purely a question of the date of composition, as a comparison of only Celsus and Cassius might suggest. The contrasts between Celsus and his younger contemporaries, Scribonius and Pliny the Elder, are striking and instructive. At any point in the centuries separating Celsus from Cassius Felix (and we could extend this period in both directions), it was in principle possible to write either in a pure diffuse or in a pure compact style or with features of both in various proportions. The necessary derivational and syntactic devices essential to the compact style were all available already to Plautus, while conversely diffuse expressions such as the head + relative type were clearly acceptable and even common in late medical writers such as Theodorus and Caelius Aurelianus (and, I note also, the probably later and apparently completely unpretentious *Antidotaria Bruxellensia* (1. 4. 5 (xx) above)). And yet the time-dimension does play an important role. For the compact style depends to a large extent on derivation, and this depends in its turn on the coining and standardizing of new derivatives, so that while an earlier generation will not venture to compress the adjectival phrase 'like a sponge' (*adsimilis spongiis*), its descendants will try and eventually establish a new derived word 'sponge-like' (*spongiosus*).[98] Indeed, the diachronic developments that we have seen in Chapters 2–5 may be regarded as conspiring towards the compact style—or, if 'conspiring' is too teleological, or even anthropomorphic, at all events they multiply the available items which favour this scientific style.

Diachronic developments, then, are important but they are not the whole story, given the use of the diffuse style in the late period. There are

[98] Cf. Cic. *N.D.* 2. 136 and Cels. 4. 1. 4; in both the object described is the lung.

two other parameters that suggest themselves against which to correlate use of compact and diffuse expressions, namely the stylistic register and the degree of technicality of the text. We may ask, for example, to what extent can the compact style be held to reflect something approaching the educated scientific prose-style that we recognize in modern English? Or again, does it mark a piece of Latin prose as elevated and intellectual, or as literary, or rather as ordinary, colloquial 'business prose'?[99]

In his perceptive essay on the style of Vitruvius, with reference to technical language and literary language in Latin, Louis Callebat (1982: 710–11) associates what he calls abstract expression—part of what I am calling the compact style—with 'phraséologie scientifique' and he also (1982: 704–5) characterizes the clustering of abstract nouns in Vitruvius as 'un mode très élaboré et littéraire d'énoncé'.

Before considering this second judgement, let me comment briefly on the word 'abstract' in this connection. One's instinct is, indeed, to call this all 'abstract': deverbal and de-adjectival nominalizations are, after all, what are standardly called in the grammar books abstract formations. But I wonder if 'concrete' is not more appropriate. Nominalizations create the illusion, at any rate, of objects. They imply that the symptom (*contractio neruorum, siccitas linguae*) resulting from a process (*contrahuntur* (*nerui*)) or a state (*sicca est* (*lingua*)) is somehow graspable and treatable as much as the spot or the swelling. This is ultimately perhaps a question of terminology rather than of substance and therefore less important than the description of the nominal style as 'élaboré et littéraire'.

Callebat's view seems to be very much against the consensus, and in particularly striking contrast with that of Hofmann (1936: 165, 204), who attributes the replacement of a verb by its nominalization + an auxiliary to a 'Denkträgheit' typical of all colloquial language especially of the lower orders of society! More mildly, Hofmann and Szantyr (1965: 754) recognize the presence of these structures in modern 'Kultursprachen' but regard them in Latin as familiar and colloquial. In this, and in most of their examples, they follow Löfstedt (1911: 147), who cites examples from Egeria, from Chiron (in passages where Vegetius substitutes the finite verb for the nominalization: see below), from Cicero in his letters and early works,[100] and from Vitruvius, the author who gave us our point of departure above in Callebat's judgement. What are we to think, given these two conflicting points of view?: literary or colloquial?

Probably, the question is misplaced and it is quite misguided to attempt to characterize nominalization as in and of itself either literary or colloquial.[101] In the first place, in Cicero nominalization + auxiliary are not confined to his early works and his letters but are found also in his speeches. For example, Hofmann and Szantyr refer to *Leg. agr.* 1.16 (quae erit in istos agros deductio, quae totius rei ratio atque descriptio?) and *Phil.* 2. 57 (quae fuit eius peragratio itinerum, lustratio municipiorum!), where, even if it were claimed that the former passage is using technical terms and the latter jocular nonce-formations, nominalization + auxiliary are clearly not so low and 'lazy' as to be inappropriate in a clausula with *atque* before a consonant (cf. Hutchinson 1995) or in a formally parallel two-term asyndeton. Nor is the structure too colloquial per se to take part in literary variation of structure, as e.g. at *Phil.* 2.18 (two cases in a single paragraph): tam autem eras excors ut tota in oratione tua *tecum* ipse *pugnares* . . . ut non tanta mecum quanta tibi *tecum esset contentio*; (two lines later:) ita quod proprie meum est laudasti; quod totum est senatus reprehendisti. nam comprehensio sontium mea, animaduersio senatus fuit.

Another feature of the diffuse style is involved in literary variation at Cic. *Tusc.* 5. 104 (tibicines iique qui fidibus utuntur = *fidicines*), where a defining relative clause is deployed (presumably) to avoid the use of a pair of rhyming compounds. Here, I think, we can with greater confidence identify the diffuse synonym with a literary mode of expression, since the latter—in artistic prose and poetry alike—is inclined to deliberate *variatio* and to avoidance of the *vox propria* by means of a descriptive paraphrase.[102] In Celsus it would seem reasonable a priori to regard as literary, not his rare lists of nominalizations but just such otiose head + relative structures: recall (e.g.) his phrase 'those who treat cattle and equine animals' in place of 'veterinarians' (cf. 6. 2. 3. 1 above). With these expressions it is tempting to compare passages such as those in Tacitus in which spades are 'things for moving soil and cutting turf' (*Ann.* 1. 65. 7), a cart is 'a vehicle used for removing garden refuse' (11. 32. 3), and hemlock is 'the poison formerly used to execute state criminals at Athens' (15. 64. 3).[103] Possibly the occasional clusters of defining relative clauses in Scribonius and Theodorus (and the more frequent instances in Caelius Aurelianus) have a similar—essentially literary—purpose and effect. It is notable that this kind of

[99] I borrow this phrase from Lyne (1989).

[100] For example, *Fam.* 11. 27. 4 oblitumne me putas . . . quae tua *fuerit assessio, oratio, confirmatio* animi mei . . . ?

[101] Adams (1995: 565) makes a similar point about Latin diminutives, which are too often taken *as a group* to be characteristic of spoken or sub-standard language. In general on nominalization in Latin see Rosén (1983) and Biville (1991).

[102] For some remarks on these same tendencies in Latin poetry, see Langslow (1999).

[103] *Ann.* 1. 65. 7 struendum uallum, petendus agger, amissa magna ex parte *per quae (e)geritur humus aut exciditur caespes*, 11. 32. 3 *uehiculo quo purgamenta hortorum e(x)cipiuntur* Ostiensem uiam intrat; 15. 64. 3 Seneca . . . Statium Annaeum . . . orat prouisum pridem *uenenum quo damnati publico Atheniensium iudicio exstinguerentur* promeret. Cf. Langslow (1994*a*: 303–4 and n. 21).

expression is least prominent in Cassius Felix, who is, however, far from innocent of stylistic aspirations.[104]

What counts as 'literary', however, is notoriously labile, no less than what passes for colloquial or 'Vulgar'. We must certainly at least allow for a significant shift in stylistic norms—and hence probably in the markedness of structures which persist—over the three and a half centuries separating Theodorus from Scribonius. A sustained passage in the compact, nominal style was quite conceivably more marked and evoked a quite different response in Celsus' and Scribonius' readership from the effect it had as literature on readers of Theodorus and Cassius; equally, a diffuse expression used deliberately in preference to an established compact term—think again of Theodorus' expression for sufferers from hot gout: *quibus sub calido tactu pedum dolor obuenerit*—may have sounded much more recherché (marked) in fifth-century Roman Africa than in first-century Italy.[105]

I mention briefly two further factors affecting choice between compact and diffuse expressions. First, there is the question of emphasis or focus, which is probably achieved more effectively with a verb phrase than with a nominalization. Compare the following three sentences concerning afflictions of the head, in each of which I have italicized what I take to be the focal element:

Cels. 1. 4. 1 cui *caput infirmum est*, is, si bene concoxit, leniter perfricare id mane manibus suis debet;
Cels. 1. 5. 1 *neque uero iis solis* quos capitis imbecillitas torquet usus aquae frigidae prodest;
Cels. 6. 7. 7B quod si capitis grauitas *manet*, attondendum.

Secondly—and this point is closely related to the last—choosing between noun-based and verb-based synonyms involves a choice between personal and impersonal accounts of disease and treatment. In the last sentence quoted from Celsus (6. 7. 7B), the patient has disappeared and the impersonal instruction makes no reference to the doctor. On the other hand, the patient is prominent in Celsus 1. 4. 1 (quoted above) and I would recall the second-person singular addresses to the doctor, of the type, *si*

[104] I think, in particular, of his use of particles, participles, and, most pervasively, alliteration.

[105] The same may be true of the verbs used by Vegetius (*Mulom.* 1. 40. 2 transit, 1. 46. 2 disrumpitur) and Pelagonius (141 rumpitur) in place of the nominalization + auxiliary in the original passages in Chiron (104 transitum fieri, 228 facere ruptionem, 452 ruptionem accipit, respectively). If there is anything deliberate in instances of this kind, it is interesting that here the nominal synonym is earlier (Chiron) and is replaced in a later version by a verbal synonym (Vegetius, Pelagonius). The numbers of deverbal nominalizations in *-tio* and *-tus* reported for Pelagonius by Adams (1995: 521–2)—29 and 20, respectively—strike me as very small for 80 pages of Teubner on a technical subject.

. . . *uolueris*, *facito*, noted in 6. 1 above. There is of course no strict correlation between presence/absence of patient and verbal/nominal style: note on the one hand the appearance of new impersonal verbs in medical texts (including already *destillat* in Celsus: 6. 2. 1 above), on the other hand, sentences, such as Celsus 1. 5. 1 (quoted above), in which the symptom is nominalized but the patient remains. However, a striking feature of medical texts, which achieves both compactness and impersonal expression, is the merging, or confusion, of lexical and morpho-syntactic means for expressing patients, affected body-parts, and diseases, well illustrated by Önnerfors (1956: 14–20) from Pliny and other medical texts.[106]

A priori, I think, one would predict that, although all registers of a language require devices which permit these sorts of variation for particular contexts, both variation for the sake of emphasis and personal focus tend to be more characteristic of literary, non-technical style. But of course the correlation between the choice of verbal/nominal expression and both these features—focus/emphasis and personal/impersonal description—requires proper investigation.

Given all the above points, tentative and impressionistic as they are as yet, I am inclined to apply to our medical authors the judgement of Hofmann and Szantyr (1965: 742) on the great number of nominalizations in agricultural works, from Cato onwards, and in the anonymous *Ad Herennium* and Vitruvius, and to conclude that their prominence is a feature 'more technical than vulgar'. At this stage, I cannot demonstrate this. In particular, in the absence of systematic comparisons with contemporary non-scientific prose, I cannot exclude the possibility that by, say, the fifth century AD the phenomena that characterize the compact style are as much literary as anything else. Nevertheless, it is striking that they are all features well known from the modern scientific style. I am not necessarily proposing a direct historical connection: this may rather be the sort of thing that happens when one writes technical language. For, in contrast with stylistic norms, it is likely that the pragmatics of technical writing remain relatively constant: indeed, it is not implausible that they may constitute some sort of universal of technical language. I alluded in 6. 1 above to some pragmatic tendencies of technical writing: it may be useful in closing now to rehearse them briefly again here.

(1) *Compression of information* (conciseness of expression, with givens eliminated) is clearly very important in technical writing, especially in often-repeated contexts. Compression will encourage the development along regular, formal-lexical lines of native resources of derivation—in Latin notably suffixation—to achieve compression in a predictable and interpretable fashion (e.g. head + relative clause → *-osi* (patients named

[106] See 3. 6. 1. 1g and 5. 4. 6 above for examples from our four authors.

from their disease); head + relative clause → *-torius* (medicaments named from their active property).

(2) A second gain seems to be *syntactic simplicity* (or syntactic homogeneity or predictability) based on nouns and their derivatives: the words are long and complex but the sentences are not. This may tend in individual cases against compression of information, given the need for an auxiliary verb (e.g. *purgatio fiat* for *purgetur*).

(3) A practical gain of the nominalization of sentences and verb phrases and adjectives, too, is *listability*: virtually any forms of treatment, say, or symptoms can be listed either as subject (*a, b, c occur/follow/are useful*) or object (*the patient suffers/you should apply a, b, c*) of a limited number of verbs.[107]

(4) And finally, as I observed earlier in this section, what is usually called 'abstract' nominalization can, paradoxically, have the effect of achieving *concreteness* by making events and states of affairs into nouns and giving them a more objective appearance.

6. 4 Technical Language Ancient and Modern

It has been stated in a modern work on technical translation that in modern languages the 'nominal style', part of what has been termed in this chapter the 'compact' style, has in recent times assumed the role previously played by Latin of providing a special idiom for communication in technical contexts. I quote Pinchuck (1977: 172–3):

> There is more diversity in the verbal style but, while this is excellent for self-expression, the technical writer prefers to avoid the intrusion of the individual. Nominalization helps to make the writing seem something special and esoteric. In past centuries Latin was the language of learned communication and was used to provide the specialized means deemed necessary. Today this role has been taken over by the nominal style.

I hope that, on the strength of the material presented in 6. 1 and 6. 2 above, it is by now apparent that this dichotomy between Latin and the nominal style in technical English is only part of the story. In ancient Latin, as in modern English, we may identify contrasting sets of syntactic and lexical choices which may reasonably be dubbed 'verbal style' and 'nominal style', respectively. It is striking that with each of the phenomena presented above from the 'compact' style in Latin one may compare a closely analogous, in some cases structurally identical feature characteristic of the modern scientific style. By way of illustration I recall the two versions of the two medical cases that were quoted in 1. 2. 3 above, the first version in each pair

[107] Note again the lists of symptoms in the Latin passages in 6. 1 above.

(1a, 2a), from the *British Medical Journal*,[108] illustrating, as I would now put it, the 'compact' (or 'nominal') style, the second (1b, 2b), from the 'Health' page of the *Independent* newspaper,[109] displaying the 'diffuse' (or 'verbal') style. I reproduce them again here not only for the sake of convenience but also because we may now, in the light of the intervening chapters, see them through different eyes. Note that the *BMJ* version is the original and that the *Independent* version is a sort of translation out of 'medical English' for the consumption of non-specialist readers. In (1a) and (1b), as in the Latin passages in 6. 1 above, the finite verbs are in bold.

(1a) A 32 year old fruiterer **presented** with periorbital oedema, facial erythema, widespread urticaria, and dyspnoea 20 minutes after eating a fresh mango . . . . On examination he **had** considerable periorbital oedema, a swollen tongue, an urticarial rash over the arms and trunk, and tachypnoea . . . . Anaphylaxis was **diagnosed**.

(1b) A fruiterer in Plymouth **had** a nasty shock when he ate a mango recently . . . Within 20 minutes his face **puffed up**, his skin **became** red and blotchy and he **found** it difficult to breathe. When he **was examined** in hospital, his tongue **had swollen** and his body was **covered** with an itchy rash. An acute allergic reaction was **diagnosed**.

(2a) We **report** a case of recurrent bilateral periareolar abscesses.

(2b) A hairdresser suddenly **began** to suffer from abscesses on her nipples . . . . She suffered from frequent abscesses affecting both breasts.

The second pair of passages (2a, 2b) shows just how compact the 'compact' style can be compared with a 'diffuse' equivalent. The original single four-word phrase *recurrent bilateral periareolar abscesses* requires a minimum of eight words in three phrases in the diffuse version (*frequent abscesses on her nipples affecting both breasts*); the translator's choice to divide this between two sentences makes the result yet more diffuse.

The technical version (1a) contains just three finite verbs (*present, have, diagnose*), of which the last is denominative (from *diagnosis*); its non-technical 'translation' uses *eat, puff up, become, find, examine, swell, cover,* and, again, *diagnose*, a total of eight finite forms. Five of these eight occur in a verb phrase that is used to render a technical noun or noun phrase of the original: *periorbital oedema → his face puffed up; erythema → became red and blotchy; urticaria → was covered with an itchy rash; dyspnoea, tachypnoea → found it difficult to breathe.* In these there is no lexical affinity between nominal and verbal expressions; the latter simply paraphrase the former in layman's language in a manner akin, in formal terms at least, to Cato's paraphrase for strangury (*Agr.* 122 *si lotium difficilius transibit*) or Theodorus' for sufferers from hot gout (221. 20 *quibus sub calido tactu*

[108] *British Medical Journal* 297, 24–31 Dec. 1988, 1634 and 1641.

[109] The *Independent*, 2 Jan. 1989, 11.

pedum dolor obuenerit for *ad podagram calidam*; cf. 6. 1 above). The two lists of symptoms in (1a) (*presented with a, b, c, and d; had w, x, y, and z*) are expanded into two sets of complete sentences in (1b); the listability offered by the compact style is deliberately given up, presumably in order to enhance the interest of the piece for a non-specialist readership. This is seen also in the prominence of the patient in (1b)—eight references (one noun and seven pronouns)—compared with (1a), which mentions him just twice (and note *the (arms and trunk)* in (1a) vs. *his (body)* in (1b)).

The other three verbs in (1b), however, *eat, examine, swell*, ordinary everyday words, occur in both versions, in a nominal form in the *BMJ* but translated into a verb phrase in the *Independent*: *after eating* → *when he ate*; *on examination* → *when he was examined*; *swollen tongue*[110] → *his tongue had swollen*. These illustrate well the preference in medical English for a noun phrase over a verb phrase, and echo some of the Latin structures considered in 6. 2. 1 above (e.g. with *on examination* ~ *when he was examined*, compare *post fomentationem* ~ *postquam fomentaueris*; with *swollen tongue* ~ *his tongue had swollen*, compare *nerui resoluti* ~ *nerui resoluuntur*).

If these are relatively constant tendencies in technical language, we must not forget other steady pressures, notably from the literary language. Given that our four authors are members of the educated elite (cf. 1. 4 above), each with literary and rhetorical training, then a significant development over time which one might infer from these four texts is that the 'scientific' style in Latin texts of 'high' medicine becomes increasingly regular, consistent, and—most important for its survival—acceptable in elite circles.

6. 5 Referring-Expressions consisting of Head + Relative Clause

As promised in section 6. 2. 3. 1, I append to this chapter the extensive, although probably not complete, set of examples of head + defining relative structures which I have collected from our four authors (which form the basis of the figures in Table 6.3 above). They are arranged by lexical field and the lexical and syntactic types distinguished in the discussion in 6. 2. 3. 1; for ease of reference, the head (or determiner, as appropriate) is frequently highlighted in bold.

Anatomy

(1) Genus–Species: The relative clause identifies a member of the set denoted by the head

[110] This phrase might be regarded as intermediate between *his tongue had swollen* and a full nominalization in, say, *swelling of the tongue*; cf. my remarks on analogous phrases in Latin in 6. 2. 1 above.

Celsus:
8. 12. 1 [*dentes*] qui secant (= Gk. *tomis*);[111]
8. 24. 1 ii [*digiti*] qui sunt in manu (opposed to toes);[112]
6. 8. 2 id **foramen** quo spiritus a naribus ad fauces descendit;
5. 26. 17 **medulla** uero quae in spina est (= 8. 1. 11 *spinae medulla*, Cass. 84. 10 *dorsalis medulla*);[113]
5. 22. 6 **membrana** quae super cerebrum est (cf. 5. 26. 3A; = *membrana cerebri*); 7. 7. 15C membranae quae ab oculis ad cerebrum tendunt;[114]
7. 7. 15I **musculi** qui maxillas tenent (= Scrib. 53. 14 *musculi maxillares*);[115] 8. 1. 4 musculi qui tempora conectunt (cf. 8. 4. 9; = 8. 1. 8 *temporum musculi*);[116]
7. 18. 11 **neruus** ex quo testiculus dependet (cf. 7. 22. 5; = Gk. *cremaster*);[117] 8. 13. 1 qui nerui sunt sub occipitio; 8. 14. 1 nerui qui continent [*uertebras*];[118]
4. 1. 11 id os quod pubi subest (= *os pubis*); 8. 1. 24 ea ossa quae scapularum sunt (= *ossa scapularum*);[119]
6. 3. 2 [*eae*] **partes** quae pilis conteguntur (= Cass. 12. 12, 13. 13 *capillosa loca*);
7. 7. 8 **pili** uero qui in palpebris sunt (cf. *pili palpebrarum*);[120]
6. 6. 35 oculi **potentia** qua cernit (= *acies*);
7. 18. 1 **tunicae** quibus ii [*testiculi*] continentur;[121]
pr. 15 eae uenae quae spiritui accommodatae sunt (cf. Scrib. 45. 13–14 in (3) below);[122] 4. 7. 3 eas uenas quae sub lingua sunt;[123] 5. 26. 3B in iis uenis quae ad anum testiculosque perueniunt; 7. 7. 15C uenae . . . quae inter caluariam et cutem sunt an quae inter membranam cerebri et caluariam; 7. 7. 15E uenae ex quibus umor ad oculos transit;

[111] Cf. *decisores* (Ps.-Soran.), *praecisores* (Isid.) and medieval *incisiui*; note also *mordex* (Plaut. *Aul.* 234, of an ass), *aduersi dentes* (Cic., Isid.); see Cootjans and Gourevitch (1983) and André (1991: 63).

[112] Cf. André (1991: 99–100).

[113] Cf. André (1991: 196).

[114] Note the defining relatives also at Cael. Aur. *Chron.* 5. 5 membrana quae ossa circumtegit, 5. 91 membrana quae latera cingit (cf. 2. 127, with two examples); André (1991: 206–7) summarizes the names of the individual *membranae*.

[115] Also synonymous is Cael. Aur. *Acut.* 2. 69, *al.*: musculi qui buccas colligant; cf. the more compressed *musculi buccarum* at ibid. 3. 75, *al.*

[116] For the names of the individual muscles see André (1991: 203–6).

[117] = Col. 6. 26. 2 testium nerui; cf. André (1991: 177).

[118] Cf. Cic. *N. D.* 2. 139 neruos a quibus artus continentur; on tendons, ligaments, and nerves see André (1991: 208–9).

[119] Cf. Cael. Aur. *Acut.* 3. 140 ossa quae a pube usque ad ilia perueniunt; on designations of individual bones see André (1991: 196–7).

[120] Cf. André (1991: 46, 214).

[121] See André (1991: 179).

[122] Mudry (1982: 93) compares Gk. *τὰ τοῦ πνεύματος ἀγγεῖα* (= *ἀρτηρία*) and suggests, without giving any reasons for this view, that Celsus' 'périphrase représente vraisemblablement une fidélité de Celse à sa source grecque': the periphrasis is rather, I suggest, characteristic of Celsus and of literary Latin.

[123] Exactly this phrase occurs at Cael. Aur. *Acut.* 3. 35, 41, *al.*: uenae quae sub lingua sunt; cf. Theod. 120. 8 ex uenis sub lingua apparentibus, 154. 11 uenam eis sub lingua secabo. Note also Cael. Aur. *Chron.* 2. 134 uenae quae tempora uel frontem cingunt; for a summary of the names of the individual vessels see André (1991: 127–9).

2. 1. 19 **uertebrae** quae in spina sunt (cf. 4. 1. 3); 4. 6. 4 iis praecipue [*uertebris*] quae in collo sunt.[124]

Scribonius:
20. 15–16 [*palumbi*] **uenae** quae sub alis sunt.[125]

Theodorus: none.

Cassius:
81. 6 loca quibus nutrimenta transuorantur;
139. 18 **nerui** qui singulis motibus membrorum inseruiunt aut quorum naturali colligatione singula membra reguntur (cf. 158. 10, and the *nerui* in Celsus above).

(2) The head is empty or indefinite

Celsus:
2. 4. 9 id quod excernitur (cf. 2. 8. 32, 38; 2. 12. 2B; 4. 1. 7 ea quae excreturi sumus) (= *egestio, excreta*);[126]
2. 7. 12 quae inter has [*coxas*] superque pubem sunt (cf. 5. 26. 19 quod super pubem est) (cf. *imus uenter*);[127]
4. 4. 1 ea quae sub mento sunt (= Gk. *anthereōn*);[128]
8. 4. 22 id quod inter supercilia est (= *intercilium*);[129]
8. 9. 2 id quod ex uertebra excedit (= *processus* (16 times), *procedentia* (only 8. 1. 27), *excessus* (only 8. 1. 19, 27)).

Scribonius: none.

Theodorus: none.

Cassius: none.

