



**Rethinking
Communicative
Interaction**

Edited by Colin B. Grant

Rethinking Communicative Interaction

Pragmatics & Beyond New Series

Editor

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University of Zurich, English Department
Plattenstrasse 47, CH-8032 Zurich, Switzerland
e-mail: ahjucker@es.unizh.ch

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Rethinking Communicative Interaction: New interdisciplinary horizons
Edited by Colin B. Grant

Rethinking Communicative Interaction

New interdisciplinary horizons

Edited by

Colin B. Grant

Heriot Watt University, Edinburgh

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List of contributors

Ms. Anthi Avgerinakou
School of Management and Languages
Heriot Watt University
Riccarton Campus
Edinburgh EH14 4AS
SCOTLAND, UK
a.avgerinakou@hw.ac.uk

Dr. Austin Babrow
Beering Hall of Liberal Arts and Education,
Room 2114
Department of Communication
100 North University Street
West Lafayette, IN 47907–2098
Purdue University
USA
ABabrow@sla.purdue.edu

Mr. Renato José Bonfatti
c/o Mario Cesar Vidal
Gente/COPPE
Universidade Federal do Rio de Janeiro
Caixa Postal 68507
Rio de Janeiro
21945–970
BRAZIL

Dr. Nicholas Davey
Department of Philosophy
University of Dundee
Dundee DD1 4HN
SCOTLAND, UK
j.r.n.davey@dundee.ac.uk

Dr. Mohan Dutta-Bergman
c/o Austin Babrow
Beering Hall of Liberal Arts and Education,
Room 2114
Department of Communication
100 North University Street
West Lafayette, IN 47907–2098
Purdue University
USA

Dr. Colin B. Grant
School of Management and Languages
Heriot Watt University
Riccarton Campus
Edinburgh EH14 4AS
SCOTLAND, UK
c.b.grant@hw.ac.uk

Dr. Loet Leydesdorff
Amsterdam School of Communications
Research
University of Amsterdam
Kloveniersburgwal 48
1012 Amsterdam
NETHERLANDS
loet@leydesdorff.net

Dr. Kesi Mahendran
Department of Psychology
University of Stirling
Stirling FK9 4LR
SCOTLAND, UK
kesi.m@tinyworld.co.uk

Prof. Ivana Marková
Department of Psychology
University of Stirling
Stirling FK9 4LR
SCOTLAND, UK
im5@stir.ac.uk
markova@msh-paris.fr

Mrs. Beatriz Mariz Maia de Paiva
Department of Language and Linguistics
University of Essex
Wivenhoe Park
Colchester
C04 3SQ
UK
bdepaiva@essex.ac.uk

Dr. Bernd Porr
Department of Psychology
Computational Neuroscience
University of Stirling
Stirling FK9 4LR
SCOTLAND, UK
bp1@cn.stir.ac.uk

Mr. Renato Proietti
Laboratorio de Psicologia Cognitiva Post
razionalista
Rome
ITALY
RenatoProietti@everyday.com

Prof. Siegfried J. Schmidt
Institut für Kommunikationswissenschaft
Westfälische Wilhelms-Universität
Bispinghof 9–14
Münster
48143
GERMANY
sjs3811@uni-muenster.de

Prof. Henderikus J. Stam
Department of Psychology
University of Calgary
Calgary, Alberta T2N 1N4
CANADA
stam@ucalgary.ca

Dr. Brian Torode
Department of Sociology
Trinity College Dublin
Foster Place
Dublin 2
IRELAND
btorode@tcd.ie

Dr. Mario Cesar Vidal
Gente/COPPE
Universidade Federal do Rio de Janeiro
Caixa Postal 68507
Rio de Janeiro
21945–970
BRAZIL
mvidal@ergonomia.ufrj.br

Prof. Florentin Wörgötter
Cognitive Neuroscience
Department of Psychology
University of Stirling
Stirling FK9 4LR
SCOTLAND, UK
worgott@cn.stir.ac.uk

Rethinking communicative interaction

An interdisciplinary programme

Colin B. Grant

*Each sign alone seems dead.
What gives it life? – It lives in use.
Does it carry the life breath in itself?
– Or is use its breath?*

Ludwig Wittgenstein

1. Introduction

From government eavesdropping to internet crime, reality TV to computer-mediated communication and mobile telephones the face of communication has fundamentally changed. The contingencies and complexities of communication can be witnessed in old and new media, in changing patterns of face-to-face interactions and the pluralization of the self and blurring of the distinction between the real and virtual. To date, theories of interaction have been slow to conceptualize communication in terms of such instabilities. Social communication models remain heavily indebted to an interaction paradigm which is often intuitive, epistemologically conservative and even acritical.¹ By contrast, an interdisciplinary programme in communication covers a complex field which requires the broadest possible range of approaches beyond current disciplinary confines. This collection seeks to examine some of the implications for our understanding of interaction when communication is conceptualized as a complex and socially necessary uncertainty.

2. Historical antecedents

The historical influences of communication science are rich and varied and it is possible only to outline some of the most salient in this introduction. The symbolic

interactionism of the turn of the nineteenth and twentieth centuries and represented by William James, Charles Horton Cooley, John Dewey and George Herbert Mead requires especial mention at the outset since the interactional connections between self and society are foundational here. Mead's social psychology in particular has exerted a seminal influence on a range of questions which can be considered crucial in communication science.² Many are revisited here.

A distinct but nonetheless highly significant theoretical contribution was also made by information scientists, notably Claude E. Shannon and Warren Weaver in their classic *Theory of Mathematical Communication*. Their concepts of entropy, noise and the distinction between information and communication — where “information is a measure of one's freedom of choice when one selects a message” (Shannon and Weaver 1964: 9) — have been widely used in systems-theoretical and constructivist approaches. Information theorists exclude the self and other aspects of human vagueness such as semantics or pragmatics and focus instead on a concept of uncertainty embedded in information generation in a channel. According to Shannon, entropy in an information-theoretical sense means uncertainty or the “rate of generating information” (Shannon and Weaver 1964: 58): there is uncertainty, since what is said could easily be different, and what is heard always is. The field of application may well have been engineering, but the modelling of uncertainty and the uncoupling of information and communication has yielded a most productive and at times counter-intuitive contribution to communication science (cf. Porr and Wörgötter's contribution to this collection).

The philosophical underpinning of interactionist premises is no less significant, albeit under-researched in this field. One core influence here is Edmund Husserl's theory of intersubjectivity. Husserlian phenomenology is crucial for its philosophical account of an intersubjectivity which is not modelled in either cognitive or informational terms as Husserl set out in his *Crisis of the European Sciences* in 1936:

Only by starting from the ego and the system of its transcendental functions and accomplishments can we methodically exhibit transcendental intersubjectivity and its transcendental communalization, through which, in the functioning system of ego-poles, the ‘world for all,’ and for each subject *as* world for all, is constituted. Only in this way, in an essential system of forward steps, can we gain an ultimate comprehension of the fact that each transcendental ‘I’ within intersubjectivity (as co-constituting the world in the way indicated) must necessarily be constituted in the world as a human being (Husserl 1997: 185–186 – emphasis in original).

In general terms, Husserl attempted to eschew the aporias of the Cartesian ego with a dynamic relation between phenomenon and consciousness. It is in this transcendental relationality that the ego is conceptualized as a subject embedded in the world of others and phenomena. To the extent that the subject constitutes the importance

of the phenomena around him, it relates itself to a perception of the phenomenon in its character as the other. The orientation to the other enables the subject to overcome its monadic status. Husserl argued that only a transcendentalism firmly committed to the fundamental ego as producer of meaning and inhabitant of a pre-objective, pre-scientific world could make the reconciliation of subjectivism and objectivism possible.

Husserl defended the view that things seen are always something more than what is actually perceived in them. In this way he considered the lifeworld of universal accessibility as the “forgotten meaning-fundament of natural science” (1997: 48) — and this means as compensation for the loss of meaning. Husserl’s lifeworld concept thus oscillates between two poles: between the world as it is perceived by the subject and a world which goes beyond subject-centred perceptions (1997: 51).

He was not here considering such interaction structures as the family, church or friendship, but the very possibility of objectivity, that is to say, the reasons for which various subjects can perceive an object intersubjectively. The non-I, as an element of the phenomenal world around the subject, is another I for Husserl. The same insight opens up an infinite scope of others, objective nature and an objective world. These others are therefore a ‘monadological community’ of different selves. In this way, intersubjectivity acquires transcendental status. Experience can be made intersubjective because the objective world is the necessary correlate of intersubjective experience, making the harmony of the monads possible.

Symbolic interactionism, information theory and phenomenology thus form three distinct and interrelated facets of communication science. Their distinctiveness makes them all the more productive from a plurality of perspectives. In addition to these historical antecedents, distinct approaches to communication have emerged since the 1960s in particular across the human and social sciences, often without entering into any form of cross-disciplinary exchange.

Building on some important aspects of social interactionism and influenced by G. H. Mead and H. Blumer, Erving Goffman’s studies of the dramaturgical aspects of social interaction in *Life as Theatre* (1959), *Interaction Ritual* (1967) and *Forms of Talk* (1981) continue to exert a significant influence on contemporary communication science. One of Goffman’s most important insights was in identifying the performative norms of social interaction. Focusing on the role played by ‘impression management’, Goffman departed from the notion that interactions are unproblematic givens by emphasizing the background norms which induce certain performances:

The perspective employed in this report is that of the theatrical performance; the principles derived are dramaturgical ones. I shall consider the way in which the individual [...] presents himself and his activity to others, the ways in which he guides and controls the impressions they form of him [...]. (Goffman 1981: xi).

In other words, according to Meltzer's reformulation, "The outcome of each performance is an imputation by the audience of a particular kind of self to the performed character(s)." (Meltzer *et al.* 1975: 68). Although in the 1960s and 1970s Goffman's work was criticized for a focus on deceit, insincerity and the 'manipulation' of others' opinions, today it is uncontroversial to argue that communicative interaction involves a range of strategies, selves and performative codes. There is no neat distinction between the sincere and insincere in communication and even if there were, we would have to infer or impute sincerity or insincerity to the speaker in interaction. Recognition of the complexities of communication itself involves recognition of the flux of discourses, selves, receptions and contexts (see also the contributions of Grant and Schmidt to this collection). An alternative term for such flux is contingency.

Harold Garfinkel's *Studies in Ethnomethodology* (1967) also sought to expose the background assumptions of everyday communicative interactions. Shifting the phenomenological emphasis on intersubjective meaning construction to a study of how meanings come to be assumed, Garfinkel saw ethnomethodology in the following terms:

I use the term 'ethnomethodology' to refer to the investigation of the rational properties of indexical expressions and other practical actions as *contingent* ongoing accomplishments or organized practices of everyday life. (Garfinkel 1989: 11–emphasis CG)

Certainly, the contingency of communicative practices plays a major role in several of the contributions to this collection for, pursued to its radical conclusion, "[...] the social order, including all its symbols and meanings, exists not only precariously but has no existence at all independent of the members' accounting and describing practices" (Dreitzel 1970: xv cited in Meltzer 1975: 79).

The need to see communication in terms of complexity and indeed instability was also central in another core work published at around the same time in social psychology. *Pragmatics of Human Communication* (1967) was to prove highly significant. Inspired by information theory and cybernetics, Watzlawick, Bavelas and Jackson's classic account sought to develop a theory which would offer new insights into human interactions as 'complex interacting systems'. In considering patterns, pathologies, paradoxes (the subtitle of the book), *Pragmatics of Human Communication* criticized the concentration of psychoanalysis on 'intrapsychic processes' and integrated systems theory, with its core concepts of stability, feedback and open systems, by virtue of its capacity to apprehend complexity.

Accounts of communication practices, theories and contexts experienced differentiation in the 1960s and 1970s, ranging from the work of Sacks and Schegloff in conversation analysis through to the pragmatic branch of linguistics, with notewor-

thy contributions from Searle and Grice (see Paiva and Vidal in this collection).

In literary theory, too, much important work was carried out in the late 1960s and 1970s in which a variously defined reader became recognized as a key facet in literary communication where the reader was considered to respond to guided reception or complete points of indeterminacy (cf., for example, Iser 1971). Post-structuralist accounts of discourse were no less important: Foucault's *Order of Discourse* and *The Order of Things* (1971), Barthes' second-order semiotics in *Mythologies* and *S/Z*, Kristeva's concept of intertextuality and Derrida's concepts of polycontextuality and iterability (Derrida 2000) have all had a profound impact on philosophical and social-theoretical conceptions of communication. Derrida's concept of infinite iterability as "the break with the horizon of communication as communication of consciousness or of presences and as linguistical or semantic transport of the desire to mean what one says [*vouloir-dire*]" and also as a rupture with the "semantic or hermeneutic horizons" (Derrida 2000: 8) is significant in this context (see Grant 2003 ms). Here, writing as communication is detached from consciousness or intention and contingent upon polycontexts.

The belated reception (in the west) of the work of Mikhail Bakhtin is also significant here (as pointed out by Marková and Mahendran in this collection). Bakhtin's concept of heteroglossia or multi-voicedness has been influential as an element in challenging hermetic views of communication and thus increasing sensitivity to complexity:

Alongside the centripetal forces, the centrifugal forces of language carry on their uninterrupted work; alongside verbal-ideological centralization and unification, the uninterrupted processes of decentralization and disunification go forward. (Bakhtin 1984: 272)

As will be seen, some of these views enter into productive conflict with other communication theories proposed in this collection. Some of the dissent derives from fundamental epistemological questions. Such epistemological questions cannot be subtracted from a study of communications and thus the communication science debate must be enriched by key philosophical debates which are often consigned to its margins — the debate around vagueness theory (in Williamson's *Vagueness*) and referential semantics (Putnam's *Mind, Language and Reality* and Recanati's *Direct Reference*). Putnam, for example, argues "that there exists a unique *natural* mapping of sentences onto sets of possible worlds" (1997: 74). Mapping is a looser concept than correspondence in the sense that it relates not to precise relations of equivalence, but rather to the relations between sentences and sets or ranges of possible worlds. Despite the wider extension, however, the concept of mapping remains insensitive to the complex interface between self and communication:

If a number of speakers use the word ‘electricity’ to refer to electricity, and, in addition, they have the standard sorts of associations with the word [...] then, I suggest, the question of whether it has ‘the same meaning’ in their various dialects simply does not arise. (Putnam 1997: 201)

Stability of reference thus comes about pragmatically, i.e. through use. Although the shift to a pragmatic level of questioning does indeed make the question of reference more relevant for questions relating to social communication, it remains disingenuous to suggest that the question as to whether references have the same meaning ‘does not arise’ (cf. Grant 2003, in press). Several contributions in this volume consider this issue.

Vagueness theories also prove invaluable in underpinning a philosophical approach to the inescapable contingency of communication. Unlike logical theories of vagueness, however, which stress that there is always a distinction between truth and falsehood, a semiotic vagueness concept transfers this distinction to the level of social function. Vagueness is not seen as the result of the ignorance of man about the world, but derives from contingencies of communication and cognition. In social terms, society determines *ex post facto* whether or not something is true or false. By extending the concept of vagueness to communicative interaction, it is possible to heighten awareness of the uncertainties in communication and the elaborate fictional codes constructed to simulate or impute ‘shared knowledge’.

3. Social communication theory

3.1 The Habermas-Luhmann Debate

Arguably the most important milestones in the history of social communication science are the publication of the *Theory of Communicative Action* in 1981 and *Social Systems* in 1986. In many ways, these two great studies were some of the first wide-ranging interdisciplinary accounts of social communication theory, drawing on cognition theories, social psychology, philosophy and social theory. The rich debate between Habermas and Luhmann in many ways defines the theoretical horizon against which the current volume should be viewed (see the contributions by Stam, Grant and Mahendran in this collection).

In an essay published at the time he was working on *Theory of Communicative Action* — “What is universal pragmatics?” — Habermas affirmed that the process of communicative understanding rests on the basis of an intersubjective relation (Habermas 1979: 9). This grounding of communication as understanding and social cohesion acquires especial importance since Habermas attaches to it nothing

less than the status of a paradigm change from the thinking subject and producer to a form of consensual hermeneutics and communication.

It is well-known that Habermas proceeds from the premise that the 'project' of Modernity is as yet incomplete since Modernity contains its own counter-discourse. In view of this, Habermas avoids clinging blindly to the philosophy of the subject and pursues the reconstruction of a rational project which in turn does not confine itself to the rationalization tendencies of technical-administrative action. Rational communication is instead a form of *intersubjectivity* free of constraints on the basis of reciprocal recognition. The social-theoretical concept of communicative action is complemented by an epistemological or cognition-theoretical affirmation of intersubjectivity. This allows actors to make (criticizable) *validity claims* which can either assert or withdraw legitimation.

In terms of social theory, the integration of social actors by means of relationality (here, Habermas follows Mead's concept of an orientation towards the 'other') presupposes a common network of references. This network facilitates the meeting of social actors in situations of intersubjective reciprocity as set out in *The Theory of Communicative Action*. For it is here that Habermas places Husserl's horizon of expectation grounded in the lifeworld in the social sphere by dropping the phenomenological method, and thus recontextualizing the concept as a *social* lifeworld. The society of social lifeworlds rests on communications in which opinions and standpoints can be contested. When shorn of phenomenological premises, the lifeworld as a concept acquires the character of background knowledge on which all actors may draw. Each communicative speech act accordingly raises ideal validity claims and in so doing creates a three-fold relationship consisting of a subjective dimension (the speaker), an objective dimension (the listener) and an intersubjective dimension (society):

[...] The interpreter who understands meaning is experiencing fundamentally as a participant in communication, on the basis of a symbolically established intersubjective relationship with other individuals, even if he is actually alone with a book, a document, or a work of art. (Habermas 1979: 9)

The contestatory practice of speech acts guarantees a certain immunity of communication from the attempts at language control made by the system (in Habermas' sense). Alternatively, slightly altering the words of Max Weber, communicative rationality offers resistance to technical-administrative rationalization.

Admittedly, Habermas' ideal reconstruction of everyday hermeneutics (see N. Davey's contribution in this collection) proceeds from the principle of a horizon of expectation viewed as a reservoir of rationality. Husserl had sought to distinguish between the abstracting tendencies of natural sciences and the experiences of empirical existence. By adopting Husserl's concept of the lifeworld and dislocating

it into the social realm as a locus of empirical existence, Habermas sets out to establish a source of rational codes of behaviour in which the tendencies of rationalization (e.g. functional unemployment and juridical autism) cannot be realized without control. The social-theoretical interpretation of the lifeworld concept thereby distances itself from Husserl's transcendental concept. In consequence, linguistically generated intersubjectivity embeds the speaker (see B. Torode in this volume) in a relationship which looks beyond the world of reference of *Alter* and *Ego*.

The legitimacy of lifeworld communications derives from an intersubjective guarantee which functions as a factor of group integration, promotion of cultural tradition and socialization of future generations. The social-theoretical model of intersubjectivity presupposes the (normative) recognition of rules. This means the self-reflexivity of the subject itself. In this connection, the influence of Mead becomes especially clear. The *Theory of Communicative Action* takes Mead seriously to the extent that it replaces symbolic interactionism by linguistically mediated interactionism although both interaction conceptions share the view that speaker 'A' can adopt 'the attitude of the other' (see H. Stam, this volume).

In this way, according to Habermas, each participant constitutes himself as the *Ego* of the other. The difference introduced by Habermas' interaction concept lies in his criticism of Mead's failure to take into account self-reflexivity and normativity in the relationship with the other. In other words, Mead never took the process of the internalization of the Other's position seriously. Habermas' language-theoretical correction resides in embedding 'attitude-taking' in the binding force of rules and not in empirical repetitions. This means that the identity of rules does not rest on invariable observable facts, but on the intersubjective acknowledgement of their validity. Transcendental consciousness gives way to the intersubjective recognition of claims raised in *discursive* contestation:

If we now relinquish the basic concepts of the philosophy of consciousness in which Husserl dealt with the problem of the lifeworld, we can think of the lifeworld as represented as a culturally transmitted and linguistically organized stock of interpretative patterns. (Habermas 1992.2: 124)

The reconstruction of the ideal conditions of communicative action shift the perspective from the invariables of (phenomenologically defined) consciousness to the pragmatics of contexts of reference. Husserl's phenomenological method is incapable of escaping the aporias of the philosophy of the subject. Instead, only a critical-pragmatic social philosophy can grasp the context of reference as a context of meaning. These contexts possess their own grammars (in Wittgenstein's sense of the term) and operate as forms of the organization of knowledge. This means that a lifeworld without grammar — norms, rules, ideals — is inconceivable.

The influence of Wittgenstein's language theory in the theory of communica-

tive action thus becomes clear. In the *Philosophical Investigations* Wittgenstein began to investigate language as forms of life and games: language could no longer be seen as an invariable essence. ‘Meaning’ is generated in games amounting to complexes of elements of discourse and other action forms.

In *Philosophische Grammatik* Wittgenstein had introduced his well-known concept of language games: “Let us consider one finality of a game of chess — for example, enjoyment — the rules are not arbitrary actions. Analogous to the choice of a measure.” (Wittgenstein 1991: 30—my translation). Grammar consists of a package of pragmatic relational norms. By virtue of the force of such pragmatic agreements, meaning is constituted not in terms of the ‘impact’ of an utterance, but in terms of the possibilities of its ‘connections’:

The rules of grammar may be called ‘arbitrary’, if that is to mean that the *aim* of the grammar is nothing but that of the language.

If someone says ‘If our language had not this grammar, it could not express these facts’ — it should be asked what ‘*could*’ means here. (Wittgenstein 1997: 138e)

The language game is not constructed on the basis of an objective essence, but instead as the result of relations among speakers. In other words it can be said that meaning is not ontologically pre-established, but socially constructed.³ Wittgenstein sees the sign in its quality as a sign *for* someone. The living being is always defined by the fact that it possesses the faculty to use a language of signs (1991: 192). Language, as a complex of non-arbitrary or contextually contingent rules, serves understanding (1991: 193).

In his view of language games as the foundations of everyday rationality Habermas assumes that the intersubjective character of understanding does not reflect some kind of external objectivity; instead, (speech) actors find themselves in an intersubjective horizon:

The world as the sum total of possible facts is constituted only for an interpretation community whose members engage, before the background of an intersubjectively shared lifeworld, in processes of reaching understanding with one another about things in the world. (Habermas 1996: 14)

Of course, any similarity with the concept of the lifeworld according to Husserl is not coincidental. The difference lies in an avoidance of the aporias of phenomenological observation, as far as Habermas sees it. In Habermas’ view, the phenomenological model of consciousness remains constrained by a fundamental egoism. This means that the subject always perceives the lifeworld as being pre-given. Since previous concepts of the lifeworld remain rooted in transcendence they fail to address the problem of the warranty of lifeworld practices.

