

NOTES AND REFERENCES

Two collections of articles providing a variety of data and viewpoints on causative constructions are Shibatani (1976a) and Xolodovič (1969). The introduction by Shibatani (1976b) in the former is a useful introduction to the whole area.

The general characterization of causative constructions given here is based on Nedjalkov & Sil'nickij (1969a). Discussion and exemplification of the morphological typological parameters is given by Nedjalkov & Sil'nickij (1969b). The Japanese examples are from Shibatani (1976b, 17). The Nivkh example is from Nedjalkov *et al.* (1969, 183).

The formal syntactic approach to valency change in causative constructions is introduced in Comrie (1975), and elaborated in Comrie (1976); many of the examples cited are from these sources. The importance of the semantic approach has become particularly clear to me through discussion with Peter Cole (University of Illinois at Urbana-Champaign); for Hindi data, see also Saksena (1980), and for more general information Shibatani (1976b). An earlier attempt to synthesize the two approaches, with rather different emphases, is Comrie (1985). The Songhai examples are from Shopen & Konaré (1970). The Hungarian examples are from Hetzron (1976, 394), though not all speakers accept (9). The Kannada examples are from Peter Cole (University of Illinois at Urbana-Champaign) and S. N. Sridhar (State University of New York at Stony Brook); for some discussion, see Sridhar (1976, 137-40) and Cole & Sridhar (1977), the latter arguing in particular against a passive analysis for the instrumental causee. The Wolof examples are from Nussbaum *et al.* (1970, 390-1).

More recent work on causative constructions has tended to concentrate on their formal properties; see, for instance, Baker (1988, 147-228) and references cited there.

9

ANIMACY

9.1 INTRODUCTION: THE NATURE OF ANIMACY

The present chapter, the last of those concerned with synchronic study of language universals and typology, is somewhat different from its predecessors, which were concerned for the most part with the examination of some particular construction type or formal phenomenon across a range of languages. In this chapter, the unifying theme is rather an extra-linguistic conceptual property, namely animacy, and we will be drawing together a range of formally quite different ways in which animacy manifests itself in the structure of different languages. Thus, whereas in earlier chapters we essentially worked from linguistic form towards generalizations, some of which have conceptual relevance, the method of the present chapter is largely the reverse. However, from another viewpoint, the material of the present chapter does fit very closely with that of preceding chapters: we argue that the reason why animacy is of linguistic relevance is because essentially the same kinds of conceptual distinction are found to be of structural relevance across a wide range of languages. Even though our initial intuitions about animacy may be non-linguistic – and this is an advantage, as they can be tested independently of linguistic reflections – consideration of a wide range of languages still provides a necessary underpinning to initial speculations or generalizations derived from the study of only a small range of languages.

As an initial characterization of animacy, we define it as a hierarchy whose main components, from highest to lowest degree of animacy, are: human > animal > inanimate, although, as we shall see, some languages in fact make use of less fine distinctions (e.g. human versus non-human, animate versus inanimate), or of finer distinctions. (Throughout, we use the term animal in its ordinary-language, as opposed to biological, sense, excluding humans.) Although most of our data will be from synchronic analysis of various languages, there is also comparable data from dia-

chronic linguistics of animacy being relevant in language change, as we will note in several places in passing. This is particularly important in that animacy can be a relevant parameter in language change even where it is not particularly salient in the synchronic state of the language prior to the change, thus suggesting that animacy is a universal conceptual category that exists independently of its realization in any particular language. The discussion of Slavonic data below will be particularly relevant here, since the sudden emergence of animacy as a major parameter determining the case marking of direct objects is a radical innovation within this branch of Indo-European.

Although we use animacy as the cover-term for the material discussed in this chapter, and although the parameter with which we are concerned is clearly very closely connected with animacy in its literal sense, some of the particular examples discussed will require a slight extension of our notion of animacy in the narrow sense. In chapter 6, we introduced one structural area where animacy is relevant in many languages, namely case marking of A and P in transitive constructions, noting in particular that the existence of a separate accusative case frequently correlates with higher degree of animacy. However, some of the specific distinctions require us to go beyond this. For instance, it is frequent for first and second person pronouns to be treated as more 'animate' by this case marking criterion, although in a literal sense the first person pronoun *I* is no more animate than the common noun phrase *the author of this book*. Likewise, some languages treat proper names as being 'higher in animacy' than common noun phrases, although again strictly speaking there is no difference in literal animacy between *William Shakespeare* and *the author of 'Hamlet'*. For the body of the present chapter, we will simply leave this problem unresolved, to return to it in section 9.4, where we will offer some suggestions for a more accurate characterization of the hierarchy involved. To look ahead somewhat, we will suggest that in fact several different hierarchies are probably involved, although there is so much overlap between them that the similarities far outweigh the dissimilarities.