(3) Otiose relative: Head + relative based on noun + attributive adjective:

Celsus:
7. 4. 2A **saeptum** id quod transuersum a superioribus uisceribus intestina discernit (cf. *saeptum transuersum*, Gk. *diaphragma*).

Scribonius:
45. 13–14 **uena** in brachio quae est **animalis**.[130]

Theodorus: none.

Cassius: none.

[124] On the vertebrae see André (1991: 198).

[125] Cf. the derivative *subalaris*, which is attested, although in a different sense, already in Nepos (*Alc.* 10. 5 *subalare telum* 'the weapon under his arm').

[126] Cf. the polite and rare *excrementum* (attested from Plin. *Nat.* on, including in Tacitus); see Adams (1982*b*: 242).

[127] On this region, roughly what is today termed the hypogastrium, see André (1991: 227–9); note Celsus' collocation *imus uenter* (12 times, e.g. 2. 7. 4, 2. 12. 2B, 4. 1. 13).

[128] André (1991: 40–1); roughly what is today termed the submental triangle.

[129] See André (1991: 48).

[130] Discussion of the *uenae* as vessels for blood and *pneuma* in André (1991: 126–8).

Pathology

(A) Patients and afflicted body-parts

(1) *The head + relative structure means simply 'the patient' or 'the affected part'*

Celsus:
2. 10. 7 qui laborat; 3. 5. 5 qui aegrotant; 7. pr. 4 is quem accepit [*medicus*]; 7. 7. 14C is qui curabitur; 7. 26. 2D qui curatur (cf. 8. 10. 2B);[131]
2. 11. 4 ei ipsi [*parti*] quae dolet (cf. 8. 11. 6 in iis membris quae id patiuntur); 7. 7. 14C oculus qui curabitur.

Scribonius:
91. 3 qui laborat; 91. 4 qui ab eo laborant (note also 86. 7 qui his malis uexantur; cf. n. 87).

Theodorus:
217. 4 is qui patitur (note also 131. 1 qui sub utriusque cognomentis aegrotant).

Cassius:
71. 6 is qui curabitur (cf. 79. 6); 87. 9 ipse qui patitur (cf. n. 73);
18. 9 loca quae patiuntur (cf. 40. 3, 64. 3, 116. 22, 185. 3); 139. 21 partes quae patiuntur; 162. 16 non solum praecordia sed etiam cetera quae dolent.

(2) *The verb forms (part of) the lexical focus*

Celsus:
1. 3. 33 quibus iuuenibus **fluxit aluus** (= Gk. *diarroïci* ?);
1. 9. 1 si cui uero **dolere nerui** solent (= Gk. *neuralgici* ?);
2. 2. 3 si **marcet** animus (cf. *marcor*);
2. 12. 1B iis quorum **nerui** parte aliqua **resoluti sunt** (= Gk. *paralytici*);
2. 1. 21 qui **sanguinem expuunt** (cf. 2. 7. 16 qui spumantem sanguinem excreant) (= *sanguinem spuentes, haemoptyïci*);[132]
2. 7. 7 quibus in pueritia **sanguis** ex naribus **fluxit** (cf. 2. 7. 20, 4. 11. 4);
2. 7. 7 quibus feminis **menstrua non proueniunt** (= 6. 18. 9C; cf. 2. 8. 16 quae menstruis non purgatur; 4. 11. 5 mulier cui menstrua non feruntur; 4. 31. 1 quibus menstrua suppressa sunt);
4. 30. 1 is cui **genua dolent**.

Scribonius:
47. 22–3 ad eos qui **sanguinem ore eiciunt aut per urinam reddunt**[133] (cf. 64. 9 eis qui sanguinem per urinam uel aluum reddunt) (cf. *sanguinem reicientes*);
53. 5 et ad eos qui saepius existimantur ab incubone deludi;

[131] Cf. 3. 7. 1B si puer est qui laborat, 6. 15. 3 si puer est cui id incidit: note the present indicative in Celsus! On this construction (*c'est lui qui l'a fait*), see B. Löfstedt (1966), and add the examples from Celsus, Scribonius (20. 10 si puer fuerit qui laborat), and Cassius Felix (99. 6–7 si forte mulier fuerit quae curatur).

[132] Note the nominalization conjectured at Plin. *Nat.* 23. 20 ad expuitionem sanguinis.

[133] So Sconocchia. Preferable is: qui sanguinem aut reiciunt aut per urinam reddunt (cf. 48. 19, 49. 1 sanguinem reicientes). Conversely, we should probably read *deicientem* with *R* at 62. 20, where Sconocchia prints: hoc ego iam stercus per os eicientem . . . sanaui: *deicio* is the normal verb with excrement in Scribonius and the normal verb is used in just this context at Cels. 4. 20. 1 (*reddo*), and Theod. 126. 4 (*excludo*). Cf. p. 199 n. 342 above.

53. 14–15 ad eos quorum **musculi maxillares** cum maximo dolore **tensi sunt** adeo ut aperire os nullo modo possint (= 81. 19 Gk. *tetanici*);
55. 12 ff. remediat enim eos quibus frequenter **inacescit cibus** . . . aut **adsidue nauseant** aut **saliua abundant** (cf. ind. 10. 3–4);
57. 11 item menstrua mouet mulieribus quae **difficulter purgantur**;
74. 10 ad eos qui **difficulter urinam reddunt** (cf. 81. 15–16 quibus alioquin urinam mouere studemus) (= Gk. *dysūrīntes*).

Theodorus:
26. 7 quibus uero per saniem digestionem uolumus procurari;
75. 4 cui **febres superueniunt** (in contrast with 75. 3 *febricitantibus*);
82. 7 quibus uero **tumuerit** [*ueretrum*];
91. 11 quibus uero **intestinum** [*the rectum*] **exierit**;
93. 3 quibus uero iam **uesicauerint** (**perniones**); 93. 8 quibus uero et crepuerint et uulnerati fuerint [*perniones*];
94. 18 quibus uero etiam **ungues quassauerint**; 95. 1 quibus sane hi [*ungues*] aliquo forte ictu nigrescant;
132. 3 quibus uero . . . **ueluti partes frigantes usus uenerii officium pernegarint**;
155. 12 quibus uero sine sensu **partes attemptatae deriguerint** hiemis tempore aetate senili laborantibus;
192. 3 quibus uero flegmate supernatante frequenter **acescunt cibi**;
194. 3 quibus autem flegmatis infestatione **stomachus infrixerit**;
247. 3 in iis qui **sanguinem uomuerint** (= *sanguinem reicientes*).

Cassius:
113. 19 et ad eos qui **sanguinem mingunt**;
163. 24 f. aliud conueniens maxime is qui cum solutione uentris doluerint et **sputa sanguinolenta emiserint** (cf. *sanguinem spuentes*).

(3) *The lexical focus is not in the verb: The verb meaning 'be ill, suffer' (conversely 'make ill, attack') or simply 'have' or 'be', is determined by the name of a body-part, symptom, or disease:*

Celsus:
1. 4. 1 cui **caput infirmum** est; 1. 5. 1 neque uero iis solis quos **capitis inbecillitas** torquet . . . sed iis etiam quos **adsiduae lippitudines, grauidines, destillationes, tonsillaeque** male habent;
2. 7. 27 quibus autem **longae febres** sunt;
2. 8. 16 quae **locis** laborat (= *locosa* in 5. 4. 3 above, with n. 297);
2. 8. 34 quos **lienis** male habet (2. 7. 21 quibus magni lienes sunt) (= *lienosi*, Gk. *splenitici*);
2. 13. 1 qui **cholera** laborant (= Gk. *cholerici*);
3. 21. 1 quos **aqua inter cutem** male habet (= Gk. *hydropici*);
3. 21. 16 nam quorum **stomachus corruptus** est (= Gk. *stomachici* ?);
5. 28. 3B iis quorum **corpora mali habitus** sunt (cf. 5. 26. 31C) (= Gk. *cachectici*);
5. 28. 7B quem **struma** male habet (= *strumaticus* in 5. 4. 6 above);
5. 28. 19B leuce quem occupauit;

7. 15. 1 ii qui **hydropici** sunt (= Gk. *hydropici*);[134]
7. 14. 8 [*corpus*] quod **mali habitus** est (cf. 7. 9. 2) (= Gk. *cachecticus*), quodue **papulas, impetiginem**, similiaque habet.

Scribonius:
18. 3 quibus subitae **uertigines** obuersantur (cf. 52. 7–8); (= *tenebrosi*, Gk. *scotomatici*);
27. 28 qui **capitis dolorem aut grauitatem** habent;
49. 15 eis qui **lateris dolorem cum febre** sentiunt (= Gk. *pleuritici*);
50. 16 eis qui sine horrore **circuitibus febrium** uexantur;
54. 4 eis uero qui ex occulta causa laborant;
55. 12 ff. et eos qui adsidue **inflationibus** urgentur uel **dolore** eius uexantur . . . uel **inedia consumuntur stomachumque** . . . **solutum** habent (= *stomachum solutum habentes*);
64. 10 quae **fluore sanguinolento** infestantur;
64. 11 quae **residuos uuluae dolores** habent;
64. 12 quibus supprimendus est **fluor**;
66. 8 qui **colo** infestabatur (= Gk. *colicus*);
67. 4 quibus opus est **urina**;
69. 18 in initiis quorum **sufflatum corpus** est;
73. 24 si cui autem **lapis in renibus** innatus fuerit et urinam non faciet (cf. *calculosi*, Gk. *lithiontes*);
81. 15 quorum **iecur durum** est (= *iecur durum habentes*; *iocinerosi* ?);
91. 8 **fungis uenenatis** cum quis laborat.

Theodorus:
14. 13 quibus uero haec **uulneratio** [i. e. *ulceratio achorum*] obuenerit cum dolore;
24. 5 quibus **uermes** innati fuerint;
49. 10 quibus forte **putres cauernae** [*in dentibus*] obuenerint;
67. 10 qui uero ferro altum **uulnus** suscipiunt;
69. 8 etiam qui **humanos morsus** patiuntur;
83. 9 quibus uero sub operimento cutis [*the foreskin*] **ueluti exochadium** fuerit natum; 88. 8 quibus uero condylomata fiunt uel exochadia;
93. 19 quibus uero **clauuli** inhaerentes molestiam fecerint;
140. 16 quibus autem **exhalatione inferiorum, quam anathymiasin** appellamus, **caput** fuerit sollicitatum (cf. 141. 18 iis quibus ex anathymiasi caput fuerit inquietatum);
188. 5 quos uero **repentinus dolor stomachi** comprehenderit; 192. 14 quibus calore nimio inquietatur [*stomachus*];
221. 20 quibus uero **sub calido tactu pedum dolor** obuenerit (= Gk. *podagrici*);
228. 18 quibus autem **repentina commotio matricis** innascitur;[135]
247. 3 in iis qui . . . **dyssenteriae uitio** laborarint (= Gk. *dysenterici*).

[134] This is reminiscent of type (3) under anatomy above, given that *hydropicus* can perfectly well stand as a noun: Celsus has it himself at 4. 2. 9, and cf. Plin. *Nat.* 26. 119 hydropicos sanat panaces.
[135] Cf. Plin. *Nat.* 30. 131 iis quae uuluā strangulantur.

Cassius:
6. 9 in iis qui ex plenitudine capitis laborant;
57. 8 conuenit maxime illis quibus suffusio imminere monstratur (cf. 169. 7);
100. 9 illis qui obtunsionem uisus ab stomacho patiuntur;
126. 9 iis qui diuturna putredine in dysenteria laborauerint;
127. 10–11 iis maxime qui frequenti deiectione assellationis surgendo fatigantur;
129. 19 aliud conueniens is qui sine febre fuerint (= Gk. *apyreti*);
149. 5 illos maxime qui nimia corporis ariditate laborauerint.[136]

(B) Other pathological terms:

(1) *Genus–Species: The relative clause specifies a member of the set denoted by the head*

Celsus:
2. 4. 5 febres eas quae cotidie tempore eodem reuertantur (cf. 3. 5. 3 eas [*febres*] quae cotidie urgent) (= *febris cotidiana*); 2. 17. 4 in iis quidem febribus quae certum circuitum habent;
3. 21. 14 id genus morbi quo in uterum multa aqua contrahitur (= Gk. *ascites*);
4. 21. 1 is morbus qui in intestino pleniore est (= *morbus maioris intestini*, Gk. *colum*);
8. 11. 2 neruorum . . . rigores qui caput scapulis adnectunt (= Gk. *opisthotonus*);
5. 18. 17 in iis tuberibus quae difficiliter concocuntur;
1. 9. 5 ea ulcera quae ex frigore sunt (= *perniones*).

Scribonius:
100. 16 combusta et uetera omnia quae non facile cicatricem ducunt (cf. 94. 17) (= *dysapulota*);[137]
46. 21 ad tussim quae cum fluore est (= ind. 9. 12 ad tussim cum fluore; Gk. *hygrobex*);
ind. 14. 24 ad omnia uitia quae in ano fiunt (= *uitia ani*);
ind. 15. 16 ad omne ulcus in quo caro excrescit (= *excrescens*);
36. 6–7 ad omnia ulcera quae in ore fiunt (= *ulcera oris*).

Theodorus: none.

Cassius:
78. 2 ad omnia [*ulcera*] quae in ore nascuntur (cf. 80. 15) (= *ulcera oris*); 113. 18 ad ulcera quae in renibus siue in uesica nascuntur et indigent in cicatricem duci.

(2) *The head is empty or indefinite*

Celsus:
2. 5. 2 quod . . . abscessit (cf. 5. 18. 21 omne quod abscedit; 7. 2. 2 quicquid abscedit) (= *abscessus*);
2. 7. 34 quod suppurat (= *suppuratio*);
4. 12. 1 [*malum stomachi*] quo resoluitur (cf. *resolutio*);

[136] At 166. 12 Rose follows ms. *c* and prints: sequitur autem ⟨qui⟩ laborauerint ex aqua (tu)mor stomachi, etc. This is certainly wrong. We should instead follow ms. *p* and read: sequitur autem laborantes tumor stomachi, etc.

[137] Compare the participial phrase at Cass. 51. 12 difficile in cicatricem uenientia.

4. 29. 3 ea quae coeundo nocuerunt (cf. 5. 11. 1 ea quae in corporis parte aliqua coierunt; 5. 18. 8 quae coeunt = 5. 18. 11) (= *coitus, collectio*);
5. 13. 1 id quod exasperatum est (= *exasperatio*);
5. 26. 31D id quod inflammatum est (= *inflammatio*).

Cassius:
t. 115. 1 ad ea quae uesicae accidunt (= *accidentia*, Gk. *symptomata*).

Therapeutics

(A) The relative clause signifies a class of food or treatment

(1) *The meaning is quite general, simply 'food', 'remedy'*

Celsus:
2. 8. 6 ea quae adsumuntur; 5. 26. 23H imposito quo id [*uulnus*] iuuetur.

(2) *The verb is (a part of) the lexical focus*

(a) The verb denotes an active property of the foodstuff(s)/medicament(s):

Celsus:
4. 22. 5 quae adstringant (= 4. 26. 8); 4. 11. 7 quae aluum adstringunt (cf. 4. 22. 2, 4. 23. 1); 4. 22. 4 cibi . . . qui leniter uentrem adstringant (= *adstringens*);
5. 28. 3D quae uehementius adurunt (= *adurens*);
4. 15. 3 cibi . . . qui non multum alant;[138]
4. 19. 4 ea quae uentrem comprimunt (= *comprimens*);
4. 15. 2 cataplasmata . . . quae diducant;
3. 27. 4 malagmata quae digerunt (cf. 3. 21. 14, 3. 24. 5, 8. 10. 7O);
6. 9. 5 compositiones quae dolorem leuant;
5. 26. 33C quae carnem putrem lenius edunt (cf. 5. 28. 4D);
5. 21. 5 quo facilius eiciatur [*mortuum infans*] (= *abortiuum, exclusorium*);
5. 26. 23H cataplasma . . . quod emolliat;
4. 27. 1D Tol. 2 medicamenta quae euocent (= *euocans, euocatorius*);
5. 26. 30C quae corpus exedunt (cf. 5. 26. 36C, 5. 27. 2; 7. 21. 1B medicamenta quae sic exedunt ne erodant) (= *exedens*);
7. 4. 4C medicamentum ex iis quibus callum exedi posui (cf. 5. 28. 12I); (= *excallatorius*, Gk. *ectylōticus*);
3. 24. 3 cibi qui extenuant (= 6. 6. 17; cf. 6. 6. 1G quae extenuant, 6. 6. 38 medicamenta . . . quae uel cicatrices uel aspritudinem extenuant; cf. 7. 7. 4A, 6. 6. 35 uictus . . . qui pituitam extenuat) (= *extenuans*);
7. 4. 1B medicamentum quo glutinetur (cf. 7. 7. 3, 7. 7. 8C, 7. 8. 4, 7. 19. 5) (= *glutinans*; Gk. *collēticus, glutinatorius*);
5. 28. 13C quae impleant 'make flesh' (cf. 6. 6. 29 cibi . . . qui implent) (= *implens*);
1. 7. 1 quicquid inflare consueuit (cf. 2. 25. 1 quaeque inflare consuerunt) (= *inflans*);
4. 16. 4 quae leuent;
5. 28. 13C quae purgent (cf. 7. 8. 3 id quod purget);

[138] Cf. Theod. 131. 20 cibi multum nutrientes (= Gk. *polytrophi*).

1. 3. 36 cibi qui **refrigerent**; 4. 31. 5 cataplasma quod **refrigeret** (cf. 4. 12. 9; 5. 18. 1 est tamen quod refrigerare possit) (= *refrigerans*);
3. 21. 12 cataplasmata quae **reprimunt** (= 3. 27. 4, 4. 22. 2, 5. 26. 23H; 7. 12. 1 medicamenta; cf. 3. 19. 2 reprimant = 4. 15. 2, 5. 28. 3E; cf. 8. 5. 5 [*medicamenta*] quae leniter reprimunt) (= *reprimens*);
5. 26. 33D quae **crustas a uiuo resoluant**;
8. 10. 7K medicamentum quod **siccet** (= *siccans*);
6. 18. 3C medicamenta quae **sanguinem supprimunt** (cf. 6. 18. 9B, 7. 10. 1 medicamentum quo sanguis supprimitur (cf. 7. 12. 2), 7. 7. 15K medicamenta . . . quae sic sanguinem supprimant ne adurant) (= *supprimens*; Gk. *stypticus*);
4. 14. 4 quae **materiam trahunt**;
4. 13. 2 medicamentum quod **umorem illuc citet**; 5. 28. 7B medicamenta . . . quae **umorem uel educant** (= *educens*) uel **dissipent**; 4. 23. 1 malagma quod **umorem euocet** (cf. 6. 11. 5 neque quicquam dandum a quo umor euocari possit); 4. 17. 2 quae **umori extrahendo** sunt (= Gk. *epispastica*; cf. 5. 26. 23G).
Note also foodstuffs/medicaments with more than one active property combined (listed here in text order): 2. 12. 1C cibi potionesque . . . qui simul et alant et uentrem molliant; 2. 33. 6 quae calfaciunt, digerunt et emolliunt; 2. 33. 6 quae uehementer reprimunt et emolliunt (cf. 4. 12. 1, 4; 4. 14. 3; 4. 31. 5 quae sic reprimunt ut emolliant); 3. 20. 6 quod simul et reprimat et molliat; 5. 28. 7B [*adurentia*] quae exedunt crustaque eum locum astringant; 5. 28. 11B cataplasmata quae simul et reprimunt et refrigerant (cf. 5. 28. 12M); 5. 28. 11B quae digerant et resoluant; 6. 6. 14 cibis uero is qui maxime corpus alere et implere consuerunt.

Scribonius:
ind. 15. 16 ad omne **ulcus** in quo caro excrescit duo quae **compescant**;
ind. 15. 15 ad omne purum ulcus et concauum quae **complent**;
56. 3 eae res quae **stomachum constringere** solent (cf. *constringens*);
pr. 2. 22 medicamentum quo **conceptum excutitur** (cf. *exclusorium*);
83. 1 ea . . . quae etiam sana corpora **exulcerant**;
70. 6 quae **aluum** mediocriter **molliunt**; 92. 8 ea quae **uentrem molliunt** (= *aluum mollientia*).
Note also foodstuffs/medicaments with more than one active property combined (listed here in text order): ind. 16. 3–4 malagma quod stomachum solutum confirmat, aluum incitat, supprimit et adstringit quicquid opus est; 99. 20 emplastrum quod aperit et educit pus uel si quid aliud subest (cf. ind. 14. 12; = 1. 99. 19 *emplastrum epispastice*).

Theodorus:
20. 12 omnes confectiones quae mediocriter **calefacere possint** (= *calefaciens, calefactorius*, Gk. *thermanticus*);
25. 1 adiutoria quae ex altitudine aliquid **euocare possint** (= *prouocantia, euocatorius*);
101. 1 [*styptica*] quibus illa **caro** corrupta et effeminata **ualeat durari uel stringi**;
25. 9–10 [*ea*] quae **mitigare consuerunt** (= *mitigatorius*, Gk. *parēgoricus*);
140. 6 [*folia uiridia of various plants*] quae . . . competenter **infrigidare sufficiant** (= *refrigerans*);

142. 8–9 uini species . . . quae **stomachum ualeat reparare** (= *confortatorius*, Gk. *tonōticus*);
156. 5–6 ex diuersis adipibus et medullis quae possunt [possint *B*] loca **contrahentia relaxare** (= *relaxatorius*, Gk. *chalasticus*);
164. 12–13 epithemata simili sub uirtute operantia, quae calefaciendo loca **desiccare contendant** (= *desiccans, desiccatorius*);
246. 3 [*species*] quas nosti competenter **posse constringere** (= *constringens, constrictiuus, constrictorius*; Gk. *stalticus*);
Note also foodstuffs/medicaments with more than one active property combined (listed here in text order): 26. 10 adiutoria quae et euocare et in maturitatem cogere parotidas uel apostemata ualeant; 28. 14 catholicis adiutoriis quae et capitis reuma constringere et corpus reliquum catharticis purgare possint; 65. 6 quod glutinare et curare membra ualeat uulnerata; 169. 3–4 cuncta adiutoria uel praecepta frigida quae constringere et glutinare poterunt [possint *b*]; 217. 8–9 [*adiutoria*] uirtute chalastica et paregorica esse debent, quae neruorum et articulorum nutrire et fouere ualeant loca; 217. 10–11 quae torporem magis in tempore quam mitigationem praestare possint.[139]

Cassius:
6. 11 ea quae similiter [*i.e. like milk*] **implere caput** noscuntur;
36. 19 quae ualeant ulcera sordida **purgare**;
40. 19 catharticum quod flauum fel **deponat**;
88. 4 potiones aptissimas dabis quae ualeant uenas **conglutinare**;
143. 12–14 omnia quae similiter [*i.e. like pork*] tenacissimum uel crassum **humorem nutriunt** et digestionis tardae esse probantur;
147. 18 ea quae **uentrem molliunt** (= *aluum mollientia*);
193. 13–15 ea adhibere quae ualeant uirtute styptica omnia **soluta densando uel constringendo** sanare.
Note also foodstuffs/medicaments with more than one active property combined (listed here in text order): 91. 6 adhibere quae ualeant sordida ulcera depurgare et ipsorum locorum patientium tumorem mitigare; 119. 16 aliquid sorbile quod humorem acrem et tenuem et asperum ualeat obdulcare et crassificare et lenire; 121. 10 alia quae simili uirtute ualeant stomachum confortando recreare et uires patientis depositas erigere.

(b) The verb denotes another property

Celsus:
3. 22. 6 cibi uero esse debent ex iis quae **facile concoquantur** (cf. 1. 4. 4 cibus . . . quem facile concoquat; = *digestibilis*);
3. 6. 17 cibus . . . qui **quam minime corrumpi** possit;
4. 12. 9 ex iis quae **non aliena stomacho** sint.

(c) The verb denotes the means of application

Celsus:
5. 21. 1 ea quae feminis **subiciuntur** (= Gk. *pessi, pessaria*);

[139] Note also the purpose clause at 135. 13 quo (= ut) calorem ingenitum emorientem reparare quatenus ualeamus.

2. 13. 3 omne eiusmodi medicamentum quod **potui** datur.

Scribonius:
ind. 8. 9 quibus **colluendum** est (= *collutiones*);
ind. 8. 11 quae **commanducare** oportet (= *masticatoria*; Gk. *masomena*);
ind. 8. 12 quae **imponere extra** [*oportet*];
ind. 10. 14 pastillus qui **per anum mittitur** (cf. ind. 10. 20); (= *suppositorius*; Gk. *catotericus, hypothetus*);
ind. 8. 10 quibus **suffiri** oportet (= *suffumigatoria*; Gk. *hypocapnista*).