The philosophy of the subject once again reveals its inability to overcome monadologism and leaves no room for a concept of intersubjectivity anchored in

communicative practice (Habermas 1992.2: 212–214). Once the lifeworld becomes blinded to the enactment of dissent on a rational basis the loss of the legitimation basis of modern societies is the inevitable corollary:

To be sure, the rational motivation based on each person's ability to say no has the advantage of stabilizing behavioral expectations *noncoercively*. But the risks of dissension, which are continually fuelled by disappointing experiences and surprising contingencies, are high. If communicative action were not embedded in lifeworld contexts that provide the backing of a massive background consensus, such risks would make the use of language oriented to mutual understanding an unlikely route to social integration [...]. The constant upset of disappointment and contradiction, contingency and critique in everyday life crashes against a sprawling, deeply set, and unshakable rock of background assumptions, loyalties and skills. (Habermas 1996: 21–22)

The lifeworld is thus reconceptualized on a communicative-theoretical basis of rational validity claims as a *counterfactual ideal*.⁴

A set of unavoidable idealizations forms the counterfactual basis of an actual practice of reaching understanding, a practice that can critically turn against its own results and thus *transcend* itself. Thus the tension between idea and reality breaks into the very facticity of linguistically structured forms of life. (Habermas 1996: 4)

Niklas Luhmann proposed an unconventional reading of the lifeworld concept with direct implications for a theory of social communication. In his analysis of the Enlightenment, Luhmann stressed what he termed the paradigm of the semantics of interaction which emerged at this time and gained expression in the philosophical discourse of Kant. The interaction model of Enlightenment thinkers is at the same time much more than a mere *topos*: it is elevated to the status of a paradigm of the way in which society should work. Husserl and Habermas remain very much within the horizon of Enlightenment ideals to the extent that their belief in a lifeworld somehow distinct from technical-administrative power is indelibly inscribed into the counter-discourse of a rationality which sets out to correct and perfect reality in a way which recalls Marx' celebrated appeal to thinkers to change the world in the *Feuerbach Theses*:

In its long history the description of the social life of man [...] was guided by ideals which reality did not satisfy. This was as true of the tradition of ancient Europe with its ethos of the natural perfection of man as it was for its efforts to educate and forgive sins. But this is also true of modern Europe, for the Enlightenment with its double deity Reason and Critique. And well into this century the consciousness of imperfection is retained — consider Husserl or Habermas. (Luhmann 1997.1: 21–22 – my translation)

Luhmann's epistemological onslaught avoids recourse to obsolete models inspired by metaphysics or even counterfactuality. For Luhmann, to describe society in terms of dialogue or interaction in the face of the multiple fragmentations of a cognitive and social order is to perpetuate metaphysics and fail in the task of creating a sociology disabused of illusions (Luhmann 1996: 17).

Luhmann's proposal for sociological renewal amounts to the elaboration of a supertheory with universal pretensions. Its defining characteristics reside in its capacity not to construct identity and totality, but to locate differences. Systems theory thus makes a break with the presuppositions of theories of perfectability by means of one fundamental epistemological shift. The concept of the subject is discarded, and replaced by the concept of the self-referential system (see Porr and Wörgötter, Proietti, Leydesdorff, this volume) whose identity with itself is located in its difference *vis-à-vis* its environment:

The theory of self-referential systems affirms that the differentiation of systems can only occur through systemic reference, i.e. through the fact that systems refer to themselves in the constitution of their elements [...]. Self-referential closure is therefore only possible in an environment under ecological conditions. The environment is the necessary correlate of self-referential operations [...]. (Luhmann 1996: 25 – my translation)

The richness and controversy of Luhmann's theory derives as much from its epistemology as from its sociology. It aims above all at maximum epistemological plausibility which undoubtedly enhances its value at a diagnostic level. Systems theory according to Luhmann is an observer-dependent theory. The importance of observer dependency lies precisely in the fact that it is in the observer that observations form as the difference between endogenous and exogenous information. The observer is also a self-referential system. This means that Luhmann bids farewell to traditional epistemological theory with its emphasis on the subject-object dualism (see Schmidt, this volume). His proposal focuses on the difference between identity (that is system identity) and difference (that is environment). His conception of the system is of course not restricted to historically verifiable institutions, but rather possesses a fundamental epistemological and methodological value: "Every social contact is conceptualized as a system — even society itself as the totality of the consideration of all possible contacts". (Luhmann 1996: 33 – my translation).

Since logically the system cannot be defined without relation to its environment, the two can be said to entertain a relation of interdependence. The paradigm of the difference between the whole and its parts is replaced by the paradigm of internal system differentiation. In this process the general system acquires the function of internal environment of sub-systems. As a consequence of system-environment interdependence, the concept of causality itself must be reviewed in

terms of autopoiesis and internal reproduction. At a micrological level, the basic system-environment distinction must be complemented by the distinction between element and relation. There cannot be elements without relations and there cannot be a relation without elements. Complexity is the pressure of selection but this pressure for selection also induces contingency and risk (see Babrow and Dutta-Bergman, this volume). The concept of self-reference relates to the unity which an element or system constitutes for itself. This means that self-reference presupposes a form of closure. Self-reference also expands the scope for structural coupling and internal system communication (Luhmann 1996: 35–68).

Information, according to Luhmann, is generated when a selective event operates selectively in the system. This selective operation in turn presupposes the capacity for the formation of differences. In this way, information comes to be viewed as the experience of difference. Clearly, information is not synonymous with communication, let alone meaning but “a measure of one’s freedom of choice when one selects a message.” (Shannon and Weaver 1964: 9).

Communication is not a regulative but rather simply discharges the function of continuing communication which, in turn, must be self-referential. Communication does not correlate to something in the world which can be located outside communication (e.g., truth, reality etc.), but refers to itself in the sense that it communicates about something which is only considered to be located outside communication:

The social system [...] is no longer characterized by a defined ‘essence’ or even by a determined morality (dissemination of happiness, approximation of quality of life, rational-consensual integration, etc.), but only by the operation which produces and reproduces society. And that is communication. (Luhmann 1996: 70–my translation)

Since there is no possibility of ascertaining the correspondence of communication and a putative external reality, the ‘referent’ as it might be called, can never be anything more than a self-thematization or fictionalization (see Schmidt,⁵ this volume), albeit endowed with heuristic properties. Since society, as part of a putative external reality, cannot be known outside communication, it can only be known inside communication. Society therefore can be said to consist of communication about communication (see Leydesdorff, this volume).

Systems theories of self-reference, however modelled, have been subjected to serious criticism principally on account of the (alleged) aporias and potential involutedness. Critics such as Habermas (1999: 18) tend to see the definition of systems, notably as proposed by Luhmann, as being too hermetic and therefore impervious to the independent, reflective contributions of social actors in the lifeworld. In an attempt to counter these ‘aporias’ of self-reference, Habermas

proposes a model of transcendental pragmatism based on a revised realism. Here, there is no denotative or representational correspondence between language and facts and concomitantly a new concept of reference is needed in order to explain how it is that we can refer to the same object on the basis of the objectivity of the world (“of possible references” — 1999: 37). For Habermas, this model of reference must remain epistemologically realistic in the sense that the concept of reference to an objective world is retained. His proposal makes use of a “detranscendentalized intersubjectivity of understanding” which eschews a monadological understanding of language universes (1999: 29): “By orienting themselves to unconditional validity claims and imputing accountability to each other speakers aim beyond all contingent and purely local contexts” (1999: 25). In other words, society is cohesive because speakers are embedded into common contexts of reference which in turn make shared knowledge and consensus as a counterfactual ideal a possibility and remove the danger of social disintegration, anomie etc.

And yet, is it the case that speakers overcome — ‘transcend’ — the contingency or locality of their experiences by raising validity claims, however counterfactual or, as Habermas recently argues, *imputational*, these may be? While it is certainly a fact that society resolves contingency by recursive redundancies (Porr and Wörgötter, Leydesdorff, this volume) in order to operate, there is a dualism implied in counterfactuality as an alternative to factuality. The frontier between the factual and what Habermas terms the counterfactual is however blurred by communication. And if it is blurred, then the same factual/counterfactual distinction is contingent. This is the essential difference between theories of counterfactual imputations and theories of fictional imputations. The counterfactual (at least in Habermas’ view) implies objectivity, intersubjectivity or transmundaneity. The fictional recognizes that these counterfactualities do not in fact run counter to the facts. They are subjective constructions conventionalized into text forms which normatize communication.

The aim of Habermas’ revised realism is to bring about a reconciliation of the epistemic primacy of a linguistically articulated lifeworld and the ontological primacy of a reality independent of language. These two premises are in themselves problematic. The lifeworld is a meaningful construct in the sense that it is a realm which is not reduced to a ‘system’ with its own internal systems logic. However, the lifeworld in itself is as *contingent on communication* as the system from which it is distinct. On one reading the lifeworld could be seen as that which is simply excluded from the system for being superfluous or irrelevant, but this reading is rather one-dimensional. The dependency of the lifeworld on a communicatively mediated ‘reality’ means that it is more than simply articulated by *language*. Moreover, the ontological imputation that reality is independent of language and can be referred to as objectivity flattens the cognitive autonomy (in the sense proposed by Schmidt) of the lifeworld subject and locks him into a transcendental world which

is at variance with our freedom to make constructs. Thus, a paradox emerges: our imputation of reference to other worlds beyond language is a construction. What we call realistic intuition is merely a more or less plausible fiction in its reference to an environment.

Discourses remain embedded in lifeworlds since their function is to repair background knowledge which has been 'disturbed' or fragmented by the rationalization tendencies of the differentiation of social systems. At the same time, discourses are porous in terms of communication and cognition. As such, they do not remain solely embedded in or confined to lifeworlds: there is no rigid frontier between lifeworld and system and colonization (see Mahendran, this volume) operates in both directions, not merely as the infiltration of the lifeworld by discourses of 'power', but as the infiltration of the 'system' by a range of other discourses, such as environmentalism, feminism or minority rights at a political level. Indeed, Habermas' model of discursive democracy offers a theoretical model for the capacity of discourses to inform 'systems'. Admittedly, it could always be argued that such *counter-colonization* could constitute little more than a well-defined and systems-driven sphere of communicative tolerance in order to visibilize and thus also neutralize counter-discourses. And yet, given the double contingency of communication in terms of social systems and the porosity (Grant, 2000, 2001, 2003) of that communication in pragmatic, semiotic and cognitive terms, there is no guarantee of system success in maintaining the defining frontier of the area of tolerance. The communicative sign is an appeal which depends on use in order to remain operational. There is therefore a constant tension between stabilized convention (semantics) and information (entropy, unpredictabilities, uncertainties); but this is a trivial statement. A social communication-theoretical approach must take account of the management of uncertainty and certainty of communication:

The everyday hermeneutics of mass communication are indeed a melting pot permeated by subcultural value orientations and in which the evaluative vocabularies of public speech are constantly subjected to revision [...]. Public speech remains *porous* to innovative stimuli to the extent that it is not moulded in the deformed communicative structures of a network of autonomous publicness. (Habermas 1995: 558—emphasis in original; my translation)

Habermas has never formulated in detailed theoretical terms what such porous speech might be. In this reference it is evaluated positively as openness to innovation or contestation of everyday mass communication 'permeated by subcultural value orientations'. This means that his conception of openness is normatively constrained and associated with an emancipatory discourse which is not neutralized by 'deformed communicative structures' (n.b. deformed *and* communicative struc-

tures!). However, there is no ontological precondition according to which openness operates in one way only. Porosity is a property of all communications and implies that structures (from syntax to ideologies) are always permeable. In other words, this contingency makes the self-reference of systems, institutions and even discourses precarious. Signs are given, but remain fuzzy appeals to recipients and can be infinitely iterated and subverted not only in shifting contexts but in communication itself. Whatever the conceptualization, both lifeworld and social systems are contingent on communication. Neither can be seen as possessing stable frontiers. The porosity of communication makes *resistance to the autism of system imperatives and the renewal of worlds of experience possible*.

3.2 Constructivism

More recently, the discourse of constructivism has generated a wide-ranging interdisciplinary discussion about the foundational concepts which are central to communication science. The classical accounts of and the paradigm shift from reference to self-reference in, for example, Ernst von Glasersfeld's *Radical Constructivism* and Heinz von Foerster's *Observing Systems* are instructive here. In a social-theoretical sense, the concept of contingency is a paradox, involving contact and thus dependency (consider the verb *con-tingere*) but also risk, since this contact depends on a context which cannot be determined in advance; if something appears as contingent then it appears "as something that could be different" (Luhmann 1990: 147). If constructivist accounts are given detailed discussion in a significant number of contributions in *Rethinking Communicative Interaction* (see the chapters of Proietti, Grant, Schmidt and Leydesdorff) it is perhaps not coincidental. Constructivism, with its explicit epistemological programme, has always been concerned with reality construction from a plurality of disciplinary perspectives and constructivist theories of communication are, in certain important aspects, more sensitive to the precariousness of communicative interactions.

If, as von Foerster and the constructivists in general suggest, objectivity is a fiction, in the sense that it is the construction of an observer and not an ontological category, then the notion of reference (to what?, to whom?) becomes problematic. The observer does not make contact with the external world, but instead processes it internally. In simplified terms, it can be said that cognition (internal processing) is a process in which the subject processes his environment by reference to his own prior knowledge.

If cognition is indeed closed, in the sense that there can be no 'contact' between one mind and another, or indeed between one mind and 'reality', then interaction should be reconceptualized to take account of such closure. Social fictions also operate as complex pragmatic fictions by means of recursively linked communica-

tions and thus build temporarily stable social orders through culture as a socially obligatory semantic instantiation of world models (Schmidt 2001: 11). For reasons of cognitive self-reference (or ‘closure’), therefore, communicative interaction can be more adequately viewed as a precarious process, an *operation in uncertainty*.

The current collection proceeds from the premise that communicative interaction should be rethought. It thus seeks to question the idealized ‘semantic of interaction’:

The semantic of interaction laid down in the 18th century is concerned with a person-to-person relation. At the same time, it *interprets* itself as a model of society; ‘an understanding of interpersonally enriched reciprocity is no longer compatible with functional needs and forces the retreat of interaction theory into communality. (Luhmann 1993: 153; 122 – my translations and emphasis)

Largely unchanged, the interaction paradigm continues to predominate in social communication models to this day and to inform much of the human and social sciences. Of course, when taken at a weak, intuitive level of extension, the concept of interaction is unproblematic: people interact all the time. However, idealized interactionism is taken as a synonym for generalized modes of interaction, and often modelled as dialogue, dialogism or exchange of meaning. These models raise some key issues discussed outside communication studies *strictu sensu*, for example, in social theory and logic, and may frequently conceptualize communicative interaction in terms of symmetry, reciprocity or even correspondence. An answer to the question “What does it mean today that communication [...] has itself become complex?” (Leydesdorff 2001: 170) could be:

[E]rstwhile certainties of meaning transmission, stability, duality or dichotomy, identity and difference can be challenged and theoretically modelled in new contexts. Interdisciplinarity is one means by which to illuminate this complexity from several sides in the pursuit of theoretical blind spots in the field of critical communication studies. (Grant 2001b: 7–8)

Communication, in other words, should not be taken for granted. Equally, communication should not be superficially denied or comfortably dismissed as monologues. If the conceptualization of communication is altered on the basis of different assumptions — complexity, instability, contingency — then communicative interaction can indeed be rethought in a way which is still socially meaningful.⁶ In terms of a theoretical modelling of communication instability Baecker argues that “a system is a highly precarious ‘*dance*’ of ensuring a distinction between the system and its environment, which is the only way of ensuring the system reproduces itself” (2001: 63 – my emphasis).

4. Communicating the self

In her contribution to this collection entitled “Dialogicality as an Ontology of Humanity”, I. Marková offers a theoretical account of a dialogical human condition beyond I-Thou relations. Following Bakhtin and Rosenzweig, Marková refers to the asymmetry and tensions of dialogue as a heterogeneous nexus of meanings and multivoicedness. Here, “every individual lives in a world of others’ words.” Her illustration of dialogism in action is deeply significant. In an exchange between a cerebral palsy sufferer and a carer, she identifies two dialogical pathways at work: taking the perspective of the other (cf. Mead) and imposing meaning on the other.

The role of a dialogical hermeneutics is pursued in this collection by N. Davey. His chapter, “The Subject as Dialogical Fiction”, addresses the question of the definition of the subject in going beyond H.-G. Gadamer and asking how a sense of inwardness emerges from the process of dialogical engagement. Davey also argues in favour of a dialogical ontology which “demolishes the empiricist view of private mental states”. In conclusion, then, selfhood and inwardness are ‘fictions’ created by *being-in-dialogue*.

R. Proietti raises these very issues in his contribution. In “Language, Communication and Development of the Self”, Proietti follows von Foerster’s view that knowledge cannot be equated with correspondence to an external world, as the representationalist paradigm holds. Instead, living systems “compute complex abstractions from sensory inputs”. Thus, the self and personal meaning has developed from the recursive co-operation of I-Me relations (cf. Mead). If cognition is in this sense a self-referential operation as opposed to one in which reference is made to an external reality, then this means communication (with others) occurs, as it were, *despite* the closure of cognitive processes.

H. Stam also explores the potential of dialogical self theory in his chapter “Addressing Oneself as Another: Dialogue and the Self in Habermas and Butler”. Contrasting J. Habermas’ conceptualization of individuation (again following Mead) with J. Butler’s understanding of subjectification, Stam argues that it is only in the terms of language that bodies acquire meaningful existence. Our coherence is threatened where discontinuities emerge between bodies and language. Stam concludes by saying that “to address oneself as another is to recognize one’s sociality and individuality” and “to recognize our constitution in words not of our own making or choosing.” These arguments are pursued in the final section by K. Mahendran.

In C. Grant’s contribution to this collection, “Complexities of Self and Social Communication”, a theory of cognitive-communicative contingency is a central concern. According to Grant, social meaning is constructed by means of communication among cognitively autonomous actors in an environment known as society

but without an ‘objective’ world beyond it. In a critical account of the reifying tendencies of traditional concepts of dialogism, intersubjectivity, consensus and mutuality in communication, Grant considers communication as contingent in a dual sense. Cognitive autonomy implies that constructions are subjective while communications are open-ended semiotic appeals (in the sense of Bühler).⁷ The self does not however “vanish into relatedness” as K. Gergen suggests, but is engaged in complex fictionalizations of society. One could say that cognitive autonomy and social construction are complementary.

5. Constructing communication

In “Histories and Discourses: an Integrated Approach to Communication Science”, S. Schmidt argues in this collection in favour of a non-dualistic epistemology in the study of communication. Following his theory of cognitive autonomy (1994), Schmidt argues that all events relating to consciousness are tied to the context-specificity of actors. However, this is not a recipe for “solipsistic hell”, as Friedman puts it, since actors use a semantic system at the social level. This semantic system is referred to as a system of meaning orientations. In this view, the emphasis is transferred from referential realism (references to reality) to the *functioning* of semantics. Taken as a complex whole, the system of meaning orientations can be described as the “reality model of a society”: “since there can be no examination of the validity [...] of communication independently of these circumstances, such meaning orientations operate as operative fictions.” (cf. also Grant 2000).

In their chapter in this collection, entitled “Autonomy, Self-Reference and Contingency in Computational Neuroscience”, B. Porr and F. Wörgötter offer a stimulating case study in the field of computational neuroscience. The focus of their experiment is to construct a robot and examine its interactions with an environment. This interaction occurs via closed sensor-motor loops. Observations are made of the self-reference of the artificial organism which reduces the contingencies in the environment by autonomous behaviour. The organism operates only self-referentially with neuronal signals and in this way the transfer-function of the environment is also formulated by internal signals. This complex recursivity (cf. also Leydesdorff, Schmidt and Avgerinakou) is not adequately captured by traditional information theory. In place of the input/output paradigm, they propose a self-referential information theory focused on the selection of information used to improve behaviour in anticipating contingencies. In social terms, the corollary is then that the behaviour of another organism as *alter* (communicator, self, subject) is evaluated by the internal structures of *ego*. Thus, concepts of information transmission or intersubjectivity lose their operational value.

In “‘Interaction’ versus ‘Action’ in Luhmann’s sociology of communication”, L. Leydesdorff asks what the systems theoretical approach to global communication as a sociological study can contribute to theories of interaction. The core contribution of Luhmann’s sociology is the enhancement of symbolic interactionism with a consideration of the implications of global communications for local communications or interactions. The functional differentiation of communication, which has induced changes in communication contexts (see Part Three of this collection), translates into an acute awareness of mediatization and mediation which in turn produces conflicts between the global and local domains of communication (see also Avgerinakou and Babrow/Dutta-Bergman in this volume).

In her contribution to this collection, “Pragmatic Interactions in a Second Language”, B. Paiva proposes an integrated cognition-communication theoretical account of the acquisition of pragmatic abilities which in first language contexts are felt to be the inescapable consequences of linguistic socialization. Criticizing predominantly cognitivist accounts of such development, Paiva considers the contribution of *Relevance Theory* (Sperber and Wilson 2001) to a theory of communicative interaction skills. Here, a context is said to be mutual where speakers are capable of mental representation of knowledge. Rather than conforming to a Gricean understanding of rule following, *Relevance Theory* defines relevance as a product of an effort/effect calculation. Against this functional backdrop, the question then becomes whether the same effort/effect calculation is followed in pragmatic interactions between native and non-native speakers.

6. Communication contexts

B. Torode’s contribution to this collection, entitled “Between Uniqueness and Universality: an Ethnomethodological Analysis of Language-Games” is a proposal to challenge Garfinkel’s understanding of language games by integrating Wittgenstein’s concept of the game into ethnomethodological analysis. Torode notes that Conversation Analysis is already engaged in game analysis “with a special focus on universalist games” such as beginning, ending and turn-taking (cf. Sacks 1975; Schegloff 1968). Against this backdrop, he argues that the game-like and non-game-like distinction used by Garfinkel (in opposition to Goffman) fails to acknowledge that all games are embedded. His intriguing conclusion is thus:

To coherently maintain our grasp of and share trust in the *unique* idiosyncracies of the particular game which we are playing at the moment may indeed require that, for the time being, we *embed* that game within, and make reference to, another game — more micro or more macro, more institutional or more everyday, but

whatever else more universal — which is not in play at the present point in time, though it may become so at a later date, and which thereby lends stability to the present occasion. (my emphasis — CG)

One connection with participatory action research becomes clear at this point. In K. Mahendran's "The Transition of a Scottish Young Person's Centre — a Dialogical Analysis", a dialogical analysis is carried out of the situated utterances of young people, staff and managers in the centre. Following Bakhtin, Marková and Hermans, Mahendran examines the multivoicedness of the Centre on four levels comprising face-to-face dialogues, the internal dialogues of the dialogical self, dialogism of words-in-use and dialogues of the self as social agent with the public sphere. Mahendran's case study analyses identify the double-voicedness of official discourse with its appeal to funding bodies on the one hand and anticipation of the resistance of those who emphasize the constraints of the working world. Her concluding question (cf. also Grant in this collection) is highly pertinent here:

We must consider the extent to which YPC's person-centred approach, if it is not built on a dialogue which is inclusive of all the voices in the organization, could amount to a pernicious psychological intervention by state administration into the personal autonomy of individuals when unemployed.