As has already been suggested in our discussion in chapter 6, for case marking, and indeed many other linguistic reflections of animacy, animacy interacts with other parameters, rather than being relevant entirely on its own, in many languages, so that a single phenomenon in a given language (e.g. the use of the postposition *ko* in Hindi) may require reference to both animacy and, for instance, definiteness, or topicality. This is one of the areas to which we will return in section 9.4. In section 3.1, we introduced the notion of control in our discussion of semantic roles. As indicated there, it is important to distinguish between animacy, which is an inherent property of noun phrases, and control, which is a relation contracted be-

tween a noun phrase and its predicate. In the present chapter we are concerned solely with animacy. Although there are some instances of interaction between animacy and control in formal properties of language – for instance, in Tsova-Tush (examples (1)–(2) of chapter 3), an ergative intransitive subject is possible only when that noun phrase is high in animacy (first or second person) and high in control – these seem to be relatively rare, and are not directly relevant to the discussion of the present chapter.

Another parameter which can, however, be relevant in the more general consideration of animacy and to which we will work in section 9.4 is that of semantic roles which are fixed as between noun phrase and predicate, as opposed to those like control which are subject to a continuum of interpretation. Thus we find many languages, some of them documented below, where the operation of verb agreement, or the interpretation of potentially ambiguous sentences, is determined by the degree of animacy normally assigned to a given grammatical relation, so that agreement is taken to be preferentially with an indirect object rather than with a direct object, preferentially with a benefactive rather than with an indirect object. For the moment we simply register the existence of such cases.

Finally, before turning to consideration of the data themselves, we should note that the correlation between the linguistic phenomena we are to discuss and the concept of animacy is very close, much closer than with many universal tendencies, but still it is not an absolute universal, so we must not be surprised to find individual examples in individual languages that go against the general trend. In many languages, even where a distinction correlates highly with animacy, there is random distribution of some items between the more animate and less animate classes, as in the distribution of inanimate nouns in Latin among masculine, feminine (the typically animate classes), and neuter (almost exclusively inanimate). We may find splits within noun phrases of a given degree of animacy that clearly are not themselves determined by animacy, as when, in Warungu, the special accusative case may be used optionally with personal proper names and kin terms, but only if they end in a vowel. And finally, we will find straightforward exceptions, where an item behaves quite unlike noun phrases adjacent to it in the hierarchy. In English, the second person pronoun *you* has no nominative/accusative distinction, though this distinction is characteristic of high animacy noun phrases (cf. *I – me*), and is found lower down the hierarchy, with third person pronouns (*he – him*, and even *they – them*, which can have inanimate reference); having distinct singular and plural forms is again a characteristic of noun phrases with high animacy in languages that have a split, but English *you* is again exceptional, although even inanimate nouns have the distinction.

One parameter which, in this regard, participates in a rather ambivalent interaction with animacy is number. We are not prepared to make any generalization as to whether number raises or lowers the animacy of a noun phrase, even in the wider sense of section 9.4, and certainly there is a fair amount of evidence where number is relevant in either direction, suggesting that over all it is randomly, rather than significantly, relevant. Within Slavonic languages, for instance, one finds some languages, like Russian, where plurality increases the likelihood of a noun phrase taking the special animate accusative ending (cf. nominative-accusative singular *mat* 'mother', nominative plural *materi*, accusative plural *materej*), but also languages like Polish, where plurality decreases the likelihood of a noun phrase taking the special animate accusative ending (cf. nominative singular *pies* 'dog', accusative singular *psa*, nominative-accusative plural *psy*).

9.2 PHENOMENA CONTROLLED BY ANIMACY

In morphology – whether one is talking literally about the actual forms of noun phrases, or including more generally alternative forms that can be used in a given construction – animacy seems to be one of the main parameters determining a split in the morphological system: examples will be cited in the detailed discussion below. Since in many instances the particular oppositions found seem to have no inherent connection with animacy, for example in that there is no reason why in Finnish *hän* should be the pronoun to refer to humans and *se* the pronoun to refer to non-humans, rather than vice versa, we might refer to these as arbitrary structural correlations of animacy. The fact that such arbitrary correlations are so widespread across languages is good testimony to the salience of animacy as a conceptual distinction, forming the basis of classifications even where there is no reason, other than its general salience, why it should.