(3) *The lexical focus is not in the verb: A verb with a general meaning, 'cause', 'promote', 'provide', is determined by a noun which forms the lexical focus*

(a) The noun denotes the physical or physiological effect

Celsus:
5. 27. 3E quidlibet aliud quod **calori** mouendo est (= *calorem mouens*; *calefactorius*, Gk. *thermanticus*);
7. 27. 8 quae **cicatricem** inducant (cf. 5. 26. 32A, 7. 10. 1; 6. 11. 6 medicamenta . . . quae adurendo crustas ulceribus inducant, 7. 8. 3 [*id*] quod eo loco repleat et cicatricem inducat, 8. 4. 22 quae ad cicatricem perducant; cf. 7. 7. 4D collyrium) (= *cicatricem inducens, ad cicatricem perducens*; Gk. *epūlōticus*);
1. 3. 32 [*uina*] quae **inflationes** mouent (= *inflans*);
3. 12. 6 cibus . . . qui **mollem aluum** praestet (= *aluum molliens*);
5. 26. 27B quae pus moueant (cf. 5. 26. 34B quae pus mouere consuerunt; 5. 28. 13C quae pus citent; 7. 7. 1B quae puri mouendo sunt = 8. 10. 7F; 7. 19. 5 quae ubi pus moueri debet adhibenda sunt; 7. 19. 11 quae pus mouent; 5. 19. 13 aliud eodem nomine [*epispasticum*], quod puri quoque mouendo est) (= *pus mouens*; *suppuratorius*, Gk. *empyōticus*);
4. 2. 8 iis quae **saliuam** mouent;
3. 20. 1 ea per quae **sternu[ta]menta** euocentur (= *sternu(ta)torius*; Gk. *ptarmica*);[140]
3. 24. 3 ea quae **urinam** mouent (cf. 4. 15. 3, 4. 22. 4, 4. 17. 2 quae maxime inde urinam mouere consuerunt; cf. 4. 27. 2; 4. 9. 2 quae urinae mouendae sunt (cf. 4. 16. 3, 4. 27. 1D Tol. 59)); 1. 3. 6 potio . . . quae moueat urinam (cf. 3. 21. 6) (= *urinam mouens*; *urinalis*, Gk. *diureticus*).

Scribonius:
92. 7 quae **nauseam** faciunt (= *uomitorius*);
107. 23 emplastrum, diacadmias Graeci dicunt, quod **cicatricem** ducit.

Theodorus:
72. 10–11 [*emplastrum*] quo **cicatrices** utiles ualeas procurare (= *cicatricem inducens, ad cicatricem perducens*; Gk. *epuloticus*);
131. 10 [*cibos*] calidos et qui **inflationem** possint concitare corporibus (= *inflans*).

Cassius: none.

[140] Cf. *sternumentum* 'a sneezing agent' for the first time in Latin at Cels. 6. 7. 9B.

(b) The noun denotes the intended target or function of the medicament(s):

Celsus:
7. 31. 2 medicamentum quo **adusta** sanantur;
7. 7. 6C medicamenta quibus **aspritudo** curatur (= Gk. *trachomaticus*);
5. 19. 11B ea quae **fracto capiti** accommodantur (= Gk. *cephalicum*);
6. 6. 10 quae aduersum **inflammationem** proposita sunt (cf. 7. 19. 5 ea quae inflammationem repellant, 7. 7. 8B medicamentum . . . quod inflammationem prohibeat, 7. 7. 8H collyrium quod inflammationes reprimit, 7. 7. 14F quod inflammationem coerceat; 7. 25. 1C emplastrum . . . quod ualentem inflammationem reprimat);
7. 7. 15D ea medicamenta quibus in lippitudine **pituita** suspenditur.

Scribonius:
113. 9 malagma quod discutit **strumas, parotidas, panum** (cf. ind. 16. 12);
92. 18 compositiones quae ad **chirurgos** pertinent;
ind. 11. 3 **lienem** quod sanat extra positum (= Gk. *splen(it)icus*);
105. 7 ponemus qua **stigmata** tolluntur.

Theodorus:
29. 3 cura qua **duritias** indigestibiles soluere ualeamus;
68. 3–4 puluere colletico et qui frequenter **sanguinis fluxum** ualeat prohibere (= Gk. *stypticus*);
178. 5–6 omnia quae **difficultatem callositatis** resoluere ualeant (= *excallatorius*, Gk. *ectyloticus*).

Cassius: none.

(c) The noun denotes the principal ingredient of the medicament

Celsus:
4. 7. 3 id medicamentum quod ex **moris** est (cf. 6. 11. 5) (= Gk. *dia()moron*);
4. 26. 5 id quod ex **pomis** est;
5. 26. 32A id emplastrum quod ex **ladano** fit;
6. 6. 32 id quod ex **croci magmate** fit.[141]

Scribonius: none.

Theodorus: none.

Cassius: none.

(B) Other therapeutical terms

Only Celsus uses head + relative structures as referring expressions in other areas of therapeutics. They are all of the genus–species type and denote:

(1) *an instrument*: 7. 26. 1C id ferramentum quo in sectione calculus protrahitur (= 7. 26. 2K uncus eius rei causa factus).[142]
(2) *the three branches of medicine*: pr. 9 eius autem [*partis medicinae*] quae uictu morbos curat (cf. pr. 11; 5. pr. 3) (= *ratio uictus*, Gk. *diaetetice*); pr. 12 ea [*medicina*]

[141] Cf. the very general designation at Cels. 6. 17 id quod ex his constat (cf. 5. 18. 17, *al.*); this is not included in the figures in Table 6. 3 above.
[142] Cf. Jackson (1994: 172–3)

quae morbis medetur; 5. pr. 1 ad eam medicinae partem quae magis medicamentis pugnat (cf. 5. pr. 3) (= *medicamenta*; Gk. *pharmaceutice, pharmacīa*); 7. pr. 1 medicinae pars quae manu curet (cf. 7. pr. 2) (= *manus*, Gk. *chirurgia*).

EPILOGUE

For all its bulk, this book is just a beginning. It is put forward as a first attempt to give one sort of systematic account of a small part of the incredibly rich field of Latin medical texts, a field in which an immense amount of rewarding philological and linguistic work of all sorts remains to be done. Along the way this study has yielded a number of conclusions and a larger number of questions, or rather, more positively, working hypotheses for future research (a few of which I mention again briefly below). Some points of detail must be regarded as provisional, pending further philological work on little-studied and unpublished medical texts and, in particular, authoritative new critical editions of Cassius Felix and, above all, Theodorus Priscianus. The broad-brush picture, however, painted by the texts of our four authors (and by those of their respective near-contemporaries in which I have dipped most frequently—the elder Pliny, Caelius Aurelianus, and Marcellus) is unlikely to change very much.

I came to this topic in a single-minded fashion, from the point of view of Latin in general, with chiefly linguistic intent, especially in the areas of word-formation and lexicography. This project began life as a rather formal descriptive account of a technical language in the weak sense identified in 1. 3. 2 above (simply discourse on a technical subject). These points of origin are reflected in the present work in its concentration on the various linguistic means of forming medical terms ('term-formation'), and in its readiness to impose typologies and count examples of various formal and semantic features of each author's terminology. The purpose (and the vindication) of such analysis of any writer's vocabulary is to allow direct comparison with other writers of the same genre and measurable linguistic characterization of an author or genre, technical or not, with respect to other varieties of the language. So we have seen repeatedly that one or another of our authors (usually Celsus or Theodorus) shows an eccentric use, qualitative or quantitative, of a means of term-formation (e.g. Theodorus, of Greek terms of type B; Celsus, of semantic extension within the field of medicine; both authors, of head + relative clause referring-expressions). Such features of a linguistic profile may be relevant to other types of question (the literariness of Celsus, say, or Theodorus' first language). Brief remarks were offered along these lines at several points (cf. e.g. 2. 5 and 6. 3) but there will certainly be more to say in

another place about the relevance of this profile to other aspects of a writer and his work.

Our analysis has also revealed features of lexical and semantic structure which tell us about the language as a whole rather than an individual's use of it (such as the concentration of nouns in *-tus* in the field of anatomy and physiology, 5. 3. 1, or the apparent strongly physical associations of medical words in *-tura*, 5. 3. 3). It is true that these patterns (regarding *-tus* and *-tura*) and others such as the increased use of *abstractum pro concreto* (3. 6. 1. 3), or certain abstract metaphors regarding the action of disease and medicinal remedies (3. 6. 2. 2), derive from features of Latin in general and are not peculiar to medical Latin. It was noted above (1. 2. 3) that any technical language is rooted in the language of everyday, but it was suggested (especially in Chapters 1, 5, and 6) that a particular exploitation of even the most banal lexical or grammatical process may yield a recognizable linguistic characteristic (cf. the remarks on English *-ism* and Latin *-or, -ōris* in 5. 1). Here what appears ordinary in the general language proves to be distinctive in medical terminology.

What is in a sense the converse of this state of affairs has also arisen as a surprising but very welcome result of the detailed analysis of medical terms pursued above. That is to say, in considering an, if not banal, at least recurrent feature of medical terminology, we have two or three times found ourselves confronting fundamental questions about vocabulary or grammar, which apply certainly to Latin in all its registers and very probably to other languages, too. I recall in particular:

(1) the relationship between the reference of a noun and the nature of an associated relative clause, including the form of the relative pronoun (cf. 2. 2. 2);

(2) the question of regular word-order in Latin noun phrases and the possible utility of phrasal terms for identifying factors which may occasion unusual word-order, also in structures larger than the noun phrase (cf. 4. 4. 3 and 4. 6);

(3) the question of the relation between derivational morphology and lexical structure, especially the existence of (occasionally rule-breaking) morpho-lexical sets, that is, the correlation between word-formation model (a particular suffix, say) and a semantic or lexical field (cf. 5. 1 and 5. 5).

It struck me while revising Chapters 1–5 that all the means of term-formation considered may be seen as 'conspiring' towards a formal compression of names for medical things (with considerable regularity according to lexical field), and thus as tending to favour the 'compact' ('noun-based') style of writing (cf. 6. 1, 6. 3, 6. 4). This is why I wrote Chapter 6, which brings together the 'output' of Chapters 2–5 (esp. 2, 4, and 5) (although I acknowledge that it calls for further work even more

than the other chapters do). The borrowing of Greek words, the use of personal names and their derivatives, the use of various types of semantic extension, as well as the formation of phrasal terms and affixal derivatives can and do all contribute to the more compact noun-based labels characteristic of the scientific style. I think that this general conclusion is not vitiated by my (near-)exclusion of verbs from this study. We considered (in 6. 2) the replacement of some verbs and adjectives with a nominalized form + (in effect) an auxiliary verb. New verbs are found in (especially) the later medical writers but my impression is that they are predominantly denominative and also represent the formal compression of repeated phrase structures. Some of these patterns are illustrated elsewhere (cf. Langslow 1994*b*: 237) and Adams has an important and extensive section on denominatives in veterinary texts (1995: 496 ff.), but further research is necessary here.

My closing remarks so far relate solely to descriptive linguistics, to the formal analysis of vocabulary, word-meanings, and some aspects of syntax. What of the sociolinguistic side of the language of our medical texts? I recall the two senses of 'medical Latin' distinguished in 1. 3. 2. As a matter of descriptive fact, the terminology of medical Latin in the weak sense may be said to represent in various proportions the means of term-formation discussed above. Our four authors have each their own linguistic profile with respect to the types and relative frequency of the individual formations that their terminologies manifest. There are characteristic differences between them but also significant agreements, and the question arises on what these agreements rest. Do they rest simply on the use (or at least knowledge) of the same kind of conservative written source-material? Do they rest on the result of the interaction of such written material with a spoken form of Latin characteristic of doctors? Or do they arise independently as a result of the particular nature of the technical discourse which our writers are composing? (The same questions may be posed, *mutatis mutandis*, of the differences between our texts.) These alternatives are not mutually exclusive. It may be the case, for instance, that any tradition of technical writing will in time, for the pragmatic reasons suggested in 6. 3, tend towards the 'compact', nominal style and accumulate sets of rhyming derivatives in important lexical areas, but that in his *De medicina* Cassius Felix does no more than reproduce the vocabulary and phraseology of what he has read in his sources (and perhaps heard among his Latin-speaking medical colleagues).

In *formal* terms (that is, leaving aside the important differences between the respective social and cultural backgrounds), we notice parallels in style, syntax, and the organization of the terminology between medical Latin and medical English. The latter is a technical language also in the sociolinguistic sense that it is the language of a group: what of medical Latin?

What sort of linguistic variety is it that we have been considering in the preceding chapters? Is it just (more or less educated) Latin with the features that accrue to any language when it is used to write about science? Or is it the language of a group? I incline to favour the second alternative. I think we have seen enough to warrant talk of medical Latin as a *written* technical language in the strong sense. We have seen numerous agreements in vocabulary (including phrasal terms), in suffixation, and in the use of nominalized forms among our four authors and between them and other medical texts, not only heavily technical terms but also expressions for everyday meanings, which serve to distinguish medical from non-medical writers (e.g. *frigdor* 'cold', *cibatio* 'food', *nimietas* 'excess', the nominalization *detractio sanguinis* for 'bloodletting', etc.). In future work on identifying characteristic features of medical Latin in this sense, it is clearly on these 'medicismi indiretti' that one will wish to concentrate. As for the question how far a distinctive *spoken* language of Latin-speaking doctors in Cassius Felix's day is manifested in his text: this is quite another matter. In writing, Cassius uses, for example, the particle *enim* more or less as Scribonius did almost exactly four centuries earlier (Langslow 1998), but did it form part of his medical conversation? This question calls for a fresh study (again one focusing on 'medicismi indiretti'). (See the illuminating remarks of Adams on substandard and colloquial Latin in Pelagonius (1995: 657–61).)

Charlesworth *et al.* (1989) tell a nice story about an anthropologist who was recently doing extensive fieldwork among the Zuni people previously studied by the great Kroeber. When she observed to one of her informants that the Zuni people seemed to have changed a good deal over the years, the informant replied, 'So have the anthropologists. You are not asking me what Mr Kroeber used to ask.' It was observed at the beginning of Chapter 1 that earlier work on the Latin medical writers interrogated them chiefly as writers of non-literary, sub-literary or, say, African Latin. In the intervening pages I have sought to show that, as in the story, different sets of questions yield a very different picture, that the language of the Latin medical writers looks very different when studied also as technical language, and that, perhaps surprisingly, some of the linguistic features that distinguish Latin medical prose from non-technical prose are strikingly similar to characteristic differences between modern English technical and non-technical prose.

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INDEX OF LATIN WORDS

Note: References to lists of formations in a particular suffix are given under the suffix. This index includes also the Punic words mentioned by Cassius Felix.

INDEX & GLOSSARY OF GREEK WORDS

In sections (1), Anatomy and Physiology, (2), Pathology, and (3), Therapeutics, which list Greek medical terms occurring in Celsus, Scribonius, Theodorus, and Cassius, Greek words are Latinized and in Latin alphabetical order. In addition to referring the reader to discussion or mention (if any) of these Greek words in the foregoing pages, these sections also gloss them and indicate their terminological status. For the latter purpose the abbreviations B, MG1–2 and ML1–4 are used as in Chapter 2 (see esp. 2. 3, pp. 95–9). Section (4), Other Greek words, cites forms as they occur in the text above, and employs Greek alphabetical order.

(1) Anatomy and Physiology

acra (*ἄκρα, τά*) 99
the extremities: Cass. ML4 60. 16 *summitates* (cf. 78. 12 inter acra oris spatia [but text dub.])

anapneusticus (*ἀναπνευστικός*) 355, 365
respiratory, of or for respiration: Cass. (*anapneusticon morion*) ML2 85. 19 *respiratorium membrum*

anthereōn (*ἀνθερεών*) 117, 215, 400, 420
the part of the throat below the chin: Cass. ML3 69. 16, 72. 16, 79. 5, 83. 11 *sub mento gutturis pars*

(?) ***antiades*** (pl.) (*ἀντιάδες*) 91–2, 101
the tonsils: Cass. B 77. 2 (cf. Path.)

arachnoīdēs (*ἀραχνοειδής*) 97
the older name for the retina of the eye: Cels. MG2 7. 7. 13B [*oculi*] tenuissima tunica, quam Herophilus arachnoidem nominauit

artēria (*ἀρτηρία*)
(1) (*ἀρτηρία τραχεῖα*) the trachea: Cels. (*aspera arteria*) B 4. 1. 3, 7. 13. 1, &c. Scrib. B ind. 8. 30, &c. Cass. B 94. 4, &c.
(2) another vessel in the body carrying blood, air, etc.: Cels. B pr. 60, 2. 10. 15, &c. Theod. B 158. 6. Cass. (*arteria uena*) B 86. 9, 42. 17
arteria aspera 36, 217, 220, 238, 248, 249
arteria uena 217, 219, 220, 240

basis (*βάσις*) 101
the base, point of attachment, of an organ or tumour : Cels. B 5. 26. 2 *cerebri*, 7. 19. 3 *testiculi*, &c. Scrib. ML4 103. 1 *radices* [*haemorrhoidum*]. Cass. B 38. 5 [*carbunculi*]

bulbus (*βολβός*)
the ball of the eye: Cass. B 2. 12 *radices oculorum bulborum*

brāchium (*βραχίων*) 101, 152
(1) the arm: Cels. B 8. 1. 17, *et saepe*. Scrib. B ind. 12. 15, &c. Cass. B 181. 19, *et saepe*.
(2) the forearm: Cels. B 4. 11. 6, 7; 8. 1. 19, *et saepe*

carōtides (*καρωτίδες*)
the carotid arteries: Cels. MG2 4. 1. 2

ceratoīdēs (*κερατοειδής*) 117, 125, 217, 239
the cornea: Cels. MG2 7. 7. 13A (incl. the sclera, i.e. the whole fibrous coat). Cass. B 50. 15 *in ipsa ceratoide tunica*

cercis (*κερκίς*) 183
the radius bone of the forearm: Cels. ML4 8. 1. 19 *radius*

chīlē (*χείλη, τά*)
the lips: Cass. ML4 21. 6 *labium*

cholē (*χολή*) 153, 263
bile: Cass. ML4 40. 9, 145. 16 *fel*

cholera (*χολέρα*) 153, 218, 220
bile: Theod. B 186. 14, &c. Cass. B 33. 13 (cf. Path.)

chorioīdēs (*χοριοειδής*)
the vascular pigmented coat of the eyeball, including the choroid, the ciliary body and the iris: Cels. MG2 7. 7. 13B

colpus (*κόλπος*) 186
the vagina: Cass. ML2 191. 3 *sinus mulieris* (cf. Path.)

colum (*κόλον*) 87, 91, 92, 155, 217, 228, 239
the large intestine: Cels. ML4 1. 7 *laxius intestinum*. Cf. 2. 12. 2B *maius intestinum*, 4. 1. 8 *crassius intestinum*, 7. 16. 1 *latius intestinum*, 4. 21. 1 *plenius intestinum*. Scrib. B ind. 10. 21, *et saepe*. Cass. ML1 130. 20 quod aliquanti *inferiorem uentriculum* dicunt, 132. 7 *coli intestini* (cf. Path.)

crāsis (*κρᾶσις*)
the nature, constitution, of the human body: Cass. ML4 87. 10, 177. 5 *natura siue temperantia corporis*

cremastēr (*κρεμαστήρ*) 99, 113, 209, 211, 396, 397, 419
the cremasteric muscle: Cels. ML4 7. 18. 1 *neruus ex quo testiculus dependet*, 7. 18. 11; 22. 5

crystalloīdes (*κρυσταλλοειδές*)
the crystalline lens of the eye: Cels. MG2 7. 7. 13C

dartos (*δαρτός*)
the dartos muscle enclosing the testes: Cels. MG2 7. 18. 2

diaphragma (*διάφραγμα*) 99, 183, 261, 420
the diaphragm: Cels. ML4 pr. 42, 2. 7. 32 *saeptum transuersum*

elytroīdēs (*ἐλυτροειδής*)
the tunica albuginea of the testis: (Spencer (1935–8: *ad loc.*) gives this as the tunica vaginalis; Dr Michie tells me that this is very unlikely since it atrophies at birth and is almost invisible in the adult): Cels. MG2 7. 18. 1

hedra (*ἕδρα*) 170, 355
the anus: Cass. ML2 178. 5 *sessus*

hēmicrānium (*ἡμικράνιον*) 102
part of the membrane between the skull and the scalp, the pericranium: Cass. MG1 2. 11, 57. 10

hēpar (*ἧπαρ*) 101, 122, 125, 153–4
the liver: Theod. B 174. 12, *et saepe*. Cass. B 37. 7, *et saepe*

hyaloīdēs (*ὑαλοειδές*)
the vitreous humour of the eye: Cels. MG2 7. 7. 13C

hyperōa (*ὑπερῴα*)
the roof of the mouth, the palate: Cass. ML2 7. 1 per *palatum* purgabis, quod Graeci dia tes yperoas dicunt

hypezōcōs (*ὑπεζωκώς*)
the pleurae, the foetal membranes, the lining of the intestines: Cass. ML2 159. 11 *membrana laterum*

ischium (*ἰσχίον*) 93
the hip-joint or hip-bone: Cass. (dub.) ML4 137. 16 *uertebrum*, quod Graeci ischion uocant (*Rose*: coxile *p* uoxile *c*)

mēninga (*μῆνιγξ*) 79, 117
the membrane enclosing the brain: Theod. B 109. 17, &c. Cass. B 169. 9
metaphrenum (*μετάφρενον*) 115–16, 215
the centre of the back between the shoulder-blades: Cass. ML4 72. 9, 87. 23 *a tergo inter scapulas*; cf. 69.8, 82.11, 93.17, 154.22, 169.17
morium (*μόριον*)
an internal organ: Cass. ML4 36. 7, 72. 20, 83. 10, 85. 19 *membrum interius*
myelus nōticus (*μυελός *νωτικός*, attested is *νωτιαῖος*) 365
the spinal cord: Cass. ML4 84. 10 *medulla dorsalis*

neophytum (*νεόφυτον*) 111, 125
the foetus: Theod. B 241. 10
nothae (*νόθαι*)
the five lower (pairs of) ribs, i.e. pairs 8, 9, 10 and the so-called floating ribs, pairs 11 and 12: Cels. MG2 8. 1. 15

ōmoplatae (*ὠμοπλάται*) 106, 208
the scapulae (excluding the spine of the scapula): Cels. ML4 3. 22. 12 *ossa (lata) scapularum; scapulae* (cf. 8. 1. 15 nostri *scutula operta* . . . nominant)
orus (*ὀρός*) 184
the serum of the blood: Cass. ML2 115. 8 qui latine *serum* appellatur
oscheum (*ὄσχεος, ὄσχεον*) 99, 106
the scrotum: Cels. ML4 7. 18. 2 *scrotum* nostri uocant

pericrānius (*περικράνιος*) 102
the membrane between the scalp and the skull, the pericranium: Cass. MG1 2. 10, 2. 16
peritonaeus (*περιτόναιος*)
the peritoneum, the abdominal membrane: Cels. ML4 4. 1. 13, 7. 4. 3B (*membrana (interior) abdominis*). Cass. ML2 131. 7 *membranam quam uulgo mappam dicunt, quae uentrem sub cute circumuestit*
physis (*φύσις*) 111, 125, 165
the penis: Theod. B 239. 4
porus (*πόρος*) 183, 365
(1) a duct: Cass. ML4 131. 12 *urinales uias* quas Graeci ureticus porus uocant.
(2) a pore of the skin: Cass. B 43. 11
pylōrus (*πυλωρός*)
the pyloric valve of the stomach: Cels. MG2 4. 1. 7

rhizōnychia (*ῥιζωνυχία*)
the root of a nail: Cass. ML2 21. 3 id est *radices unguium*

schēma (*σχῆμα*)
attitude, posture, position, of the patient: Theod. B 65. 18, 127. 17. Cass. B 29. 2. 193. 20, *et saepe*
scybala (*σκύβαλα, τα*)
excrement, faeces: Theod. B 122. 12, &c.
sperma (*σπέρμα*)
the semen, sperm: Theod. B 130. 10, &c.
sphagītides (*σφαγίτιδες*)
the jugular veins: Cels. MG2 4. 1. 2
splēn (*σπλήν*) 93, 155
the spleen: Theod. B 182. 7, &c. Cass. B 108. 12, 15, *et saepe*; the skin over the spleen 62. 7, 131. 5
spondylus (*σπόνδυλος*)
one of the cervical vertebrae: Cass. B 73. 23, 82. 12, 94. 14, 154. 13, 169. 18, all *inter scapulas circa spondyli locum*; 170. 22
stomachus (*στόμαχος*) 79, 96, 101, 150, 151
(1) the gullet, oesophagus: Cels. B 4. 1. 3 (about 9×).
(2)(a) the stomach as the organ of digestion: Cels. B 1. 2. 9 (about 63×). Scrib. B 33. 5, *et saepe*. Theod. B 123. 10, *et saepe*. Cass. B 100. 7 (about 49×).
(b) the skin over the stomach: Cels. B 4. 12. 8 (about 7×). Theod. B 124. 15, &c. Cass. B 99. 1 (about 13×)
symphysis (*σύμφυσις*)
growing together, natural junction: Cass. ML2 42. 18 [*duritias*] *connaturatione* infixas, quod Graeci cata synfysin uocant

tenontes (*τένοντες*) 96, 99, 113
the muscles of the neck, presumably the trapezius and sternocleidomastoid: Cels. MG2 8. 1. 13. Theod. B 63. 13. Cass. ML4 84. 6, 174. 10 *nerui ceruicis*

tetrarrhizus (*τετράρριζος*)
a molar tooth: Cass. ML2 63. 18 *illi maiores* [dentes] *uel molares*
thōrax (*θώραξ*) 151
the inside or outside of the upper torso or trunk: Cels. B 3. 22. 12, &c. (outside), 5. 28. 12B, &c. (inside). Theod. ML3 119. 5 hoc est *pectus* (*thorax* 11× : 4× *pectus*). Cass. B 171. 1, &c. (outside), 68. 16, &c. (inside)
tomīs (*τομεῖς*) 209, 397, 419
the incisors: Cels. ML4 8. 1. 9 [*dentes*] quaterni primi quia secant tomis a Graecis nominantur (cf. 8. 12. 1 *ii qui secant*)