In "Conversational Action — An Ergonomic Approach to Interaction", M. Vidal and R. Bonfatti trace the shift in ergonomics from the classical model based on behaviour and cognition to the focus on communication. However, their proposal for a new theory of interactive practice in situated ergonomic contexts, criticizes the continuing treatment of interaction as a given where, as a result, practitioners are given no formal training in interactive practices in a specific field with specific practices (or games, following Torode). Since existing epistemological reflections in ergonomic action say little about communicative action, the theory of conversational action seeks to offer a formal explication of a methodology for situated communicative interaction, where such situatedness often implies organizational or interpersonal conflicts which in turn generate a restrictive environment. The formal method of conversational action attempts to go beyond sensitivity to the local circumstances of actors and reconcile the need for ongoing targeted communicative interaction and recognition of the complexity of interactions. This formal method points the way to new and exciting forms of transdisciplinary cooperation.

In the fourth contribution to situated communication in this collection, "Flaming' in Computer-Mediated Interactions", A. Avgerinakou considers the emergence of inflammatory communication in computer-mediated contexts. Such communication is characterized by an increasing hybridization of public and private spheres, oral and written communication modes and a dissociation from physical space which makes comparisons with face-to-face interactions highly

problematic. Following J. Meyrowitz' *No Sense of Place* (1985), her analysis of on-line data reveals that the construction of flaming could derive from shifts in behavioural appropriateness in such situations but also legitimizes inflammatory behaviour as a new norm. In this sense, there is a connection between new mediated communications and the hybridization of games in which "e-forum interactants [...] perform a plurality of selves and voices."

The discursive construction of uncertainty is examined in the case study of the news reporting of the recent anthrax attacks in the United States by A. Babrow and M. J. Dutta-Bergman. In "Constructing the Uncertainties of Bio-terror: a Study of US News Reporting on the Anthrax Attack of Fall, 2002", Babrow and Dutta-Bergman argue that the construction of such uncertainty in leading American newspapers reveals "significant limits" rooted in conceptions of bioterror and scientific-technological rationality and propose an alternative construction of the phenomenon. Using Problematic Integration Theory focused on "interactional efforts to cope with uncertainty" and "institutionalized coping networks", they argue that news reporting predominantly presented uncertainty in terms of absence of information or probability estimates (epistemological uncertainty). In this way, no consideration was given to a change that reconfigures the parameters of a cultural system rooted in scientific-technological rationality (ontological uncertainty).

7. Conclusion: An interdisciplinary programme

To rethink communicative interaction involves a programme which problematizes stable categories at the level of social theory. Communication Science is therefore the embodiment at the interface of social and human science. Its very pluridisciplinarity renders it institutionally complex but also plausible. Communication Science is social-human science. This book seeks to establish an interdisciplinary programme designed to rethink interaction and open up new horizons. If this is achieved, then the editor's aim will have been met.

It would be over-ambitious to attempt to integrate such a range and diversity of influences in one collection, however distinctive and pluridisciplinary the approaches contained may be. Some of the philosophical debates (including Williamson and Schmidt) can be found in *Language – Meaning – Social Construction* (Grant, ed. 2001). Similarly, such a collection cannot claim to offer complete coverage of a field — precisely because this field is still inchoate. Instead, *Rethinking Communicative Interaction* is intended to present a range of very different approaches and methodologies and even epistemologies so that communicative interaction can be illuminated from as many sides as possible. In this sense, it seeks

to set out what could be termed an interdisciplinary *programme* where a programme is defined as work to be conducted rather work which has already been completed.

Although it could be argued in the 1960s that “we are almost completely unable to communicate about communication” (Watzlawick, Bavelas, Jackson 1967: 36), a communication turn has certainly taken place since then.⁸ In *Pragmatics of Human Communication* one could read in 1967:

The pragmatics of human communication is a science in its infancy, barely able to read and write its name, and is far from having evolved a consistent language of its own. Particularly, its integration with many other fields of scientific endeavour is a thing of the future. (1967: 13)

The emergence of reception theories, semiotic theories, theories of discourse and intertextuality, deconstruction and media theories in the late 1960s and 1970s certainly opened up crucial foundational questions which continue to inform communication science to this day. More recently, Luhmann’s systems theoretical social theory (e.g. *Gesellschaftsstruktur und Semantik* and *Die Gesellschaft der Gesellschaft*) and Habermas’ *Theory of Communicative Action* have marked out diverging and yet interconnected pathways in communication science. Today, debates integrate theories of self-reference, cognition and communication-theoretical accounts, theories of vague logic and various forms of constructivism. Thus, human communication theories have not only developed a name, they have developed several names, although their languages are rarely translated into each other. The need for integration is nowhere more acutely felt than in a human social science such as communication science.

This interdisciplinary collection seeks to make such a contribution, by constructing multiple connections across both theoretical approaches to the self, cognition, identity and interaction and analyses of situated communications in a variety of different contexts. Three different sections — Communicating the Self, Constructing Communication and Communication Environments — are organized in such a way as to offer three distinct thematic clusters: self, communication and situation. At the same time, epistemological, conceptual and methodological seams run through the entire collection: dialogism, fictionalization, complexity, language games, the contingency of context, self-reference and many more. This is the interdisciplinary programme of the title of this introduction and the presentation of communicative interaction as an interdisciplinary human-social science. As S. J. Schmidt puts it in his new book, *Stories and Discourses. The Social Processing of Contingency*:⁹

The selections *we* make are the selections *we* make. And in selecting we are bound by the conditions of selection specific to us. This actor-specific situation, which is

described in constructivist discourse as cognitive autonomy, must also be communicable with the conditions of the social orientation of actors in order to enable the sociality of their actions and communications. The second core problem of human beings is then the mediation between cognitive autonomy and social orientation. (Schmidt, 2003: 4 – my translation)

Notes

1. Husserl's concept of transcendental intersubjectivity casts a long, albeit often unnoticed, shadow over much social interaction thinking. In many writings in the human and social sciences there are references to reciprocity (Malinowski), the 'I-Thou relation' (Buber), an intersubjectivity of common sense (Schutz) or the 'dialogistic character' of interpersonal rituals (Goffmann).
2. More specifically, some of the early interactionists map out questions of potentially radical implications. W. I. Thomas refers to the 'as if' behaviour of social actors in an attempt to define the future reference of conduct. The potential virtuality of social behaviours thus comes to the fore. In other words, "facts do not have a uniform existence apart from the persons who observe and interpret them" (Volkart cited in Meltzer *et al.*: 27).
3. This point is made by Glasersfeld: "The concepts of the language game and meaning as use are an entirely viable description of linguistic interactions." And yet Glasersfeld criticizes Wittgenstein's attempt to free the subject from language: "Each sign *alone* seems dead. What gives it life? — It *lives* in use. Does it carry the life breath in itself? — Or is *use* its breath?". See Glasersfeld 1996: 218–219 (this translation from the *Philosophical Investigations* — CG).
4. It would fall outside the scope of this study to reconstruct the various critiques of Habermas' counterfactual ideality in their entirety. Suffice it to say that many quite simply ignore the subtlety and critical intent of the counterfactual ideality he locates in communication processes.
5. According to Schmidt, communication does not send 'messages' in the sense of semantic depth, but permits coupling at the level of semiotic superficiality (cf. Schmidt 1998).
6. I wrote in *Functions and Fictions of Communication*: "To Searle's appropriate question 'How does it all hang together?', the response will not be an inappropriate (dogmatic) recourse to realism, but to social need. Society 'hangs together' fallibilistically on the basis of functional fictions (in the sense proposed by Schmidt 1994 and 2001)." (Grant 2000: 131).
7. As Luhmann puts it: "Each participant knows for himself and of others that fixed forms of linguistic meaning are selected contingently (thereby continually confirming the fact that it is only a question of "signs"). What can be perceived acoustically or optically and can therefore also be distinguished, is subjected to a second mode of selection. The "material" of language itself is so formed and perceptible only in this form; but it is also occupied with references which function independently of their environment and thus permit repeated use. Thus, linguistic signs are and can always be different." (Luhmann 1997: 211–my translation).

8. As Loet Leydesdorff put it in his address to the international conference Fictions of Dialogue, Heriot-Watt University, Edinburgh, November 2001.
9. Original title: *Geschichten und Diskurse: Die gesellschaftliche Bearbeitung von Kontingenz*. Work to appear in December 2003.

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PART I

COMMUNICATING THE SELF

Dialogicality as an ontology of humanity

Ivana Marková

1. The sphere between I and Thou

The idea of an interdependent relation between self- and other-consciousness that shaped Romantic social science in the 18th century, was reborn in the early part of the 20th century in the religiously orientated neo-Kantian movement, flourishing particularly in the German town of Marburg. The neo-Kantians adopted many of Hegel's ideas and particularly those related to self- and other-consciousness. The perspective that the individual acquires self-consciousness together with other-consciousness, which was the essence of Hegel's master-slave allegory, became one of the fundamental ideas in neo-Kantian philosophy.

The neo-Kantians such as Herman Cohen, Franz Rosenzweig, Martin Buber, Eugen Rosenstock, Ferdinand Ebner and Gabriel Marcel based their philosophy on the 'dialogical principle', which involved the relationship between 'I' and 'Thou', that is, the relation of co-authors in communication. In addition to Hegelian philosophy, their dialogical principle also derived from Judaism and from Christianity. It was part of the Old Testament as the cultural and communal spirit. The dialogical principle, the neo-Kantians argued, is established and maintained through speech and communication. Communication expresses the life experience of people, their emotions, concerns and their making of social realities. At the time, the dialogical approach not only drew attention to the social nature of the humankind but, in accordance with Kantian philosophy, it placed considerable weight on the idea that the activity of thought creates human realities (cf., for example, Cohen 1919).

These neo-Kantians, who introduced the provocative and original ideas of the dialogical principle, are now largely forgotten or are studied in the context of religion in general or Judaism in particular. However, they were all significant social psychologists because their starting point was not individuals but the relations of *Ego-Alter* in dialogues. The dialogical principle of the neo-Kantians seemed to have been one of the most significant bridges connecting philosophy and religion in the early part of the last century. In addition to the 'dialogical principle', they intro-

duced other concepts such as ‘existential dialogism’ (Rosenstock 1924), ‘I and Thou’ (Rosenzweig 1921) and ‘the sphere in between’ (Buber 1923/1962). Their anti-individualist approaches to the study of social thinking and language were broadly based, ranging from religion to philosophy, linguistics and politics.

Among those who specifically reflected on the individualistic presuppositions in the human and social sciences and in the studies of language in the early part of the last century was Eugen Rosenstock. He pondered individualism embedded in the grammars of different languages and specifically in their morphologies. Ancient Greek grammar was constructed on the basis of grammatical cases and their declinations and such constructions have become constitutive of most European languages. These grammars start with the first case, the nominative, which poses the questions: Who? (e.g. I, you) and What? (e.g. a table, a window). All other grammatical cases are derived from the nominative and they are, again, questions about individual entities. For example, the second grammatical case, the genitive, asks ‘Whose? ‘Of what?’ The Dative, the third case asks to ‘To whom’ and ‘To what’.

Reflecting on the grammar of cases Rosenstock (1963–64, I: 754) saw one question as being essential: to whom is *the thought in these grammars* directed? He answered by suggesting that the thought was directed to the individual. Yet he himself was dissatisfied with such an answer; it does not correspond, Rosenstock suggested, to ‘the grammar of the soul’. The grammar of the soul, Rosenstock argued, does not start with *I* or *We* but with *Ego-Alter*. But if the natural grammar of the soul starts with the *Ego-Alter* relation, why is it that the ancient Greeks developed the grammar from the basis of the nominative, the *I*?

We can only speculate about possible answers to this question. Most conceptions of the antinomies in ancient Greek thought were strictly conceived as separated from each other and Aristotelian philosophy, despite its interest in oppositions, was above all categorical. Greek science was deductive and axiomatic and Greek grammar followed suit.

However, we may speculate further. If we adopt Rosenstock’s suggestion that the grammar of the soul is based on thinking in communication, where does the grammar of the soul originate? For Rosenstock, the origin of the grammar of the soul was in religion. He maintained that the dialogical relation *Ego-Alter* is part of the religion in ancient Egypt, in Christianity, Judaism and Islam. We can find it also in Russian Orthodox religion. Religious thought is social thought and we can hypothesise that it originates in *common sense thinking and communication*. In contrast to scientific thought, which has become differentiated, religious thought has preserved its social character. If the antinomy *Ego-Alter* has its origin in common sense thinking, then the grammar of the soul precedes, historically, the formal thinking of logic and linguistic grammar.

2. Dialogicality is more than I-Thou

Not all neo-Kantian philosophers conceived the dialogical principle in the same way. Martin Buber, today the best known of all the neo-Kantians, expressed it in terms of the I-Thou relation. However, his conceptualization of the I-Thou relation remained basically at the level of dialogue between human individuals, that is, at an interpersonal level. By contrast, Rosenzweig's treatment of dialogue was much broader.

For Rosenzweig, the key to intersubjectivity¹ was not only mutuality and reciprocity but, above all, dialogical asymmetry and tension. According to Rosenzweig, the I-Thou relation does not centre on two voices in a dialogue and in their mutual relations, but on multiple voices in a broad community, in politics, ideology and in social institutions. Therefore, he argued that we could not reduce the dialogical principle to the narrow sense of intersubjectivity, i.e. the interpersonal relation. Being critical of Buber's conception of I-Thou, which captures only interpersonal relations, Rosenzweig wrote to him: "What would become of the I-Thou if they will have to swallow up the entire world and Creator as well? [...] For my and your sake, there has to be something else in this world besides me and you!" (cf. Batnitzky 2000: 253, note 44, letters of Martin Buber). In other words, Rosenzweig did not treat dialogue simply as mutuality between the I-Thou in terms of interpersonal communication but, above all, as the communal world in which the I-Thou relation refers to dialogues between religions, communities and cultures. Such broadly conceived dialogues comprise not only reciprocity and mutuality, but also judgement, difference and conflict.² It is the impossibility of a total consensus that is the basis of all dialogues, indeed, the lack of consensus keeps the dialogue going. Rosenzweig's specific concern was the dialogue between Judaism and Christianity. Historically, religiously and politically, he viewed it as a difficult dialogue. The dialogical relation between these two religions strengthens and intensifies judgement of one another through tension. In Rosenzweig's religious treatment of these issues, tension and hostility nevertheless lead to redemption.

We can conclude that for Rosenzweig, intersubjectivity conceived as mutuality, reciprocity and an attempt to achieve understanding between the I-Thou in interpersonal communication, is only one aspect of dialogue. Intersubjectivity must be considered in a broad sense and must include relations between communities. Moreover, Rosenzweig's treatment of dialogue redirects the focus on thinking and communication not as something with a necessarily happy ending (as Hegel had conceived it) or as something that always diminishes distances between people. Instead, dialogue is a communication in which the co-authors dispute, fight about ideas and negotiate their antinomies in thinking. In dialogue, the participants confirm one another as co-authors of their ideas and they also confirm their participation in social realities.

3. Living in the world of others

While it is well established that Mikhail Bakhtin was inspired by the neo-Kantians and that he particularly admired Buber's work, other scholars place a significant emphasis on the influence of the Russian Orthodox Church "as a secret to all of Bakhtin's writing" (Mihailovic 1997: 2).³

Bakhtin lived, for much of his life, in involuntary isolation from academic institutions in Soviet Russia, saved from a more severe persecution thanks to his chronic osteomyelitis, which made him permanently disabled. His work was 'rediscovered' and started penetrating European and American scholarship during the later part of the last century. To the mysteries surrounding his life and work we may add the fact that in their attempt to 'discover' Bakhtin on the basis of insufficient knowledge and obscure sources, some Bakhtinian scholars made ill-informed shortcuts. These concerned particularly questions such as whether Bakhtin might or might not have written under his own and under other names, the suppositions, which then led to further queries about him as a person and as a scholar. Was he a Marxist or a religious person? Or did he, throughout his life, practise a dialogical carnival of the kind that he analyzed in his masterpieces on Dostoyevsky (Bakhtin 1984a) and Rabelais (Bakhtin 1984b)?

Like Rosenzweig, Bakhtin also viewed dialogicality broadly, as a clash of ideas, as heterogeneity of meanings in action and as multivoicedness (Wertsch 1991). However, Bakhtin's originality and his influence on the social and human sciences today does not lie primarily in his ideas on dialogicality or dialogism.⁴ Many of these ideas had been developed by others before him. Instead, Bakhtin's originality and force reside in the specific characteristics with which he impregnated the concept of dialogicality, and in the tenacity with which he pursued these ideas in their boundlessness. Dialogicality, for Bakhtin, offered infinite openings for new interpretations of language and thinking in the multifaceted and multivoiced world on which he insisted as being a world without constraint.

The Bakhtinian world consists of the phenomena that constitute monological objects on the one hand and dialogical co-authors on the other. Objects are non-responsive, i.e. *monological*, while humans are by nature responsive, i.e. *dialogical*. This difference between the world of monological objects and the dialogical world of humans also constitutes, for Bakhtin, the division between the natural sciences and the social and human sciences. The natural sciences are concerned with the study of voiceless and reified objects, which need to be accurately described and explained. As Bakhtin said, natural sciences are monological because they examine things as if they existed only for the single human mind rather than for the mind in relation to other minds. Natural sciences are based on mathematical accuracy and on precision of measurement.

By contrast, the dialogically constructed and re-constructed social world is the world of multifaceted and multivoiced realities situated in culture. Any coherent system of signs, any text, a work of art, a piece of music, a historical interpretation has dialogical properties. They are products of human minds, which are orientated to other human minds and to their cognition. The human sciences, Bakhtin (1981) argued, are based on the epistemology of dialogism. Dialogism is an epistemology of human cognition and communication and, more generally, of the human sciences, which are concerned with the study of symbolic thoughts expressed in language. The social sciences and humanities study the social world of human dialogues, of texts and of polysemic and multifaceted meanings. The humanities and social sciences understand, transmit and interpret the discourses of others (Bakhtin 1981). Rather than examining the accuracy and precision of the measurement, as the natural sciences do, humans attempt to understand the ways of overcoming the strangeness of cognition of the other person. This is achieved through an *active* understanding, through mastering the social environment, language and any object that the individual cognition appropriates. Understanding, precisely because it is active, is evaluative. Understanding and evaluation, Bakhtin (1979/1986: 142) argues, are part of an integral and unified action. The human and social sciences always involve the study of human cognition by another cognition. Cognitions are in tension, they clash, judge and evaluate one another. In other words, the human and social sciences are concerned with *dialogical cognition*. Bakhtin characterized dialogical cognition as a metacognition, as “the reflection of a reflection” (1979/1986: 113). It always expresses different symbolic intentions, genres and different communication activities.

As Bakhtin said more clearly than those before him, dialogicality implies that every individual lives in a world of others’ words (1979/1986: 143). Humans make the world in terms of others and the entire existence of the self is orientated towards others’ language and others’ worlds. We begin life by learning others’ words; the multifaceted world of others becomes part of our own consciousness and all aspects of culture fill our own life and orientate our existence towards others. By contrast, total death and non-existence, Bakhtin argued, is the state of being unheard, non-recognised and non-remembered. To be means to communicate and to communicate means to be for another, and through the other, for oneself. Bakhtin insists that a person has no internal sovereign territory and that he is wholly and always on the boundary with others. When he looks inside himself, he always looks *into the eyes of another* or *with the eyes of another* (Bakhtin 1984b: 287). In other words, the limit of the self is not I, but I in interrelationship with the other, ‘I and thou’ (Bakhtin 1979/1986: 167). The symbolic activity of humans is founded on ‘dialogue’ between different minds⁵ expressing multitudes of multivoiced meanings.

Although Bakhtin attributed multivoicedness (or heteroglossia) to all kinds of dialogue, he developed his ideas about dialogicality above all in literary analysis and attributed a particularly profound mode of dialogicality to the Renaissance French writer Rabelais and to the 19th century Russian writer Dostoyevsky. Despite the differences in their literary genres, the work of both is permeated by oppositions, ambivalence, double-voicedness and hidden polemics. This is why he viewed these two writers as masters of human dialogue.

In his analysis of Rabelais Bakhtin (1984b) showed, perhaps more than elsewhere, the power of the notions of ambivalence and oppositions. We can hypothesize that Bakhtin chose the topic of the Renaissance carnival in order to exhibit his extravagance in the treatment of ambivalence and oppositions as dialogical concepts. He could hardly find another topic which would be capable of giving him the same opportunity and satisfaction to display the idea of double-voicedness. Bakhtin showed how ambivalence saturates language, daily life, culture, and the human body – simply everything that has any human relevance. All ambivalent images that Bakhtin displays are dual-bodied, dual-faced and pregnant with their oppositions. They integrate affirmation and negation, top and bottom, convergence and divergence not only as sequences of expressions but above all as expressions in their simultaneity. Among them, the simultaneity of life and death figures as being the most prominent. Bakhtin dramatizes his analysis to the extreme, presenting even dying as comical. He depicts an individual body in the throes of death and at the same time gives an image of another human body just being born. For him, where there is death, there is also change and renewal (Bakhtin 1984b: 409). The image of birth is also ambivalent showing that where there is birth, there is also departure, these pictures culminating with the image of the birth-giving death (ibid.: 352). Bakhtin presents variations of death in renewing the earth's fertility, the birth of Pantagruel which caused his mother's suffocation (ibid.: 408), and even death from laughter.