With this we may contrast instances of splits where there does seem to be some motivation for having animacy as the factor controlling the split. For instance, in chapter 6 we saw that there is a relatively small number of recurrent parameters that control split case marking of subjects and direct objects, especially the latter, and that animacy is one of these; moreover, we provided an explanation, involving the nature of animacy, as to why the split should occur precisely the way round that it does. It is not just that animacy determines whether or not there is a special accusative case, but rather that a high degree of animacy determines that there will be a separate accusative case, never that this opposition will be lacking. In the detailed discussion of this section, we will examine a number of areas where animacy is relevant either as an arbitrary controller or as a motivated controller of a range of distinctions. The classification at the present time

is necessarily provisional, since it may well be that with some example that at present seems arbitrary, it will in due course be possible to provide an explanation as to why the distribution should be the way that it is rather than the reverse. There are also some instances where a motivated correlation may be expected, but where we lack sufficient cross-linguistic material to justify this suspicion, to show that we do not have an accidental apparent motivation. One example would be the alternation between the dative and locative cases to express the P in Yidiny in the antipassive construction, where the dative is used with noun phrases of higher animacy, which may correlate with the greater tendency for animate noun phrases to stand in the dative (the case of recipients) than in the locative (the case of locations) in general. For the moment, we leave this open.

Since we have already introduced case marking, both in this chapter and earlier in chapter 6, we may briefly dispose of our discussion of it in this chapter before passing on to other areas. Some of the clearest evidence comes from Australian languages, especially with case marking of P of the transitive construction, where we find languages that have separate accusatives only for first and second person pronouns (e.g. Dyirbal), only for pronouns and proper names and kin terms (e.g. Gumbainggir), only for human noun phrases (e.g. Arabana), only for animate noun phrases (e.g. Thargari), as well as languages that have no accusative (e.g. Yalarnnga) and accusative for all Ps (e.g. Wanggumara). But although the Australian data are so clear, it should not be forgotten that languages in other parts of the world provide equally impressive evidence in favour of some or all of these cut-off points, as well as continua of case marking correlating with degrees of animacy. In Slavonic languages, for instance, either the distinction between human and non-human or that between animate and inanimate is relevant to the existence or not of a special, genitive-like accusative (often in conjunction with other parameters, some of which, like number and declension class, are not directly linked to the animacy hierarchy). In Hindi, the use or non-use of the postposition *ko* correlates with the degree of animacy (and also of definiteness), though with no clear cut-off point between human and non-human.

Continuing with noun phrase morphology, another opposition that correlates closely with animacy is the existence versus non-existence of a number distinction, the split invariably being that noun phrases higher in animacy have the distinction while those lower in animacy do not. This seems therefore to be a motivated correlation, perhaps reflecting greater human concern with entities of higher animacy as individuals, therefore countable, while entities of lower animacy are more readily perceived as an indeterminate mass. In Chukchi, personal pronouns, proper names, and certain kin terms have an obligatory singular-plural number opposition

(the plural of a proper name has the meaning 'X and his associates'); non-human nouns have no number distinction in the oblique cases (i.e. other than the absolutive, where all noun phrases distinguish singular and plural); other human noun phrases usually show no number distinction in the oblique cases, but they may do so optionally, i.e. they are intermediate between the first and second classes mentioned. In Mandarin Chinese, the personal pronouns necessarily show an opposition of number (e.g. *wǒ* 'I', *wǒmen* 'we', *tā* 'he, she', *tāmen* 'they'), while most other noun phrases do not, although some human noun phrases may (e.g. *péngyou* 'friend(s)', *péngyoumen* 'friends'). In many Austronesian languages, pronouns show number distinctions regularly, often with distinct duals (and occasionally trials) in addition to singular versus plural, whereas most noun phrases do not; within the noun phrases, a small number usually do show number, typically kin terms, and rarely if ever non-human nouns.

Although we are, for the moment, concerned primarily with noun phrase morphology, in connection with number distinction we may note in passing that a number of languages use singular verbs in agreement with plural noun phrases that are low in animacy, but plural agreement when the noun phrase is of high animacy, e.g. Ancient Greek, Persian, Georgian.