ūrētēres (*οὐρητῆρες*)
the ureters: Cels. MG2 4. 1. 10
ūrēticus (*οὐρητικός*) 365
urinary: Cass. ML4; see *porus* (1)

zygōdes (**ζυγῶδες, ζυγοειδές*) 142–3, 183
the zygomatic bone, the arch of the upper face: Cels. ML4 8. 1. 7 *os iugale*, cf. 8. 1. 8

(2) Pathology

achōr (*ἄχωρ, ἀχώρ* 'scurf, dandruff' [LSJ])
a parasite of the scalp: Theod. MG1 13. 10 *achoras papillas dicimus quae . . . ;* 13. 16, 15. 12. Cass. ML4 10. 6 *tinea capitis*
acrāsia (*ἀκρασία* 'bad mixture, ill temperature' [LSJ])
poor constitution: Cass. ML2 13. 12 *intemperantia corporis*
acrībēs (*ἀκριβής* [*τριταῖος*]) 239
of a type of tertian fever which returns precisely at the predicted time: Cass. ML1 145. 14 *manifestus*; cf. 147. 2
acrochordōn (*ἀκροχορδών*)
a type of verruca: Cels. MG2 2. 1. 19; 5. 28. 14A, 14D bis. Cass. MG2 19. 18
aegilōps (*αἰγίλωψ*)
an ulcer in the inner canthus of the eye, a lacrimal fistula: Cels. MG2 7. 7. 7A. Cass. B 32. 11
agria (*ἀγρία*)
malignant (of skin-diseases): Cels.

agria (*cont.*):
MG2 5. 28. 16A (*scabies*), 18A (*papula*)
alōpecia (ἀλωπεκία)
a loss of hair followed by growth of hairs like those of a fox: Cels. MG2 6. 4. 2. Theod. B 17. 14. Cass. MG1 12. 13, t. 12. 11, 13. 5
alphus (ἀλφός) 102, 113, 229
a skin-disease, a species of vitiligo, 'perh. *psoriasis guttata*' (*OLD*): Cels. MG1 5. 28. 19A, 19B bis, 19D. Cass. (pl.) ML4 15. 4, 16. 7 *maculae*
amblyōpia (ἀμβλυωπία)
dull vision, dimsightedness: Cass. ML4 56. 18 id est *obtunsionem uisus*
amphēmerinus (ἀμφημερινός)
quotidian fever: Cass. ML4 147. 21 *cotidianus*
anadromē (ἀναδρομή) 196
the reflux of an internal organ: Cass. ML2 188. 18 *ascensus siue supernus recursus*
anagōgē haematos (ἀναγωγὴ αἵματος) 199
the coughing up of blood: Cass. ML3 86. 2, 89. 12, 90. 15 *sanguinis reiactatio*
anastomōsis (ἀναστόμωσις)
a type of blood-loss: Cels. MG2 4. 11. 3. Cass. ML2 87. 1 *osculatio* (cf. Ther.)
anathȳmiāsis (ἀναθυμίασις)
a rising of vapour to the head: Theod. ML3 140. 16 *exhalatio inferiorum* quam anathymiasin appellamus; cf. 141. 18, but Latin paraphrases at 141. 6, 142. 3–4
ancyla (ἀγκύλη)
a joint bent and stiffened by injury: Cels. MG2 5. 18. 28. Scrib. ML2 110. 18 *(neruorum) ligatio*
ancyloblepharus (ἀγκυλοβλέφαρος) 94, 222, 275
one whose eyelids have stuck to each other and/or to the eye: Cels. MG2 7. 7. 6A (acc. pl.)
aneticus (ἀνετικός) 355
[the day] on which a fever recedes: Theod. B 231. 19. Cass. ML1 145. 19 in prima anetica die id est *dimissoria*; cf. 147. 7
anthracium (ἀνθράκιον)
a sort of *carbunculus*: Cass. MG2 37. 21
angina (prob. ἀγχόνη 'strangling, hanging') 79 n. 6, 106
an acute infection of the throat characterized by choking: Cels. 2. 1. 6, 12; 2. 7. 27; 2. 10. 8; 4. 7. 5; 4. 7. 1 nostri anginam uocant: apud Graeci prout species est. Scrib. ind. 8. 24; t. 38. 10, 11; 95. 14
anthrax (ἄνθραξ)
a carbuncle: Scrib. ML4 24. 4 *carbunculus*. Cass. ML4 37. 15 *carbunculus*
antiades (pl.) (ἀντιάδες) 91–2
the tonsils, esp. when diseased: Cels. ML4 7. 12. 2 *tonsillae* 'diseased tonsils' (cf. 1. 5. 1, 6. 11. 2, 6. 18. 2D, 7. 12. 3B)
apoplēcticus (ἀποπληκτικός)
one who has suffered a stroke: Theod. B t. 121. 7, &c.
apoplēxia (ἀποπληξία) 109
a stroke, apolexy: Cels. MG2 3. 26. 3, 27. 1A. Cass. B t. 158. 7, 158. 8, 17 bis, 22
apostēma (ἀπόστημα) 113, 123
a collection of morbid matter, an abscess: Cels. ML4 2. 1. 6 *abscessus*. Theod. B 26. 11, &c. Cass. ML3 25. 20, 32. 18 *collectio* (*apostema* 12× : 8× *collectio*)
aposyrma (ἀπόσυρμα)
an abrasion: Scrib. ML2 99. 16 *mediocriter laesa et abrasa*
apthae (ἄφθαι) 106
an ulcerous mouth infection,

aphthous ulcers: Cels. MG2 2. 1. 18; 6. 11. 3. Theod. ML2 56. 9 *afflatio oris*. Cass. ML1 78. 14 quam nos *oris coctionem* dicimus; cf. 80. 4, 7, 14
apyretus (ἀπύρετος) 111, 118, 424
one who is free from fever: Theod. B 179. 11, 185. 9
arthrīticus (ἀρθριτικός)
(1) (*arthritica*, scil. *passio*) arthritis: Cass. B t. 135. 18.
(2) a sufferer from arthritis: Theod. B t. 215. 1, 4; 218. 8. Cass. B 136. 16 bis
arthrītis (ἀρθρῖτις)
a disease of the joints: Scrib. ML2 54. 12 *articularis morbus*
ascītēs (ἀσκίτης) 114, 380, 424
a type of dropsy: Cels. ML4 3. 21. 2; cf. 3. 21. 14 *id genus morbi . . . quo in uterum multa aqua contrahitur*. Cass. ML1 181. 7 id est *utriculosa*; cf. 181. 2, 14
asthma (ἄσθμα) 117, 125
one or more conditions inhibiting breathing: Cels. MG2 4. 8. 1
asthmaticus (ἀσθματικός) 106, 117, 125
a sufferer from asthma: Theod. ML4 172. 6, 7 *suspiriosi*. Cass. ML2 93. 20 dicuntur latino sermone *anhelosi uel suspiriosi*
atherōma (ἀθέρωμα) 102
a tumour on the head containing gruel-like matter: Cels. MG1 7. 6. 1, 3
atonia (ἀτονία)
enervation, weakness, debility: Cass. ML3 117. 1 id est *debilitas*; cf. 102. 21 (*atonia* 2× : 10× *debilitas*)
atrētus (ἄτρητος)
a woman with imperforate vagina: Theod. B t. 232. 3
atrophia (ἀτροφία) 121
a wasting of the body, atrophy: Cels. ML4 3. 22. 1; cf. 3. 22. 4 *si tantum non ali corpus apparet*. Theod. B t. 170. 16, 17. Cass. MG2 102. 3
atrophus (ἄτροφος)
one who is ill of atrophy: Theod. B 171. 8
auonē (αὐονή)
dryness: Scrib. MG2 56. 16

bēx (βήξ) 113
cough: Cass. ML4 70. 16 *tussicula*
bothrium (βοθρίον) 9, 104, 186, 190, 331
a type of ulcer: Cass. ML1 51. 10 id est *fossulas*; cf. 54. 15
branchus (βράγχος) 115
a manifestation of *catarrus* in the throat, sore throat: Theod. ML4 158. 9 [*catarrus*] fit in faucibus; cf. 160. 15 si fauces inquietauerit [*catarrus*]
bronchocēlē (βρογχοκήλη)
a tumour in the neck, a swelling on the trachea, an enlargement of the thyroid gland, goitre: Cels. MG2 7. 13. 1
būbōnocēlē (βουβωνοκήλη)
an inguinal hernia: Cels. ML4 7. 18. 11; cf. 7. 24 *ubi uero in ipso inguine ramex est*
būlīmantes (cf. βουλιμιῶντες)
sufferers from *bulimus*: Theod. ML2 190. 15 *praeter consuetudinem edaces*
būlīmus (βούλιμος)
ravenous hunger, bulimia: Theod. B 186. 10

cachecticus (καχεκτικός) 422, 423
in a poor, wasted condition: Theod. B 207. 5. Cass. ML2 11. 13, 179. 19 id est *mala habitudine affecti*
cachexia (καχεξία) 121, 123, 312
(1) a poor, wasted condition of the body: Cels. ML4 2. 1. 22 *malus habitus corporis*. Cass. ML3 66. 21, 105. 16, 115. 7, 175. 14, 179. 17, all with *mala habitudo corporis*.

cachexia (*cont.*):
(2) one of three types of *tabes*: Cels. ML4 3. 22. 2 *malus corporis habitus*; cf. 3. 22. 7 *at si malus corporis habitus est*

cacochȳmia (κακοχυμία)
an unhealthy state of the humours: Cass. ML2 100. 8 *humoris malignitas*

cacochȳmus (κακόχυμος)
containing unhealthy humours: Cass. ML2 43. 1 in cacochymis corporibus id est *malo humore possessis*

cacoēthes (κακόηθες) 102
(1) malignant: Cass. ML2 24. 6 *malignus*.
(2) the first stage of a *carcinoma*: Cels. MG1 5. 28. 2C bis, 2D. Scrib. MG2 55. 3, 100. 15. Theod. B 72. 16

carcinōdēs (καρκινώδης) 102
cancerous, malignant: Cels. MG1 5. 18. 17, 23. 6. 8. 2B. Cass. ML2 66. 18 *cancerosus*

carcinōma (καρκίνωμα) 101, 123
a cancerous ulcer or tumour: Cels. B 5. 28. 2A, *et saepe*. Scrib. MG2 55. 3, 100. 15. Cass. ML2 191. 9 id est *cancerosa*

cardiacus (καρδιακός) 218, 239, 369
(1) a disease of (a) the stomach, (b) the heart: Cels. (a) MG1 3. 19. 1, 3. 18. 16. Cass. (b) (*cardiaca passio*) B 156. 17.
(2) a sufferer from heart-disease: Theod. B t. 133. 13; cf. 134. 4 (adj.). Cass. B t. 156. 16

carphologia (καρφολογία) 118
the compulsive picking of bits from walls, etc. (a symptom of phrenitis): Cass. MG2 154. 10

catarrhoea (κατάρροια)
catarrh: Cass. ML2 72. 7 *uiscosi flegmatis infusio* quam Graeci catarrian (*Rose*: catareon *p* catereon *g* catereo *c*) siue catarrun uocant

catarrhūs (κατάρρους)
catarrh: Theod. B t. 158. 3, 4. Cass. ML1 72. 7 (see prec.); cf. 81. 20

catastagmus (κατασταγμός) 113, 143, 162
the post-Hippocratic term for approx. the common cold: Cels. ML4 4. 5. 2 *destillatio*

caterrhōgota (κατερρωγότα)
torn, split: Cass. ML4 21. 6 *hiantia siue crispata*

cathēmerinus (καθημερινός)
quotidian fever: Cass. ML4 147. 22 *cotidianus*

causōdēs (καυσώδης)
with a high temperature, burning: Cels. ML4 2. 8. 19 *(febris) ardens*

causus (καῦσος) 229
a burning fever: Theod. ML3 134. 7 *acutis febribus et flammarum interiorum ardoribus*; 186. 13, 193. 1 *nimius ardor*. Cass. ML1 149. 9 latino sermone *febris incendiosa* dicitur; cf. 1. 149. 8, 151. 7, 153. 18

cechalasmenus (κεχαλασμένος)
slack: Cass. ML2 76. 4 *ad uuas tumentes et summissas quas Graeci cechalasmenas uocant*

cenchrias (κεγχρίας lit. 'like grains of millet') 88
a sort of skin eruption: Cass. ML2 42. 10 quam latini uulgo *araneam uerrinam* uocant

cephalaea (κεφαλαία)
chronic headache: Cels. MG2 4. 2. 2. Cass. ML2 2. 6, 96. 4 *tardus siue inueteratus capitis dolor*

cephalalgia (κεφαλαλγία) 216, 388
chronic headache: Scrib. ML4 52. 9 *diutinus capitis dolor*

cephalalgicus (κεφαλαλγικός)
one suffering from chronic headache: Scrib. B ind. 9. 32; but cf. 52. 8 *diutino correpti capitis dolore*

cērium; ***cēriōn*** (κηρίον; *κηρίων unknown in this sense)
a cyst or growth characterized by a honeycomb pattern: Cels. MG2 5. 28. 13A. Theod. MG1 13. 13, 14 (nom. pl. *ceriones*, acc. *cerionas*)

chalazium (χαλάζιον)
a type of cyst on the eyelid: Cels. MG2 7. 7. 3

chēmōsis (χήμωσις)
an affection of the eyes: Theod. MG2 38. 5. Cass. MG1 50. 13, 14; 51. 7

chīragra (χειράγρα)
pain in the hands, arthritis or gout: Cels. B 1. 9. 1, 2. 7. 6, 2. 8. 10, 4. 31. 1

chimethum (χίμετλον)
a chilblain: Cass. ML4 18. 3 *pernio*

chīrōnēum (χειρώνειον) 130-1, 133
a type of ulcer, i.e. a sore like Chiron's, or needing his aid: Cels. MG2 5. 28. 5. Theod. B 71. 16, 73. 13 *chironiis uulneribus*

choeras (χοιράς)
a scrofulous swelling in the glands of the neck: Theod. B 28. 10, 11, &c. Cass. ML4 42. 16 *scrofa*

cholera (χολέρα)
European or summer cholera: Cels. MG1 4. 18. 1 bis, &c. Scrib. B 47. 24. Theod. B t. 136. 5, 6, 14 (cf. Anat.)

cholericus (χολερικός) 218, 239, 422
(1) choleric, containing bile: Cass. B 173. 12.
(2) cholera: Cass. (*cholerica passio*) B t. 120. 14, 120. 16, 121. 6.
(3) a sufferer from cholera: Scrib. B 110. 28

chordapsus (χορδαψός) 109, 228
a disease of the intestine: Cels. ML4 4. 20. 1 (Diocles' term for a disease of the small intestine) *morbus tenuioris intestini*. Cass. B 131. 16, 19 (app. of the whole intestine)

chronicus (χρονικός) 369
chronic (of disease): Theod. B 144. 20, &c. (app. of patients in a chronic condition 163. 5)

chroniotēs (χρονιότης) 115–16
a type of jaundice: Cass. ML4 128. 14 *sine febre, diuturna*, 128. 16 (with app. crit. ad locc.); cf. 129. 19 is qui *sine febre* fuerint (cf. *Gloss.* 3. 599. 5 *croniotis morbus regius sine febre*)

chronius (χρόνιος) 221, 239
chronic, of long duration (of diseases): Cass. ML3 2. 8 *inueteratus*; 62. 9, 70. 16 *longi temporis*; 174. 20 *diuturnus*

cionis (κιονίς)
the uvula, esp. when inflamed: Cass. MG2 75. 12

cirsocēlē (κιρσοκήλη) 107, 127
a swelling in the testis, varicocele: Cels. MG2 7. 18. 9 (cf. 7. 22. 1 *ramex*)

cnēsmonē (κνησμονή) 113
itching: Cass. ML4 23. 2 *prurigo*

coeliacus (κοιλιακός) 365–6
(1) a disease of the stomach, bowels: Cels. MG2 4. 19. 1.
(2) (one) suffering in the bowels: Scrib. MG1 50. 12, 59. 19 *qui subito et multa deiciunt*. ind. 10. 11, 95. 22, &c. Theod. B 204. 16. Cass. MG1 123. 21, 124. 10, 125. 4

colicus (κολικός) 218, 228, 239, 369, 423
(1) a disease of the large intestine: Cels. ML4 4. 20. 1 *morbus plenioris intestini*. Cass. (*colica passio*) B 130.19; cf. 1. 130.18.
(2) a sufferer from this disease: Theod. B t. 125. 6, 7, 12. Cass. MG1 132. 7, 131. 13, 133. 12, 134. 13

collōdēs (*κολλώδης*)
viscous, glutinous: Cass. ML2 73. 1 *glutinosus*

colpus (*κόλπος*) 20, 188
a fistulous ulcer: Cass. ML3 28. 9 *pendigo siue sinus*; cf. 29. 14. (*colpus/sinus* 2× : 7× *pendigo*) (cf. Anat.)

colum (*κόλον*) 44, 87, 91, 92, 155, 228, 424
a disease of the large intestine: Cels. MG2 2. 12. 2B. Scrib. B 66. 8. Cass. B 134. 1, 10 (cf. Anat.)

condylōma (*κονδύλωμα*) 123
a knuckle-shaped swelling, or tubercle, on the anus: Cels. MG1 6. 18. 8A, 8C bis; 5. 28. 2B; 7. 30. 2. Scrib. B ind. 14. 31; 102. 1, 2, 10. Theod. B 15. 15, &c. Cass. ML1 178. 7 quae nos latino sermone dicimus *tubercula*; 178. 23

coryza (*κόρυζα*) 113, 115
mucous discharge from the nostrils, rheum, the common cold: Cels. ML4 4. 5. 2 *grauedo*. Theod. ML4 158. 9 [*catarrus*] fit in naribus cui nomen est coryza; cf. 160. 12 cum nares occupauerit [*catarrus*]

crisimus (*κρίσιμος (ἡμέρα)*)
critical, decisive (day of fever): Cels. MG2 3. 4. 11

crithē (*κριθή*)
a small enflamed swelling on the eyelid, a sty: Cels. MG2 7. 7. 2

criticus (diēs) (*κριτικός*) 218, 240
the critical, decisive day in a fever: Cass. B 152. 11, 14, 20; 153. 19

crocydismus (*κροκυδισμός*)
the picking of flocks off a garment (a symptom of phrenitis): Cass. ML2 154. 8 id est *floccorum electio*

cynanchē (*κυνάγχη*)
a type of *angina*: Cels. MG2 4. 7. 1

dēlētērium (*δηλητήριον*)
poison: Cass. ML2 132. 4 *letalis cibus siue potio*

diabētēs (*διαβήτης*)
diabetes: Cass. MG2 116. 10

diabrōsis (*διάβρωσις*)
erosion of the coats of a blood-vessel: Cels. MG2 4. 11. 3

dialīmma (*διάλειμμα*)
an interval of time between outbreaks of disease: Theod. ML3 144. 19 hoc est *interuallum temporis*; cf. 145. 17, 221. 10 (*dialimma* 3× : 3× *interuallum [temporis]*)

dialīpōn (*διαλείπων*)
intermittent (of fevers): Cass. ML2 90. 21 *(febricula) intercapedinata*

diaphorēsis (*διαφόρησις*)
exhaustion: Theod. MG2 134. 4

diaphorēticus (*διαφορητικός*)
a sufferer from *cardiacus*: Theod. B t. 133. 13, 138. 1

diarrhoea (*διάρροια*)
diarrhoea: Theod. B 136. 12. Cass. B 121. 5, 7

diarrhoïcus (*διαρροϊκός*) 421
one suffering from diarrhoea: Theod. B 136. 13

diathesis (*διάθεσις*)
a pathological condition: Cass. ML4 2. 8, 39. 12 *passio*

dicephalus (*δικέφαλος*) 222
a type of infected uvula: Cass. ML2 75. 22 dicephalos appellata uel *bicapita*

dysapūlōtus (*δυσαπούλωτος*) 424
hard to cicatrize: Cass. ML2 51. 12 *difficile in cicatricem ueniens*

dyscola (*δύσκολα*) 159
troublesome things, ailments: Cass. ML2 191. 10 id est *difficilia*

dyscrāsia (*δυσκρασία*)
bad temperament, ill-balanced constitution: Cass. ML2 179. 22 *difficilis temperantia corporis*

dysenteria (*δυσεντερία*) 113, 223, 362
dysentery: Cels. ML4 4. 22. 1 *tormina*. Theod. B 200. 4, 247. 3. Cass. B t. 122. 3, 122. 8, *et saepe*

dysentericus (*δυσεντερικός*) 218, 239, 362, 404, 423
(1) pertaining to dysentery: Cass. (*dysenterica passio*) B 122. 4.
(2) a sufferer from dysentery: Scrib. ML4 46. 9 *torminosus*. Theod. B t. 200. 1, 2, 7, &c. Cass. B 123. 21–22, &c.

dyspepsia (*δυσπεψία*)
indigestion: Cass. ML2 100. 7 *oppressio stomachi*

dyspnoea (*δύσπνοια*) 98
a form of asthma, dyspnoea: Cels. ML4 4. 8. 1 *difficultas spiritus*. Cass. ML1 94. 1 *difficultas respirationis*; cf. 95. 13

dyspnoïcus (*δυσπνοϊκός*)
a sufferer from dyspnoea: Cass. B 94. 23, 95. 6

dysūria (*δυσουρία*)
difficulty in passing urine, dysuria 82–3: Scrib. ML4 ind. 11. 23 *difficilis exitus urinae*. Theod. B 214. 10, 12. Cass. ML1 115. 14 id est *urinae difficultas*; cf. 117. 7, 11, 14

dysūrūntes (*δυσουροῦντες*) 422
sufferers from dysuria: Cass. ML2 113. 12 *minctus difficultate laborantes*

ectropē (*ἐκτροπή*)
eversion: Cass. ML2 179. 1 *inuersio (podicis)*

ectropium (*ἐκτρόπιον*)
eversion of the lower eyelid: Cels. MG2 7. 7. 10

elaeōdēs (*ἐλαιώδης*)
of a type of pus: Cels. MG1 5. 26. 20BCF

elephantia (**ἐλεφαντία*) 80 n. 9, 223
elephantiasis: Scrib. MG2 109. 18. Theod. B 9. 14, 98. 4, 99. 7

elephantiāsis (*ἐλεφαντίασις*) 81
one or more skin-diseases, 'prob. mostly filarial elephantiasis' (*OLD*): Cels. MG2 3. 25. 1. Cass. MG1 175. 7, 8, 10; 177. 11

emphraxis (*ἔμφραξις*) 98
stoppage, blockage: Cass. ML3 46. 2, 110. 4 *obtrusio*; cf. 110. 17, 111. 5 (*enfraxis* 4× : 4× *obtrusio*)

emprosthotonicus (*ἐμπροσθοτονικός*)
one suffering from *emprosthotonus*: Theod. MG2 128. 1

emprosthotonus (*ἐμπροσθότονος*) 121
one type of tetanus: Cels. MG2 4. 6. 1. Cass. MG1 83. 22, 84. 2

empyēma (*ἐμπύημα*) 123, 229
an internal suppuration or abscess: Cass. ML3 32. 18, 90. 16 *collectio (interna)*; cf. t. 32. 17, 111. 12, 162. 22, 169. 24 (*empyema* 6× : 3× *collectio*)

empyïcus (*ἐμπυϊκός*)
one suffering from *empyema*: Theod. B t. 169. 7, &c.