4. Thinking through the mouth

Rosenzweig's (2001) essay on 'New Thinking', expresses very clearly the spirit of the whole neo-Kantian movement that *thinking is essentially a dialogue*. 'New thinking' is directed both against the idea that thinking comes from the soliloquy and against the philosophical dialogues of the Platonic and Socratic kind. Rosenzweig argues that because these celebrated Platonic and Socratic dialogues are philosophical, they are not authentic dialogues. In these the speaker already knows what ideas he wants to communicate and argue about. They involve fictive interlocutors. In contrast, authentic dialogues are open. In a dialogue, we do not know in advance what and how we shall express our thoughts to the other person. Moreover, we do

not know in advance what the other person will understand of our message, we learn that from his or her response.⁶ For Rosenzweig, thinking and communicating are active and mutual processes. The person with whom we talk and think not only has ears to listen as in the philosophical dialogues, but he has also a mouth and he *thinks through his mouth* (Rosenzweig 2001: 159). ‘New thinking’ stems from the reciprocity of minds. It evolves from the confrontation of ideas, includes passions and admiration as well as disappointment and misunderstanding which may result from this reciprocity.

Thinking takes many different forms and serves different purposes. Some philosophical and psychological traditions emphasize thinking in categories, e.g. time, space and quality, others focus on naming; still others pay attention to thinking in antinomies and polarities. Some kinds of thinking can be described as inductive and deductive, others as analogical and discrete. Some forms of thinking are scientific, other are artistic, religious, ideological, rhetorical or mystical. Different tasks are associated with different kinds of thinking. Thinking in order to flatter or manipulate someone is based on different presuppositions than thinking about how to win the lottery. Scientific thinking requires different premises to those of rhetoric.

But what precisely is ‘thinking’? Albert Einstein (1949: 7) posed this very old question to himself when he reflected on his life and work. He answered it by establishing the difference between sense-impressions, memory-pictures and series of such pictures on the one hand, and mental processes, which are dominated by conceptual thought, on the other hand. Concepts are always connected with reproducible signs, e.g. words, and they differentiate, according to Einstein, *non-thinking* mental phenomena from *thinking*. Thinking is conceptual and, most importantly, it is *communicable*.

Einstein was neither the only nor the first thinker for whom *communicability* or *speakingability* is fundamentally interrelated with conceptual thinking. Hegel, Heidegger and Wittgenstein argued in a similar manner. Hegel (1807/1977), in the *Phenomenology of the Spirit*, analyzing the nature of consciousness, drew a distinction between non-communicable mental processes such as sensory and perceptual phenomena on the one hand, and communicable ones, which are social and conceptual processes, on the other. He discussed, among other things, the symbolic functions of thinking and language as reflected in the secret meaning of eating bread and drinking wine, which cannot be captured by the sensory aspects of eating and drinking. These symbolic functions, which are embedded in thinking, knowledge, believing and communication, result from the representational capacities of language users (Marková 1982).

Heidegger (1954/1968), in the series of his lectures entitled *What is Called Thinking*, focuses above all on different meanings of the word ‘call’. Every call

implies a naming, he argues, and calling implies an approach towards the other. It is an invitation to someone, like welcoming a guest to one's home. Thus the question, 'What is called thinking?', means that all thinking is directed at someone because the call "is the directive which, in calling to and calling upon, in reaching out and inviting [...] a call has already gathered" (1954/1968: 124).

By contrast, Wittgenstein (1953: 327–341) answers the question 'What is thinking?' by arguing that language is the vehicle of thought. This idea contradicts the point of view according to which thoughts are accompanied by words and *vice versa*. Wittgenstein insists that thought cannot be comprehended as an immaterial process "that lends life and sense to speaking" and that it is inconceivable that thinking could be separated from speaking. This implies that thinking and speaking could be viewed as parallel processes and that we could translate thought into words into thoughts is senseless. Speech without thought is an automatized process. Wittgenstein compares speech with and without thought to playing a piece of music with and without thought.

5. Dialogicality as an ontology of humanity

Let us hypothesize with Bakhtin that "*To be means to communicate*" (Bakhtin 1984a: 287). Through this hypothesis *Ego-Alter* obtains ontological significance because *Ego-Alter* relations exist only within the realm of communication. This hypothesis also changes the kind of questions that, in social psychology, are usually asked about individuals in their social world.

If human existence is defined as existence in communication, then it is misleading to ask 'How and in what ways does the group influence the individual?' or 'How does the individual perform, think or communicate in a social world or in social contexts?' Such questions presuppose that individuals or groups are the *same* entities before and after they *enter* into dialogue. In other words, they are individuals or groups and communication is a process between the two. For example, the group exerts pressure on the individual and the individual yields to that pressure; or the individual chooses to co-operate with others; or the individual defends his or her identity and so on. When dialogue ends, the participants remain the very same individuals or groups as they were before they entered the dialogue, except for the effect their experience of that particular communication had on them.

This presupposition is untenable in *Ego-Alter* ontology. It is not that the individuals and groups are to be denied their existence *as* single entities. However, despite their physical, biological and physiological existence as entities, their social existence is dialogical. This means that in *Ego-Alter* relations as an ontology, there is no *Ego* and no *Alter outside* concrete dialogical relations — real or imagined — to

which they belong. Before their concrete dialogical relation comes into existence, each component already took part (and probably continues to do so) in other dialogical relations. Let us recall Hegel's example as an illustration of this ontological dialogicality. Before his son is born, a man exists in different kinds of dialogical relations: with his wife, with his family, with his friends, and so on. However, only when his son is born does the dialogical unit father/son come into existence. Of course, the individual or a group does not transform their personal or individual characteristics as if by magic. Yet, we relate to one another in unique ways — and this is what makes for individuality. We are not the 'same' in different dialogical relations. If we assumed such sameness, we would be denying individuals or groups their basic characteristic — uniqueness. It is dialogicality that identifies the individuals *as* individuals. Their dialogical uniqueness underlines their variation and creativity.

However, it also follows that dialogicality is more than this or that concrete encounter of *Ego-Alter*. Indeed, concrete encounters of *Ego-Alter* are instantiations of the *Ego-Alter* ontology. This ontology, we have suggested, constitutes the human species. We can further presuppose that *Ego-Alter* dialogicality was implanted in the human mind during phylogenesis and socio-cultural history and that it is just as much a part of human nature as biological and cognitive universals. It is this capacity of the mind to conceive, create and communicate about social realities in terms of '*Alter*' that makes it possible for individual encounters to take place, for specific dialogues to be '*entered into*', to be interrupted, broken off and re-started again.

If the hypothesis that the dialogical relation is an existential relation is accepted, then social psychological questions must be posed differently than those that are asked in non-dialogical approaches. Above all, we are not concerned with individuals and groups but with *Ego-Alter* relations which, by definition are communicative. Rather than asking questions about the individual's performance in or influence by the group, this approach asks questions about *Self* and *Others* within their communicative situations. For example, 'How and in what ways, within this or the relation *Ego-Alter* does *Ego* or *Alter* preserve their uniqueness, e.g. their individual identities, activities, thoughts and language?'; 'How do *Ego-Alter* influence one another as co-agents of a joint action or as co-authors of a discourse?'

Within the *Ego-Alter* ontology questions are posed about selves, problems in their identity, of social recognition and the struggle for it, about conditions for trust and beliefs, among others. It is through dialogicality that humans form their identities and generate thoughts and language about these identities.

The dialogicality of *Ego-Alter* is embedded in history and culture. Dialogical ideas are transmitted from generation to generation through collective memory, institutions and social practices. History and culture make demands on dialogical styles of thinking and communicating and constrain them in specific directions. For example, there are the different kinds of constraint of the past and the present,

social and individual, tradition and novelty; there are different kinds of antinomies and differences that may concern emotions, passions, symbols, beliefs and knowledge. These constraints and demands of the past and the present and of the tremendous variety of situations in which thinking and communication take place brings us to the emphasis on the essential characteristic of dialogicality as a multifaceted, multivoiced and polyphasic phenomenon.

6. Dialogicality and the self

Dialogical communication is a personal communication. It would be a grave misunderstanding to think that dialogicality, because its point of departure is *Ego-Alter*, de-emphasizes the self. On the contrary, dialogicality casts into sharp relief the features of the self that psychology has often neglected or ignored.

6.1 Dialogicality and intersubjectivity

Let us first turn attention to those aspects of dialogicality that social and developmental psychology has firmly established and abundantly explored both through theoretical and empirical research. For example, it has provided ample evidence during the last century that the development of the self and of personal identity go hand in hand with the development of the concept of otherness. Using such concepts as the ‘dialectic of social growth’, ‘conversation of gestures’ and ‘inter- and intra-psychological processes’, James Mark Baldwin, George Herbert Mead⁷ and Lev Vygotsky among many others, have proposed theories of self-consciousness built on the mutual co-development of *Ego-Alter*. Baldwin’s concept of the “dialectic of personal growth” views the process of the mutual interdependence of *Ego-Alter* through give-and-take relationships in which ‘the self meets self, so to speak’ (Baldwin 1895: 342). Baldwin postulated a theory according to which the self is originally crude, unreflective and largely organic and it is through interpersonal interaction that selves become “purified and clarified”. He expressed this perspective, for example, in his studies of imitation as part of his theory of the self: ‘My sense of myself grows by imitation of you, and my sense of yourself grows in terms of my sense of myself’ (Baldwin 1897: 15). Imitation for Baldwin, however, was not a passive process since it always involved creation and an idiosyncratic interpretation of the other person.

Mead’s analysis of the development of self-consciousness and reflection was based on his presupposition that the self has an ability to call out in oneself a set of definite responses that the self acquires from others (Mead 1934: 277). As the self develops this ability it becomes an object to itself: it regards itself through the eyes

of others. In his essay ‘The objective reality of perspectives’ Mead (1927) develops this idea to include all environmental conditions around the self. Environmental conditions, he insists, exist only for concrete human agents who use them in their own idiosyncratic ways. Human agents, for their part, are never imprisoned in their own perspectives but are orientated towards others and their perspectives.

More recently, developmental psychologists such as Newson (1979) and Trevarthen (e.g. 1979; 1992) have argued and provided empirical evidence that the child is born with a predisposition for intersubjectivity.⁸ In getting actively engaged with the environment, the child selects his own milieu. Parents, for their part, by providing a stimulating environment and by presupposing that young children already comprehend quite complex messages, further contribute to the intricate interplay between biological and cultural influences. Thus, by presupposing intersubjectivity they actually shorten the path to its achievement (Rommetveit 1974). Trevarthen maintains that understanding intersubjectivity can provide an explanation “of how human social and cultural knowledge is created, how language serves a culture and how its transmission from generation to generation is secured.” (Trevarthen 1992: 102).

While the social and developmental theories of Baldwin, Mead, Vygotsky and their contemporaries have studied some aspects of *Ego-Alter* dialogicality such as role- and perspective-taking and intersubjectivity, an equally important feature of dialogicality, authenticity and commitment has been largely neglected both in developmental and social psychology. It is because these theories have discussed *Ego-Alter* relations too narrowly that they cannot serve as a basis for a dialogical ontology and epistemology.

6.2 Dialogicality is not a fusion of *Ego-Alter*

Social and developmental theories based on perspective- and role-taking and on intersubjectivity assume that through communication and negotiation of meanings the differences between the positions of *Ego-Alter* come closer together. They further assume that through intersubjectivity participants arrive at a kind of fusion of their different perspectives preventing open conflicts and wars (Bråten 1998). Of course it would be foolish to deny that in many dialogical situations this is what happens. Nevertheless, it is often neglected that communication has two antinomic aspects, other-orientation and self-orientation. Reflecting on others’ perspectives and accepting them is only one aspect of the development of the concept of the self. These processes determine the self only partly but they never lead to the fully developed self-concept. While Mead and to some extent Baldwin and Vygotsky focused on other-orientation in communication, i.e. perspective-taking, Bakhtin focused above all on dialogical self-orientation. It was crucial for Bakhtin that the

self does not fuse with the other: “What would I have to gain if another were to fuse with me? [...] let him rather remain outside me” (Bakhtin 1979/1986: 78).

Already in his early work, but published only recently and entitled *Toward a Philosophy of the Act*, (Bakhtin 1986/1993), Bakhtin made a distinction between pure empathizing and active empathizing with the other. Pure empathizing leads to submerging of the self in the other and viewing the world from the other’s perspective. For Bakhtin, pure empathy erases the other, leads to annihilation and to loss of individuality and to non-being. In contrast, active empathizing involves the struggle with *Alter*, with the strange; what arises from this struggle is something productive and new. For Bakhtin, there is no communication unless the self lives through active understanding of the strange, of *Alter*. The speech of others and their thoughts contains *strangeness*, which the self tries to overpower by imposing its own meaning on the other or to appropriate it by making it part of its own thoughts and speech. The constant strife between strangeness of others’ thoughts and thinking through the mouth makes communication meaningful and essential to the human condition. There could be no dialogue if participants were not opposed to each other through mutually experienced strangeness, which creates tension between them. Tension is not bound to either of them, but actually exists between them (on the nature of the dramatic aspects of dialogue see also Mukařovský 1940/1977).

6.3 Imposing one’s own meaning on ‘the strange’

Studies of ‘difficult communication’, e.g. studies of dialogues with people attempting to speak a foreign language⁹ or of people with impaired speech talking with their carers, often reveal dialogical features, which would not be observed in unproblematic communication. Such communication involves people with highly unequal communication resources. In order to get the message across, speakers must strategically and consistently impose their own meaning on the other or in Bakhtin’s words, on the strange.

Our studies (e.g. Collins and Marková 1995; 1999) have involved dialogues between people with cerebral palsy who had speech and communication problems, and their carers. In such situations, being consistent and innovative in imposing one’s own meaning on the interlocutor is essential for the person with a speech problem in getting the message across. Such strategies of consistency and innovation have many similarities to those which minority groups apply in interacting with majorities in order to gain influence (Moscovici 1976b). In ‘difficult communication’, just as in minority/majority influence studies, the interactional impact of any communication resource employed in action is dependent not only on the impaired speaker conveying it as integral to interaction, but, also, on the unimpaired speaker seeing it as such. Moreover, as in minority/majority interaction, so

in ‘difficult communication’ no kind of communication resource employed by the impaired speaker can be considered as a discrete and isolated unit. Rather, each exists in a complementary relationship with other resources, as well as part of the total dialogical environment.

A person who has physical difficulty in voicing words uses any means available as a communication resource in order to impose his or her own meaning on the other. In order to illustrate this point, let us consider some examples from our research. The participants of the dialogue below are Guy and Mary. Guy has severe cerebral palsy and is in a wheelchair. He cannot talk and he uses an electronic communication system, which he operates by typing letters or words which the system can voice. That morning Guy and other students in the college were writing letters to inform their families that they would be going out to dinner to the Italian Restaurant Maggios and to play bowling. These two events were to take place on the same day. Bowling is an important sport activity for people with cerebral palsy because in bowling they exercise their muscles and prevent atrophy.

At the start of the conversation Mary asked Guy what he was doing that morning. Guy tried to explain that they were writing the letters to their families informing them about these two events. In making his response to Mary, he used communication resources that were available to him, ranging from body movements to signing, typing single letters or single words. Here is the extract from the conversation between Guy and Mary:¹⁰

Extract 1: What are you doing here today?

Guy	Mary
// ↑M smiling	↓Talker ↑G
	<i>well (.) // what are you</i>
	<i>doing (here) today (.) hmm=</i>
= looks over his right shoulder	↓Talker ↑G
presses keys	(.)
//points and looks over at papers	//,,follows point,,looks
on table	over at papers
withdraws point	(↑G) ↓Talker
	<i>what is it what's going</i>
//moves finger to press keys	<i>on today// (.) hmm</i>
,, presses keys	
<i>I live at</i>	
gaze on papers	follows gaze holds gaze

on paper
 points over at papers
 65 Longbenton Avenue York

gaze on papers

„↑ G
yes I know you do but wha- (.) leans
 over G's chair
mm<what are you telling me that ↓
 paper, points at paper *for< oh*
because of this: address here (.)
 ↑ and round at G

The conversation goes on for several minutes. Mary clearly does not understand that by typing “I live at 65 Longbenton Avenue York”, Guy is giving an answer to her question as to what he was doing that morning. From Guy's point of view, pressing a button, which speaks his address, can be considered an efficient communication resource that is available to him. He perseveres consistently with his response because Mary does not understand and one can say that he is applying consistency as a behavioural style of an active minority (Moscovici 1976b). He also looks round over his shoulder, gazes at papers and letters they were writing, which Mary views as ‘being nosy’, rather than interpreting his gaze as an answer to her question. Thus, rather than taking his looking around as a *communicative gesture* attempting to draw her attention to relevant objects, she interprets this as a *behaviour*, i.e. as ‘being nosy’. Guy clearly expresses his ideas in dialogue by all the communicative resources available to him but they are not taken as such by Mary.

As the dialogue continues, Guy presses on his computer the word ‘bowl’. Mary misunderstands because she interprets ‘bowl’ literally as a container and asks him whether he needs a bowl. Guy vocalizes and mimes the action of bowling. At this stage she also disregards his gesture of miming the action of bowling. This gesture Guy uses repeatedly from now on during the rest of the conversation.

Extract 2: Bowling

Guy
 ↓Talker, pressing keys
bowl
 pressing keys
bowl
 gesturing bowling

Mary

a bowl: l (.) a bowl

*>or is it the < other kind of
 bowl >is it< bowling*

nodding

	nodding
//pulling at M's sleeve	<i>ye:es uh //right</i> ((laughing))
pressing keys	
pointing to himself	
((vocalisation))	

is it ten pin bowling

In this extract Guy is systematic, building on what has been interactively achieved in order to help Mary to take his perspective. Finally, he is successful. Guy builds on this understanding, repeating again 'bowl' and gesturing a bowling action. The inventiveness of Guy and the rigidity of Mary clash in the dialogue because she takes his behaviour and communication in a literal sense.

When dialogical participants use communicative resources that are publicly available, they must be able to synchronize their meanings and transmit the content of the message. These extracts show that synchronization of meanings proceeds through two dialogical paths, first, through taking perspective of the other and second, through imposing one's own meanings on the other. Their contrastive features are necessarily foregrounded in dependence on intention and motives for communication as well as on the nature of events of which the dialogue is part.

7. Diversified styles of dialogical thinking and speaking

Dialogicality displays cognitive polyphasia, i.e. the 'diverse and even opposite ways of thinking' (Moscovici and Marková 2000: 245), which are suited to and articulated in the different contexts of which they are parts. These diverse and multifaceted ways of thinking and communicating can be, so to speak, 'out-of-phase' with one another, in opposition, and in conflict and striving for dominance. This is what is expressed in Moscovici's (1961; 1976a) hypothesis of cognitive polyphasia (*polyphasie cognitive*). The term 'polyphasia' comes from the physics of electricity where the adjective 'polyphasic' refers to the existence of alternative and simultaneous currents which, however, can be out of phase with one another. The hypothesis of cognitive polyphasia refers to the possibility of using different and sometimes diverse ways of thinking and knowing, such as the scientific, common sense, religious, metaphorical and so on. For example, when Newton saw the falling apple, he had a choice to apply various kinds of knowledge in order to account for the fall of apple. He might have thought that the fall could have been due to the wind, to the fact that the apple was ripe or perhaps that it had turned rotten and was easily detached from the tree or he might have been thinking of his mechanistic laws (Moscovici and Marková 2000: 246).

In social psychology Fritz Heider (1958), too, was concerned with different descriptions of a single event in common sense thinking and in ordinary language, e.g. 'a man rowing the boat across the lake'. Such a relatively simple event could be viewed as the man's ability and competence to row, or alternatively, as the result of weather conditions facilitating or militating against rowing. One can see different things. One can think about them in different ways and express them in language according to circumstances, experience, motives and intentions. Thinking, therefore, rather than being homogeneous or monological, is normally antinomic and dialogical. We are able to combine and use our intellectual capacities in multiple manners and we can express our ideas in different ways using specific words, gestures and symbols.

It has long been recognized that dialogical participants may perform several different things — or functions — in speech at the same time (e.g. Bühler 1934; Jakobson 1960/1981). For instance, a single speech action may, at the same time, provide information, flatter and express emotions. These functions, by co-existing, have been usually described as having an additive impact on the meaning of communication.

The notion of different functions co-existing in speech actions must not be confused with Bakhtin's dialogical notion of 'heteroglossia' or 'multivoicedness'. Just as cognitive polyphasia refers to different modes of thinking, so 'heteroglossia' refers to divergent styles in speech arising from the infinite openness of languages in different concrete situations. *Ego-Alter* relations are by definition unique and in each case they are filled with judgement and evaluation. Any thought and any word is undetermined in the sense that it can be interpreted in different ways depending on who *Ego-Alter* are. For Bakhtin, "[n]othing conclusive has yet been spoken, the world is open and free, everything is still in the future, and will always be in the future" (1984: 166).

In his analysis of carnival in Rabelais Bakhtin (1984b: 420) shows a specific case of heteroglossia, that between unofficial and official cultures represented by the folk and vulgar language on the one hand and the Latin and polished language on the other. In his analysis heteroglossia breaks down the frontier between these two cultures. Bakhtin shows how the Renaissance discovers different dialects and employs them as linguistic masks — as the *commedia dell'arte*. In carnival heteroglossia sets free 'forbidden' and comical meanings from the established dogma. Similarly, Bakhtin's analysis of Dostoyevsky's novels shows that heteroglossia saturates all aspects of dialogicality such as ambivalence, hidden and open polemics, parody, irony, hidden dialogicality, open and hidden rejoinders, collisions and quarrelling. All of these are riven with tension in which different points of view clash and languages overlap exposing them to new interpretations.

7.1 Hidden polemics

Polyphasia and heteroglossia open up for social psychology the whole range of as yet unexplored features of social thinking and language. Above all, polyphasia, heteroglossia and heterogeneity in meanings divert attention from the study of speech actions as being transparent and unitary and from conceiving words and sentences as having literal meanings and easily identifiable references. Instead, polyphasia, heteroglossia and heterogeneity show that these linguistic and cognitive phenomena are no more than the tip of the iceberg hiding an infinite openness of dialogicality (Salazar-Orvig 1999; 2000). For example, *Ego-Alter* often express their relations indirectly either to be polite or to hide tensions, repress conflicts and conceal meanings. These styles of *thinking through the mouth* display themselves in syntax, grammar, voice or in even in discussing an idea that is outside the main topic. While great literature and the daily discourse overflow to bursting point with these dialogical styles, for social psychology they remain an enigma waiting to be explored, whether through communication genres, in focus groups, in dialogues and narratives.

Bakhtin introduced the term 'hidden polemics' to refer to a specific manner of expressing an indirect attack, evaluation or criticism of the other person. While open polemics is directed at the interlocutor, hidden polemics is indirect, focusing, for example, on the object of discourse. Rommetveit's (1991) analysis of Ibsen's *Doll's House* shows the work of hidden polemics. The drama starts with a discussion of Nora and her husband Helmer of Christmas gifts that Nora has bought for the family. As the conversation unfolds it becomes more and more apparent that the talk is not about Christmas gifts but about Nora's irresponsible behaviour in spending money and about the family's economic affairs. While talking about the Christmas gifts that Nora has bought, Helmer, employing semantics, syntax, intonation and grammar to make a 'sideward glance', to use Bakhtin's term, judges and criticizes his wife. A sideward glance towards objects serves as a hiding place that, however, they both understand, at least implicitly.