Several other specific case choices in languages are determined by the animacy hierarchy, although here it is not always obvious that any non-arbitrary correlation is involved. A particularly interesting set of oppositions is found in Chukchi, where there are three possible morphological encodings for the A of a transitive verb. The A form is always distinct from that for S or P, so the case marking system is consistently ergative-absolutive. With personal pronouns, there is a separate ergative case distinct from all other case forms, with the ending *-nan*, e.g. *γəm-nan* 'I'. For proper names and certain kin terms obligatorily, and for other human nouns optionally (and rarely, especially in the singular), the locative is used, with the ending *-ne* in the singular and *-rək* in the plural (where *-r* is the plural ending and *-k* the locative), e.g. *rintə-ne* 'Rintyn'. All other noun phrases use the instrumental, with the ending *-(t)e*, e.g. *rikuke-te* 'ermine'. It will be noted that the distinction here follows exactly the same partition as number marking, mentioned above.

In Chukchi, this choice of different forms has rigid cut-off points, apart from the possibility of using either system with common human nouns. In Yidiny, however, one finds rather a continuum in the choice between dative and locative as the case to encode the P in the antipassive construction. Noun phrases with human reference must stand in the dative, but for all non-human noun phrases either the dative or the locative is possible, though with preference for the dative with noun phrases of higher animacy, and strong preference for the locative with noun phrases of very low animacy (e.g. stones).

More generally, in noun phrase morphology, one often finds different declension types, or different choices of items, correlating with degree of animacy. We have already noted that Finnish has different pronouns for human and non-human referents in the third person, human *hän* 'he, she', non-human *se* 'it', plural human *he*, non-human *ne* 'they'. In fact, only the human forms are genuinely personal pronouns, the non-human forms being demonstratives, a pattern found quite frequently across languages. English, of course, has a similar distinction, though with the added dimension of a gender distinction within human, in the singular *he, she, it* distinction. English likewise distinguishes human *who* from non-human *what* as interrogative pronouns, while Russian distinguishes animate *кто* (which thus includes animals) from inanimate *что*. In Yidiny, as elsewhere in this language, we find a continuum of choice between two forms rather than an absolute cut-off point: with humans, one set of demonstratives, e.g. *ɲun'dʰu-* 'that', must be used, while for other noun phrases one may use either set, e.g. *ɲun'dʰu-* or *ɲungu-* 'that', although the former is preferred the higher the degree of animacy of the noun phrase in question.

Turning now from noun phrase morphology to verb agreement, we find a common, motivated pattern across a wide range of languages: agreement is often carried out in such a way that the verb agrees with noun phrases higher in animacy, and fails to agree with those lower in animacy, even where this overrides, in particular cases or in general, grammatical relations, the usual determiners of agreement cross-linguistically. Above, we have already mentioned the failure of plural inanimate noun phrases to trigger plural verb agreement in a number of languages, and the present discussion can be considered an extension, albeit a considerable extension, of this observation. We return, in section 9.4, to possible explanations for this particular distribution.

In Tangut, verb agreement is optional, and can only be with a first or second person noun phrase. Where a transitive construction contains one first or second person argument only, then the agreement is with this noun phrase, irrespective of its grammatical relation. Grammatical relations become relevant only when there are two noun phrases of the first or second person, in which case agreement is in fact with the P rather than with the A. This illustrates one of the simplest kinds of system where hierarchical relation among noun phrases is more important than grammatical relations.

A more restricted, but equally clear, example is found in Chukchi. In Chukchi, in most tense-aspects, a transitive verb agrees with its A and P (which latter in Chukchi includes the patient, rather than the recipient, of a ditransitive verb). With ditransitive verbs, however, the situation is slightly more complex than this, but only with the one verb *γəl-* 'give'. If

both patient and recipient are in the third person, then the usual P agreement rule with the patient applies, as in *tə-yəl-γʔan əɾək* 'I gave it to them', where the verb shows first person singular A and third person singular P agreement, and the dative pronoun is third person plural, or *tə-yəl-nat əɾək* 'I gave them to him', where the verb agreement shows a first person singular A and a third person plural P, and the dative pronoun is third person singular. If, however, the recipient is first or second, then P agreement must be with that recipient rather than with the patient, as in *na-yəl-γəm* 'they gave it/them to me' (P agreement as with first person singular), *tə-yəl-tək* 'I gave it/them to you-all' (P agreement as with second person plural). Two further points should be noted in connection with these Chukchi examples. First, although agreement is with the recipient if first or second person, the appropriate noun phrase, if expressed, remains in the dative case, rather than being in the absolutive, the usual case for a P – the verb *yəl-* seems to be the only verb that allows P agreement with a noun phrase not in the absolutive. Secondly, in Chukchi it is impossible to have first or second person patients with the verb *yəl-*, so the question of what to do when both patient and recipient are non-third person does not arise.