encanthis (*ἐγκανθίς*)
a tumour in the inner angle of the eye: Cels. MG2 7. 7. 5

en catacalypsī (*ἐν κατακαλύψει*)
in concealment, under cover: Cass. MG2 32. 20

encausis (*ἔγκαυσις*)
heatstroke: Cass. ML3 4. 9 id est *ustio aeris*; 149. 16 id est *adustio*, cf. 154. 4, 156. 20

enterocēlē (*ἐντεροκήλη*)
an intestinal hernia: Cels. ML4 7. 18. 3; cf. 7. 20. 1 *si . . . intestinum descendit*. Theod. B 84. 12

entheasticus (*ἐνθεαστικός*)
one suffering from a form of madness or neurosis: Theod. B 152. 6

ephelcis (*ἐφελκίς*)
the scab of a sore or wound: Cass. ML2 30. 9 *cortizo*

ephēlis (*ἔφηλις*, also *ἐφηλίς*) 101
some sort of spot on the face: Cels. B 6. 5. 1 bis, 3. Cass. ML2 177. 21 *solis ustio*; cf. 17. 1

ephēmerus (ἐφήμερος)
for the day, daily (of fever): Cass. ML2 148. 14 *simplex (febris)*; cf. t. 148. 13

epilēpsia (ἐπιληψία)
epilepsy, an epileptic fit: Scrib. ML4 19. 13 *morbus comitialis*. Cass. B t. 168. 15, 168. 16, 172. 11

epilēpsis (ἐπίληψις)
epilepsy, an epileptic fit: Theod. (*epilempsis*) B 147. 4, 9

epilēpticus (ἐπιληπτικός) 114–15
an epileptic: Scrib. ML4 ind. 9. 30, 52. 5 *morbo comitiali correpti*. Theod. (*epilemptici*) B t. 147. 7, &c. Cass. B 171. 15, 172. 1

epinyctis (ἐπινυκτίς) 102
a kind of pustule: Cels. MG1 5. 28. 15CE

epiphora (ἐπιφορά) 223
(1) (*epiphora oculorum*) an eye-disease causing a persistent flow of tears: Scrib. B ind. 6. 21, 21. 5, *et saepe*.
(2) a skin-disease, an eruption: Scrib. B 108. 6

epiplocēlē (ἐπιπλοκήλη)
an omental hernia: Cels. ML4 7. 18. 3 apud nos indecorum sed commune his *hirneae* nomen est; cf. 7. 21. 1A *at si omentum descendit*

episēmasia (ἐπισημασία)
the access of an illness: Cass. ML4 142. 6, 147. 10 *accessio*

epithesis (ἐπίθεσις) 179, 196
the period of aggravated attack of a disease: Theod. MG2 138. 11 (*rb*, bracketed by Rose, not in *B*). Cass. ML2 133. 13 *superpositio*

epūlis (ἐπουλίς)
a growth on the gum: Scrib. MG2 36. 11

erysipelas (ἐρυσίπελας) 97, 102
erysipelas, a type of canker: Cels. MG1 5. 26. 31B, 33A; 28. 11B. Cass. MG1 40. 6, 14; 41. 8; 42. 13

erysipelatōdēs (ἐρυσιπελατώδης)
resembling erysipelas: Cass. ML2 82. 6 *igni sacro simulans*; cf. 39. 3

eschara (ἐσχάρα) 106
a scab, or eschar, on a wound caused by burning or otherwise: Cels. ML4 5. 26. 33D *crusta*. Scrib. ML4 ind. 6. 29, 24. 3 *crusta*. Theod. B 64. 5. Cass. ML1 164. 11 quam nos *crustam* dicimus; 167. 10 id est *crusta*; cf. 37. 18, 38. 6, &c.

exanthēma (ἐξάνθημα) 88, 107, 127
an efflorescence, eruption, pustule: Cels. MG2 5. 28. 15A. Theod. B 16. 11, 57. 12. Cass. B 38. 1

exarthrēsis (ἐξάρθρησις)
a dislocation: Theod. MG2 t. 102. 2 (not in *B*)

exochadium (*ἐξοχαδίον, dimin. of ἐξοχάδες)
external piles: Theod. B 83. 9, &c.

ganglium (γαγγλίον) 102
a kind of tumour: Cels. MG1 7. 6. 1, 3

gangraena (γάγγραινα) 102
a type of canker, gangrene: Cels. MG1 5. 26. 31C, 34A; 7. 33. 1

gargareōn (γαργαρεών)
a morbid condition of the uvula: Cass. MG2 75. 13, 15

glaucus (γλαυκός)
light blue, grey (of eyes): Theod. B 42. 3, 5

gonorrhoea (γονόρροια)
(1) spermatorrhoea (in men): Theod. B 130. 7, 9.
(2) blennorhagia (in women): Theod. ML2 t. 247. 17 id est *spermatis effusio*; cf. 248. 1

grypōsis (γρύπωσις)
crooking, hooking of the nails: Cass. ML2 91. 3 *obuncatio unguium*

gynaecīa (γυναικεῖα, τά)
female complaints: Theod. B 224. 9 (cf. Ther.)

haemoptyïcus (αἱμοπτυϊκός) 106, 117, 346, 357, 377, 397, 421
one who is spitting blood: Cass. ML1 85. 17 emoptyicos latini *sanguinem spuentes* appellant; cf. t. 85. 16, 89. 6

haemorrhagia (αἱμορραγία) 111, 117, 268, 387
haemorrhage, violent bleeding: Theod. B 166. 1, 244. 9, &c. Cass. ML4 193. 8 latino sermone *sanguinis fluxum uel profluuium* dicimus; cf. t. 193. 7

haemorrhoïs (αἱμορροΐς) 209, 252, 380
a vein liable to discharge blood, esp. a pile, haemorrhoid: Cels. ML4 2. 1. 21, 6. 18. 9 *ora uenarum fundentia sanguinem*. Scrib. B ind. 14. 34, 104. 20, &c. Theod. B 86. 10, &c. Cass. B 79. 13

helminthes (pl.) (ἕλμινθες)
intestinal worms: Cass. ML4 172. 17 *lumbrici*

hēmicrānium (ἡμικράνιον)
pain on one side of the face or head: Theod. B 143. 13. Cass. MG1 t. 2. 3, 5. 12

hēmitritaeus (ἡμιτριταῖος) 97
a semi-tertian fever: Cels. MG2 3. 3. 2, 3. 8. 1. Cass. B t. 144. 18, 144. 19

hēpaticus (ἡπατικός) 218, 239, 344
(1) a disease of the liver: Cels. MG2 4. 15. 1. Cass. (*epatica passio*) B t. 109. 7, 109. 8.
(2) a sufferer from this disease: Theod. B t. 174. 11, *et saepe*. Cass. B 97. 8

herpēs (ἕρπης) 79 n. 7, 95, 106
one of the varieties of herpes: Scrib. ML3 ind. 15. 27, 37. 10 (*herpetam*), 108. 22 *zona*. Cass. ML1 42. 3, 5 *serpusculus*; cf. 42. 7, 9

heterocrānia (ἑτεροκρανία)
pain on one side of the head: Cass. ML2 5. 8 *dispar temporum dolor*

hidrōs (ἱδρώς)
a form of purulent discharge, *sanies*: Cels. MG1 5. 26. 20B bis, 20E

hydrocēlē (ὑδροκήλη) 207, 381
hernia aquosa: Cels. ML4 7. 18. 7; cf. 7. 21. 2 *si uero umor intus est*. Theod. B 84. 12, 85. 4

hydrocephalus (ὑδροκέφαλος)
hydrocephalus, an increase in the volume of cerebrospinal fluid within the cranium: Cels. MG2 4. 2. 4

hydrophobās (ὑδροφόβας) 93–4, 299
(a sufferer from?) hydrophobia : Cels. ML2 5. 27. 2C *timor aquae*

hydrophobicus (ὑδροφοβικός) 405
a sufferer from hydrophobia: Theod. B t. 123. 1, 2. Cass. ML2 166. 9 id est *aquam timentes*

hydrophobus (ὑδροφόβος)
a sufferer from hydrophobia: Scrib. MG2 80. 48

hydrōpicus (ὑδρωπικός) 214, 218, 239, 362, 369, 422, 423
(1) dropsy: Cels. B 5. 18. 2. Cass. (*hydropica passio*) B 179. 18, 181. 4.
(2) a sufferer from dropsy: Cels. B 4. 2. 9, 7. 15. 1. Scrib. B ind. 10. 32, 89. 7, &c. Theod. B t. 207. 4, &c. Cass. B 125. 2, *et saepe*

hydrōpismus (ὑδρωπισμός) 214
dropsy: Cass. B 116. 15

hydrōps (ὕδρωψ) 94, 109, 214, 342, 362
dropsy: Cels. ML3 3. 21. 1 *aqua inter cutem* (but *hydrops* at 3. 21. 8). Theod. B 184. 8, &c. Cass. B 107. 3, 182. 2, 185. 10

hygrobēx (ὑγρόβηξ) 424
a productive cough: Cass. ML4 68. 11 *tussis umida*

hypochyma (ὑπόχυμα)
cataract of the eye: Scrib. ML4 27. 23 *suffusio oculi*

hypochysis (ὑπόχυσις) 113
cataract of the eye: Cels. ML4 6. 6. 35 *suffusio* (cf. Ther.)

hypōpium (*ὑπώπιον*)
a discoloration around the eye: Theod. MG2 34. 12. Cass. ML2 59. 4 id est *liuores palpebrarum*

hypopyus (*ὑπόπυος*)
tending to suppuration: Cass. B 51. 11, 54. 15

hypo sarca (*ὑπὸ σάρκα*)
a type of dropsy: Cels. MG2 3. 21. 2. Scrib. MG2 69. 18

hyposphagma (*ὑπόσφαγμα*)
a suffusion of blood in the eye from a blow: Cass. MG2 58. 11

hysterica pnix (*ὑστερικὴ πνίξ*)
suffocation of the womb: Theod. MG2 229. 2 (cf. t. 228. 9 *de praefocatione matricis*)

ictericus (*ἰκτερικός*) 123, 218, 239, 366
(1) jaundice: Cass. B 67. 17, 128. 12.
(2) a sufferer from jaundice: Theod. B t. 179. 3, 4, 9. Cass. ML1 128. 6 icterici dicuntur *morbo regio laborantes*; cf. 129. 8

icterōdēs (*ἰκτερώδης*)
jaundiced: Cass. ML2 67. 18 *ictericum morbum simulans*

īleus (*εἰλεός*) 87, 105, 109, 227–8, 342, 369
a disease of the intestine: Cels. ML4 2. 1. 8, 4. 20. 1 bis *morbus tenuioris intestini*. Scrib. ML1 ind. 10. 18 quod est *inflatio intestinorum perniciosa*; 62. 6 *inflatio tenuium intestiorum*; 62. 21. Theod. B t. 125. 6, 7, 16. Cass. B 131. 16, 19

īliacus (**εἰλιακός*) 218, 239
intestinal obstruction: Cass. (*iliaca passio*) B t. 130. 18, 134. 17

īlicrīnēs (*εἰλικρινής*)
completely free of fever: Cels. ML4 2. 3. 3 *integer*

īlingiōntes (*ἰλιγγιῶντες*)
sufferers from dizziness: Cass. ML2 2. 4 *uertiginosi*

ionthus (*ἴονθος*)
an eruption on the face often accompanying the first growth of the beard: Theod. MG2 t. 57. 2 (not in *B*), 57. 3. Cass. B 14. 7

ischiadicus (*ἰσχιαδικός*)
(1) a disease of the hip, sciatica: Cass. (*ischiadica* scil. *passio*) B 137. 13, 15.
(2) a sufferer from sciatica: Theod. B t. 215. 1, 9, &c. Cass. B 138. 21, 140. 19, 181. 2

ischūria (*ἰσχουρία*) 82
a disease of the bladder totally preventing urination: Cass. ML2 115. 13 id est *ex toto urinae abstinentia*, 134. 1 id est *urinae abstinentia*

lagōpthalmus (*λαγώφθαλμος*) 94, 222, 275
one unable to close the eyes owing to shortening of the eyelids: Cels. MG2 7. 7. 9A (acc. pl.)

lēmē (*λήμη*)
a discharge from the eye: Cass. ML2 50. 8 *egestiones siue pituitas oculorum*

lepis (*λεπίς*) 79 n. 7
epithelial debris: Cass. ML2 22. 1, 31. 22 quam nos *squamulam* dicimus

lepra (*λέπρα* 'leprosy, which makes the skin scaly' [LSJ]) 106
a type of *scabies*: Scrib. MG1 ind. 15. 32, 109. 18. Cass. ML1 22. 1 *scabiem squamosam* dicimus; cf. 22. 14

lēthargicus (*ληθαργικός*) 362
a sufferer from lethargy: Cels. B 3. 23. 2 bis. Theod. B t. 112. 12, 13, &c. Cass. B 155. 14, &c.

lēthargus (*λήθαργος*) 102, 299, 362
lethargy: Cels. MG1 3. 20. 1; 2. 1. 21; 3. 18. 14, 15

leucē (*λεύκη*) 102
a species of *uitiligo*, a skin-disease: Cels. MG1 5. 28. 19B bis

leucōma (*λεύκωμα*)
a white spot in the eye: Theod. B 42. 11

leucophlegmatia (*λευκοφλεγματία*)
a type of dropsy: Cels. MG2 3. 21. 2, 11

līchēn (*λειχήν*) 44, 107, 127
a cutaneous disease: Cass. ML4 19. 2 *impetigines* quas Graeci lichenas uocant, Latini uulgo *zemas* appellant

līchēnōdēs (*λειχηνώδης*)
like *lichen*, impetiginous: Cass. ML4 16. 10 *zemosus*

līenteria (*λειεντερία*) 202, 210, 265, 275
lientery, a form of diarrhoea with liquid evacuations of undigested food: Cels. ML4 2. 1. 8 *leuitas intestinorum*. Theod. B 206. 4. Cass. MG2 124. 23

līentericus (*λειεντερικός*)
a sufferer from lientery: Theod. B t. 200. 1, 207. 1. Cass. MG1 124. 18, 19; 125. 4

lipothȳmia (*λιποθυμία*)
a swoon: Cass. ML2 33. 14 *animi defectus*

lithiōntes (*λιθιῶντες*) 423
sufferers from the stone: Cass. ML4 113. 11 *calculosi*

lyssodēctus (*λυσσόδηκτος*)
one bitten by a rabid animal: Cass. MG2 166. 6

macronosia (*μακρονοσία*)
a chronic disease: Cass. ML3 12. 1 id est *longa aegritudo*; 60. 3, 152. 14 *prolixa aegritudo*

maenomenus (*μαινόμενος*)
one suffering from a form of madness: Scrib. ML4 52. 6 *furiosus*. Theod. B t. 150. 17, 18

mania (*μανία*)
madness, insanity: Cass. ML2 149. 12 quam nos *insaniam* dicimus

melancholia (*μελαγχολία*) 155
the black-bile disease, melancholy: Cels. ML4 2. 1. 6 *bilis atra*

melancholicus (*μελαγχολικός*) 405
(1) characterized by black bile: Cass. B 16. 11, 176. 13, &c.
(2) one suffering from the black-bile disease: Scrib. ML2 ind. 10. 4, 55. 17. Theod. B t. 152. 7, 8; 195. 11

melās (*μέλας*, unattested in this sense, but cf. *μέλαινα*) 102
a species of *uitiligo*, a dark cutaneous eruption: Cels. MG1 5. 28. 19B bis D

melicēris (*μελικηρίς*) 102
a kind of tubercle or wen, from its resemblance to a honeycomb: Cels. MG1 5. 18. 18; 7. 6. 1, 3

melitēra (*μελιτηρά*)
a kind of corrupt matter resembling honey: Cels. MG1 5. 26. 20B bis, 20E

mētromania (*μητρομανία*) 106, 229
hysteria: Theod. MG2 130. 13 (not in *VBg*). Cass. ML2 191. 7 latino sermone *matricis furores siue insaniam* dicimus; cf. t. 191. 6

microsphyxia (*μικροσφυξία*) 267
weakness of the pulse: Cass. ML3 96. 13 *pulsus paruitas*; cf. 154. 17, 156. 22 (*microsphyxia* 3× : 5× *paruitas pulsus*)

mīsanthrōpus (*μισάνθρωπος*)
one who is a misanthrope as the result of melancholic depression: Theod. B 153. 9

mydriāsis (*μυδρίασις*) 125
a disease of the eye involving dilatation of the pupil: Cels. MG2 6. 6. 37A. Theod. B 157. 6, 8, 13

mylē (*μύλη*)
a hard formation in the womb: Theod. MG2 231. 11

myrmēcium (neut.), ***-ia*** (fem.) (**μυρμήκιον*; *μυρμηκιά*, *-ία*, fem.) 102

myrmēcium (*cont.*):
a type of wart or verruca: Cels. MG1 5. 28. 14ACDE. Cass. (fem.) MG1 20. 6, 12

narcē tēs aesthēseōs (*νάρκη τῆς αἰσθήσεως*)
numbness, loss of sensation: Cass. ML2 49. 1 *torpor sensus*

nausea (*ναυσία*)
the feeling of nausea, (esp. sea-)sickness: Cels. B 1. 3. 11 bis, &c. Scrib. B 33. 5, &c. Theod. B 126. 3, 175. 5. Cass. B 96. 11, &c.

nauseō (-iō), -āre (*ναυσιάω*) 125
to feel sick: Scrib. B 55. 14, &c. Theod. B 120. 4, 191. 1

nephrīticus (*νεφριτικός*) 218, 239
(1) of a disease of the kidneys: Cass. (*nefretica passio*) ML1 112. 14 id est *renalis*; cf. 37. 12, 120. 9, 180. 7.
(2) a sufferer from this disease: Cass. B 113. 10, 114. 9, 118. 12

neurotrōtus (*νευρότρωτος*) 115
one wounded in a sinew or tendon: Theod. ML4 65. 4 *neruo uulnerato* (cf. 69. 10 *neruus uulneratus*, 70. 10 *neruorum uulnerationes*)

nothus (*νόθος*) 219
of a type of tertian fever: Cass. ML4 146. 20 *non manifestus (tertianus)*

nyctalōps (*νυκτάλωψ*)
one suffering from day-blindness: Theod. MG2 41. 1

nygmata (*νύγματα*) 114
lesions of a nerve or muscle: Scrib. ML4 96. 2 *punctūs neruorum musculorum*

oedēma (*οἴδημα*) 106, 123
a swelling, tumour: Cass. ML2 179. 11 quod nos *aquosam inflationem* dicimus; cf. t. 179. 10

oncus octhōdēs (*ὄγκος ὀχθώδης*)
a tuberous mass, excrescence: Cass. ML2 175. 12 *extantiae riposae*

ophiāsis (*ὀφίασις*)
= *ophis*: Theod. B 17. 14

ophis (*ὄφις*)
a skin-disease causing bald patches of a serpentine form: Cels. MG2 6. 4. 2

opisthotonicus (*ὀπισθοτονικός*)
one suffering from *opisthotonus*: Scrib. B 80. 40. Theod. MG2 128. 2

opisthotonus (*ὀπισθότονος*) 121, 207, 424
a species of tetanus in which the body is drawn rigidly backward: Cels. ML4 4. 6. 1 *quidam rigor neruorum . . . caput scapulis . . . adnectit*; cf. 8. 11. 2 *rigores qui caput scapulis adnectunt*. Scrib. MG1 ind. 16. 1, 110. 14. Cass. MG1 83. 22, 84. 5

orexis (*ὄρεξις*)
excessive or insatiable appetite for food and drink: Theod. B 169. 11 *orexis accipiendi*

orthopnoea (*ὀρθόπνοια*)
a type of asthma in which breathing is possible only in an upright position: Cels. MG2 4. 8. 1. Cass. MG2 94. 2

orthopnoïcus (*ὀρθοπνοϊκός*)
one suffering from *orthopnoea*: Cass. MG2 106. 4

oxea (pathē) (*ὀξέα (πάθη)*)
abrupt, acute (diseases): Scrib. ML2 ep. 3. 20 *(uitia) praecipita*

oxytēs (*ὀξύτης*? unattested in this sense)
a type of jaundice: Cass. ML3 128. 13 id est *acuta*, 128. 15; 128. 18–19 ea quam ex tumore epatis fieri intellexeris

ozaena (*ὄζαινα*) 106, 111, 226, 298, 299
a foul-smelling ulcer or polyp in the nostril: Cels. MG2 3. 11. 3, 6. 8. 1A, 7. 11. Scrib. ML4 ind. 8. 6, 32. 4 *odor grauis narium*. Theod. B 43. 13 (but cf. 45. 5 *fetori narium*). Cass. ML2 62. 15 quas nos *fetores narium* dicimus; cf. t. 62. 14 ad polypum et ozaenas

pānus masc. (Dor. **πάνος* a bobbin, spool; cf. *πανίον*) 20, 106, 109, 186
a kind of superficial abscess: Cels. 5. 28. 10 [*phygetron*] panum a similitudine figurae nostri uocant, 5. 18. 19, 7. 2. 5. Scrib. ind. 16. 12, 113. 9

paralysis (*παράλυσις*) 96, 109, 155, 210, 225, 265, 385
any of various forms of paralysis: Cels. ML4 2. 1. 12, 3. 27. 1A bis *resolutio neruorum* (6. 6. 36 *oculorum*). Scrib. MG1 54. 8, 76. 19, &c. Theod. B 122. 17, 18, &c. Cass. B 101. 20, *et saepe*

paralyticus (*παραλυτικός*) 421
a sufferer from paralysis, a paralytic: Scrib. B 76. 14, 18. Theod. B t. 153. 12, 13. Cass. B 141. 1

paraplēxia (*παραπληξία*)
a type of apoplexy: Cass. B 158. 17, 19

parasynanchē (*παρασυνάγχη*)
a type of *angina*: Cels. MG2 4. 7. 2

parenchysis (*παρέγχυσις*)
an effusion of humours: Cass. MG2 186. 12

paresis (*πάρεσις*)
slackening of strength, paralysis: Cass. ML4 101. 20 *paralysis*

parōnychium (cf. *παρωνυχία*)
a whitlow: Theod. B t. 94. 5, 6

parōtis (*παρωτίς*)
a swelling of the parotid gland by the ear: Cels. B 6. 16, &c. Scrib. B ind. 7. 28. 114. 9, *et saepe*. Theod. MG1 t. 24. 8, 9; 26. 11; 28. 10. Cass. B 24. 4, &c.

parūlis (*παρουλίς*)
a boil on the gum: Cels. MG1 6. 13. 1, 4. Scrib. MG2 36. 11

pepsis (*πέψις*) 200
the 'digestion', maturing, ripening of a fever, involving the production of humours: Cass. ML1 142. 4 id est *digestio*; cf. 145. 17, &c.

periodus (*περίοδος*) 161
a fit of intermittent fever: Cass. B 142. 19, &c.

peripleumonia (*περιπλευμονία*)
inflammation of the lungs: Cass. B 160. 3

peripleumoniacus (*περιπλευμονιακός*)
inflammation of the lungs: Cels. MG2 4. 14. 1

peripleumonicus (*περιπλευμονικός*)
one suffering from inflammation of the lungs: Theod. B 117. 9, 12, &c. Cass. B 163. 10

phacus (*φακός*) 187
a spot, pimple, freckle: Cass. ML2 177. 20 *lentigo*

phagedaena (*φαγέδαινα*) 102
an ulcer that eats away the flesh: Cels. MG1 5. 28. 3BC; 6. 18. 4

phantasia (*φαντασία*)
an impression, appearance: Cass. B 128. 9, 169. 7

phīmōsis (*φίμωσις*)
contraction of the prepuce: Cels. MG2 7. 25. 2

phlegma (*φλέγμα*)
a mucous secretion in various parts of the body, phlegm: Theod. B 18. 8, 122. 4, *et saepe*. Cass. B 3. 2, 159. 14, *et saepe*

phlegmaticus (*φλεγματικός*)
(1) containing, resembling, abounding in phlegm: Cass. B 15. 5, 21. 96. 12, &c. (2) see quot.: Cass. ML2 172. 21 somni etiam flegmatici, id est *saliuam per os ostendentes*

phlegmonē (*φλεγμονή*) 112
an inflammation, an inflamed tumour, boil: Cels. ML4 pr. 15 *inflammatio*. Cass. ML4 45. 17, 178. 7 *tumor*

phlyctaena (*φλύκταινα*)
a type of pustule: Cels. MG2 5. 28. 15B

phlyctis (*φλυκτίς*)
a blister made by a burn: Theod. ML4 60. 11 hoc est *uesica*

phlyzacium (*φλυζάκιον*)
a type of pustule: Cels. MG2 5. 28. 15B

phoenigmus (*φοινιγμός*)
a reddening of the skin: Cass. ML2 10. 2 *rubor cutis*

phrenēsis/phrenītis (**φρένησις*, *φρενῖτις*) 109
inflammation of the brain, phrenitis, a form of insanity: Cels. ML3 2. 1. 15, 3. 18. 1 *insania (in febre)* (but *phrenesis* at 3. 18. 3). Cass. B 154. 2

phrenīticus (*φρενιτικός*) 218, 239, 369
(1) phrenitis: Cels. B 3. 20. 1. Cass. (*frenetica passio*) B 60. 4.
(2) a sufferer from phrenitis: Cels. B 2. 4. 8, 2. 14. 4, 3. 18. 3, 3. 19. 1. Theod. B 109. 12, 15, &c. Cass. B 154. 20, &c.