Aronsson's (1991) study of multiparty-medical dialogues involving the doctor, the parent and the child shows that the child, the weakest participant in the dialogue, could be turned into an 'object' of talk while the intended receiver of the message is the parent. By talking to the child, the doctor can express criticism and warn the parent and indicate the parent's negligence of the child's health without talking to the parent directly, which could be openly polemical and face-threatening. Hidden polemics can take different forms. For example, it could transform someone's statement into a question and thus make it problematic; and it could be reflected in grammar or in intonation without being directed at the interlocutor.

7.2 External and internal dialogue

Experimental studies of social influence and attitude change usually examine the direct effect of communication and persuasion as manifested by the participants' responses in questionnaires or in attitude scales. If the participants' responses do not overtly show a change of opinion, the researcher concludes that the message was not effective. For example, in a typical experimental paradigm the participants first express their opinion about the subject matter individually, then they are subjected to the influence of a minority as a group. Subsequently, they are re-tested individually. The re-tested individuals may or may not overtly change their attitudes, i.e. they may or may not show the manifest effect of minorities influence. Yet, Moscovici argues, even if the manifest effect does not show up, it does not mean that there is no effect at all. Latent effect, which is often ignored in social psychology, is equally important. Dialogically speaking, latent effect suggests that messages may produce hidden conflicts in the individual that can perhaps manifest themselves later.

In a series of studies Moscovici and his students have explored latent effects in laboratory experiments on minority/majority influence. The essence of these experiments has been to give evidence that although no manifest change in opinion is shown experimentally, nevertheless, changes in attitudes, perceptions, content of responses, the ways of thinking have nevertheless taken place. Latent effects work through tension, conflict and through the unconscious change of opinions and attitudes. Moscovici refers to latent effect as conversion:

The conversion produced by a minority implies a real change of judgements of opinions, not just an individual's assuming in private a response he has given in public. This is why we are often unaware of the profound modification in our perceptions or our ideas from contact with deviants (Moscovici 1980: 217).

A number of ingenious laboratory studies based on the concept of conversion have shown several different latent effects. The essence of these experiments was to adduce evidence that although no manifest changes are shown, these may, nevertheless, be found in the apparently '*unrelated*' experiments, e.g. in changes in attitudes with respect to '*unrelated*' issues, in perceptions, content of responses and ways of thinking. This effect, it is argued, results from the conflict in the minds of respondents. For example, Moscovici and his collaborators have shown shifts in the perceptual threshold (Moscovici, Lage, Naffrechoux 1969; Moscovici and Personnaz 1991); differences between conscious and unconscious influences (Moscovici and Personnaz 1980); indirect influence (Pérez and Mugny 1986) and influence on the way of thinking (Butera *et al.* 1991–92).

We can suggest that what goes on in the individual's mind during the process of conversion is an *internal dialogue*. What originally was externally discussed when the

issues were presented and problems created, has now transformed itself into an internal and a hidden conflict. When the internal conflict is resolved, an internal dialogue turns again into an *external dialogue*, and subsequently, into a social action.

Focusing on an *Ego-Alter* ontology, I have attempted to present the essential characteristics of dialogicality. The characteristics that I have discussed indicate that dialogicality is not about ‘a happy ending’ resulting in a reduction of tension and conflict, achieving intersubjectivity and taking the perspectives of the other. In contrast, dialogicality is both about detension and tension, about acknowledgement of the other and the struggle for recognition, and about commitment and alibi. It is about *thinking through the mouth* that is polyphasic and heteroglossic. It is about questions unanswered and wishes ignored. It is about antinomies of *Ego-Alter* that make dialogicality a plausible basis for the theory of social knowledge.

Notes

1. Cf. the contributions of Davey, Grant and Mahendran for contrasting approaches to the concept of intersubjectivity.
2. Batnitzky (2000: 113) argues that Rosenzweig’s approach to dialogue stems from his understanding of the Jewish-Christian relation which is “never one of mutuality, but always one of absolute difference [...] judgement comes from difference, but without judgement, and thus difference, dialogue, and the potential for self-transformation, would not be possible.” (ibid: 159). This idea of conflict between the two religions also constitutes the main feature of the letters between Rosenzweig and Rosenstock.
3. Mihailovic draws attention in painstaking detail to Bakhtin’s life and writing, attempting to connect Bakhtin’s work to Johannine religious philosophy of the enfleshed and embodied word. The idea of dialogical struggle resulting in heterogeneity and multivoicedness in Bakhtin’s work, Mihailovic argues, comes from christology (ibid.: 18ff.). Dialogue must be viewed as a human binding, as a contract, which provides a moral and ethical order of the religious kind. For Bakhtin, that religion was, according to Mihailovic, the Russian Orthodox Church.
4. Bakhtin used the terms ‘dialogicality’ and ‘dialogism’ interchangeably, with both of them referring to the fundamental features of social and human knowledge, of human understanding, cognition and communication. Linell (1998) has recently made an important conceptual distinction between these terms. He implies on the basis of Bakhtin’s work that dialogicality refers to the essential characteristics of human cognition and communication, while dialogism is an epistemology of human and social sciences.
5. Cf. Schmidt’s account of operative fictions in this collection.
6. This idea, that we understand the meaning of our speech action from the response of the other, can be also found later in the work of Mead (1934). See the chapters by H. Stam and L. Leydesdorff in this collection.

7. Cf. the contribution of H. Stam in this collection.
8. Cf. the contributions of R. Proietti and C. Grant in this collection.
9. See B. Paiva's contribution to this collection.
10. Transcripts were made by Sarah Collins, using the transcription notation system developed by Jefferson and outlined in Atkinson and Heritage (1984, ix-xvi) with some modifications to accommodate the use of gesture and the system of alternative and augmentative communication that the non-speakers used. The layout of the transcription is such that the actions of each participant are transcribed in two parallel columns, with the non-verbal/non-vocal actions described in the upper line of each row, and the verbal/vocal actions in the lower. Overlap between two participants' actions (e.g. between gesture and speech) is denoted by the use of a square bracket. The sign '=' is used to denote that one action follows on immediately from another (this is used both within one participant's actions, and across both participants). Italic script is used to record verbal/vocal actions. Standard script is used in the description of non-vocal/non-verbal actions. Gross motor activity, gestures, head orientation and facial expressions are verbally described, in as much detail as seems relevant and appropriate. Eye gaze direction is described by means of upward and downward arrows, e.g. ↓Talker ↑G.

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The subject as dialogical fiction

Nicholas Davey

1. Foreword

This chapter concerns itself with an aspect of the broad debate concerning the relationship between fiction and dialogue. It focuses on the question of the subject and the sense of self-awareness attached to it. As E. M. Forster might have asked, “to what extent is our sense of inner self one of art’s little lies”? To what degree is our sense of subjectivity a product of, that is, a real *fiction* of dialogue? At the outset, it should be stated that we shall approach the notion of the subject as a fiction and not as a transcendental presupposition of dialogue or experience. With regard to the meaning of fiction, we draw upon its etymological connection with *facere*, that is, we connect to the sense of something made. To argue, as Nietzsche did, that the subject is a fiction is by no means to deny the phenomenological feeling of being a subject. He certainly denied any truth to the supposition that we were phenomenal subjects independent of any cultural practice. To stress that the subject is a fiction or construct of dialogue allows for the possibility that the nature of self-awareness might be changed if we can re-make our self-interpretation and/or the nature of our discursive practices. When we acquire a new foreign language so we also acquire a different set of modalities as a dialogically aware subject. Returning to our principal theme — to what extent is our sense of inner self a real and productive fiction of dialogue? — we shall pose this question initially in two different but related ways. The first concerns the figure of Dr. Iannis in Louis de Bernieres’ novel, *Captain Corelli’s Mandolin*¹ and the second involves a curious omission in Hans-Georg Gadamer’s philosophical account of dialogue.

1.1 Dr. Iannis and the ‘Kapheneion’

In a way that he cannot fully comprehend, the island medical practitioner, Dr. Iannis, is compelled to visit his community coffee shop even though he can predict the likely conversation and its outcomes amongst the loveable religious and political bigots that populate his neighbourhood. He knows that the time given over to conversation

could be better spent preparing his surgery but despite this, as his daughter Pelagia observes, he becomes irritable if he does not heed the inner call to disappear into the *kapheneion* for a morning hour. Occasionally, Dr. Iannis intimates that what attracts him is the sheer chance of an unexpected conversational turn. But why should such a sudden turn be so attractive? Is it that — and here we come to our question — Dr. Iannis who is also the would-be island historian, feels that what he is and might yet become is tied to his participation in the daily unfolding of the *kapheneion* dialogues? Does Dr. Iannis acquire a sense of who he is by his involvement in the daily local dialogues? To what extent, then, is his sense of self a product of and dependent upon such dialogues? Can it be that the character Dr. Iannis becomes increasingly aware that, as the French philosopher and literary theorist Hélène Cixous puts it, “the other in all his or her form gives me I. It is on the occasion of the other that I catch sight of me” (Cixous 1997: 13)? Now let us turn to a philosophical dimension which attaches to Dr. Iannis’ dialogical addictions.

1.2 Hans Georg Gadamer and the philosophy of dialogue

Following Heidegger’s initiative, Hans-Georg Gadamer’s philosophical hermeneutics is vehemently opposed to subjectivism and the philosophy of consciousness which accompanies it. Gadamer’s laudable emphasis on dialogue strives to undercut the idea that aesthetic, literary, historical and even religious experience is *subjective* and instead seeks to promote it as a dialogical event in which we participate. *Experience* does not denote the sensibility of an isolated subjectivity but marks the occasion where different intellectual or cultural horizons mesh with one another. Indeed, the primary emphasis that Gadamer gives to dialogue within his hermeneutics might be described as *ecstatic* in the sense that its impetus aims at challenging our subjective experiences, seeks to expose the limitedness of our individual assumptions and endeavours to reveal that we always participate in a wider and more deeply embedded community of historical and cultural horizons and practices than we initially imagine. Following Husserl, Gadamer’s conception of dialogue is in part that its revelations will return us to an awareness of a commonly held *Lebenshorizont*. Gadamer’s arguments certainly offer a welcome philosophical antidote to the troublesome intellectual heritage of philosophical romanticism, but the question we pose is this: in his enthusiastic endeavour to supplant romantic subjectivism with a dialogically articulate account of aesthetic and historical experience, has Gadamer overlooked the role that dialogue plays in *producing* our sense of being-a-subject?

If Gadamer acknowledges that “what comes into language is not pre-given linguistically but rather receives in the word its own determination” (Gadamer 1989: 475), how does our own sense of inwardness emerge from the process of dialogical engagement? Although Gadamer’s analysis of dialogue points to this

question, he never really get to grips with it. It is the purpose of this chapter to offer some suggestions as to how we might take the question which Gadamer neglects a little further. It would, after all, suggest how his philosophy of dialogue could be further developed. We shall argue that the works of the American philosopher Walter Davis, the Welsh philosopher and theologian Rowan Williams and the German literary theorist Wolfgang Iser point towards how such a development might be articulated.

To what extent, then, is our sense of being a subject a *dialogical fiction*? Is it in fact the case that a subject's sense of inwardness is the product of dialogical involvement? We need to be clear about what our question is seeking to address for, as Hans-Georg Gadamer has observed, the significance of questioning consists in revealing the questionability of what is questioned (Gadamer 1989: 363). To this end, it would be appropriate to consider, initially, an approach to inwardness which eschews any recognition of externality. Descartes' philosophy offers a case in point.

2. Lost (but) for words

The intimate connection between our sense of being a subject and our involvement in language is well illustrated by Descartes' blindness to the linguistic dimension of human consciousness. He claims that he can doubt the existence of everything except the *cogito*, that is, he can be sceptical about everything except his self-awareness of being a thinking entity. As such, he can know himself more intimately and more immediately than anything else in the world. Descartes has, of course, no right to his 'I think' argument if he assumes that there is no other person of whose existence he can be without question certain. The reason for this is as follows. Amongst other things, 'I' means 'not you' or 'not he'. To use the word 'I' implies that whatever we consider ourselves to be, that consideration *always* involves relation to other things or people (von Leyden 1974: 126). This would suggest that we cannot consider ourselves as subjects outside the linguistic frameworks which circumscribe our world. If this is true, what the *cogito* in fact demonstrates is not Descartes' existence *per se* but the linguistic existence of others. After all, who gave Descartes his name? The question of being named raises a point which is far from arbitrary. It brings to mind the issue not only of how we are addressed but of how we address ourselves.

An ancient Mesopotamian rite and a punitive procedure of the Kalahari Bushmen have an extraordinary pertinence for our conjectures. Part of the Babylonian New Year festivities involved priests in re-naming and therefore re-affirming the place of all entities within their cosmological schema. If, because of some misdemeanour, a person was to be expunged from that order, their name was written on a clay tablet and then smashed (Sandars 1971: 11–71). The miscreant

lost his name. He could no longer be addressed, for, lacking a name meant that he was no longer part of the order of being. The fate of a miscreant in the world of the Kalahari Bushmen was similarly dramatic. The community would literally turn their backs on the offender, in a quite explicit and pointed act of ex-communication. In the instances of both world-orders, the man with no name, in effect, ceased being a man. It is, indeed, now recognized that a real and disturbing effect of prolonged solitary confinement is the damage social isolation does to a prisoner's inward sense of self. In effect, this troubling example reminds us of the creative and consoling power of that which Descartes forgets, namely, the power of language. The counter-point to Descartes' forgetfulness can be found in Heidegger's insistence that "there is no reality, no self — and no possibility of recognizing what one is as a self — without the presence of the other" (Williams 2000: 153). Heidegger's ontological characterization of human existence as *a being-in-the-world which is both with and amongst others*, effectively demolishes the empiricist notion of private mental states (Caputo 1993: 69). The subject does not find itself alien and alone, set over and against an impervious, impenetrable world, but, rather, discovers that as a linguistically orientated entity, its being cannot be conceived to the exclusion of others. However, although Heidegger's argument brilliantly subverts the mind-body problem, it also re-problematizes it.

Heidegger's argument is not that, first, there are autonomous subjects who, second, engage and with one another but rather that, first, there is a (shared) being or interactive communicative process out of which, second, a sense of self is generated. It is not that subjects negotiate with each other as if they were givens but rather that *the dialogical processes of negotiation actually generate the sense of being a self or subject*. How then does being with others linguistically allow one to come to or to find oneself? The question which Heidegger's analysis poses is pertinent. If Heidegger is right, then, as Rowan Williams succinctly argues:

No depth exists in a subject until it is created. No *a priori* identity awaits us [...] individuation is a process of becoming [...]. There is no pre-existent 'inwardness' where the real self is to be found, rather the self is found or made in the world of exchange, language and interaction" (Williams 2001: 240).

This clearly re-emphasizes the urgency of our questions: 'How does being with others linguistically bring one to oneself?' and 'What is the nature of that self to which one is brought?' However, before we turn to these questions *per se*, let us briefly re-capitulate the question raised above. Is it plausible to suggest in the first place that a subject's sense of inwardness is the product of dialogical involvement?

Before we turn to the main body of our argument, it is worth noting the general philosophic advantages of treating subjective inwardness as a product of dialogical i.e. linguistic mediation. Such treatment avoids the neo-Kantian intuitionism of thinkers such as Dilthey and the deep psychological drivers of the arguments of

philosophers such as Nietzsche. The nineteenth century hermeneutic theorist Dilthey based his empathetic theory of understanding upon the assumption that whereas human beings could never penetrate the inner character of nature, a shared cognitive and emotional framework meant that as humans we were endowed with a common capacity to understand one another. However, Nietzsche, Dilthey's contemporary, did not possess such optimism. For Nietzsche the 'psychologist', the human mind was far from transparent but was, like nature, driven by subterranean forces. These forces he tried to characterize, albeit provisionally, as 'the will to power'. Yet the overall positions of Dilthey and Nietzsche are philosophically problematic. Dilthey's psychologism can never explain how we can be certain that our representations of another's inner life are genuine representations of that inner life rather than our individual projections of it. Nietzsche's position suffers from the difficulty of trying to show how that which is unconscious (the will to power) has a consciously discernible impact upon our own self-understanding. The difficulties attached to Dilthey's and Nietzsche's positions are instructive for they point to the clear advantages of treating subject-inwardness as a product of dialogical encounter. The notion of the subject as an emergent dialogical phenomenon dispenses with the dual problems of empathetic transfer and unconscious casual agency. It can be argued, then, that it is philosophically advantageous to suggest that a subject's sense of inwardness is the product of dialogical involvement but, returning to our principal question, is it, nevertheless, a plausible suggestion?

3. Lost and found in words

If selfhood and inwardness are fictions generated by dialogue as we have suggested, it seems reasonable to suppose that the relationship between selfhood and language-participation is indivisible. As noted above, Williams declares that, "self is found in a world of exchange, language and interaction". This conception of the interactive relationship between inwardness and dialogue has, as we shall see, very specific consequences for how might we understand the inward self.

Although we might say that the sense of inward self emerges within dialogue, there is no sense in asking where discursive dialogue itself begins. As Michael Oakshott remarks in this respect:

As civilised beings we are the inheritors of a conversation, begun in the primeval forests and extended and made more articulate in the course of centuries. *It is a conversation which goes on in public and in ourselves.* (Oakshott 1962: 199)

Of that conversation, we might say that there is no buried agenda because no one decides to start talking (Williams 2001: 240). No one *decides* to start talking because language is not an instrumental invention. Gemma Fiumara argues that "the claim

that language instrumentally represents something presupposes humans who are already capable of intending and representing” (Fiumara 1995: 7). Thus, the cultural conversation which grounds our individual dialogues emerges without premonition of where it might lead, but “acquires for itself in the course of engagement a specific character and manner of speaking of its own” (Oakeshott 1962: 200).

Although there are formal constraints on what is structurally possible within a conversation, a genuine conversation is by its very nature unscripted. There might be a sense of where it will not go, but its future direction and character will remain undetermined (Williams 2001: 241). From this it follows that if the nature and direction of the cultural conversation which shapes our linguistic horizons is unpredictable, then, as Williams argues, “it is converse that gives me a self to know, (and) the continuance of (that) converse means that I have never done with knowing” (Williams 2001: 241).

It is not merely the sheer metaphysical contingency of “the conversation which is mankind” which makes our self-knowing unpredictable and always incomplete but the inherent hermeneutic instability of the conversation itself. Interpretation and dialogue invariably come to focus on subject-matters (*Sachen*) — the nature of truth, of justice, of beauty and of good person, for example, which constitute the relatively enduring but nevertheless mutable character of a given discourse or tradition. Cultural conversations function by translating previous conceptions of a subject matter into the framework of contemporary concerns. In this way the life of such subject matters is re-vitalized as they achieve a new application within contemporary horizons. However, as Iser correctly points out, as soon as a past subject matter is translated into a new contemporary register, an ineliminable space is opened by interpretation between how that subject matter was previously understood and how it is now understood. That space interpretation can never close since it is, in effect, the condition of interpretation itself.² Hélène Cixous adds a twist to this tale of the self-generating limitlessness of the task of understanding. Any interpretative attempt of a present self to find in itself what it has received from the past, must not only change what that past is presently conceived of as being but also thereby alter the conditions by means of which such a self can become intelligible to itself. Self-understanding becomes, in effect, self-deferral (Cixous 1997: 170–171).

That there is no metaphysical determinant driving the cultural conversation to which we are heir does not mean that there is nothing driving it from within. Heidegger’s conception of *In-der-Welt-sein* reminds us that our existence is always an existence within and in relationship to an inherited language world. Heidegger therefore conceives of our conscious existence as a being-thrown-into a pre-existent world of values and projects which shape our self-understanding. This involves not merely inheriting the formalities of a given syntax but also the nuances of

distinct and established semantic practices. Oakeshott elaborates the point when he comments that, education, properly speaking, is an initiation into the skill and partnership of this conversation in which we acquire the intellectual and moral habits appropriate to conversation (Oakeshott 1962: 191). Gadamer also remarks in this context:

Language is not some item of equipment which is made calculable to man in the world. On the contrary, the fact that man has a world at all is itself dependent, and present in language. (Gadamer 1989: 443)

It is clear that Heidegger's conception of self-understanding is dependent upon a shared linguistic horizon or *Vorverständnis* (fore-knowledge). However, the concept of *In-der-Welt-sein* serves to place and contextualize self-understanding within the world. It does not problematize that self-understanding. It certainly places the stress upon the ontological priority of *language*, that is, it argues that any act of self-understanding already presupposes a prior linguistic relation with others but it does not show how I can become a problem to myself.

Fiumara has no doubt that our language involvement does facilitate a problematization of self-understanding: "language has to do with the dynamics of challenge and challenge is to do with the risk of self-awareness" (Fiumara 1992: 177). Thinkers as varied as Hegel, Nietzsche and Jaspers agree that to become a conscious reflective subject (or in Williams' words, to become a being whose being is always at issue — Williams 2000: 145; Davis 1989: 43), is to experience a check or limit. In summary, the difficulty is that it can be argued that there is no sense of self and no possibility of understanding what one is as a self without the dialogical presence of the other.

Thus, self-understanding is not a matter of self-enclosure but indicative of a relatedness, a relatedness between oneself and the other. It is not just that, as Buber argues, that the 'I' is formally unthinkable other than in relation to the 'Thou'³ (against which it can be objected that whatever I grasp as a thou is still *my* representation) but also a matter of our being subjected to the living gaze or regard of the other. As Williams suggests, "self-relatedness is [...] the capacity to be seen or recognised" — a capacity which is experienced as a look directed at us which enables our own self-perception. Yet our question remains: how does a public dialogical relationship facilitate the inward development of self? Williams points to the central issue with admirable clarity:

We need to think through the ways in which the regard (look), expectation and valuation accorded by another subject deliver a reality that could be more seriously described as interior precisely because it is not open in all respects to the introspective eye. It is interior to me not because it is hidden from the other and visible to me, but because it is (also) hidden from me. (Williams 2000: 104)

How, then, does involvement in dialogue bring about a sense of interiority? How is it that language participation can problematize precisely the horizons of understanding which it make possible in the first place?

4. Insider dealing

The problematization of self-understanding is intimately connected with the problematization of the language horizons which prime our initial self-understanding. The first stage in the argument supposes a being placed within a given language-world.