In the examples of verb agreement looked at so far, the hierarchy of animacy (actually, non-third person versus third person) has overridden grammatical relations. Some languages, however, manage to retain both a rule stating agreement in terms of grammatical relations and have agreement preferentially with the noun phrase of higher animacy, by using voice distinctions to bring the appropriate noun phrase into a position where it can trigger agreement. In Chukchi, for instance, verb agreement in the so-called Present-II tense is on an ergative-absolutive basis, agreement being with S or P only. However, agreement is also with the highest of A or P on the person hierarchy 1, 2 > 3. When A is in fact higher than P, this necessitates application of the antipassive, with the prefix *ine-*, so that agreement can be with a derived S. Compare *nə-lʔu-muri* 'he/they see(s) us' with *n-ine-lʔu-muri* 'we see them', with first person plural agreement suffix *-muri* in both cases.

Related to the above-mentioned phenomenon of using voice so that a noun phrase can trigger agreement without violating correlations between agreement and grammatical relations is a more general phenomenon, found in some languages, whereby voice must be used to bring a noun phrase higher in animacy into subject position – irrespective of agreement possibilities. A neat illustration of this is provided by Southern Tiwa, again in the distinction between non-third and third person. In a transitive construction, if the A is first or second person, and thus higher than or equal to the P in animacy, the active construction must be used, in which

case the initial agreement prefix on the verb will encode both A and P (in a fused form):

Bey -mu -ban. (1)
2SINGULAR-ISINGULAR see PAST
'You saw me.'

If, however, the P is higher in animacy than the A, i.e. the A is third person and the P is first or second person, then the P must be made subject by the application of passive; since the construction is now passive, agreement is with the S (original P) only:

Seuanide-ba te -mu -che -ban. (2)
man INSTRUMENTAL ISINGULAR see PASSIVE PAST
'The man saw me', literally: 'I was seen by the man.'

Where both A and P are third person, either active or passive may be used. Although the voice alternation does have repercussions for agreement, in that there is no agreement with the A in the passive construction, there is clearly no sense in which agreement can be seen as the sole motivation for the alternation, given that in the active there is agreement with both A and P in the fused prefix.

In Navaho, the passive voice, with the prefix *bi-* rather than *yi-*, is used whenever the P outranks the A in animacy, and is optional when they are of equal animacy; only the *yi-* form can be used when the A is of greater animacy than the P:

Diné 'ashkii y-oo'í. (3)
man boy see

'Ashkii diné b-oo'í. (4)
boy man see
'The man sees the boy.'

At'ééd nimasi yi-diíkid. (5)
girl potato burnt
'The girl burnt the potato.'

At'ééd nimasi bi-diíkid. (6)
girl potato burnt
'The potato burnt the girl.'

Most of the clear examples of verb agreement conditioned by animacy given above in fact involved the distinction between non-third and third

persons, rather than animacy in the strict sense, except for the observation that plural verb agreement occurs only with animate noun phrases in some languages. Just to demonstrate that other animacy distinctions can be involved in verb agreement, we may cite some data on verb object agreement in the ergative construction in Eshtehardi. The agreement system distinguishes two genders (masculine, feminine) and two numbers (singular, plural), with masculine and singular being unmarked. At least for the older generation of speakers, the gender distinction is quite consistently maintained where the direct object is animate, but is not maintained elsewhere. In the following examples, the object noun *asb* 'horse' is masculine, while *mādiuna* 'mare' and *siva* 'apple' are feminine:

Asb arāši -eš. (7)
horse galloped-MASCULINE he-ERGATIVE
'He galloped a horse.'

Mādiuna arāšia -š. (8)
mare galloped-FEMININE he-ERGATIVE
'He galloped a mare.'

Hasan-e siva -š *bexārd.* (9)
Hasan ERGATIVE apple he-ERGATIVE ate-MASCULINE
'Hasan ate an apple.'

As regards number, agreement is again found only with animate direct objects, but only sporadically even there. Diachronically, this represents the interesting phenomenon of the loss of agreement being conditioned by the animacy hierarchy.