phrenītizō, -āre (*φρενιτίζω*) 122, 370
to be delirious, suffer from phrenitis: Cass. B 154. 11

phygetrum (cf. *φύγεθρον*, *φύγεθλον*) 20, 106, 109
a kind of superficial abscess: Cels. ML3 5. 18, 19. 5. 28. 10 *panus*. Scrib. ML4 113. 10 *panus*

phȳma (*φῦμα*)
a kind of abscess, tumour: Cels. MG1 2. 8. 20, 5. 18 *passim*, 5. 28. 9 bis, 6. 18. 2K

pityriāsis (*πιτυρίασις*) 321
a bran-like eruption on the skin: Theod. ML2 8. 17 *scabiis siccis* (not in *rb*). Cass. ML2 13. 10 *cantabries*; cf. t. 13. 9, 13. 15

pladarōsis (*πλαδάρωσις*)
becoming 'splashy', of the stomach: Cass. ML4 96. 9 *umectatio*

platycoriāsis (*πλατυκορίασις*) 125
a disease of the eye involving dilatation of the pupil, mydriasis: Theod. ML4 157. 9 *mydriasis*(!). Cass. ML2 57. 11 id est *dilatatio pupulae*

plēthōricus (*πληθωρικός*) 107
plethoric, full of fluid: Cass. ML3 3. 9, 84. 16, 94. 11 quod nos latino sermone *abundabile* dicimus siue *multitudine suci plenum*

pleurīticus (*πλευριτικός*) 423
(1) pleurisy: Cels. MG2 4. 13. 1.
(2) a sufferer from pleurisy: Scrib. ML3 49. 16 *qui lateris dolorem cum febre sentiunt*; cf. 49. 23, 81. 17(?). Theod. B t. 115. 9, 10, &c. Cass. B t. 159. 9, 160. 8, &c.

pleurītis (*πλευρῖτις*) 214
pleurisy: Cass. B 159. 10

plōtus (*πλωτός*)
floating (of bladder-stones): Cels. MG2 4. 27. 1D Tol. 73 calculos ab innatando *πλωτούς* Graeci uocant

podagra (*ποδάγρα*) 218, 239, 362, 378
rheumatic disease of the feet, gout (*calida* vs. *frigida*): Cels. B 1. 9. 1, &c. Scrib. B ind. 10. 7, 114. 16, *et saepe*. Theod. B 220. 2. Cass. B t. 135. 18, 135. 19, &c.

podagricus (*ποδαγρικός*) 362, 404, 423
a sufferer from gout: Cels. B 4. 31. 9 bis. Theod. B t. 215. 1, 5; 218. 8; 220. 4. Cass. B 97. 9, 136. 16 bis

polyhaemus (*πολύαιμος*)
one full of blood, of a full habit: Cass. MG2 14. 1, 60. 7

pōlypūs (*πουλύπους*) 111
a morbid excrescence in the nose, a polyp: Cels. B 6. 8. 2A, 7. 10. Scrib. B ind. 8. 7, 32. 7, &c. Theod. B 43. 13, 44. 13, 45. 1. Cass. B t. 62. 14, 62. 15

pōrus (*πῶρος*)
chalk-stone formed in the joints: Cass. B 136. 5

priāpismus (*πριαπισμός*)
priapism: Theod. MG1 130. 7, 17

proptōsis (*πρόπτωσις*)
the slipping forward of an organ, prolapse: Cels. MG2 6. 6. 8G. Scrib. MG2 25. 1. Cass. ML3 50. 16, 189. 5 *prominens casus*. Cf. 189. 10, 14

psoeadicus (prob. **ψοιαδικός* for *ψυαδικός*):
(1) lumbago: Cass. (*psiadica* scil. *passio*) B t. 137. 13.
(2) a sufferer from lumbago: Cass. B 137. 17, 138. 21

psoealgicus (**ψοιαλγικός*)
a sufferer from lumbago: Theod. MG2 221. 14

pterygium (*πτερύγιον*)
(1) a morbid extension of the cuticle over the nail, pterygium: Cels. ML4 6. 19. 1 *unguis*.
(2) a morbid extension of the conjunctiva over the eye: Cels. MG2 7. 7. 4A. Cass. B 57. 1

pthīriāsis (*φθειρίασις*) 98, 212, 231
a disease caused by lice, pediculosis: Cels. MG2 6. 6. 15A. Cass. ML2 11. 14 *pediculosa passio*

pthisicus (*φθισικός*) 218, 239, 366, 370
(1) atrophy, emaciation, consumption: Cass. (*pthisica passio*) B 90. 8, 163. 18, &c.
(2) a sufferer from this disease: Scrib. B 42. 23, &c. Theod. B t. 163. 1, 2, 9; 171. 7. Cass. B 92. 4, 7, 17

pthisis (*φθίσις*) 113, 121, 366
(1) consumption, pulmonary tuberculosis: Cels. ML4 2. 1. 8 *tabes*. Scrib. B 47. 10. Theod. B 157. 6, 7, &c.
(2) the worst form of *tabes*: Cels. MG1 3. 22. 3, 8, 10

pthoē (*φθόη*) 370
consumption, *pthisis*: Cass. ML4 179. 16 in pthoes hoc est in *pthisicis*

rhagades (*ῥαγάδες*)
fissures, cracks in soft tissue: Scrib. ML2 ind. 14. 29, 101. 16 *fissuras (ani)*. Cass. ML1 178. 6 id est *hiatus*; cf. t. 178. 3, 178. 23

rhagadia (*ῥαγάδια, τά*)
fissures, cracks in soft tissue: Cels. ML4 6. 18. 7A *scissum, scissura*. Theod. B 15. 15, 86. 10, &c. Cass. B 21. 12

rheuma (*ῥεῦμα*)
a morbid discharge, rheum: Theod. B 28. 9, 15, *et saepe*. Cass. B 39. 10, 124. 6, &c.

rheumaticus (*ῥευματικός*) 218, 239, 370
rheumatic: Cass. B 39. 12 bis reumatice diathesis id est reumatica passio(!)

rheumatismus (*ῥευματισμός*) 243
a morbid discharge from the body: Theod. B 37. 13, 43. 14, &c. Cass. B 51. 4, 137. 14, *et saepe*

rheumatismus + body-part 245, 268

rheumatismus stomachi 243, 245, 268

rheumatizō, -āre (cf. *ῥευματίζομαι*) 79, 122, 125, 370
to suffer from a morbid discharge, flux: Theod. B 36. 7, 159. 11, &c. Cass. B 63. 16, 90. 15, 124. 1

rhēxis (*ῥῆξις*)
loss of blood resulting from the rupture of a vein: Cels. MG2 4. 11. 3

rhōgmus (*ῥωγμός*; cf. *ῥωχμός*, *ῥογμός*)
wheezing: Cass. ML2 160. 12 *stridor ille interior gutturis*

rhūs (*ῥοῦς*)
a flux, discharge: Theod. ML4 246. 14 *fluxus*

rhūs erythrus (*ῥοῦς ἐρυθρός*)
a red flux, discharge of morbid humours: Scrib. ML2 64. 10 *fluor sanguinolentus*

rhyas (*ῥυάς*)
(1) a lacrimal fistula, a disease of the eye causing a continual weeping discharge: Cels. MG2 7. 7. 4C.
(2) a urinary, perineal fistula: Cels. MG2 7. 26. 2I

rhyparus (*ῥυπαρός*)
filthy (of a type of tertian fever): Cass. ML2 146. 21 hic typus *sordidus* a Graecis ryparos appellatus

sarcocēlē (*σαρκοκήλη*) 380
a hernia carnosa: Cels. ML4 7. 18. 10; cf. 7. 23 *caro quoque si quando inter tunicas concreuit*. Theod. B 84. 12

satyriāsis (*σατυρίασις*)
satyriasis: Theod. B t. 130. 6, 7, 11

scirrhōsis (*σκίρ(ρ)ωσις*) 189, 307
induration of an internal organ, cirrhosis: Cass. ML4 108. 13 *saxietas*; cf. 184. 13, 181. 9

scotōmaticus (*σκοτωματικός*) 357, 423
one subject to blackouts: Scrib. ML2 18. 3. 52. 8 *quibus subitae uertigines obuersantur*; cf. ind. 9. 32. Theod. B t. 150. 1, 2. Cass. ML1 t. 2. 5 ad *tenebrosos* quos scotomaticos dicunt; cf. 171. 14

sēmīum (*σημεῖον*)
a rare kind of spot: Cels. MG2 6. 5. 1

spasmus (*σπασμός*) 113, 196, 225, 384
contraction or tenseness of the muscles, spasm: Cels. ML4 2. 1. 12 *distentio neruorum*. Scrib. B 82. 4, &c. Theod. B t. 127. 10, 11, &c.

spasmus cynicus (*σπασμὸς κυνικός*) 218, 220
unilateral facial paralysis: Cels. MG2 4. 3. 1. Scrib. MG1 53. 17, ind. 16. 1, 110. 16. Theod. B 154. 6

splēnēticus (*σπληνητικός*) 111, 218, 239, 344, 422
(1) a disease of the spleen: Cass. (*splenetica passio*) B t. 105. 12, 105. 13, 152. 8.
(2) a sufferer from this disease: Theod. B t. 182. 4, 185. 8, 209. 13 (cf. 184. 6 *causa splenis indignantes*). Cass. B 97. 9, 99. 23, &c.

staphylē (*σταφύλη*)
the uvula when swollen at the end so as to resemble a grape: Cass. ML2 75. 9 quam nos *uuam* dicimus

staphylōma (*σταφύλωμα*) 145, 187, 273 n. 9
a swelling on the iris of the eye, staphyloma: Cels. MG2 7. 7. 11. Theod. MG1 43. 6, 10. Cass. B 51. 10

steatōma (*στεάτωμα*) 101, 123
a sebaceous tumour of the head: Cels. B 7. 6. 1, 3 bis. Cass. MG1 43. 17-44. 1, t. 43. 16

stomachicus (*στομαχικός*) 218, 239, 422
(1) a disease of the stomach: Cass. (*stomachica passio*) B 96. 8.
(2) a sufferer from this disease: Scrib. B 10. 2, 55. 6. Theod. B 186. 18

strangulō, -āre (cf. *στραγγαλάω*) 79 n. 6, 122
to choke, strangle, suffocate, constrict: Cels. B 2. 10. 6, *et saepe*. Cass. B 81. 10

strangūria (*στραγγουρία*) 82–3
strangury: Cels. MG2 or ML4? 2. 1. 8 *difficultas urinae*; 4. 27. 1D Tol. 15–23 a type of *urinae difficultas*. Cass. ML2 115. 14 id est *urinae paulatim per guttas exclusio*

strophus (*στρόφος*) 115, 197
twisting of the bowels, colic: Cels. MG2 2. 7. 6. Scrib. MG2 64. 1

(or ML4?: cf. 83.21, 84.5). Theod. B t. 125. 6, 7, 9. Cass. ML2 134. 2 id est *tortus uentris*

sȳcōsis (*σύκωσις*) 189, 307
an ulcer resembling a ripe fig, (1) of the beard and scalp: Cels. MG2 6. 3. 1; (2) of the eye: Scrib. MG2 27. 9. Cass. ML2 55. 2 quam nos *ficitatem* dicimus

symptōmata (*συμπτώματα*) 111, 123, 157, 159, 348, 425
afflictions, symptoms: Theod. B 172. 5 (cf. *accidentia*). Cass. ML4 t. 115. 2 nos uero dicere *accidentia* poterimus

synanchē (*συνάγχη*)
an infection of the throat, a type of angina: Cels. MG2 4. 7. 1. Cass. B 82. 21

synanchicus (*συναγχικός*) 218, 239
(1) an infection of the throat: Cass. (*synanchica passio*) MG1 81. 4–8.
(2) one suffering from this infection: Theod. B 53. 6; t. 119. 17, 18. Cass. B t. 81. 3

syncopē (*συγκοπή*) 195
sudden loss of strength, syncope, collapse: Cass. ML1 157. 3 id est *amputatio*; cf. 157. 9, 16; 158. 1

syntēcticus (*συντητικός*)
one suffering from *syntexis*: Theod. B 171. 8

syntēxis (*σύντηξις*)
a wasting disease, colliquescence: Theod. B t. 170. 16, 17; 171. 6

sȳrinx (*σῦριγξ*) 186
a fistulous sore or abscess: Theod. B 86. 11, t. 90. 12, 91. 5. Cass. ML4 30. 6 *fistula*

taenia (*ταινία*)
an intestinal worm: Scrib. B ind. 11. 13, &c.

tēnesmōdēs (*τεινεσμώδης*)
like a *tenesmus*: Theod. MG2 204. 18

tēnesmus (*τεινεσμός*)
a griping pain in the bowels accompanied by ineffectual straining: Cels. MG2 4. 25. 1. Scrib. MG2 ind. 11. 15, 72. 16

tephrōdēs (*τεφρώδης* 'like ashes', not otherwise attested in this sense)
a type of aphthous ulceration: Cass. MG2 78. 14

terēdō(n) (*τερηδών*) 314 n. 170
a kind of canker of the teeth: Cass. MG2 68. 1

tetanicus (*τετανικός*) 111, 218, 239, 260, 422
(1) tetanus: Cass. (*tetanica passio*) B 83. 20, 94. 20, 132. 17, 163. 5.
(2) one suffering from tetanus: Scrib. B 81. 19. Cass. B t. 83. 19

tetanus (*τέτανος*) 113, 121, 207, 225, 299, 387
(1) convulsive tension of the muscles, tetanus: Cels. ML4 2. 1. 12 *rigor neruorum*. Scrib. MG2 53. 15, ind. 16. 1.
(2) a species of tetanus: Cels. MG2 4. 6. 1. Cass. MG1 83. 21, 22

thēriōma (*θηρίωμα*) 102
a malignant ulcer: Cels. MG1 5. 28. 3AC

thlīpsis (*θλῖψις*)
pressure, constriction: Theod. B 136 18 (*thlipsis uel angustias*)

thrombus (*θρόμβος*)
a clot of blood: Cass. ML2 61. 17 *glebula sanguinis*; 117. 9 *glebosus sanguis*

thrombūmenus (*θρομβούμενος*)
containing clots: Cass. ML2 86. 10 *glebosus*

thymium (*θύμιον*) 102
a wart-like ulceration: Cels. MG1 5. 28. 14ABCDE

thymus (*θύμος*)
a kind of wart: Cass. MG2 20. 7

toxicum (*τοξικόν*)
poison: Scrib. B ind. 12. 19, 83. 17, &c.

trāchōma (*τράχωμα*) 118, 123, 127, 310
trachoma: Cass. ML1 55. 1 id est *asperitates palpebrarum*; cf. 55. 10

tympanītēs (*τυμπανίτης*) 115–16
a type of dropsy in which the belly is stretched tight like a drum: Cels. MG2 3. 21. 2. Cass. MG1 181. 9-13, 182. 2

typicus (*τυπικός*)
conforming to type (of the pattern of a fever): Theod. B 163. 12. Cass. B 141. 8, 15

typus (*τύπος*)
a type or form of fever, with reference to the order and spacing of its attacks and intervals: Cass. B 141. 10, 147. 4, *et saepe*

xērobēx (*ξηρόβηξ*) 229
a dry cough: Cass. ML4 72. 4 *tussis arida*

xēropthalmia (*ξηροφθαλμία*) 227, 242, 249
dry inflammation of the eyes: Cels. ML4 6. 6. 29 *lippitudo arida*. Scrib. ML2 ind. 7. 11, 26. 9 *sicca perturbatio oculorum*. Cass. ML2 52. 15, 56. 19 *lippitudo sicca*

zōna (*ζώνη*) 94–5
shingles: Scrib. B or MG1? 37.10, 57. 14, t. 108. 21, 108. 22

(3) Therapeutics

acacistum (*ἀκάκιστον*, app. not otherwise known)
a gentle remedy with no unpleasant side-effects: Cass. MG2 184. 4

acharistum (*ἀχάριστον*)
a name for an eye-salve of Theodotus: Cels. MG2 6. 6. 6A

acopum (*ἄκοπον*, sc. *φάρμακον*)
an anodyne, pain-reliever: Cels. B 4. 31. 8, 5. 24. 1. Scrib. B 76. 20, 78. 26, *et saepe*. Theod. B 117. 17; 129. 5, 11;. 155. 8. Cass. B 138. 7, 11; 140. 19

adipsum (*ἄδιψον* 'thirst-quenching')
a remedy for quenching thirst in fever: Cass. MG2 153. 3

alīmma (*ἄλειμμα*) 123
an unguent: Cass. ML4 150. 16 *perunctio*

alipes (*ἀλιπές*)
non-greasy, of a type of plaster: Cels. ML4 5. 19. 1A *non pingue* (cf. 5. 27. 1B, &c.)

ambrosia (*ἀμβροσία*)
the name of an antidote: Cels. MG2 5. 23. 2

ammochōsia (*ἀμμοχωσία*)
a sand-bath: Cass. ML2 187. 5 *arenae feruentis adobrutio*

amychae (*ἀμυχαί*)
scarification: Cass. ML3 12. 18, 26. 17, 41. 18, 140. 21 *scarifationis laceraturae*

amycticus (*ἀμυκτικός*)
irritant, of remedies: Theod. B 119. 13, 230. 14, &c.

anacollēma (*ἀνακόλλημα*)
an adhesive plaster: Cass. B 54. 11, 58. 4

anadesmus (*ἀνάδεσμος*)
a bandage for a woman's breast: Theod. B 205. 11, 12; 225. 11; 227. 1, 3

anagargarisma (*ἀναγαργάρισμα*)
a gargle, a preparation for gargling: Cass. B 6. 19, 90. 1, &c.

analēpticus (*ἀναληπτικός*)
restorative: Theod. B 171. 14 (*analemptici cibi*)

anastomōsis (*ἀναστόμωσις*)
the action of opening up or keeping open a wound: Theod. B 69. 15 (cf. Path.)

anastomōtica (*ἀναστομωτικά, τά*) 368
aperients, relaxants: Cels. MG2 5. 18. 25

anatropē (*ἀνατροπή*)
the raising up of a part of the body: Cass. MG2 193. 22

anctēr (*ἀγκτήρ*)
a surgical clip for closing wounds: Cels. ML4 5. 26. 23B *fibula*

(?)Andronicum (*Ἀνδρωνικόν?, Ἀνδρόνικον?*)
the name of a medicament, perh. = next: Scrib. B 109. 9 [Andronium *Helmreich*]

Andrōnium (-us) (**Ἀνδρώνιον (-ος?)*)
the name of a medicament (presum. named after the Greek doctor Andrōn (*fl.* before 70 BC): Cels. MG2 6. 14. 1. Scrib. B 102. 9, 105. 19 (cf. 37. 3, 106. 8 [*Andronios* Sconocchia]) Theod. B 203. 7 (*trochiscus*)

angīum (diplūn) (*(διπλοῦν) ἀγγεῖον*)
a double vessel for pre-boiling medicinal ingredients: Theod. B 39. 6, 201. 8

anōdynus (*ἀνώδυνος*)
serving to relieve pain: Cels. MG2 5. 25. 1, 6. 6. 1M. Cass. ML1 133. 4 id est *dolorem detrahens*; cf. 101. 15, 133. 12, 164. 4

anōtericus (*ἀνωτερικός*)
given by the mouth: Cass. MG2 124. 8

anthēra (*ἀνθηρά*)
a preparation made with flower-petals: Cels. MG1 6. 11. 2, 6. 13. 4; 15. 1; 18. 2F. Scrib. MG2 36. 7. Theod. B 54. 8, 120. 21. Cass. MG1 78. 1, 80. 3

antidotum (neut.); ***-us*** (fem.) (*ἀντίδοτος*) 137
an antidote: Cels. (neut.) B 5. 23. 1A; 5. 27. 2D, 3E, 11. Scrib. (fem.) B 52. 12, 83. 17, *et saepe*. Theod. (neut.) B 117. 21, 202. 15, &c. Cass. (neut.) B 3. 11, *et saepe*

antidotum Mithridatis 131, 138

antidotus Antiochi 139

antipharmacum (*ἀντιφάρμακον*)
an antidote: Theod. B 79. 15

antispasis (*ἀντίπασις*)
the action of drawing off from another outlet: Cass. MG2 140. 13, 160. 22

apocrūsticus (*ἀποκρουστικός*)
able to drive off, dispel: Cass. B 52. 6

apophlegmatismus (*ἀποφλεγματισμός*)
(1) the process of purging phlegm: Cass. B 171. 8.
(2) a preparation for purging phlegm: Theod. B 18. 9, 50. 10, 145. 11, 153. 20. Cass. B 64. 4, 130. 7, 159. 6

apophlegmatizō, -āre (*ἀποφλεγματίζω*) 79, 122
to purge of phlegm: Theod. B 114. 11. Cass. B 6. 1, 171. 7

apozema (*ἀπόζεμα*)
a decoction: Cass. B 146. 6

arōmaticus (*ἀρωματικός*)
aromatic: Theod. B 203. 15, 236. 4

artēriacē (-a) (*ἀρτηριακή*, sc. *ἀντίδοτος*) 368
a medicament for the trachea or bronchi: Cels. B 5. 25. 17. Scrib. B ind. 8. 32, 41. 7, 18; 42. 7. Theod. B 55. 9. Cass. B 71. 14, 17

artēriotomia (*ἀρτηριοτομία*)
the cutting of an artery as a form of treatment: Theod. B 146. 14, 149. 11

artomeli (ἀρτόμελι)
a plaster or poultice of bread and honey: Theod. B 187. 14. Cass. B 109. 18

(?)artophagos or *artophacion?* (ἀρτοφάγος, not attested in this sense; *ἀρτοφάκιον)
an antiseptic plaster of lentils with bread and honey: Cass. MG2 39. 3 [-fagon *Rose*: -fagion *gp* -facion *c*], 68. 8 [-fagon *mss & Rose*]

Asclēpius (Ἀσκληπιός) 133
the name of an eye-salve (presum. named after the god of healing): Cels. MG2 6. 6. 25, 32

Athēnipp(i)um (Ἀθήνιππον, Ἀθηνίππιον)
the name of a salve, = *diasmyrnes*: Scrib. MG1 ind. 7. 3, 24. 7, 25. 7 Athenippio

Attalium (*Ἀττάλιον)
the name of (1) a plaster and (2) an eye-salve (poss. named after an ἀρχιατρός Attalos, of unknown date): Cels. (1) B 5. 19. 11; (2) B 6. 6. 5B

auliscus (αὐλίσκος)
a pipe or tube for various purposes: Cass. B 135. 7, 11. 28. 16 (*auliscus fysarius*). 46. 9 (*auliscus oticus*)

balanus (βάλανος, ἡ)
a pessary, suppository: Theod. B 116. 3, 122. 10, 132. 13, 242. 6, 243. 1

balneum; -eae (βαλανεῖον) 79 n. 6, 178
a bath; the use of the bath: Cels. B 2. 17. 4, *et saepissime*. Scrib. B 21. 14, 17, 21, &c. Theod. (*-eae*) B 21. 11, 242. 8, *et saepe*. Cass. B 10. 2, 192. 20, &c.

baptizō, -āre (βαπτίζω)
to bathe a wound: Theod. ML4 68. 20 *infundere*

barbarus; -a (βάρβαρος)
the name given to various kinds of plaster: Cels. MG1 5. 19. 1B, 5. 26. 23F. Scrib. MG2 ind. 13. 20, 96. 5. Theod. (*-a*) B 43. 16, 167. 9, 204. 15. Cass. MG1 180. 22, 63. 2

basilicum; -icē (βασιλικόν) 368
(1) a black plaster: Cels. MG2 5. 19. 3. Scrib. (*-ice*) MG1 ind. 13. 31, 97. 22, 106. 20.
(2) an eye-salve of Euelpides: Cels. MG1 6. 6. 31A, 31B.
(3) another remedy (sc. φάρμακον): Theod. B 22. 3 (for the ears)

bēchicus (βηχικός) 357
for treating a cough: Cass. ML2 70. 5, 163. 21 id est *tussicularia*