4.1 Grounding in a language world

The process whereby an individual becomes a competent language user involves not only his or her immersion in a language-game⁴ and its associated dialogically constructed world but also the ability to participate in and mediate that world. To acquire a language is not just to acquire a means of communication but it is also to become initiated into a distinct way of being-in-the-world. Thus our self-understanding will be shaped by the narratives characteristic of the language-world we inhabit. Any account of experience offered by such an initiate will not invoke the ‘blooming buzz’ of actuality but an account of what is, in effect, a narratively mediate event. As Williams succinctly remarks, “to register an experience now is to know that the past I can relate/narrate is now to be seen as capable of bringing me here, producing these results” (Williams 2000: 144). However, no matter how unproblematic our initial understanding of the world may seem to be, there are at least three aspects of language that can break open our unreflective tranquillity.

4.2 Common individual narratives

Gadamer argues that what we customarily grasp as our own linguistic representations are not really ours at all but indicative of the operational presence of objective or substantive interpretative structures characteristic of what Wittgenstein would call a given ‘form of life’. In this context, the story that can be told of me does not belong exclusively to me at all since I do not control the underlying frameworks of meaning. Thus, the story I might have told of myself as a post-romantic individual struggling in his individuatedness to say something original is not so much refuted as reconfigured when I am brought to the realization that my narrative is not in fact *mine* at all but one which is characteristic of much Judeo-Christian culture. In other words, I discover to my *chagrin* that in standing apart, I do indeed stand with or

alongside. Our unreflective sense of what it means to be an 'I' is problematized as soon as that 'I' is forced to confront its correlate 'Thou'. A similar problematization of first-person understanding can occur when we are exposed to the speculative dimension of language.

4.3 Speculative difference

Hermeneutic thinkers such as Gadamer and Iser elucidate what they regard as the capacity of language for speculative difference. Gadamer is in particular concerned with the ability of words employed in regional fields of meaning to speculatively point themselves to an 'ideal' subject-matter. This is made possible by what he identifies as the idealising capacity of language to bring together what might initially appear to be disparate conceptions of a concept so as to achieve a wider perspectival range of views on that subject-matter. In *Truth and Method*, Gadamer writes:

Language itself has a speculative character [...] as the accomplishment of meaning [...] in that the finite possibilities of word are disposed in their intending meaning [...] toward the infinite [...]. All human speaking is finite in such a way that there is within it an infinity of meaning to be interpreted. (Gadamer 1989: 416)

The dual fact that concepts and meaning within my present linguistic horizon are both mediated by past concepts and meanings and, at the same time, anticipate new renditions of themselves, suggests that our present understanding is always vulnerable to having its limitations exposed. The speculative differences between the present, its past and its future, mean that there is always something more that can be said of our present understanding of a subject-matter. In a manner of speaking, speculative difference brings us back to ourselves. In our everyday modes of thinking and speaking we are swept along by the primary concerns and projects of ordinary living. What speculative difference achieves is a reflective sense of being able to inwardly relate ourselves to past and future actualizations of presently held but unthought-out meanings. Gadamer defends the view that because we have our being in language, none of us can be protected from the (occasionally disruptive) insights that the speculative nature of language will inflict on us.

4.4 Telling tales

The third aspect of language which can disrupt open our unreflective tranquillity concerns the consequences of repetition within narratives. We have already noted the importance of the narrative for our self-understanding. In a way which uncannily echoes Derrida's arguments about the capacity of iteration to produce differ-

ence in *Ltd. Inc.*,⁵ Williams observes that the self lives and moves on “only in acts of telling and re-telling” (Williams 2001: 144). Yet this repetition of narratives generates its own internal differences. Williams notes that, “every telling of myself is a re-telling for the very act of telling changes what can be told next time” and, furthermore, has consequences of which I am not in control (Williams 2001: 144). The very *act* of telling of my narrative can give rise to nuances and suggestions of meaning which I did not intend. Yet insofar as the act of telling and re-telling can have *untold* consequences, the unintended meanings can become part of my own biography. The public act of telling my narrative to another can have the effect of estranging myself from the narrative which I thought was my own.

Cixous also understands self-dialogue and the autobiographical act of writing about oneself as a way of problematizing the self. The self that sets out to write about itself becomes a different self in the act of writing about itself. Her argument is briefly as follows. There is no doubt that our past has a tangible influence upon our writing about that past. The act of writing about the past changes what we think about that past. In changing what we think about the past, the act of writing effectively changes what constitutes the past for us. The past which emerges from our writing is different from the past that we started to write about, or to put it another way, had we not written about the past, then, the unwritten-about-past would have been a different past to the written-about-past (Cixous 1997: 9–13). The act of writing about the past reconfigures my understanding of both it and myself in relationship to that past. Cixous’ succinct conclusion is therefore that “the subject at risk [...] is the subject of writing” (Cixous 1997: 172).

In summary, we commenced this section with a question: “What is it that problematizes the subject?” The suggestion we are putting forward is that it is our contingent but existentially unavoidable entanglements in various language-practices which makes the problematization of the subject not logically necessary but almost inevitable. Gadamer’s principle of the substantive within the subjective, his theory of the speculative nature of meaning and Cixous’ conception of autobiographical writing as being disruptive of unreflective understanding, all indicate how our sense of self can be problematized. It would appear therefore that it is our very linguistic capacities and involvements which fate us to the problematization of our sense of being a subject.

5. The subject as in-between

Just as Cixous suggests that the subject of writing is the subject at risk, so Walter Davis argues that the subject in question is a subject whose very being is always at issue (Davis 1989: 43). However, as Williams observes, that being-at-issue can only be a

problematic issue for those who mistakenly uphold the view that we are transparent to ourselves (Williams 2001: 240), that self-presence can be achieved without difficulty or hindrance especially if we could only be freed from the supposed distorting affects of language. The naïve supposition is that once free of such distortion, we can return to an unproblematic place of innocence and self-presence in which I can be alone and be incorrupt (or, more likely, just uninterrupted by another). The case we are putting, however, runs quite counter to this. The very *linguisticity* of our being is such that “I am always vulnerable to other accounts of myself” (Williams 2001: 241). The problem we are nudging towards is that the subject is not the condition of being problematised but is that which resides within the process of becoming problematised. Inwardness develops not by escaping or resolving the conflicts which define a subject but by refining them (Williams 2000: 153). The subject is a subject whose being resides in-between what we thought of ourselves as being and what we think others think of us as being.

Williams, following Davis, argues that the “subject is what it becomes because reflection shows that its being is always at issue” (Williams 2000: 146). The process of being questioned and of questioning is the process in and through which a sense of reflective self begins to emerge. Is not our sense of self-hood directly tied up with our dialogical being with others? How are we, then, to understand these statements? What dialogical occasions give rise to the sense that one has become difficult to oneself? Williams’ argument suggests that it is the difficulties and ambiguities of dialogue that are productive here.

We all have experiences of conversational partners becoming opaque and obtuse in meaning. I cease to ‘follow’ others’ reasoning, I no longer sense what they are ‘getting at’. It is sometimes assumed that the problem inherent in such moments is that if only we could dispense with the ambiguities of language, then empathy or direct intuition might enable us to gain a more truthful apprehension of what partners in discourse were actually trying to say. However, the difficulty that has to be confronted here is, as Williams brilliantly observes, not that of grasping a hidden or obscure self-presence but that of realizing that the obscurities and confusions of dialogue are *themselves* the root of the difficulty, albeit productively so. The task is, in other words, not to penetrate the outward utterance in order to appropriate some more fundamental inner script, but to embrace the confusions and misunderstandings of negotiation itself (Williams 2001: 240–241). Williams’ argument begins to approximate to Cixous’ pattern of reasoning: *the subject of converse and negotiation is also the subject at risk*, i.e. the subject whose being is always at issue because of its immersion in dialogical exchange. The thesis which therefore emerges is that involvement in the difficulties of dialogue opens an ineliminable ‘inward space’ which is seemingly inseparable from our sense of interiority. How so?

Just as the other in dialogue can become obscure and seemingly closed to me when I fail to understand what is being communicated, so, too, can the other reveal me to myself as being equally obscure. When I am challenged by the other to say what I actually mean, I am provoked to make accessible what I intend, what I take to be important or essential. A consequence of that provocation can occasionally be the astonishing realization that whereas I thought I was confident in what I meant to say, I now fail to grasp what in my *naïveté* seemed perfectly clear. In Williams' words, "I become difficult to myself, painfully aware of the gap between presentation and whatever else is active in my acting (Williams 2000: 144–46). Thus we begin to gain a sense of a mysterious interiority which, as we have seen Williams suggest, is "interior to me not because it is hidden from the other and visible to me, but because it is hidden from me" also (Williams 2000: 104). Thus, with their probing questions and queries, the others in dialogue incite an inward awareness of my own *terra incognita*.

Williams' argument offers a phenomenological description of the fact that dialogue can induce a sense of inward space. This can be partly explained by the overt and evidently constructive influence that Walter Davis' work with its clear phenomenological orientation has exercised on Williams' thinking.

In order to gain an insight into how dialogue might produce this inwardness, we need to turn to one of Iser's arguments. Williams argues that dialogue generates a sense of inward space at those points where obscurity and ambiguity give rise to unexpected and sometimes conflicting nuances of meaning behind what I actually said. The challenge to the clarity of what I initially took to be straightforward and intelligible opens a sense in me that far from being clear, my utterances point to associations and alignments of meaning the extent of which I clearly had not fathomed. The issue is how does a confrontation with obscurity and ambiguity and the attempt to resolve them generate a sense of interiority with hidden potentials for my self-understanding?

What Iser reminds us of is that participating in dialogue between parties requires the skills of translation, the ability to translate what another has taken me to mean into a form more congruent with what I thought I had meant. To struggle with misunderstanding and confusion requires the ability to sense that there is a difference in interpretation or register between what I remember myself as saying and meaning on the one hand, and what, on the other hand, the other has evidently taken me to mean even though I did not intend it. To recognize such misunderstanding requires an appreciation of the fact that the same subject-matter can be expressed in different ways. To put the same point slightly differently, the possibility of recognizing and, indeed, of overcoming such misunderstanding (translating from the other's register into my own and then back again) involves recognizing that there is an ineliminable difference between the subject-matter to be communi-

cated and the register or registers into which it has to be transposed. Iser puts the point succinctly:

The subject matter to be interpreted is always shaped by the approach to bear, and yet the approach is not just a superimposition but a register into which the slanted subject matter is translated [...]. Fashioning the subject matter, however, points to a difference between what is to be interpreted and the register into which it is transposed. What appears paradoxical, namely, that the subject matter is simultaneously shaped by the register and yet taken for something independent of it — is due to the liminal space that is opened by interpretation itself. (Iser 2000: 60)

Iser proceeds to the suggestion that “whenever interpretation occurs, something emerges and this something is identical neither with the subject matter nor with the register to be transposed”. Interpretation is basically performative in character; “it makes something happen and what arises out of this performance are emergent phenomena” (Iser 2000: 153). The purpose of introducing Iser to the debate can now be discerned.

If we substitute what Williams addresses as *the difficulties and hazards of converse and negotiation* with what Iser describes as *interpretation*, then *the ineliminable space* which interpretation generates can be grasped as being coterminous with that uncertain interior space which in Williams’ view opens in response to the questioning of the other. In short, Iser offers a formal insight into what Williams intuits, namely, that our sense of being a subject with interior possibilities is, indeed, a performative event, a consequence and manifestation of dialogical engagement.

6. Conclusion

We opened this essay with a reference to de Bernieres’ character Dr. Iannis and his unending fascination for conversation. It is plain that Dr. Iannis almost performs Iser’s question, “Why are we as human beings so incessantly engaged in translating something into something else?” (Iser 2000: 153). The ineliminable space which interpretation generates between subject matter and register is, we submit, precisely the space that both Davis and Williams regard as problematizing the self. It is that dialogically generated space in which our being as subjects whose being is always at issue is revealed to us. This is surely why Dr. Iannis is determined to maintain his daily visits to the village café. When we begin to sense the unfathomable interior space which dialogue opens within us, we also gain an intimation of the unending possibilities for self-understanding which it embraces. Thus the mystery of being a subject begins to be discernible. In effect, the ineliminable space

which interpretation generates and which gives rise to our sense of interiority, perpetuates itself. The more we seek to chart, map and interpret that inwardness, the more such interpretation will continue to generate the ineliminable untranslatability that drives and provokes it in the first place. This is why Davis is so insistent that we are indeed subjects whose being is precisely to be beings whose being is always at issue. This is no cause for despair for, as Iser insists, the moment that ineliminable space is threatened with ideological colonization, the possibility of all future self-understanding and learning is put in danger. In effect, however, precisely because ideology is interpretive it cannot colonize the ineliminable space.

To conclude, we might agree with Hume and Nietzsche that there is no such entity as an empirically observable existent self. Indeed, the thesis which has been argued for would be in agreement with their stance for we have been insisting that the subject and its associated sense of inwardness is indeed the stuff of fiction, that is a product of dialogue. It is something which is generated in and through the reality of our dialogical being. We have, indeed, defended the view that it is our dialogical involvements which make us problems to ourselves. It is they which open that ineliminable space which is inseparable from where *I* as a subject reside. This is the productive aspect of dialogue which we have suggested Gadamer's philosophy completely overlooks. The arguments of Davis, Williams and Iser indicate how that omission can be redeemed. In short, being a subject has nothing to do with an inner hidden self separated from all dialogical involvement. It has nothing to do with being an expression of some hidden metaphysical substance but it has everything to do with a *disposition* to dwell within the ineliminable space that our dialogical involvement opens up. As subjects, we are indeed fictions made by dialogue.

Notes

1. Louis de Bernieres, *Captain Corelli's Mandolin*. London: Vintage, 1994.
2. In *The Range of Interpretation*, Iser argues: "Each interpretation transposes something into something. We should therefore shift our focus away from underlying presuppositions to the space that is opened up when something is translated into a different register. "Translation [...] creates a difference" as evinced by the division between the subject matter to be interpreted and the register brought to bear. Its intent will be realised through the manner in which that difference is to be coped with. We shall call this difference a liminal space, because it demarcates both the subject matter and the register from one another, as it does not belong to either but is opened up by interpretation itself." (Iser 2000: 5–6).
3. See I. Marková's chapter in this collection.
4. See the contributions by B. Torode and B. Paiva in this collection.
5. See C. Grant's chapter in this collection.

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Language, communication and development of the self

Renato Proietti

1. Introduction

In the last twenty years in the field of cognitive psychology and, more generally, of the sciences of cognition, a growing interest has taken place in constructivist theories of knowledge. This interest has occurred in response to old-fashioned instructive theories based on the representationalist paradigm. Here, knowledge is conceived as internal representation of a reality made of stimuli endowed with a univocal sense and therefore intrinsically informative. These theories have failed to provide a coherent model of organization and development of human knowledge (Mannino 2002: 34).

The traditional instructive theories, which in the last fifty years have been founded upon a computational metaphor according to which the mind knows by means of mechanisms of elaboration of information, have entered a crisis brought about by scientific insights from several fields of research, such as neuroscience, systems theory, cybernetics, complexity theories and others. These have produced a noteworthy interdisciplinary convergence accompanied by a whole range of epistemological consequences (Bocchi and Ceruti 1985: 25–43). After the development of the theory of autopoietic systems in particular, influenced by Heinz von Foerster's theory of self-organization with its applicability to living systems, it has become problematic to support the idea of any direct passage of information from the environment to the individual and *vice versa* (Maturana and Varela, 1985: 31).¹

According to Maturana and Varela, at the interface between environment and individual a peculiar form of interaction occurs, known as *structural coupling* (Maturana 1993: 34). The environment can act only as a source of perturbation of a system, or, alternatively, “information is an event that selects states in the system” (Luhmann 1990: 155). However, this selection is constrained by the particular structural state of a system in a given moment of its history, which endows the information with a sense (or meaning) that is not absolute, but relative to the

perturbed system. Thus, if one wants to maintain, in epistemological terms, the metaphor of the elaboration of information, it must be admitted that:

1. An individual, as a biological system, continuously elaborates how he himself produces;
2. This product founds the *a priori* for the following elaboration;
3. The elaboration is constrained by the state of the system and (as we shall see later) by its search for stability and coherence in an alien and contingent environment.

According to Varela, the individual can no longer be considered an allonomous (or heteronomous) system such as a computer, but must be considered an autonomous system, whose ultimate aim is the maintenance of his own internal coherence. The difference between autonomous and heteronomous systems can be described in two ways:

[...] the way in which a system is characterized and the way in which the system is in relation to the surrounding environment. For the heteronomous systems the characterization is obtained by means of input-output relations. For the autonomous systems it occurs by operational closure and self-behaviours (self-determined states of internal coherence). The relations with the environment of a heteronomous system are expressed by a representation of the environment. In autonomous systems, by contrast, we find the production of a world that is indistinguishable from the closure of the system. These two ways of description represent two logics, two fundamentally different ways of operating: the first is a logic of correspondence, the second a logic of coherence. (Varela 1985: 155–my translation)²

All this brings about a crisis in traditional cognitive theories for which knowledge is still considered as *correspondence* to an objective external reality, and many cognitive therapists have therefore embraced the constructivist paradigm. However, as Mahoney has cogently pointed out, there are substantial differences among authors who claim to be constructivists, so that it is difficult to draw a sharp line between what is constructivism and what is not: from the extreme of ‘critical constructivism’ to ‘radical constructivism’³ there is a wide range of different positions.

However, the most promising positions reflect an effort in the direction of the construction of a comprehensive, scientifically based epistemological model. Mahoney, Miller and Arciero (1995: 87–95) have outlined the major conceptual features of a constructivist metatheory, focusing on the proactive nature of cognitive processes, the existence of a nuclear morphogenic (form-giving) structure protected from change (von Hayek 1952: 153–192) that gives order to the stream of experience and the self-organizing nature of human development:

Constructive metatheory [...] (a) adopts a proactive (vs. reactive and representational) view of cognition and the organism, (b) emphasizes tacit (unconscious) core ordering processes, and (c) promotes a complex systems model in which thoughts, feelings and behaviour are interdependent expressions of a life span developmental unfolding of interactions between self and (primarily social) systems. (Mahoney 1995: 21)

2. Self and knowledge

To consider thoughts, feelings and behaviour as interdependent expressions of an unfolding of interactions between self and social systems is not to contradict the fact argued above: even if an individual does not directly receive instructive information from the environment this does not mean in any absolute sense that he is isolated from the environment.

The concept of autopoiesis conceives the living (biological) system as one that, in spite of the continuous structural changes that take place in the interaction with the environment (structural opening), maintains steady in time its organization (organizational closure). This conceptualization can be considered as a development of von Foerster's thinking (with whom Maturana was for a long time a collaborator):

Living organisms perpetually compute on their sensory inputs complex abstractions, relations and decisions in order to determine the appropriate actions which will allow them to survive in a hostile and capricious environment called 'Nature'. (von Foerster 1987: 11—my translation)

The ultimate aim of knowledge is therefore survival, but in this surviving the individual must preserve a full sense of personal identity (self), to such a degree that "literally, to exist means to know" (Guidano 1992: 7). To consider knowledge as an expression of an interaction between the self and social systems, which has produced a noteworthy gain in a developmental sense, was one of the core points of American pragmatism, whose conceptualization of the self as the center of attribution of identity (Sparti, 2000: 101) is the one widely used today by cognition scientists.

Outlined by William James in his famous *Principles of Psychology*, the concept of the self was considerably enriched by George Herbert Mead, mostly in the examination of the mechanisms of its genesis as being intimately linked to social interaction. The work of Mead is often criticized, especially by psychoanalysts, because "the emphasis placed on social interactions risks wiping out the category of the subject" (Ammaniti 1989: 2—my translation) or because "[...] the interpersonal nature of the self is underlined, leaving in the shade unifying and stabilizing qualities underlined by psychoanalysis" (Galimberti 1992: 856). These criticisms

could be countered by saying that they reflect a way of thinking that is not Mead's, in whose work there is no sharp division between 'individual' and 'environmental' factors in the genesis of self. Rather, starting from the Darwinian relation between form and environment, Mead reaches conclusions that are neither idealist nor determinist.

Extending the thinking of James about the relation between 'truth' and 'reality', Mead underlines how knowledge moves from concrete problems "in the world that is there", producing adaptive answers in terms of behaviour which provokes active modifications in the world. The world is therefore continuously transformed, even in bizarre and unpredictable ways:

[R]eality does not therefore take form in a static set of individuals and things, but is a dynamic process of relations (between form and environment) crossing each other, a complexity continuously transforming relations between relations. In immediate experience, before the intervention of awareness, the organism and its environment do not confront each other face to face but are engaged in a relationship, the *act*, that is a perspective in which they reciprocally determine themselves and evolve in a parallel way. (Bombarda 1996: 14—my translation)

Taking into account Darwin's ideas about emotions (and under the influence of German psychology, particularly Wundt), Mead highlights their simultaneous value as a private fact on the one hand, and on the other as a 'gesture', that is a communicative act that the other perceives and that provokes an answer in the other: while an individual feels himself living, he communicates. The 'social act' is then defined by Mead as a 'unit of existence': the following act is then conceived as an intertwining of relations from which the forms and their environments are continuously transformed and enriched with new elements. These elements will constitute the *a priori* experience with which the individual is endowed in new relations and relative to previous constructions of experience in an interpersonal realm.

The self, conceived as the centre of identity attribution, is not then something given and static. If it expresses the search for stability and coherence, it consists of a *process* based on a continuous dialectic between the subject of my own experience ('the I') and object to myself ('the Me'). This dynamics is made possible by the appearance of language, by means of which emotion becomes idea; when the gesture communicates the idea behind it, subject to the reception of the addressee, we have a *significant symbol*. Language can thus be seen here as the exchange of significant symbols.⁴

A conscious conversation grounded in significant symbols is a mechanism of reciprocal co-ordination which is considerably more effective, in an evolutionary sense, than conversation grounded in gestures in the sense that each individual has both self-awareness and awareness of the attitude of others toward him and toward

the meaning of his idea. In this way, it becomes possible to connect the significance of symbols to the creation of cultural patterns. Similarly, the awareness of my own mind is possible only in terms of significant symbols. The thought is, according to Mead, the inner, implicit conversation of the individual with himself by means of these symbols. In the play of relations between form and environment, language is thus fundamental for the development of a self which constitutes itself in social interaction to the extent that the individual needs to develop amidst good interpersonal relations in order to develop a well-demarcated sense of identity.

Despite the fact that the living system is to be regarded as an autonomous and self-referential unit, social interaction through language and communication plays a fundamental role in the development of a full sense of personal identity. Culture is also a process generated in the interaction between form and environment. It is thus useful to ask if there are relations and reciprocal influences between culture and personal identity, what such relations might consist of, and what role is played by language and communication. Recent hypotheses on the phylogenetic development of consciousness will be illustrated, and an epistemological model of the ontogenetic development of self will be described that takes into account the issues raised above.