9.3 CONCEPTUAL ANIMACY DISTINCTIONS

So far, we have looked at various linguistic manifestations of animacy, and now it is time, true to our aim of finding correlations between linguistic and extra-linguistic parameters, to see what generalizations these linguistic data give about the nature of animacy. On the one hand, since we have already observed that there are instances where we have arbitrary exceptions to structural animacy correlations (as with English *you*), we shall disregard such exceptions from consideration in setting up the animacy hierarchy – though clearly, if a putative exception were to recur in a sufficiently large number of unrelated languages, this would suggest that it is not an exception and would cause us to modify the hierarchy accordingly. On the other hand, in order for a distinction on the animacy hierarchy to be made, it must be shown to be relevant in at least one (and preferably

more than one) language, in addition to being conceptually valid. Distinctions which have been illustrated in the immediately preceding discussion of section 9.2 will not be illustrated again, though examples will be cited for other distinctions, especially finer distinctions within some of these classes.

One of the clearest distinctions, illustrated several times above and in chapter 6, is that between, on the one hand, first and second person (speech act participants), and third person, and this will turn out to be significant in section 9.4: although the speech act participants are necessarily high in animacy, because human, they are no more animate, in the literal sense, than are other noun phrases with human reference, yet their behaviour is *differentiated*. Another similar distinction that is found in many languages, and which is even more difficult to relate directly to animacy in its literal sense, is that between all pronouns on the one hand and non-pronouns on the other. This means, in effect, that a pronoun whose referent is low in animacy is actually placed higher than a noun phrase whose referent is high in animacy. One illustration of this was given above for Chukchi, where one class of noun phrases consists of all pronouns, irrespective of animacy in the literal sense. An even clearer example is provided by some Slavonic languages, in particular Russian, in which the special genitive-like accusative is used for all pronouns, including the third person singular neuter pronoun, whose referent will hardly ever be animate, and which replaces a neuter singular noun phrase which can never take the genitive-like accusative, cf. *ja otkryl okno* (accusative = nominative) 'I opened the window' and *ja otkryl ego* (accusative = genitive) 'I opened it'.

This last example, with the distinction being between pronouns and non-pronouns, also illustrates another point that will become relevant in section 9.4: the hierarchy, even as established in purely linguistic terms, is not a single linear parameter on which all individual noun phrases can be arranged. The pronoun/non-pronoun opposition in fact cross-cuts the human/non-human or animate/inanimate opposition.

A common linguistic reflection of animacy is a distinction between human and non-human, already illustrated several times above. In addition to this straightforward dichotomy, one also finds many languages where there is a division within human noun phrases (apart from any possible distinction involving pronouns). One common way for this distinction to work is for proper names and/or (certain) kin terms to be treated as higher in animacy than all other human nouns: individual examples were cited in section 9.2. Again, the referents of such noun phrases are not inherently more animate, in the literal sense, than those of common nouns, indeed frequently the same human being can be referred to either by a

proper name/kin term or by a common noun. Chukchi actually makes an even finer distinction here: only kin terms expressing kinship relations to the speaker, and then only those referring to kin older than the speaker, are treated as being higher in animacy. In some instances with proper names, we again find cross-cutting of different features that are relevant in this area, so that, for instance, proper names referring to animals may raise such noun phrases on the hierarchy to be equal to or even higher than common nouns referring to humans. In Chukchi, proper names of reindeer behave like proper names of people, i.e. obligatorily show a number distinction and have a locative-like ergative, even though common nouns referring to humans rarely have these properties and common nouns referring to reindeer never do.

Another parameter which is sometimes found discriminating among human noun phrases is sex, the clearest examples known to us being from Slavonic languages, where male nouns often have the special genitive-like accusative where female nouns do not. In some instances, this has a functional explanation independent of the hierarchy, because in the singular most feminine nouns have an inherited accusative distinct from the nominative, and therefore do not require the separate genitive-like form. In the plural, however, feminine nominative and accusative have been identical since Proto-Slavonic, so here this explanation does not hold. Yet still one finds in, for instance, Polish that the genitive-like accusative is found for male human plural noun phrases, e.g. *widziałem chłopców* 'I saw the boys', whereas female human plural noun phrases have the same form as the nominative, e.g. *widziałem dziewczyny* 'I saw the girls'. In looking back to the emergence of the genitive-like accusative in Slavonic languages, it seems that an even more rigorous socially-based distinction existed in the early period, namely that the new form was used only for male, adult, freeborn, healthy humans, i.e. not for women, children, slaves, or cripples. While the treatment of children as lower in animacy than adults is found in several languages, this particularly restrictive reflection of high animacy is not one that we find widespread. (In early Slavonic, the names of supernatural beings were also treated as non-human, for whatever reason.)