Bestianē (obscure) 133, 135–6
the name of an antidote: Cass. B 114. 10

cac(c)abus (κάκαβος, ἡ; κάκκαβος, ὁ)
a cooking-pot: Scrib. B 30. 7, 10, *et saepe*. Theod. B 72. 3. Cass. 8. 2. 124. 2, &c.

cacochȳlus (κακόχυλος) 221
containing harmful juices: Cels. ML4 2. 19. 1 *mali suci*

calamus (κάλαμος) 219, 220, 239, 256-7, 408
a reed used for various medical purposes: Cels. (*calamus scriptorius*) B 5. 28. 12L, 7. 5. 2C, 7. 11. 1, 7. 27. 3. Scrib. B 19. 1, 31. 13. Cass. B 61. 16, 63. 12, 71. 5

Canōpītēs (Κανωπίτης) 133
an eye-salve (presum. named after the town of Canopus in Egypt, or a famous inhabitant): Cels. B 6. 6. 25B, 28

carpodesmus (καρπόδεσμος)
a bandage for the wrist: Cass. B 41. 16

cataplasma (κατάπλασμα) 80, 105
a plaster or poultice: Cels. B 3. 10. 2, *et saepe*. Scrib. ML1 78. 3 id est *superpositum medicamentum*; 78. 10, 17. Theod. B 26. 10, 241. 1, *et saepissime*. Cass. B 31. 9, 178. 9, *et saepe*

cataplasmō, -āre (cf. καταπλάσσω) 80, 122, 125
to treat with a plaster; to apply as a plaster: Theod. B 25. 5, 227. 11, *et saepe*

catapotium (καταπότιον)
a sort of pill: Cels. B 5. 25. 1, &c. Scrib. MG1 46. 20 id est medicamentum quod non diluitur sed ita ut est deuoratur, *et saepe*. Theod. B 14. 4, 19. 3. Cass. B 4. 3, 163. 21, &c.

cautic̄ dromas (*καυτικὴ δρομάς)
a plaster for inducing a scab: Scrib. MG2 ind. 15. 19 (*T*)

catharticum (καθαρτικόν) 356, 368
a purgative app. taken orally, an emetic: Theod. B 28. 15, 208. 17, *et saepe*. Cass. B 3. 20, 4. 1, &c.

catholicus (καθολικός)
general, universal, of treatments: Theod. B 221. 13, *et saepe*

catōtericus (κατωτερικός) 428
used as an enema, purgative: Cass. MG2 126. 6

(?)causis (καῦσις)
cautery (?), a burning sensation (?): Scrib. B 104. 6 (*Sperling*: causam *TR* crustam *M*)

causticus (καυστικός) 355, 368, 397
caustic, corrosive: Theod. B 124. 13, 203. 10, &c. Cass. ML1 20. 18, 32. 16 *incensorius*

cautēr (καυτήρ)
a cautery iron: Theod. B 63. 11, 14; 146. 15, 164. 16, 166. 15. Cass. B 164. 10

cautērium (καυτήριον)
a cautery iron: Scrib. B 61. 9; 107. 10, 12

cedrinum (κέδρινον)
a remedy having cedar-resin as an ingredient: Cass. MG2 108. 5

cenōsis (κένωσις) evacuation: Cass. ML2 142. 2 *uacuatio*

cephalicum; -icē (κεφαλικόν; -ική) 429
a type of plaster for the head: Cels. (*-ica* neut. pl.) MG2 5. 19. 7. Scrib. (*-ice*) MG2 92. 22. Theod. MG2 91. 9 (*puluis*). Cass. B 29. 9, 11, &c.

cērōmaticus (κηρωματικός)
of, or with, a wax salve: Cass. B 144. 2

cērōtarium (κηρωτάριον)
an unguent made with wax: Theod. B 14. 19, 246. 2, *et saepe*. Cass. B 126. 5, *et saepe*

chalasticus (χαλαστικός) 355, 427
(a preparation) that relaxes and softens: Theod. B 22. 6, 241. 1 (adj.), *et saepe*; 228. 5, 230. 11 (noun), &c. Cass. B 84. 18 (adj.), 94. 20 (noun), &c.

chīromylum (χειρόμυλον)
a hand-mill: Cass. ML4 91. 19 *mola manualis*

chīrūrgia (χειρουργία) 400, 430
surgery, incision, cutting: Cels. ML4 pr. 9 *manus*. Scrib. B 92. 13 bis. Cass. B 25. 13, 76. 3, &c.

chīrūrgicus (χειρουργικός)
a surgeon: [Cels. B 5. 28. 7A (secl. Marx).] Theod. B 232. 13

chīrūrgus (χειρουργός)
a surgeon: Cels. B 6. 7. 2B; 7.pr. 4, 5; 7. 11. 1. Scrib. B 92. 18, 107. 8, *et saepe*

chlōrā emmotos (χλωρὰ ἔμμοτος)
a green plaster: Cass. MG2 29. 7, 38. 15

choenīcis (χοινικίς) 188
a kind of surgical trepan: Cels. ML4 8. 3. 1 *modiolus*

cholagōgus (χολαγωγός)
that carries off bile: Theod. B 179. 12. Cass. B 141. 6

chrȳsūn (χρυσοῦν)
the name of a plaster: Theod. MG2 183. 10 quod chrysun appellamus

clībanus (κλίβανος)
a tapering earthenware vessel used as an oven: Cels. B 2. 17. 1, 3. 21. 6

clysmus (κλυσμός)
a clyster, an enema: Scrib. B 76. 17, 90. 13, 91. 6

clystēr (κλυστήρ) 219, 220, 230, 238
(1) a syringe: Cels. B (*clyster oricularius*) 5. 28. 12M, &c.
(2) an injection, enema: Scrib. B 60. 15, &c. Theod. B 33. 5, 129. 7, *et saepe*. Cass. B 3. 9, 155. 21, *et saepe*

clystērium (κλυστήριον)
a small syringe, clyster-pipe: Scrib. B 61. 7, 62. 19

Cōacum (Κωακόν) 133
the name of a plaster (lit. 'from Cos', the home of Hippocrates): Cels. MG2 5. 19. 2

coenotēs (κοινότης)
a common property, a term of the Methodist school: Cass. MG2 28. 3

colicus, -ē (κολικός) 368, 369
(a remedy) for treating colic: Cels. MG1 4. 21. 2 (*-icon*), 5. 25. 12 (*-ice*). Scrib. (*-ice*) B ind. 10. 22, 23; 63. 5, 19. Cass. B 133. 4

collēsis (κόλλησις)
closing up, glutination: Cass. ML2 29. 19 id est *glutinatio*

collēticus (κολλητικός) 355, 368, 425
which promotes glutination: Theod. B 68. 3. Cass. ML1 87. 18. 89. 4 id est *glutinatorius*

collȳrium (κολλύριον)
(1) an eye-salve: Cels. B 6. 6. 27B, *et saepe*. Scrib. B 21. 5, *et saepe*. Theod. B 33. 15, 243. 2, *et saepe*. Cass. B 53. 7, *et saepe*.
(2) a bougie, suppository: Cels. B 5. 28. 12L, 7. 4. 4D, &c. Scrib. B 73. 1, 5. Cass. B 32. 3, &c.

collyrium acre/lene/compositum 220

collyrium Hieracis 131, 138

collyrium Nilei 131, 137, 138

collyrium Zoili 131, 137, 139

cūpha (cucurbita) (cf. κοῦφαι (σικύαι)) 219, 240
dry cupping, i.e. using suction alone without recourse to blood-letting: Cass. ML2 170. 21 id est ⟨*leui* Rose⟩ *cum appositione*; cf. 188. 9

cyathiscus (κυάθισκος)
the spoon-shaped end of an ear-probe: Scrib. ML2 103. 12 *auriscalpium auersum*

cyathiscus Dioclēus (κυάθισκος Διοκλείος) 131–2
a kind of forceps or scoop: Cels. MG2 7. 5. 3A

cyclicus (κυκλικός) 219
cyclical, of a course of treatment (*cursus, ordo*): Theod. B 149. 10, 206. 18, &c. Cass. B 6. 15, 187. 9, &c.

cyclus (κύκλος)
a cycle, a course of treatment: Theod. B 146. 5, 247. 7, &c. Cass. 10. 3, 16. 4

cycnus (κύκνος)
the name of a salve: Cels. MG2 6. 6. 7. Cass. MG2 54. 14

dactylicē (δακτυλική, sc. ἔμπλαστος) 355
a medicament for treating the anus: Cass. ML2 178. 15 id est *podicalis*

dia (διά) 376 n. 391, 399 n. 77, 404, 407–8
the Greek preposition used with the genitive of an ingredient (in two cases of a numeral: *dia hebdomēconta dyo, dia tessarōn*), to provide a name for a preparation characterized by the named ingredient. These are listed in Latin alphabetical order by the name of the main ingredient; some alternative forms are given in brackets.

dia tēs aloēs (διὰ τῆς ἀλόης)
a cathartic of Galen including bitter aloes (Aloe vera): Cass. MG2 3. 20 (*catharticum*)

dia tōn picrōn amygdalōn (διὰ τῶν πικρῶν ἀμυγδάλων)
a preparation including bitter almonds: Cass. ML2 110. 3 (*trociscus*), 163. 11 (*electuarium*) id est *ex amaris amygdalis*

dia tū apsinthiū (διὰ τοῦ ἀψινθίου)
a plaster including wormwood (Artemisia apsinthium): Cass. MG2 96. 16 (*cataplasma*)

dia cadmiās (diacadmias) (διὰ καδμίας)
a plaster including calamine for inducing a scab: Scrib. MG2 ind. 15. 21, t. 107. 22, 23 (*emplastrum*)

dia tōn caryōn (διὰ τῶν καρύων)
a cream including walnuts: Cass. MG2 77. 1 (*inlinimentum*)

dia tū ceratos (διὰ τοῦ κέρατος)
a salve containing stag's horn: Cels. MG2 6. 6. 16C (*collyrium*)

dia ceratos elaphīū (διὰ κέρατος ἐλαφείου)
a salve containing stag's horn: Cass. ML2 56. 11 (*collyrium*) id est *de cornu ceruino*

dia chalcīteōs (διὰ χαλκίτεως) 90, 134
a plaster of Galen including rock alum: Cass. MG2 87. 20, 119. 10

dia chartū (diachartu, diacartum) (διὰ χάρτου)
a medicament including charred papyrus: Theod. B 246. 7 dia chartu Athenaei trochiscus. Cass. B 28. 15, 68. 4, 79. 10, &c. (*medicamentum*)

dia tōn chelīdonōn (διὰ τῶν χελιδόνων)
a cream including swallows: Cass. ML2 82. 20 (*diachrisma, hoc est inlinimentum*) id est *ex hirundinibus*

dia chylōn (diachylon) (διὰ χυλῶν)
a medicament including certain juices (?), or barley-water, gruel (?): Theod. B 85. 3 (*diachylon*), 234. 18 (*ex dia chylon pesso*), 176. 11,. 236. 14, 237. 7. Cass. B 25. 15 (*emplastrum*), 190. 1 (*medicamentum*), 85. 11, &c. (*cerotarium ex diachylon confectum*)

dia cochliōn (διὰ κοχλιῶν)
a plaster including snails: Cass. ML2 63. 3 (*emplastrum*) id est *ex cocleis*

dia cōdyōn (διὰ κωδυῶν)
a preparation including poppy-heads: Theod. B 167. 7. Cass. B 70. 4, 164. 1 (*electuarium*)

dia colocynthidos (diacolocynthidos) (διὰ κολοκυνθίδος)
an antidote including colocynth (another name for the *antidotus hiera*): Scrib. MG2 52. 14

dia coralīū (diacoral(l)ium) (διὰ κοραλ(λ)ίου κω-, κου-)
a *trochiscus* including coral: Cass. B 123. 16 (*trociscus*)

dia crocū (διὰ κρόκου)
an eye-salve including saffron: Cels. MG2 6. 6. 33

dia daphnidōn (διὰ δαφνίδων)
a preparation including laurel berries: Cels. MG2 (*emplastrum*) 5. 19. 12

dia echidnōn (diechidnon thēriacē) (δι' ἐχιδνῶν θηριακή)
an antidote prepared with vipers: Cass. MG2 142. 13 (*antidotum*)

dia ēlectrū (dielectru, dialectrum) (δι' ἠλέκτρου)
a preparation including amber:

dia ēlectrū *(cont.)*:
Cass. ML1 89. 6 (*trociscus*) id est *ex sucino*; 70. 1, 123. 16

diaglaucium (διαγλαύκιον)
an eye-salve containing the juice of the horned poppy: Scrib. MG2 ind. 6. 25, 22. 12

dia halōn *(dialon)* (δι' ἁλῶν)
a remedy including rock-salt: Scrib. MG2 ind. 14. 14. 99. 26 (*emplastrum*). Cass. B 35. 7 (*emplastrum*), 43. 9 (*medicamentum*)

dia hebdomēconta dyo *(diebdomecontadyo)* (δι' ἑβδομήκοντα δύο)
a salve including 72 drachmas of an ingredient: Cass. ML2 52. 13 collyrium dia rodon *de septuaginta duabus*

dia hys(s)ōpū *(dia ysopu)* (διὰ ὑσ(σ)ώπου)
a gargle including hyssop: Cass. MG2 (*anagargarisma*) 6. 20

dia iteōn *(diaiteon)* (διὰ ἰτεῶν)
a preparation including willow: Theod. B 43. 15 (*emplastrum*), 167. 8 (*epithema*), 204. 15. Cass. B 29. 12, &c. (*emplastrum*), 63. 1, &c. (*medicamentum*)

dia leucoīū (διὰ λευκόϊου)
a salve including white violet: Cass. ML2 56. 3 (*collyrium*) id est *de uiola*

dia libanū (διὰ λιβάνου)
an eye-salve including frankincense: Cels. MG2 6. 6. 13. Theod. B 33. 18. Cass. (*dialibanum*) B 53. 7 (*collyrium*)

dia melilōtū (διὰ μελιλώτου)
a foment including melilot: Theod. B 180. 16. Cass. B 74. 12, 97. 5 (*epithima*)

dia morōn (διὰ μόρων) 117, 399, 429
a remedy including black mulberries: Theod. B 52. 9, 12; 197. 5

dia orobū *(diorobū, diorobum, diarobum)* (δι' ὀρόβου)
a remedy including bitter vetch: Cass. ML1 91. 15 (*potio*) id est *de ero*; 92. 1 (*electuarium*)

dia ostreōn *(diostreon)* (δι' ὀστρέων)
a remedy including oysters: Cass. MG2 67. 14 (*medicamentum*)

dia phoenīcōn (διὰ φοινίκων)
a foment including dates: Theod. B 167. 9 (*epithema*). Cass. MG2 125. 18 (*epithima*)

dia physalidōn (διὰ φυσαλίδων)
a troche including bladder-herb (= winter cherry; Physalis alkekengi): Cass. ML1 120. 9 *trociscus ex uesicaria herba confectus*; 37. 12, 113. 17

dia pityrū (διὰ πιτύρου)
a gargle including bran, husks of corn: Cass. ML2 76. 6 (*anagargarisma*) id est *ex cantabro*

dia prassiū *(diapras(s)ium)* (διὰ πρασ(σ)ίου)
a remedy including horehound: Theod. B 164. 11. Cass. ML1 92. 17 (*medicamentum*) id est *ex marrubio*; 95. 3, 163. 18

dia rhaphanidōn (διὰ ῥαφανίδων) 215
a vomit including radishes: Cass. ML4 9. 5 *uomitus ex radicibus*

dia rhodōn (διὰ ῥόδων)
a salve including roses: Cass. B 52. 12

dia sampsūchū *(diasamsucum)* (διὰ σαμψούχου)
a foment including marjoram: Cass. MG1 105. 1, 108. 10, &c. (*epithima*)

dia tū silphiū (διὰ τοῦ σιλφίου)
a pastil including laserwort: Cass. MG2 94. 23 (*electuarium*)

dia smyrnēs *(diasmyrnes)* (διὰ σμύρνης)
an eye-salve including myrrh (another name for the *Athenipp(i)um*): Scrib. MG2 ind. 7. 3, 24. 8

dia spermatōn (διὰ σπερμάτων)
a foment including certain seeds (?): Theod. B 203. 8 (*trochiscus*), 211. 14 (*emplastrum*), &c. Cass. B 74. 11, 144. 15, &c. (*epithima*)

dia sphongōn (διὰ σφόγγων)
a styptic including sponges: Cass. ML1 61. 12 [*ischemon*] id est *ex spongia confectum*; 88. 18

dia strychnū (διὰ στρύχνου)
a plaster including hound's berry (Solanum nigrum): Cass. MG2 41. 21 (*emplastrum*)

dia symphytū *(diasimphitum)* (διὰ συμφύτου)
a troche including comfrey: Cass. MG2 123. 14 (*trociscus*)

dia tessarōn *(diatessaron)* (διὰ τεσσάρων)
a remedy consisting of four ingredients: Cass. ML1 161. 20 id est *de quattuor speciebus confectum*. 190. 10 (*pessarium simplex*). 45. 15, 47. 4, 168. 9

dia thapsiās (διὰ θαψίας)
a remedy including deadly carrot: Cass. B 181. 2 (*emplastrum?*)

dia triōn pepereōn (διὰ τῶν τριῶν πεπέρεων)
an antidote including three kinds of pepper: Cass. B 103. 11, 143. 19 (*antidotum*)

diachrisma (διάχρισμα)
an unguent, a cream: Cass. ML2 76. 21, 82. 19 *inlinimentum*

diaclysma (διάκλυσμα)
a mouth-wash: Cass. ML4 65. 11 *collutio*

diaeresis (διαίρεσις [ἁπλῆ])
a surgical incision: Cass. ML2 27. 9 *consectio (simplex)*

diaeta (δίαιτα)
way of living, mode of life in medically-relevant respects: Cass. ML2 143. 7 id est *uitae regula*

diaetēticē, -a (διαιτητική) 430
dietetic medicine: Cels. ML4 pr. 9 *uictus*. Scrib. (*-a*) B 92. 13

diaetēticus (διαιτητικός)
one who practises medicine, as opposed to surgery, a physician: Scrib. B 92. 16

diaphorēticus (διαφορητικός) 355
capable of dispersing, discutient: Cass. ML1 136. 15 *eiectorius*; cf. 24. 17, 99. 23, &c.

Diospolītēs (?) (Διοσπολίτης) 133
the name of a medicament, presum. named after the town, or a famous inhabitant, of Diospolis Magna (Thebe) in Egypt: Cass. B 143. 23 [diaspoliten *c Rose*: diaspolites *p* diaboliten *p*]

diūrēticus (διουρητικός) 368, 428
diuretic: Theod. B 130. 1, &c. (adj.); 231. 2, &c. (noun). Cass. ML1 37. 8 id est *quae per urinam purgare nouerunt*. 111. 19 id est *urinale*; cf. 111. 13, 144. 11, 180. 7

dogma (δόγμα)
a precept, instruction, teaching: Cass. B pr. 1. 4, 3. 2, 158. 21

dosis (δόσις [τελεία])
a (full) dose of medicine: Cass. B 177. 4 (*perfecta dosis*)

drīmyphagia (δριμυφαγία)
an acrid diet: Cass. B 141. 3

drōpax (δρώπαξ)
a pitch-plaster: Theod. B 131. 19, 247. 12, *et saepe*. Cass. B 8. 14, 15, 19; 141. 3

ecdorīus (ἐκδόρ(ε)ιος) 356
that removes the skin: Cass. ML2 20. 18 *discoriatorius*

eclīgmatium (dimin. of *ἔκλειγμα*)
a medicine that is licked out of a spoon, linctus: Theod. B 55. 11, 197. 5, &c.

ectylōticus (*ἐκτυλωτικός*) 425, 429
that removes callosities: Cass. ML1 31. 7 id est *excallatorius*; 32. 1

elatērium (*ἐλατήριον*) 101, 110
the prepared juice of the squirting cucumber: Cels. B 5. 12. 1, &c. Scrib. MG1 38. 21, 102. 2, 106. 15. Cass. MG2 15. 14

elephantinē (*ἐλεφαντίνη*, sc. *ἔμπλαστος*)
a type of white plaster: Cels. MG2 5. 19. 24

embasis (*ἔμβασις*)
a bath, a bathing, esp. with hot water and oil: Cass. B 135. 17, 152. 22

embrocha; -ē (cf. *ἐμβροχή*) 80
a moist foment: Theod. (*-e*) B 102. 4. Cass. B 97. 18, 98. 20, 118. 18, 149. 18, 151. 4, 170. 5

embrochismus (**ἐμβροχισμός*)
an infusion, embrocation: Cass. ML2 97. 17 id est *olei infusio*

embrochō, -āre (cf. *ἐμβρέχω*) 80, 122
to treat with moist foments: Cass. 4. 11, 5. 2, 69. 9, 98. 18, 156. 1, 159. 4, 170. 9

empīricus (*ἐμπειρικός*)
an Empiricist, a doctor who relies on observation and practice rather than on scientific theory: Cels. MG1 pr. 27; pr. 19, 63, 64; 5. pr. 1

emplastrum (neut.), *-us* (fem.) (*ἔμπλαστρον*; but usu. *ἔμπλαστρος, ἡ*, said by Galen [13. 898] to be a later form of *ἔμπλαστος*) 52
a plaster: Cels. B 5. 17. 2, *et saepe*. Scrib. B 30. 9, 107. 23, *et saepe*; perh. fem. at t. 83. 5, 93. 20. Theod. B 30. 7, 229. 8, *et saepe*. Cass. B 22. 13, 139. 12, *et saepe*

emplastrum uiride Alexandrinum 133

emplastrus (fem.) 52

empyōticus (**ἐμπυωτικός*, cf. *ἐμπυητικός*) 428
that causes suppuration: Cass. MG2 35. 18

encathisma (*ἐγκάθισμα*)
a sitz-bath, sitting in medicated water: Theod. B 230. 16. Cass. ML1 117. 22 *insessio*; 192. 20 id est *in balneo*; 119. 4

enchrista (*ἔγχριστα*, sc. *φάρμακα*)
liniments: Cels. ML2 5. 24. 3 *liquida quae inlinuntur*

enchyma (*ἔγχυμα*)
an instillation: Cass. ML2 64. 11 id est *infusio*

encolpismus (*ἐγκολπισμός*)
a vaginal douche or clyster: Theod. B 229. 11, &c. Cass. B 190. 17

encolpizō, -āre (*ἐγκολπίζω*) 122
to inject into the vagina: Cass. ML2 191. 1 id est *in sinum mulieris infundes*

enema (*ἔνεμα*)
an injection, clyster: Theod. B 107. 10, 129. 7. Cass. ML1 132. 25 id est *iniectio*; 133. 4

enetēr (*ἐνετήρ*) 356
a clyster-syringe for administering an enema: Cass. ML1 127. 6 *tibia iniectoria*; 191. 5

enhaema (*ἔναιμα*, sc. *φάρμακα*)
types of plaster for staunching blood: Cels. MG2 5. 19. 1

enneapharmacum (*ἐννεαφάρμακον*)
a plaster containing nine ingredients: Cels. MG1 5. 19. 10, 5. 26. 29, 7. 26. 5G

epaphaeresis (*ἐπαφαίρεσις*)
a fresh taking away of blood: Cass. ML3 40. 16, 79. 8, 176. 6 *secunda (sanguinis) detractio*

Ephesium (**Ἐφέσιον*) 133
the name of a plaster: Cels. MG1 5. 19. 21, 5. 27. 3D

epispasticus (*ἐπισπαστικός*) 368, 380, 426
which draw material to themselves, of plasters: Cels. ML4 5. 18. 1; 19. 12 *quae extrahunt (et sim.*; cf. 4. 17. 2, 5. 26. 23G). Scrib. (*-icē*) MG2 t. 99. 19, 99. 21

epithema (*ἐπίθεμα*)
a foment or plaster for external application: Scrib. B 78. 23. Theod. B 164. 12, 245. 15, &c. Cass. MG1 185. 21, *et saepe*

epomphalium (*ἐπομφάλιον*)
a plaster applied to the region of the navel: Theod. B 196. 17, 197. 15

epūlōticus (*ἐπουλωτικός*) 118, 428
that promotes cicatrization: Cass. MG1 93. 15 id est *quod ualeat in cicatricem ducere*; 120. 7

euchrous (*εὔχροος* 'of good colour')
Tryphon's name for his green plaster: Scrib. MG2 93. 24

euchylus (*εὔχυλος*) 221
containing good juices: Cels. ML4 2. 19. 1 *boni suci*

euōdes (*εὐώδες* 'sweet-smelling')
a name of an eye-salve also called *Athenipp(i)um* and *diasmyrnes*: Cels. MG2 5. 24. 2. Scrib. MG2 24. 8

euporistus (*εὐπόριστος*)
easily provided, easy to find, of medicines and ingredients: Theod. MG1 4. 2, 76. 14; cf. 204. 10 (in euporiston nostro, *a ref. to his book*)

gargarisma (*γαργάρισμα* app. not otherwise attested)
a gargle: Theod. B 144. 2

gargarismatium (**γαργαρισμάτιον*)
a gargle: Theod. B 34. 8, 160. 15, &c.