3. The evolutionary development of language

Evolutionary epistemology considers knowledge to be the emerging result of biological and adaptive processes: “knowledge in fact becomes both a biological and psychological process, and this makes it possible to consider it [...] as a specific field of the natural sciences” (Guidano 1988: 22). A good approach to the study of human knowledge thus consists in the study of its evolution, from the appearance of *Homo habilis* to *Homo sapiens*, followed by the study of cultural influences on the modification of consciousness.

Language is, in an evolutionary sense, a human innovation: *Homo* is a speaking primate. Naturally, language did not originally appear as we know it today, but there was a long period in which language, consciousness and communication ability slowly co-evolved, undergoing substantial modifications.

The phylogenetic development of language has been studied in two main ways: the observation of endocranial prints of fossil reports that give evidence for the appearance of Broca and Wernicke areas⁵ and a comparison with the development of techniques in the *Homo* species. Since the development of language takes place together with that of the hand, anthropologists think that the opportunity for the development of the central nervous system that has made possible the appearance of language is closely linked to the appearance of bipedalism and manual prehen-

sion. The mouth becomes free from the duty of offence and prehension, thus facilitating the anatomical modifications (essentially, a reduction of muscular mass necessary for prehension and mastication) that permit the mobility of the tongue and of the glottis as well as the more important role played, in the human face, by mimic musculature (Eccles 1989: 35; Groppo and Locatelli 1996: 37). As a first step, this transformation allows a certain progression in *protolanguage*, i.e. the expression of emotive states and the provocation of a reaction in the other (Popper and Eccles 1981: 549; Eccles 1989: 102).

The erect position also allows reduced effort to support the head: the cranial vault can thus be extended in both the occipital (*Homo* is a 'visual' rather than 'olfactive' animal) and, more importantly in this digression, the frontal regions. The progressive opening of the frontal fan is due above all to the enormous expansion of language areas and of the sensory and motor cortex in which hand and mouth are represented: the history of language and consciousness is the history of development of Broca and Wernicke areas and of their interposition between the limbic and frontal (motor) cortex (Groppo and Locatelli 1996: 27)

The limbic cortex which presides over emotional-affective experiences, begins to have, in addition to direct connections with the motor cortex, connections mediated and modulated from language areas. These experiences become a part of the observational field of consciousness, rendering possible modification in the human sense. Eccles (1989: 249–274) also argues that lower animals show forms of consciousness which integrates emotions and behaviour, but only in the primates is it possible to demonstrate the presence of a rudimentary *self-awareness* and only *Homo* possesses *self-consciousness*.

The anatomical modifications that allow the progressive emergence of self-consciousness are nevertheless specific to the species: all human beings share the same structure that, considered in isolation, could never explain the fact that each of us 'feels' himself to be an individual, different from others. An explanation of this issue must be sought in the fact that the modifications of human consciousness produced by the emergence of language take place in an interpersonal context, where language offers the possibility of reciprocal confirmation and the sharing of private experiences, that can become collective and cultural experiences that may act recursively upon individual consciousness and so become new personal experience.

It is possible to speak [...] about a new utilization of mental space where the cultural element becomes dominant. The way in which a certain need is met no longer constitutes an immediate and instinctive answer, but becomes something acquired, handed down and differentiates one group from another. The main instrument of this cultural process is language. This enables the creation of meanings, their sharing and transmission in time (Groppo and Locatelli 1996: 52–my translation)

Language brings with it a slow but dramatic change in both individual knowledge and the possibility of communication. At the level of the individual a progressive *decontextualization*⁶ (Denny 1995: 71) from immediate experience takes place. The perception of environmental perturbations had been entrusted only to emotional structures with a limited range of adaptive behavioural answers. By contrast, the new ingredient brings with it an increase in internal complexity for which immediate experience is re-ordered in regular sequences, with the appearance of conscious mental representations from the first 'mental images' to symbolic thought, that interlock with emotional structures which in turn modulate these in intensity and length.

In this way, a circular dynamics slowly takes place between emotional immediacy (tacit and preconscious) and semantic re-ordering of this immediacy by means of which the individual gives meaning and significance to the experience (Guidano 1988: 24–25).

This dynamics is not merely accompanied by a more sophisticated mode of the elaboration of object experience; rather, the appearance of self-consciousness enables the human being to perceive him/herself both as a subject of experience and as an object of his/her own experience. This dynamics is in fact also one between 'emotional experience' and 'explaining' this feeling to live through which an organism pursues the ultimate aim of knowledge, namely the maintenance of a sense of personal uniqueness and coherence.

At the same time, at an interpersonal level, the opportunity of having the full gamut of semantic representations introduces a more complex possibility of sharing experience through communication, and this process enriches individual experience with possible new meanings in a circular and recursive process,⁷ allowing the social construction of cultural models in an essential dynamic between creativity and sharing.⁸

The meaning of experience comes to be elaborated at more and more complex levels, but it is always constrained by the tacit order given by underlying immediacy in the sense of immediate, pre-logical knowledge: a human being does not explain or represent to himself an external and independent reality, but his own immediate way of perceiving the experience, the tacit order with which he endows the environment with a personal meaning (Guidano 1988: 100).

It is only by virtue of a common biological structure and common cultural history that experience can be said to be shared. Maturana (1993: 81–85) affirms that what is commonly referred to as 'objective reality', in the absence of any possible objectivity might instead be named experience shared in the domain of language.⁹ The dimensions by means of which the meaning is elaborated (Gropo and Locatelli 1996: 42–66; Guidano, 1999: unpublished) are set out below.

Sequentialization

If the experience is decontextualized, detached from its immediate, pre-logical and emotional sense, then it is possible to connect the events between them in a chronological and causal sense. The experience comes to be ordered in stable sequences, and by means of their repetition one can exert a certain degree of predictability as to the consequences of his own and others' behaviour.

Abstraction

Abstraction is the ability to create concepts that do not exist as immediate objects of perception, through which it is possible to give explanations and attribute meanings to immediate experience.

Flexibility

Flexibility is the ability to modulate and modify one's own explanation of ongoing experience in an interpersonal communication context.

Generativity

Generativity is the ability to attribute meanings of a general order to the ongoing experience.

Another important consequence of the development of language and self-consciousness is a deeper structuration of the sense of identity and alterity. To recognize oneself as an individual means to recognize the other with the same characteristics, and to be aware of one's own mental states means to attribute mental states to the other. This phenomenon is called *mentalism*.

If at an interpersonal level the dynamics between individual and environment is based on the dialectic between creativity and sharing, at the intrapersonal level the sense of self is built and self-maintained through the continuous dynamics between a sense of demarcation from the context and a sense of belonging to the same context (the need to feel oneself as an individual in a social group). Mead, influenced by the sociology of Cooley, affirmed that man recognizes himself by means of mechanisms of focusing on contrasts (*looking-glass self*). The self-recognition as an individual at once demarcated from and belonging to a social context are necessary for the development of a full sense of identity.¹⁰

4. Consciousness and culture: from orality to literacy

In anthropological terms, the progressive development of the above mentioned dimensions makes some important evolutive conquests possible. Modifications in

the cranial vault that permit the development of the brain areas proceed at the same pace as the development of the hand and modifications in the face. Thus, human development can be conceptualized as the progressive expression, with many reciprocal influences, of technical (the hand) and linguistic (the mouth) abilities, with the integrative function carried out by consciousness in evolution (Eccles 1989: 63–129; Groppo and Locatelli 1996: 60–66).

It will be clear then that sequentialization, abstraction, flexibility and generativity do not appear *ex abrupto*, but follow the non-linear rules and time of evolution: in the case of lithic industry, it is believed that the passage from the manufacture of the ‘choppers’ (who required only vertical blows) to that of faced flint-stone knives (which requires vertical and edged blows in sequence and a more refined utilization of the hand) required several hundreds of thousands of years (from *Homo habilis* to *Homo erectus*), while all our cultural progress is based on a brain structure that is only 40–50 000 years old.

The manufacture of ‘choppers’ represents the beginning of lithic industry, and probably coincides with the first form of language known as vocal grooming.¹¹ Unlike grooming among *Macacus Rhesus*, the first hominids can maintain contact without continuous bodily contact. This offers advantages in terms of survival, for example, in the practice of hunting.

With *Homo erectus* progress in the development of manual abilities and in the mobility of the shoulder allows the production of smaller tools and the facing of flint-stone, while at the linguistic level vocal expression begins to associate itself with gesture (verbal-motor communication). The first artistic production begins to bear testimony to the channelling at the technical-practical level of an emotivity recognized as such and detached from the immediate enjoyability of the tool that is produced.

With *Homo sapiens neanderthalensis* there are the first examples of earthenware, and probably the development of mentalism. A rudimentary funerary activity suggests the structuration of the sense of alterity, with the need to maintain a sense of closeness and affective reciprocity even after death. The development of mentalism allows a significant increase in communicative abilities, in abstraction and flexibility. Men begin to join in tribes comprising several familiar groups and to assign different roles in the social group. There is also the beginning of co-operation, and with the appearance of *Homo sapiens sapiens* the transition from the nomad condition of hunter/gatherer to the permanent condition of farmer/breeder.

The cultural models generated in the circular dialectic between creativity and sharing do not always represent faithful copies of an aleatory external reality, but ever more sophisticated strategies for survival in the environment (in the sense of von Foerster above), and at the same time tools for maintaining affective reciprocity and social cohesion. In the transition from nomadism to permanence, the

definition of social roles has a great importance in demarcating a sense of uniqueness and belonging to a social group. In the circular dynamic between individual and environment, man on the one hand finds himself in a condition in which awareness of his own mental states and the possibility to discriminate them from those of another involves the irreducible emergence of the sense of self, with the need to feel himself as unique and inimitable. On the other hand, there is also the need to maintain and enrich the relations of closeness and affective reciprocity with the social group (Gropo and Locatelli 1996: 67–89).

Since the sense of demarcation could not eclipse the sense of belonging, the problem of these societies was indeed the transmission of culture and social rules in the absence of written codes. In this situation communication was strictly committed to memory, and then the characteristics of communication were inclined to facilitate mnemonic storage rather than analytic reasoning: short phrases, continually repeated, intercalated narration; rhyme was often used; talk was cadenced and rhythmic, often accompanied by a musical instrument. However, the main result of this kind of communication was the *emotive involvement* of the individual: social rules had to be assimilated from each individual, who had to identify himself with the rules, or rather with a man (the ‘hero’) in whom these rules were embodied. Narration did not follow any causal or chronological sequentialization, but set out to involve the individual in a common myth.

It is therefore highly plausible that the characteristics of consciousness were very different from those encountered today. This argument has been debated by Jaynes who has identified in the correspondence between Mesopotamian culture and the invention of writing some striking changes in human consciousness. Jaynes primarily offers a description of better internalization of mental images subsequent to the advent of literacy: man discriminates better between an inner and outer space (Jaynes 1984: 185–351).

This argument can be justified considering that the processes of collective adherence to myth and the processes of identification were no longer necessary for the transmission of rules and culture, allowing some progress in the demarcation of the sense of self.

It would go beyond the scope of this collection to give appropriate emphasis to the full range of the implications of the advent of literacy: for the purpose of this chapter it is important to focus upon the modifications in the characteristics of consciousness. Firstly, oral *sequentialization*, in a context such as the one outlined above, was rather rough-hewn and did not have any chronological or causal rigor, close as it was to the magical world of myth, where neither time nor analytical thought exist. Secondly, analytical abilities require a distinction between knower and known, and this is enormously increased by literacy. The sequences of consciousness become ordered in a chronological (with literacy History is born) and

causal sense, with the prevalence of visual and analytical abilities over others. Thirdly, oral *abstraction* and *flexibility* were confined to narrow margins by the processes of collective identification, and this resulted in poor *generativity*: with the possibility of comparing different knowers against one known, literacy brings about a dramatic increase in these properties (Groppo and Locatelli 1996: 91–125; Guidano 1999 (unpublished)).

All this has consequences for an increasingly articulate self-consciousness. We could say that the Greek man of 7–8th century B. C. discovered inner space, but did not possess the words to define it. In the gradual transition from orality to literacy which was completed as recently as the 15th century with the invention of printing, there is the development of ‘metalanguage’ or ‘meaning metalanguage’ (Olson and Astington, 1995: 429–446), that is the definition of abstract categories which define inner space.¹²

As is well known, the properties mentioned above are not present in human beings at birth. In the next section we shall consider the development of the self as the progressive articulation of all these properties bearing in mind that both phylogenetic evolution and ontogenetic development consist of a biological development which is not simply immersed in a cultural context, but from the first moments plays an active part in the construction of that context.

5. The development of the self

In a constructivist framework, the elaboration of a model of development of the self must take into account the three main points outlined in the introduction. Furthermore, since it is possible to consider knowledge as an emerging property of a biological system living in an environment, one can take the following into account:

- a. A parallelism between the phylogenetic evolution and the ontogenetic development of the biological system.
- b. The environmental influences in the continuous circular interaction with the biological system, i.e. the continuous sharing of experience.

We must also remember that the environment is not static and unchangeable, but undergoes continuous change: in this way, neither self nor environment can be considered anything other than processes, and the development of the self can be conceived as the emerging result of the continuous intertwining of two processes.

In the first phases of this intertwining, the process is clearly constrained by the development of the biological-maturative substrate, i.e. the development of the central nervous system, and the individual follows from intrauterine life onwards the principles of autopoiesis. However, the individual grows up in an attachment

relationship that can be considered his 'environment'. From this derives the importance of attachment relationships in the development of the self.¹³ This relationship can be conceptualized as the interpersonal matrix for the development of self conceived as subjectivity (that is, the epistemological consequence of our ontological individuality).

At birth, the newborn already possesses a structure markedly geared towards interaction. Trevarthen has shown that from the first moments the newborn can individuate the emotive states of the mother, and that between the two individuals a biunivocal synchronization of rhythms takes place. This means that the newborn does not passively receive information from the other, but actively organizes his own way of perceiving the environment.

Communications with the environment are clearly committed to the emotions: the newborn possesses at birth the *basic feelings* that in a very short time will become *non self-conscious emotions*, with the acquisition of *protolanguage* and the beginnings, in communication with the mother, of *protoconversation* (Trevarthen 1998: 104).

In this protoconversation, one emotion mediates the attachment to the mother while another mediates the detachment (the newborn possesses an innate behaviour of exploration), The more 'elicited' emotions in the relationship will constitute the boundaries for the construction of *emotional schemata* in the ongoing constitution of the unitary organization of the emotive domain which dominates the first four years of development and represents the necessary tacit basis for the development of the explicit level of knowledge (Guidano 1988: 42–45).

Over a period of months the growing cognitive faculties allow a better 'managing' of internal states and, at almost ten months, other emotions appear which are specific to humans who need a sense of alterity (which emerges with ambulation): the *self-conscious emotions*, such as shame and pride, that specifically regulate the interaction with the social environment and that serve to render more complex the constitution of emotional schemata (Sroufe 2000: 318).

The first four years of life are marked by the organization of emotive patterns of knowledge: in respect of cognitive abilities the child lives in a completely oral dimension in which the properties of sequentialization, abstraction, generativity and flexibility are very limited. The child tells himself stories without time and acquires elementary concepts, yet this phase is very important for the foundation of an emotive substrate (that serves to constitute the *tacit* level). In the following years, growing cognitive abilities will explain their role of decontextualization which will remain however constrained to the boundaries of the tacit, hierarchically superordinated knowledge.

At the age of four, as demonstrated by the studies on the theory of mind, the child acquires a better, more structured discrimination between inner and outer

space. The child acquires self-consciousness and mentalism (awareness of others' mental states) and begins to use personal pronouns. This is where the walk from the oral world to the scriptural one begins — with the progressive development of language and cognitive abilities: the new 'ingredients' of knowledge begin to interact with the emotional domain, giving a *personal meaning* to experience. Sequentialization, abstraction, generativity and flexibility constitute the *dimensions of the elaboration of personal meaning* which will develop in dimensions such as abstraction/concreteness, flexibility/rigidity, generativity/fatuity¹⁴ as a function of the quality of attachment relationships (Guidano 1999—unpublished).

In summary, it can be said that immediate, emotive knowledge, however decontextualized from these properties, constrains them, i.e. the cognitive abilities do not explain 'the reality', but the self's own immediate perception of the world (as Mead said, 'the Me is the I of the moment immediately after'). In this way, the organization of the emotive domain becomes *Personal Meaning Organization* (Guidano 1992: 31–65).

This process becomes more structured at the age of ten-twelve, with the emergence of logical-abstract thought and the consequent 'adolescent revolution', when the inner is completely separated from the outer: this is where the construction of metalanguage begins as a 'personal metalanguage' in which the adolescent, during the teens, goes towards the construction of his own inner space.

6. Conclusions

We have seen how, in an evolutionary sense, the development of actual consciousness is the result of the co-evolution of man and his environment: for a very long period there has been a slow modification closely linked to the appearance and progressive development, in the central nervous system, of the areas that control language with the concomitant, progressive increase of the sense of reciprocity and the development of culture that have opened up extraordinary possibilities in terms of survival and preservation. The last 2500 years are characterized by the influence of literacy upon both communication and consciousness.

The ontogenetic development of consciousness and self can be conceived on an individual level as the reproduction of phylogenetic development: we can conceive psychological phenomena as the result of the interaction between nature (the individual as a biological system) and nurture (the culture in which he grows) without the possibility of an artificial separation. This is precisely on account of the reciprocal influences between nature and nurture: one is the product of the other.

The self can be identified neither with consciousness nor self-consciousness: it is not immanent and unchangeable. It can be conceived as a *process* (Guidano

1992: 1) which develops itself continuously and simultaneously on two levels, the second of which is made possible by the emergence of human language: a *tacit*, unconscious level ('the I' of James and Mead) and an *explicit*, conscious level ('the Me' of James and Mead). These account respectively for immediate, emotive knowledge and for the semantic re-ordering, sequentialization and regularity of the first. These two levels, however irreducible one to another, co-operate recursively in the construction of personal meaning.¹⁵

Notes

1. See B. Porr and F. Wörgötter's reflections on informational recursivity in this collection.
2. The instructive theories of knowledge, based on the notion of the existence of an external reality independent from the observer, consider the human being as a heteronomous system, a passive receiver of information endowed with a univocal sense, and knowledge as a progressive, linear progression towards the attainment of absolute reality. Compare the contributions of C. Grant and S. J. Schmidt in this collection (editor's note).
3. See S. J. Schmidt's chapter below.
4. See S. J. Schmidt's reflections on semiotics in this collection.
5. The Wernicke area (areas 41 and 42 of Brodmann) is considered (Adams and Victor, 1989: 319) the *sensitive area* of language. It is placed in the rear side of the temporal cortex, near auditory areas, and is responsible for the perception of spoken language. It is strictly linked to area 39, responsible for the understanding of written language, and to the limbic cortex, responsible for emotive-affective experiences. The Broca area (area 44 of Brodmann) is responsible for the motor function of language. It is placed in the rear side of the frontal cortex, near the motor cortex.
6. Compare the reflections on context in M. C. Vidal, A. Avgerinakou and K. Mahendran in this collection.
7. See the contribution of B. Porr and F. Wörgötter in this collection.
8. Communication cannot be conceived here as a direct passage of meaning but instead, if information is considered as the perturbation of a system in an environment, represents the search for a mutual coordination through reciprocal perturbations which in turn takes the form of the sharing of meanings.
9. See the contribution of S. J. Schmidt in this collection.
10. Compare this formulation with I. Marková's reflections of the antinomies of dialogism in this collection.
11. Grooming is a practice by which *Macacus Rhesus* maintains the sense of reciprocity with family members.
12. As an example we can consider that the etymology of terms that we use today to describe moods were closely linked to bodily characteristics: the 'phlegmatic' had an excess of

'phlegma' (lymph), the 'choleric' an excess of 'kolè' (bile), etc.

13. The conceptualization of attachment as can be found in the original formulations of Bowlby (1979) and in the systematization of, for example, Main (1985), Ainsworth (1979), Crittenden (1999) born of studies of psychopathology will not be described here since interest focuses on the development of the self.

14. In psychopathology fatuity denotes the tendency to comply without critical evaluation of the environment.

15. Beyond the possible speculations, from the basic dialectic of tacit and explicit knowledge, via the concepts of understanding and explanation, in the last years of his life Guidano, together with Arciero, had worked with the theories of Paul Ricoeur on narrative identity, conceiving the sense of personal uniqueness as the result of the dialectic dynamic between a sense of identity as *permanence and continuity* ('sameness', 'idem identity') and a sense of identity as *discontinuity* ('selfhood', 'ipse identity') (Arciero 2002).

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Addressing oneself as another

Dialogue and the self in Habermas and Butler

Henderikus J. Stam

1. Introduction

To be constituted in language, Judith Butler argues, is the result of being called a name. Yet, to be called a name can also be a form of injury. This dependence on the address of the other both sustains us and makes us vulnerable. The contemporary notion of the dialogical self can be understood as one attempt to represent this conflict of our sociality and dependency. In this chapter I contrast the work of Jürgen Habermas on individuation with that of Judith Butler on subjectification. I try to understand the dialogical self as something that approximates Butler's argument: it is from within the terms of language that the body comes to have a meaningful existence while the discontinuities between the body and language threaten our coherence as autonomous subjects. If the notion of the dialogical self is to be any advance over functional psychology it ought to be able to address both our radical sociality as well as the individuality it makes possible.

This chapter will address a fundamental concern that is raised by the contemporary use of the notion of the dialogical self.¹ By the latter I am referring here to the renewal by Hermans and Kempen (1993) of a tradition of seeking the foundations of a 'self' in dialogue and alterity rather than in the Cartesian convention of individual cognition.² The dialogical self as construed by Hermans and Kempen (1993) and Hermans (e.g., 2002) is a reference to a "multiplicity of I-positions in the landscape of the mind" wherein "the *I* fluctuates among different and even opposed positions, and has the capacity imaginatively to endow each position with a voice so that dialogical relations between positions can be established" (Hermans 2002: 148). The concern I wish to address is the problems raised when we are said to have selves that are in dialogue and the degree to which this way of articulating a set of concerns about self and identity raise further difficulties.

In addressing this question I will draw on recent work by Jürgen Habermas and Judith Butler to allow me to ask the question in an appropriate way. I will try to come to a few tentative conclusions by suggesting that the dialogical (or any other conception of) self can never be an abstract device used wily nilly to solve problems of technique and mastery although it may have a place as an open-ended bridge to questions of practice. The issues are straightforward: if dialogicality is not to be subsumed within the traditional functional, neo-positivist project of psychology wherein the concept is essentially meaningless,³ it requires a home in a broader epistemological and developmental framework. Habermas and Butler provide two contemporary examples, albeit from dissenting positions, of what such a framework could be.