Above, we also gave examples of the straightforward distinction between animate and inanimate noun phrases, but within the over-all class of animals we again find that some languages make finer distinctions. In some instances, these distinctions seem to be clear-cut, as in Ritharngu, where the special accusative pronominal affix is used for humans and higher animals, such as dogs and kangaroos, while this affix is not used for lower animals, such as insects and fish, and inanimates. In Yidiny, as discussed above, instead of there being a clear-cut distinction with animals, there is rather a continuum, with higher animals being treated as animate more

often than lower animals, although without any absolute restriction against the more or less animate alternative with any particular animals. With many pairs of animals the distinction is clear, as between most mammals and insects, although for animals that are conceptually close in terms of animacy it might be difficult or impossible to rank them on the hierarchy. Although some animal names occur frequently in lists of higher animals in terms of animacy, such as *dog*, we are not aware of any detailed cross-language study that has been done on this subject.

Finally, we come to inanimates. Most languages seem to leave this as an undifferentiated class, or, if there is any internal distinction, these distinctions tend to be arbitrary (as far as we can see), as in the distribution of inanimate nouns among the three genders in the older Indo-European languages. However, there is one language where a very clear hierarchy of inanimate noun phrases has been found, and that is Navaho. In Navaho, inanimate entities that are capable of spontaneous motion are classified higher than other inanimates, the former including, for instance, wind, rain, running water, lightning. As noted above, when two noun phrases are almost equal in animacy, either the *yi-* or the *bi-* prefix verb form can be used; if we take the example 'the lightning killed the horse', then 'lightning' and 'horse' are considered sufficiently close to permit both variants, whereas with 'old age killed my horse', only the *bi-* version is possible, signalling a P higher in animacy than the A:

'Iⁿi' t_{ij}' yi-yiisx_i. (10)
lightning horse killed

Ł_{ij}' 'iⁿi' bi-isx_i. (11)
'Lightning killed the horse.'

Shi-t_{ij}' s_q bi-isx_i. (12)
my horse old-age killed
'Old age killed my horse.'

9.4 CONCLUSIONS: THE NATURE OF ANIMACY

Much of the discussion of this chapter has made it clear that animacy in its literal sense, i.e. a parameter extending from human through animal to inanimate, cannot be the entire framework within which our discussion must be carried on. Many of the relevant distinctions, such as between pronoun and non-pronoun, proper name and common noun, are clearly

not direct reflections of animacy in its literal sense. In this concluding section, we will attempt – perhaps not too definitively – to give some indication of just what is involved as the conceptual background to the phenomena we have been discussing. Clearly, in many instances, animacy in the literal sense does give us a close approximation to the ranking of noun phrases that we find justified on structural grounds, so that it may well be the case that animacy in the literal sense will remain part of our over-all conceptual schema, rather than being subsumed into some other parameter of which it would be a special case.

We already know, for instance from the discussion of case marking in chapter 6, that it is quite frequent for a given phenomenon to be conditioned by more than one logically independent parameter, as with the combined effect of animacy and definiteness, so it should again not be surprising if this should turn out to be the case with what we have hitherto been calling animacy. In the following reflections, we will consider various alternatives to animacy in the strict sense, noting the strengths and weaknesses of each.

One suggestion might be that the hierarchy in question is not one of animacy but rather one of topic-worthiness. Assuming that we have independent evidence, for instance from analysis of discourse structure, of which noun phrases are more likely to occur as topics, then we can go on to ask whether this correlates closely with the animacy hierarchy as we have been presenting it. The result is a very high degree of correlation indeed. Agreement is almost complete, and can even be carried further in certain instances, for instance in assigning degrees of topic-worthiness to individual grammatical relations and semantic roles, as was suggested in section 9.1. However, there is one major problem for the identification of topic-worthiness and the animacy hierarchy, and this concerns the relation between first and second person pronouns. As presented above, there is no distinction between first and second person within the animacy hierarchy, and indeed this lack of distinction seems to be borne out by the data: if we look, for instance, at the rich array of data on case marking provided by Australian languages, then we find some languages where first person functions as if above second person, some languages with the opposite, and some languages where both are equal. Yet work on topic-worthiness suggests strongly that first person is more natural as a topic than second person, or more generally that selection of topics is egocentric. Thus topic-worthiness makes a distinction that is not justified in discussing linguistic reflections of animacy.

There is a second problem with treating topic-worthiness as the primitive underlying the animacy hierarchy. With animacy in its literal sense, we have extra-linguistic and even extra-conceptual evidence – i.e. scien-

tific knowledge independent, by and large, of particular linguistic or cultural biases – in assigning degrees of animacy to individual entities. With degrees of topic-worthiness, however, we have no such independent characterization, and so the question naturally arises: what is the basis of topic-worthiness? The danger here is of answering this question circularly, by citing as the bases of topic-worthiness precisely those parameters which are included in the animacy hierarchy. Thus it seems at least as likely that topic-worthiness is determined by the conceptual basis of the animacy hierarchy as vice versa.