gargarizō, -āre (*γαργαρίζω*) 122 n. 102
to gargle: Cels. B 6. 6. 35, *et saepe*. Scrib. B 18. 22, 33. 21, 38. 1, 104. 23. Cass. B 6. 4, 7. 4, 76. 15, 82. 15, 90. 5

gastrorrhaphia (*γαστρορραφία*)
the sewing-up of a belly wound: Scrib. MG2 95. 21

gymnasium (*γυμνάσιον*)
gymnastic exercise: Cass. ML2 141. 2 id est *exercitium*

gynaecīa (*γυναικεῖα, τά*)
remedies for female complaints: Theod. B 225. 3, 248. 4; cf. 168. 20 (in gynaeceon libello) (cf. Path.)

haemagōgus (*αἱμαγωγός*)
that draws off blood: Cass. ML2 192. 7 *menstrualem sanguinem prouocans*

hapsus (*ἄψος*)
a wad, or dressing, of wool: Cels. B 4. 13. 3, 7. 26. 5C

harma (*ἅρμα*)
the name of an eye-salve with four ingredients like a four-horse chariot: Scrib. MG2 25. 13

hedricus (*ἑδρικός*) 106, 355
for treating the anus: Cass. ML1 178. 9 quod Latini *sessorium* dicunt; 178. 22

hēliōsis (*ἡλίωσις*)
exposure to the sun: Cass. ML2 141. 2 *solatio*

hēpaticus (*ἡπατικός*)
for treating the liver: Cass. B 110. 17, &c.

hiera (*ἱερά*) 125
a name given to various antidotes: Scrib. B t. 51. 1, 52. 12, 76. 18 (*antidotos hiera Paccii Antiochi*). Theod. B 19. 8, 212.4-5 (*v. l.*), 221. 12, *et saepe*; 146. 13 = *picra*. Cass. MG1 176. 7 (*logadio appellato*), 176. 12 (*antidotum iera*)

holosidērus (*ὁλοσίδηρος*)
of solid iron: Theod. B 85. 2 (*spatula*)

hydragōgum (ὑδραγωγόν)
an enema that produces watery motions: Cass. B 183. 2, 10
hydrelaeum (ὑδρέλαιον)
water mixed with oil: Theod. B 197. 7. Cass. ML1 140. 15, 158. 25 id est *aqua calida et oleum*; 146. 1
hydromeli (ὑδρόμελι)
hydromel, a drink made from honey and water: Theod. B 149. 1, 156. 10
hydrōpicus (ὑδρωπικός) 369
for treating dropsy: Cass. B 187. 5
hygra (ὑγρά)
a liquid eye-salve: Scrib. ML3 27. 10, 23 *medicamentum liquidum* (4×)
hygrocollyrium (ὑγροκολλύριον)
a moist eye-salve: Cass. B 57. 7
hyperenchristus (ὑπερέγχριστος) 356
that is to be rubbed on, of a salve: Cass. ML2 59. 3 *superinunctorius*
hypnopoeus (ὑπνοποιός)
sleep-inducing: Cass. MG2 164. 4
hypnōticus (ὑπνωτικός) 368
causing sleepiness, narcotic: Theod. B 204. 5 (neut. pl. as noun)
ex hypobolēs (ἐξ ὑποβολῆς [opp. *κατ' ἐκτροπήν*])
by interposition, beneath (the eyelid): Cass. ML2 55. 12 *sub ciliis*
hypocapnistus (ὑποκάπνιστος) 356, 428
to be applied by means of fumigation: Cass. ML3 36. 15, 70. 13, 95. 9, 188. 16 *suffumigatorius*
hypochysis (ὑπόχυσις)
an outlet made for the discharge of morbid matter: Scrib. ML4 97. 17 *emissarium* (cf. Path.)
cata hyporrhysin (*καθ' ὑπόρρυσιν*; cf. Gal. 11. 128 *εἰς ὑπόρρυσιν*)
for the drainage of wounds: Cass. MG2 29. 4
hypothetus (ὑπόθετος) 356, 428
to be applied like a suppository, pessary: Cass. ML2 127. 9 *suppositorius*

iātraliptēs (ἰατραλείπτης)
a doctor who uses anointing and massage: Cels. B 1. 1. 1
ischaemus (ἴσχαιμος)
styptic, that stanches blood: Cass. ML2 61. 12, 90. 1 id est *retinens sanguinem*
ischiadicus (ἰσχιαδικός)
for the treatment of sciatica: Cass. B 139. 12
Isis (Ἶσις) 133
the name of a green plaster of Glycon: Scrib. MG2 94. 29

Lacōnicum (Λακωνικόν) 131, 133
a special apartment in baths, fitted as a vapour-room: Cels. B 2. 17. 1, 3. 21. 6
lēmniscus (ληνίσκος) 209, 380
a type of linen dressing: Cels. ML4 7. 28. 2 *in longitudinem implicitum linamentum*. Theod. B 205. 8. Cass. B 27. 15, 31. 17
leptospathium (*λεπτοσπάθιον) 80 n. 9
a thin scalpel, spatula: Cass. B 67. 1, 80. 9
leuca (λευκά, τά)
a group of plasters: Cels. MG2 5. 19. 23
lēxipyretus (ληξιπύρετος) 123
that serves to reduce fever: Scrib. MG2 50. 5, 17. Theod. B 108. 15 (neut. pl. as noun). Cass. ML1 150. 16 id est *ad febres*; 109. 2, 152. 8, &c.
līchēnicus (λειχηνικός) 274
for treating skin-eruptions: Cass. ML2 19. 7 id est *medens impetigines*
lipara (λιπαρά, sc. ἔμπλαστος)
an oily plaster: Cels. MG1 5. 19. 25, 5. 26. 35, 5. 27. 13B. Scrib. B ind. 14. 24, 27, 29; 100. 26; t. 101. 6, 7; t. 101. 15, 16 (*lipara rufa*)
(?) *logadios* (not in *ThLL* nor in LSJ)
see quot.: Cass. MG2 176. 8 iera

logadio appellato antidoto . . . dato [iera logadio *Rose* gerologodion *c* xeralegodion *p*]
logicus (λογικός)
of the Logical school of medicine; an adherent of this school: Theod. B 1. 9, 104. 12 (*in logico opere*, ref. to his own work). Cass. B pr. 1. 3, 115. 4
cata logon (κατὰ λόγον)
by a rational method: Cass. ML3 30. 15, 43. 15, 166. 8 *secundum rationem*
lysiponium (λυσιπόνιον)
a pain-killing unguent: Cass. B 84. 18

magdalia (μαγδαλιά (μαγδαλέα))
(earlier *ἀπομαγδαλιά*, orig. a lump of bread used for wiping the hands at table) a pill, tablet: Scrib. MG2 93. 10. Cass. B 162. 5
malacticus (μαλακτικός) 355, 356
that has the property of softening: Cass. ML1 189. 19 id est *mollitorius*; 190. 7
malagma (μάλαγμα)
an emollient, poultice: Cels. B 3. 21. 14, *et saepe*. Scrib. B 43. 26, 114. 16, *et saepe*. Theod. B 102. 16, &c. Cass. MG1 99. 19 (*malagma Amythaonis* a Graecis appellatum), 108. 13 (*malagma Amythaonis*)
malagma Amythaonis 131, 139
malaxō, -āre (μαλάσσω, aor. μαλάξαι) 125
to soften: Theod. B 84. 10. Cass. B 162. 9
marsupium (μαράσπιον; *-ύπιον Gloss.*)
a small bag: Cass. ML4 45. 2 *sacculus*
masōmenum (*μασώμενον) 80 n. 9, 356, 428
a remedy for toothache that is chewed: Cass. ML2 64. 5 *masticatorius*

massō, -āre (cf. μασάομαι) 125
to chew: Theod. B 41. 15, 56. 12, &c.
mastichō, -āre (μαστιχάω
to gnash the teeth) 122
to chew: Cass. B 64. 9, 109. 20
masūchās (μασουχᾶς, -ᾶ)
a compound remedy: Cass. B 102. 22
melanchlōrus (trochiscus) (μελάγκλωρος)
dark olive-coloured, of a troche: Theod. B 71. 5
melās (μέλας)
a type of trochiscus: Theod. B 203. 7
mēlinē (Vespasiani) (μηλίνη [ἔμπλαστρος]) 133
a sort of plaster: Cass. MG2 35. 23, 43. 12
mēlōtis (μηλωτίς a probe) 79 n. 7
a metal instrument used for scraping and cleaning: Cass. B 31. 23, 61. 18
memigmenum (μεμιγμένον)
an eye-salve of Euelpides: Cels. MG2 6. 6. 17, 18
mēningophylax (μηνιγγοφύλαξ) 188
a metal plate used to protect the meniges while surgery is performed: Cels. ML4 8. 3. 8 *membranae custos*
metasyncriticus (μετασυγκριτικός)
'that alters the state of the pores' [LSJ], a term of the Methodist school: Cass. MG1 16. 2 (id est *quae renouare ualeant temperiem corporis naturalem*), 120. 12, 138. 8
methodicus (μεθοδικός)
a Methodist physician: Theod. B 174. 15
methodus (μέθοδος)
the Method of the Methodist school of medicine: Cels. ML4 pr. 57 *uia*
mētrenchytēs (μητρεγχύτης)
a syringe for injections into the womb: Cass. MG1 191. 2, 4

Mithridātīus (*Μιθριδάτειος*)
(the antidote) of Mithridates: Scrib. B ind. 12. 13, t. 81.3, 90. 14

motus tiltus (*μοτὸς τιλτός*) 356
shredded lint, a lint pledget for dressing wounds: Cass. B 28. 18, 67. 2, &c.

Mūsā (trochiscus) (prob. Gk. gen. sg. (*τοῦ*) *Μούσα* (*τροχίσκος*); cf. Gal. 13. 832 *τὸ Μούσα ἰατρεῖον*) 131, 137, 138
a pastil named after Antonius Musa, the physician of Augustus: Theod. B 54. 13, 90. 14, 91.10. Cass. B 39. 7

nardinum (*νάρδινον*)
an eye-salve of the eye-doctor Zoilus: Cass. MG2 53. 15

nephrīticus (*νεφριτικός*)
for treating the kidneys: Cass. B 113. 3, 134. 5 (cf. Path.)

odontotrimma (*ὀδοντότριμμα*) 277
a toothpowder: Cass. ML2 66. 10 *dentifricium*

oenomeli (*οἰνόμελι*)
a mixture of honey and wine: Theod. B 129. 3, 211. 2, &c. Cass. MG2 130. 1, 153. 11

oesypocērōtum (dub.) (*οἰσυποκήρωτον*, not otherwise attested)
a cerate or salve made with the grease extracted from sheep's wool: Theod. B 47. 2, 87. 11, 210. 8, 242. 11, 12

orthocathēmenus (*ὀρθοκαθημένος*)
sitting upright, of a bed which can make an angle so that the patient is more sitting than lying: Theod. B 173. 15

ōticē (*ὠτική*) 355
a remedy for ear-infections: Cass. ML2 47. 8 *auricularis*

oxalmē (*ὀξάλμη*)
a mixture of vinegar and brine: Cass. ML2 30. 22 *acetum salsum*; 47. 16 *acetum salitum*

oxydercicus (*ὀξυδερκικός*)
that sharpens the vision: Cass. ML4 56. 17, 57. 16 *acuens uisum*; cf. 57.7

oxymel(i) (*ὀξύμελι*)
a mixture of vinegar and honey: Theod. B 57. 6, 174. 10, *et saepe*. Cass. B 180. 10, *et saepe*

oxyporium (*ὀξυπόριον*, sc. *φάρμακον*; cf. *ὀξύπορον*)
a carminative medicine, or one that promotes digestion: Theod. B 117. 16; 194. 11, 14

oxyrhodinum (*ὀξυρόδινον*)
a mixture of vinegar and rose-oil: Theod. B 22. 13, 16. Cass. ML3 4. 10, 69. 8, 149. 18, 170. 6 id est *acetum et rosaceum*; cf. 154. 15, 155. 21

ozaenicum (*ὀζαινικόν*) a preparation for the treatment of *ozaenae*: Cass. MG2 63. 10

paedicum (*παιδικόν*) 368
the name of an eye-salve: Cass. ML2 55. 9 id est *puerile*

paracentēsis (*παρακέντησις*)
tapping for dropsy, &c.: Theod. B 209. 7

parēgoricus (*παρηγορικός*) 426
soothing, of remedies: Theod. B 25. 3, 237. 9, *et saepe* (adj.); 228. 6 (noun)

paroptēsis (*παρόπτησις*)
half-roasting or -baking, a type of heat-treatment: Theod. B 146. 8, 190. 6, 247. 11

perichristus (*περίχριστος*)
for use as an ointment: Scrib. MG2 ind. 7. 5, 25. 17 (of *collyria*)

pessarium (*πεσσάριον*) 427
a pessary used for treating bladder and womb: Theod. B 229. 9, 237. 14, *et saepe*. Cass. B 118. 20; 190. 3, 7, 10; 192. 6

pessus (*πέσσος*) 427
a pessary used in treatment of the womb: Cels. MG2 5. 21. 1. Theod. B 214. 11, 234. 18, 243. 1. Cass. B 188. 14, &c.

phaeum (*φαιόν* grey)
the name of an eye-salve: Scrib. MG2 23. 9

pharmaceuticē (*φαρμακευτική*, sc. *τέχνη*) 430
medical treatment by means of medicaments: Cels. ML4 pr. 9 *medicamenta*

pharmacīa (*φαρμακεία*) 430
the use of drugs: Scrib. MG2 92. 14. Cass. MG2 48. 2

pharmacopōla (*φαρμακοπώλης*)
a druggist, apothecary: Scrib. B 92. 1

Philalēthūs (Gk gen. sg. *Φιλαλήθους*) 132
name of an eye-salve, presum. named from its inventor, who held the 'title' Philalethes: Cels. MG2 6. 6. 12, 23

Philōnīum (*Φιλώνειον*)
an antidote invented by Philo of Tarsus, the late-Hellenistic pharmacist: Cass. B 103. 13, 106. 14, 133. 20

phlebotomia (*φλεβοτομία*)
a way of letting blood, by cutting a vein: Cass. B 39. 20, *et saepe*

phlebotomō, -āre (*φλεβοτομέω*) 122, 125
to let blood by cutting a vein: Theod. B 36. 16, 233. 16, &c. Cass. B 3. 6, *et saepe*

phlebotomum; -us (*φλεβοτόμον*, sc. *σμιλίον*)
a lancet, a sharp instrument used for blood-letting and cutting: Theod. B 33. 3, 247. 15, *et saepe*. 76. 4, 102. 13, 220. 16 nom. sg. *-us*. Cass. B 15. 9, 30. 13, 82. 11, 94. 14, 162. 19

phlegmagōgus (*φλεγμαγωγός*) 406
that carries off phlegm: Cass. B 15. 13

phoenīcinē (*φοινικίνη*) 90, 134
the name of a plaster: Cass. B 87. 19 (*Galeni*), 93. 16, 119. 8

phoenīcium (*φοινίκιος* 'scarlet')
a scarlet cloth: Scrib. B 115. 2

physicum (*φυσικόν*)
a remedy, esp. magical: Theod. B 46. 17, 220. 7, &c. Cass. B 64. 18, 65. 7, 146. 16, 168. 8

physicus (*φυσικός*)
a doctor: Theod. B 80. 16, 116. 20, 149. 15

picra (*πικρά, ἡ*, sc. *ἀντίδοτος*) 125
(1) the name of an antidote of Paccius Antiochus: Scrib. MG2 52. 14.
(2) the name of an antidote of Galen: Theod. MG1 146. 14, 153. 5, 192. 10. Cass. ML2 100. 5 id est *amara*; 3. 12

piesma (*πίεσμα*)
the pulpy mass left after pressing, pomace (LSJ) ? *or* the juice pressed out (*ThLL*, s.v. 'expressio'): Cass. ML2 23. 10 id est *expressio*

pittacium (*πιττάκιον*)
a small piece of cloth, used as a compress: Cels. B 3. 10. 1

pleurīticus (*πλευριτικός*)
for treating pleurisy: Cass. B 163. 6 (cf. Path.)

Polyarchium (*πολυάρχιον*)
a plaster of Polyarchus: Theod. B 180. 17, 188. 15, 206. 16, 230. 16; cf. 211. 14 (*emplastrum*)

polyplocus (*πολύπλοκος*)
complex, containing many ingredients: Theod. B 144. 13

polytrētus (*πολύτρητος*)
pierced with many small holes: Cass. ML2 127. 6 [*eneter* (= *tibia*)] *multis cauernulis perforata*

polytrophus (*πολυτρόφος*) 425 n. 138
nutritious, of food: Theod. B 219. 3

propīnō, -āre (*προπίνω*, but not usual in this sense) 80 n. 9
to give to drink as a medicine: Cass. B 88. 12, 159. 7, 174. 16

psīlōthrum (*ψίλωθρον*)
a depilatory: Theod. B 11. 11, 247. 11. Cass. B 7. 15, 11. 10

psittacinum (*ψιττάκινος* 'of a parrot')
an eye-salve named from its (parrot-green?) colour: Scrib. MG2 24. 22

psittacium (*ψιττάκιον*, cf. *πιστάκιον* 'pistachio')
a plaster: Cass. B 25. 17, 35. 22

psōricum (*ψωρικόν*, sc. *φάρμακον*, *σμῆγμα*) 344, 368
a salve for treating itch: Cels. MG1 6. 6. 31A, 31B, 33. Scrib. MG1 1. 26. 7; 26. 10, 11. Cass. MG1 10. 14; 22. 5, 13

ptarmicus (*πταρμικός*) 356, 368, 428
that provokes sneezing: Theod. (neut. pl. as noun) B 114. 2, 243. 10. Cass. ML2 171. 6 id est *sternutatorius*

ptygma (*πτύγμα*)
a (folded) piece of lint soaked in liquid and applied externally, pledget: Theod. B 112. 1. Cass. ML3 163. 2 id est *pannus* (*ptygma* 9× : 9× *pannus*)

pyriāma (*πυρίαμα*)
an external application of heat: Cass. B 69. 18

pyrōticus (*πυρωτικός*)
that generates heat: Theod. B 110. 16

pyrrhum (*πυρρόν*)
a red eye-salve of Euelpides: Cels. MG2 6. 6. 20

pyxis (*πυξίς*)
a small box, for medicines, &c.: Scrib. B 24. 5, &c.

rhaptūsa (*ῥάπτουσα*, sc. *ἔμπλαστος*)
an agglutinating plaster: Cels. MG2 5. 19. 6, 5. 26. 23F

rhīnenchytēs (*ῥινεγχύτης*)
an instrument for introducing fluids into the nose: Scrib. ML4 18. 8 *cornu*

rhīnenchytum (*ῥινέγχυτον*)
an injection for the nose: Cass. ML2 130. 8 *apophlegmatismus qui naribus infunditur*

rhizagra (*ῥιζάγρα*)
a type of forceps for extracting the roots of teeth: Cels. MG2 7. 12. 1F

rhodomeli (*ῥοδόμελι*)
rose-honey: Theod. B 52. 9. Cass. B 153. 2

rhypōdēs (*ῥυπώδης* 'dirty')
a type of plaster: Cels. MG1 5. 19. 15; 5. 26. 23G, 27C; 5. 28. 2E; 6. 18. 7

scarīphō, -āre (*σκαριφάομαι* 'scratch in outline') 122, 125, 302
to scarify: Scrib. B 112. 22 (see app. crit.). Theod. B 41. 3, 151. 14, 209. 5. Cass. B 35. 1, *et saepe*

sēpta (*σηπτά*, sc. *φάρμακα*)
corrosive, putrefactive medicaments, which eat away flesh: Cels. ML4 5. 19. 18, 7. 21. 1B *exedentia*

sēpticus (*σηπτικός*) 355, 368
putrefactive, septic: Cass. ML2 20. 18 id est *putrificatorius*

sināpismus (*σιναπισμός*)
a mustard-plaster: Theod. B 115. 1, 247. 12, &c. Cass. B 9. 14, 141. 2

sīphō(n) (*σίφων*) 110
a drinking-straw: Cels. B 1. 8. 3 (cf. 1. 8. 3 *tenuis fistula*)

smaragdinum (*σμαράγδινον*)
an emerald-green plaster: Cels. MG2 5. 19. 4

smēgma (*σμῆγμα*)
an unguent, ointment: Cass. B 177. 19

smīlium (*σμίλιον* a scalpel)
an eye-salve: Cels. MG1 6. 6. 18, 6. 6. 25B, 28

spatha (*σπάθη*)
an instrument with a flat blade: Cels. B 8. 15. 4, 7. 10, 7. 12. 6. Scrib. B 30. 11, 82. 23. Cass. B 30. 22

spathomēla (*σπαθομήλη*)
a broad flat probe: Theod. B 38. 12. 45. 8. 82. 18

sphaerium (*σφαιρίον*)
an eye-salve of Euelpides: Cels. MG2 6. 6. 21, 23 bis, 25, 26, 28

sphrāgis (Polyīdī) (*σφραγίς* 'seal') 131–2, 138
a proprietary name for a pastil, named after Polyïdus (?): Cels. MG1 5. 20. 2, 5. 26. 23F, 6. 7. 3B

splēnarium (*σπληνάριον*)
a linen pad laid on a wound: Cass. B 29. 16 [plenarium *Rose*]

splēnicum (*σπληνικός*, not attested in this sense) 368, 429
a plaster for treating the spleen: Cass. B 109. 2

splēnīticus (**σπληνιτικός*) 80 n. 9, 429
for treating the spleen: Cass. B 108. 3 (cf. Path.)

spodiacum (*σποδιακόν*)
an eye-salve: Scrib. ML4 23. 17, 18 *cinereum*

spongia (*σπογγιά*)
a sponge, put to various uses: Cels. B 4. 11. 6, 5. 28. 12N, *et saepe*. Scrib. B 21. 13, 94. 21, &c. Theod. B 22. 5, 245. 9, *et saepe*. Cass. B 35. 6, 164. 18, *et saepe*

stactum (*στακτόν*)
eye-drops: Scrib. MG2 26. 17

stalticus (*σταλτικός*) 219, 240, 355, 427
capable of stanching, checking: Theod. B 245. 13, 15 (adj.); 188. 11 (noun). Cass. ML3 *constrictorius* 69. 14, 121. 22 (*cucurbita staltica*); cf. 174. 14

staticon (Hermolaon?) (*στατικόν*, sc. *κολλύριον* (*Ἑρμολάου?*))
an astringent: Cass. MG2 52. 6 [Hermolaou *Rose*]

stomaticus (*στοματικός*) 355
(1) for treating the mouth: Cass. ML2 76. 21 id est *ori conueniens*.
(2) (*stomatice*) a remedy for treating the mouth: Scrib. B 37. 12, 17. Cass. ML2 79. 14 *confectio oralis*

stratiōticum (collyrium) (*στρατιωτικόν*) 368
a kind of eye-salve: Scrib. B 26. 13

strongylotomia (**στρογγυλοτομία*)
a circular incision: Cass. ML2 27. 14 *incisura rotunda*

stypticus (*στυπτικός*) 368, 426, 429
styptic, astringent: Theod. B 11. 5. 245. 2, *et saepe* (adj.). 228. 4, &c. (noun). Cass. B 88. 2, &c.

sycōticē (**συκωτική*) 80 n. 9
a medicine for treating anal lesions: Theod. MG2 16. 1. Cass. MG2 178. 22

sympasma (*σύμπασμα*)
a powder for sprinkling over the body: Cass. B 8. 20, 187. 4, 7, &c.

sympepticus (*συμπεπτικός*) 355
promoting digestion, of food or of fever: Cass. ML2 97. 6 id est *condigestorius*; cf. 143. 22

syncriticus (*συγκριτικός*)
see quot.: Cass. ML2 36. 4 *electuario syncritico* ((meta)syncritico *Rose*), id est *quod ualeat occultam collectionem rumpere*

syringiacus (*συριγγιακός*)
for treating fistulae or ulcers: Cass. B 32. 1

syringotomum (*συριγγοτόμον*)
a sharp surgical instrument, for cutting fistulae: Cass. MG2 30. 13

telīa (*τελεία*, sc. *ἀντίδοτος*, app. not otherwise attested)
an antidote of Marcianus: Scrib. ML2 84. 8 id est *perfecta*

(4) Other Greek words

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