A second possibility would be to try and reduce the animacy hierarchy to a hierarchy of individuation or, what is essentially the same, a hierarchy of salience. Salience relates to the way in which certain actants present in a situation are seized on by humans as foci of attention, only subsequently attention being paid to less salient, less individuated objects. Here we have the possibility of carrying out non-linguistically based perceptual tests, so in one sense, at least, the danger of vicious circularity is avoided. The degree of salience does indeed correlate highly with the degree of animacy on the animacy hierarchy, though again there are certain discrepancies. In particular, work on salience indicates that singular entities are more salient than plural entities, while linguistic reflexes of animacy provide no solid justification for transposing this to linguistic animacy: as we noted above, plurality sometimes facilitates and sometimes hinders linguistic reflexes of animacy.

The problem we found with topic-worthiness also rears its head here again, namely that salience is not treated as a primitive in itself, but rather as the result of the interaction of a number of factors, such as animacy in the strict sense, definiteness, singularity, concreteness, assignability of a proper name. Thus explaining the animacy hierarchy in terms of salience runs the risk of ultimate circularity when salience is itself explained in terms of the various primitives that go to make up the animacy hierarchy.

Our conclusion, then, is that the animacy hierarchy cannot be reduced to any single parameter, including animacy itself in its literal sense, but rather reflects a natural human interaction among several parameters, which include animacy in the strict sense, but also definiteness (perhaps the easiest of the other parameters to extricate from animacy), and various means of making an entity more individuated – such as giving it a name of its own, and thereby making it also more likely as a topic of conversation. The various individual parameters that we have discussed in this chapter are often closely related to one another, but there are also individual irreducible differences, and the over-all pattern is of a complex intertwining rather than of a single, linear hierarchy.

NOTES AND REFERENCES

Most of this chapter represents original ideas, which I have not previously put together in written form, and most of the references are therefore to data sources.

The factors controlling the genitive-like accusative in Slavonic languages, in addition to being described in comprehensive grammars of the individual languages, are summarized in Comrie (1978c). The Australian data on case marking are summarized, with references, by Blake (1977, 13-15). The various reflections of animacy in Chukchi are drawn together in Comrie (1979a). Data on animacy in Yidiny are from Dixon (1977, 110-12). Verb agreement in Tangut is discussed by Kepping (1979).

The Southern Tiwa data are from Allen & Frantz (1983). There is a rich literature on *yi-* and *bi-* in Navaho; their discussion here relies primarily on Frishberg (1972). The data on Eshtehardi are from Yar-Shater (1969, 237, 239). The Ritharngu data are from Heath (1976, 173).

The criteria of individuation are given by Timberlake (1977, 162). The hierarchy of topic-worthiness is discussed by Hawkinson & Hyman (1974).

IO

TYPOLOGICAL AND HISTORICAL LINGUISTICS

IO.I DIACHRONIC DIMENSIONS IN UNIVERSALS AND TYPOLOGY

If we observe similarities between two languages, then there are, in principle, four reasons why these similarities may exist. First, they could be due to chance. Secondly, they could stem from the fact that the two languages are genetically related, and have inherited the common property from their common ancestor. Thirdly, the two languages could be in areal contact: one language could have borrowed the property from the other, or both could have borrowed it from some third language, either directly or through the mediation of yet other languages. Fourthly, the property could be a language universal, either absolute or a tendency. For the linguist who is interested in comparative-historical linguistics, it is important to be able to distinguish among these four bases of similarity, because only in this way will he be able to establish adequately the relationships that hold among languages, so that, for instance, he will need to exclude similarities due to borrowing or due to universal tendencies in establishing genetic relationship.

Chance is, by definition, impossible to exclude as a potential factor, but we will assume that the languages in question show a sufficient range of logically independent similarities for the probability of this being due to chance to be minimal. This leaves the other three factors. Although historical-comparative linguists have generally been very careful, at least in principle, to distinguish between similarities due to common genetic origin and those due to borrowing, they have often been much less careful in distinguishing between either of these, especially common genetic origin, and similarities due to universals. One example of this will suffice as an illustration. In proposing the Uralo-Altaic family, which would include the Uralic, Turkic, Mongolian, and Tungusic families (each of which is in itself a well-established language family), early researchers often limited themselves to noting certain general