2. Can there be a non-Cartesian self?

The conception of a non-Cartesian self is a difficult task for the contemporary psychologist, confronted as we are routinely by functional and cognitive models that are deeply embedded in a tradition of dualism from Descartes to Hume and forward to psychology. Indeed, the very reference to a self already implies a ‘Cartesian Theater’ (Dennett 1991) from which we can barely escape. The word ‘self’, originating as it did in Gothic and Scandinavian meant simply “the only one that exists.” Later usage in the Germanic languages added the meaning of sameness and identity, as in ‘himself’ or ‘herself’ (Oxford English Dictionary). Its use as a technical term in the vocabularies of enlightenment philosophy and later, psychology, incorporated a number of well-known features of the Cartesian and empiricist heritage. Most prominent of these is the conception of the self as autonomous. This feature of the self is derived from our conception of it as the subject of consciousness whose experience of the world is always indirect. Secondly, the self is also self-sufficient. The problem is succinctly phrased as follows by David Bakhurst:

Since nothing can affect the Cartesian self except by becoming an object of its thought, it can enter relations with others only insofar as it is already able to think. Therefore, its capacity to think cannot derive from its relations to others. It follows that what it is can, indeed must, be explained without reference to other selves. [...] Cartesianism encourages the view that the capacity to think is not something derived at all. Rather, Cartesian selves come *ready-made*, they spring into being with the essential apparatus for thought intact. (Bakhurst 1991: 204)

Autonomy and self-sufficiency are problems of the self that survive into empiricism and nineteenth-century psychology. Through James and the late-nineteenth century psychologists it enters functionalism and earns a place in the literature of

psychology. Its integration with the nascent discipline of psychology ensured its continuing presence as a codification of problems of autonomy and self-sufficiency, a confirmation of individualism that came to describe psychology's approach to personhood.

When we speak of a dialogical self, then, can we shed the heritage that the term itself has given us? Is it possible that the baggage of the autonomous and self-sufficient self is carried along as residual meaning? On the other hand, is the recuperation of the self as dialogical not just another project of a deeper, more authentic self yet still unconsciously Cartesian, a self arising now out of critical traditions associated with Bakhtin, Vygotsky and Mead. And if so, is it possible that the epistemological and anthropological project of the authentic self (cf. Taylor 1987) has remained continuous precisely because we still worry about an intentional self in the context of dialogue. It is a self that has multiple intentions but is nonetheless reminiscent of its earlier incarnation as a point-like entity? In other words are we just imposing another epistemic order on subjectivity?⁴

3. Habermas on self

In order to examine this problem and its relevance for psychology I will briefly return to Mead⁵ and the manner in which he is interpreted by Jürgen Habermas.⁶ In this I seek not only to clarify what we might be discussing when we speak of a dialogical self but to argue that we cannot proceed without a developmental or originary account of such a self if we do not wish it to be psychologically empty.

Habermas stands at a juncture of modern thought, falling into neither tradition that Charles Taylor has claimed for successor projects to the tradition of the 'point-like' self. Habermas rejects the Nietzschean project of Foucault and others for its abandonment of critical reason while he is equally concerned that the late Heideggerian project ends in a fatalistic encounter between linguistic world-disclosure and inner meaning (Habermas 1992). Or as Taylor notes, Habermas rejects the abandonment of reason altogether in favour of a procedural ethic based on a theory of communicative action. Given the unique position that Habermas occupies in contemporary thought on the self, I want to explore his understanding of Mead and the question of individuation and its relationship to a social world. Habermas attempts to find his way out of the conundrum contemporary social theory has created: is individuation merely a process of subsuming the individual within universal categories (individuation as illusion) or does there yet exist a place for genuine moral and existential self-reflection? It is the latter that he wishes to rescue in his account.

Habermas sees in Mead the possibility of working through, by revising and emphasizing certain aspects of Mead's thought, the manner in which we find ourselves via an "externalization in other things and in other humans" (1992: 153). In short, Habermas conceives of the meaning of individuality "in terms of the ethical self-understanding of a first person in relation to a second person" (1992: 169). This procedural ethic is a central issue in Habermas, and hence his interest in Mead is hardly limited to the theoretical problem of individuation. The understanding of a self is always marked by teleological concerns; what we are implies what we can (and should) be and how it is possible that relationships are constituted.

Mead famously begins with a notion of interaction as gesture-mediated. The key to reading Mead for Habermas is the problem of recognizing oneself in the other. Hence the "elementary form of self-relation is made possible by the interactive accomplishment of another participant in the interaction" (Habermas 1992: 175). But, for Mead, this "gesture-mediated interaction is still steered by instinct" according to Habermas (1992: 175–6). With the development of vocal gesture, however, the "actor affects" herself "at the same time and in the same way as" she "affects" her "opposite number." It is *this* that makes "original self-consciousness [...] not a phenomenon inherent in the subject but one that is communicatively generated" (Habermas 1992: 177). That is, because a vocal gesture obtains meaning for the person who utters it, "from the perspective of the other who reacts to it" (1992: 176). Here the "stimulus turns into a bearer of meaning" (1992: 176).

To this point, the position is uncontroversially Meadian. Habermas advances his position here by arguing for a distinction that Mead does not make, one that follows from Mead's distinction between an originary self-relation founded on communication in vocal gesture (prior to language) from the self-relation that becomes possible in language,⁷ one that is genuinely linguistic. This latter self-relation "discloses the domain of representations attributable to me" (Habermas 1992: 178), that is, makes it possible for me to know what is my thought. Habermas calls this the *epistemic self-relation* (translated from the German *Selbstbeziehung*) which emerges on the basis of a "reorganization of the stage of prelinguistic, instinct-steered interaction" (178). But, he argues, there is blurred in Mead's work a second kind of self-relation that emerges at the same time. This is the *practical-relation-to-self* (*Selbstverhältnis*).⁸ It is required because symbolically mediated interaction allows one to monitor and control one's own actions, not through a common instinctual repertoire but through self-referential cognition. That is, the instinctual basis of human action is a reactive process. Self-reference introduces an entirely novel level of human self-control. The epistemic "me" is the seat of self-consciousness whereas the me of the practical-relation-to-self is an agency of self-control (and hence desire).

This concept in Habermas is recognizable in Mead's concept of the 'taking the perspective of the other' or the 'me' that is the generalized other and hence is capable of conforming to an immediate world. But the 'I' in this 'I-me' relation of the practical-relation-to-self is not an epistemic 'I' but an 'I' that is the source of impulses subjected to control as well as the "source of innovations that break up and renew conventionally rigidified controls" (1992: 180), in short, the source of both impulsiveness *and* creativity or originality. By departing from the usual, transcendental 'I' in Mead, Habermas claims for the 'I' of the practical-relation-to-self the source of the experience of the 'I-will' as in 'I can posit a new beginning.' Hence, on Habermas' account there are two levels of self-relation in Mead. One allows us to recognize what is legitimately ours cognitively, such as our memories — this is a version of the epistemic self-relation (the 'I' in this 'I-me' relation is the 'I-know'). The second self-relation allows us to apprehend ourselves through the eyes of others while simultaneously allowing us to creatively change this object of apprehension that is the product of the gaze of the other. This second self-relation is the more important for it is the source of originality, nonconformity and individuality. Simultaneously it is the source of our reassurance, argues Habermas, that we are the source of our own action. This reassurance is possible only if we first constitute ourselves as accountable individuals within a particular community by internalizing its norms and mores and only then either follow or violate those norms and mores. In short, by dividing the Meadian self-relation into two separate spheres Habermas clears the way for understanding intersubjectivity.

Habermas takes this particular account as a source of communicative action but it has one implication for him that I would like to draw out in this context before moving on to Judith Butler's work. On a traditional interpretation of Mead, the 'me' is the bearer of moral consciousness that adheres to the conventions of a specific group. It should be recalled, however, that on a number of sociological accounts, individuation is an obligatory or, at least, normative project in modern (or 'postmodern', 'postindustrial') societies. This obligation to have a self-project is nothing less than the demand that we act in ways consistent with (and feel this action as appropriate to) what is expected of agents that are autonomous and self-determining. These actions are to be combined with a conscious conduct of life or self-realization. The self from which these independent achievements are expected is thoroughly social, on Habermas' reading of Mead, as well as individual in the possibility of the 'I' to posit the 'I-will.' The separation is a principled, not an actual one. Individuation here, on this reading of Mead, proceeds through the social and socialization proceeds through the individual.

With respect to Habermas' procedural ethic, there is an important conclusion that he draws from this account. Individuation, by its very nature, eventually

demands what Habermas calls a ‘post-conventional morality’, that is, a morality not governed by rigid conventions. A post-conventional identity however must also be conceived of as socially constituted, that is, as another moment of an ‘I-me’ self-relation. The ‘me’ here is no longer constituted as a response to others’ agreement with my judgement but on others’ recognition of my claim to *uniqueness*. That is, we remain social beings who engage in the project of individuation and self-determination precisely because we are social beings whose validity claims *presuppose* a recognition of one another’s autonomy. Identity, then, is not just a matter of belonging to a particular group or culture but a matter of being recognized as a *unique* member of one’s group or culture. It is through recognition of uniqueness (one’s own and that of others) that an individual is capable of developing a post-conventional morality.⁹

Habermas’ account is important for reviving an understanding of Mead that simultaneously stresses the “intersubjective core of the ego” and shows that a “post-conventional ego-identity does not develop without at least the anticipation of transformed structures of communication” (1992: 200). Habermas posits a self that retains a measure of emancipatory potential within which the post-conventional ego must struggle against the potential forms of domination as well as forms of rationality that deny the uniqueness and autonomy claims of individuals. Indeed, he argues that our performances cannot be rational choices steered by preferences but can only be moral self-reflections requiring “the taking up the perspective of the other” (199). In conceiving of the self as an abstract ‘I-me’ self-relation it is possible to return to the universal conditions of communicative action — just the sort of emancipatory theory Habermas has in mind.

Psychologically, Habermas’ conception of the two forms of self-relation is an attempt to retain for the human self both the requirement of autonomy and individuality that is demanded of contemporary forms of life as well as a measure of universality for the self. The self is at once historical, by virtue of its origins and universal by virtue of its practical-relation-to-self. Habermas believes that he can escape the bind of the transcendental ego on the one hand while avoiding the relativism of historicism on the other. On this account he avoids both the scientism of the self found in psychology as well as the relativism of the self of the constructionists and post-modernists. Indeed, Habermas has always been clear about the teleological claims of his theory and the view of human nature that can support such a valued account of the ends of human activity. His theory of communicative action claims after all that, ideally, “argumentation insures that all concerned in principle take part, freely and equally, in a cooperative search for truth, where nothing coerces anyone except the force of the better argument.” (Habermas 1990: 198).

Let me briefly address one problem with the Habermasian theory of selfhood, namely that as a residue of its impulse towards universalism, the theory posits self-

relationships that must be of a certain kind. The self begins in oral gesture. It owes its existence to the place it has as the primary impulse of a body. The body that is so addressed, that is, the body of the infant, is already thoroughly signified as being a particular kind of body that has a gender as well as familial, ethnic, social and other kinds of figurations. An infant receives a name, and as Judith Butler reminds us “one is, as it were, brought into social location and time through being named. [...] the name, as a convention, has a generality and a historicity that is in no sense radically singular, even though it is understood to exercise the power of conferring singularity.” (Butler 1997a: 29).

The development of the “I-me” self-relation proceeds first out of that bodily sense, out of the feelings that mark one as a member of a very particular social world. Habermas’ argument about the nature of the practical-relation-to-self, which is based on self-referential cognition and the ensuing development of a post-conventional identity, cannot be anything except claims to individuality within the limits of particular, concrete social worlds and practices. That is, Habermas wants to defend the position that basic “cognitivist, universalist, and formalist assumptions can be derived from the moral principle grounded in discourse ethics” (Habermas 1990: 120). The developmental psychology wedded to such a discourse ethics, however, is thoroughly particular. Our capacity to be post-conventional will always depend on what constitutes conventions in a shifting social world. To be post-conventional is to be post-conventional with respect to certain norms and mores of a particular time and place. We do indeed learn to say ‘I-will’ at the same time as we learn to say ‘I will not’ as an act of independence. But one’s willing or not willing as a reflexive act depends entirely on the context of one’s willing in the first instance. This context is unpredictable, cooperation and resistance with a social world is deeply dependent on one’s place in that social world. Just as a post-conventional identity can be a source of ethical judgment so can it be a source of outright transgression and psychopathy. Hence Habermas’s *ideal* speech situation remains just that and so does his developmental account of how we reach this ideal speech situation. The capacity to be post-conventional takes place within particular historical discourses that embed and are embedded within relations of domination and submission not always obvious to the very participants themselves.¹⁰

To restate the case, it is not a post-conventional morality that concerns the post-conventional identity but rather a different form of conventionalism wherein we adopt differing and arguably more just conventions, or question layers of conventions, not all of which are transparent or open to question within further layers of discourse. But such conventions merely presuppose new conventions, and so on (likewise, with popular assertions and assumptions of uniqueness). On Habermas’ own version of Mead, our very uniqueness must come from a recognition by the other, it must be an expression of those who inhabit our immediate

world. Claims to uniqueness and individuality, however, can be appropriated readily to new levels of conformism — witness contemporary consumerism, the success of the advertising industry, the narrow and shallow features of the contemporary political landscape; our claims to uniqueness are themselves unique only with respect to some organized, existing community or communities. Merely being *recognized* as unique is also a way of *regulating* individuality. The attributes of uniqueness, however, are frequently no more than reifications of the facts of our personal identities — we are unique in the historical features of our biography (e.g., birth, parents, education, ‘life-styles’). These form the foundations to claims of unique identities (which of course we are expected to hold as contemporary consumers of everything from clothes to education and spirituality). Ironically, if Habermas’ version of Mead is right then there is no emancipation from conventionalism to a postconventional morality. We can only feel our way out to different positions which are simply reconstituted or reformulated, newer versions of conventionality within the limits of particular socio-historical configurations. There is no escape from the body or desire.

If Habermas’ extension of Mead does not entirely satisfy the requirements of a developmental account for a dialogical self, it is precisely the limits of communicative action that confront us in the dialogical self. The polyvocality of such a self points toward the untenability of the Habermasian self that confronts us with its unitary voice. And even Habermas’ post-conventional self can exist only in a context of acceptance or resistance, where that resistance necessarily brings us to questions of relations of domination and the need for a theory of power. Nonetheless, a developmental account of the sort he has outlined is a useful starting point for understanding a dialogical self if only to keep us from returning to a cognitive representational self that would reduce dialogue to modules as a feature of internalized selves. This would be to allow the Cartesian theatre into the back door.

4. Butler on speech

It is Judith Butler however who recently asked: “is our vulnerability to language a consequence of our being constituted within its terms?” (1997a: 2). Butler, in attempting to understand hate speech tries to work out a theory of the performative force of language. To be addressed is to be interpellated she argues, a term that originates with Althusser (Butler 1993, 1997a, 1997b). This refers to an act of interruption and interjection, but one that gives the person so named the possibility for social existence. “If to be addressed is to be interpellated, then the offensive call runs the risk of inaugurating a subject in speech who comes to use language to counter the offensive call” (1997a: 2). Hence to be addressed is also to be called, to

be called an offensive or injurious name may also call forth an unexpected response just as the calling of a pleasing or desired name may call forth unexpected responses. Butler relies on Austin's theory of speech acts here, wherein an utterance is "a condensed historicity: it exceeds itself in past and future directions, an effect of prior and future invocations that constitute and escape the instance of the utterance" (1997a: 3).

We are constituted in language when we are called a name just as being called a name can be a form of injury. Butler provides an account of how it is that this dependence on the address of the other both sustains us and makes us vulnerable. For we cannot be autonomous and self-sufficient individuals so long as we are vulnerable and we are vulnerable so long as we are members of human communities. Hence this coming to be through a radical dependency on the other is at once the source of human sociality as well as our dependency. Our individuality is frustrated by this paradox. We live in worlds that demand that we have a self-project, one that allows us to display a self with appropriate interests, education, self-knowledge, introspective capacity, in short a kind of distinction. On the other hand that very project precludes us becoming the kinds of individuals we would become by virtue of our open-ended dependency on the other. That is, the self-project prohibits the development of a kind of autonomous, self-sufficient Cartesian self just as the concept of self presumes that it is just that kind of self that we must become.

This paradox is too obvious perhaps to deserve much more comment save for a kind of double dependence. Here I would like to turn to Butler's concern for the body and the role it must play in this dependency. For it is in language that a "certain social existence of the body first becomes possible" or more precisely, "it is by being interpellated within the terms of language that a certain social existence of the body first becomes possible" (1997a: 5). Furthermore, Butler argues here that the address is insufficient for recognition in so far as the term confers that by which recognition becomes possible, it has an existential condition attached to it. "One comes to 'exist' by virtue of this fundamental dependency on the address of the Other" (1997a: 5). For Butler then it is not that we come to exist by virtue of being recognized *per se* but by the fact of our being recognizable. Conventional terms facilitate this recognition but they are the "effects and instruments of a social ritual that decide, often through exclusion and violence, the linguistic conditions of survivable subjects" (1997a: 5, see also Butler 1993).

Butler moves towards a thoroughly socialized version of agency through the removal of the link between the speech act and the sovereign subject. The "open temporality of the speech act" (1997a: 15), the interval between a speech act and its reception creates the possibility for counter-speech. Speaking an utterance then cannot be confined to the sovereign subject precisely because of the temporality of

the speech act and the manner in which the subject is constituted in language. As Butler has it, it is only when this notion of sovereignty wanes that agency begins. “The one who acts (who is not the same as the sovereign subject) acts precisely to the extent that he or she is constituted as an actor, and hence, operating within a linguistic field of enabling constraints from the outset” (1997a: 16). Hence from a conception of speech acts, it is possible to derive an alternative conception of agency, one that is not concerned with the restoration of “sovereign autonomy in speech” but with the nature of agency in speech and the always partial appropriation of that speech by the speaking subject. Much of our speech is conventional as in so-called illocutionary speech acts in Austin’s sense, that is, speech acts that do something in their saying. Convention of course comes in the form of the polyphony of historical voices which are echoed in the present. So Butler too comes up against the following problem:

[T]he subject constituted through the address of the Other becomes then a subject capable of addressing others. In such a case, the subject is neither a sovereign agent with a purely instrumental relation to language, nor a mere effect whose agency is pure complicity with prior operations of power. The vulnerability to the Other constituted by that prior address is never overcome in the assumption of agency. (1997a: 26)

The impossibility of ever being a sovereign subject and the conception that one’s being is ultimately the result of one’s dependency on the other is a theme that has found its expression in positions as divergent as Vygotsky, Freud, Piaget and a host of other, more contemporary thinkers, including Habermas. It is, of course, also consonant with a notion of the dialogical self. Butler’s formulation however is not a story of individuation (although dependent on a Lacanian view of the subject) nor is it bound to a universal procedural ethic. For her, we come to be through a dependency on the other but “the terms by which recognition is regulated, allocated, and refused are part of larger social rituals of interpellation”. In other words, there is no protection from the other or from that “primary vulnerability and susceptibility to the call of recognition that solicits existence, to that primary dependency on a language we never made in order to acquire a tentative ontological status” (1997a: 26). Here precisely are the limits of individuation since the address that makes agency possible, that brings agency into being, is the very address that forecloses/limits the possibility of radical autonomy. Not only is it impossible then to regulate the effects of language,¹¹ but it is impossible precisely because language continues to constitute us. Regulation, even the prohibition of certain kinds of speech, must perforce regulate subjects.

In making this move wherein our autonomy is merely the obverse of our dependence, Butler takes a crucial insight from Foucault, namely that discourse circulates above as well as below the level of agency. However for Butler, discourse

also makes possible the speech of the subject: “That linguistic domain over which the subject has no control becomes the condition of possibility for whatever domain of control is exercised by the speaking subject” (1997a: 28). In other words, Butler approximates the Bakhtinian view that our language is always a bearer of historical voices and that the autonomy in speech can never be the sovereign autonomy of the Cartesian subject.¹² It is the historicity of speech that makes it possible for us to be subjects and ensures we are marked as members of a particular social world.

What distinguishes Butler from Bakhtin is her insistence that our constitution as speaking subjects need not take the form of internalizing voices. We are also socially constituted without knowing that we are socially constituted. We need not reflexively appropriate that constitution to be so constituted. The ‘chain of signification’ can and does extend beyond our self-knowledge. Speech has, according to Butler, a citational quality. That is its historicity. But the speaker assumes responsibility for her or his speech precisely because speech is citational. I use words that are not of my own making, I use utterances that have a force precisely because of their historicity. Hence “the speaker renews the linguistic tokens of a community, reissuing and reinvigorating such speech. Responsibility is thus linked with speech as repetition, not as origination” (1997a: 39).

Habermas reading Mead gives us an account of an originary self that moves away from the transcendent. Butler gives us an account of that originary self that, without further elaboration on her derivations from Lacan, is always already constituted in speech just so that it can constitute others in the same way.¹³ But that constitution in speech is also always open to further reconstitution. Furthermore, it is the incompleteness of our constitution, our being bodies which are discontinuous with speech, that also threatens the coherence of our ability to constitute and be constituted. In Habermas we become post-conventional selves because of our dependence on the imagined possibility of ideal speech situations, a dependence that denies that we may come to be merely conventional in some other sense. Butler’s account however leaves the possibility of the subject radically open-ended wherein the performativity of power initiates the subject’s formation and continuous reformulation.

5. Conclusion: dialogical or no-self?

Such accounts of the subject are perhaps too abstract for the contemporary psychologist, neither gives way to ready manipulation and the formation of professional practices — the problem of technique and mastery. They are optimistic with respect to the possibility of action and agency, refusing to limit processes of dialogicality to the functional domain of most contemporary social sciences. On

the other hand, they underscore the kinds of problems one must confront in addressing a notion such as the dialogical self. In particular, the dialogical self of Hermans, Kempen and van Loon (1992: 28) is “a dynamic multiplicity of relatively autonomous *I* positions in an imaginal landscape” where the *I* can move positions in situations and time, and to “imaginatively endow each position with a voice” so that a dialogue can be established. Such a notion of dialogicality must eventually address the kinds of questions I have asked here for the notion of dialogue threatens very quickly to return to an imaginal one or an internal property of persons such that multiple positions are displayed in the Cartesian theatre. To be able to *take* a position already entails a *positioning* from another. This positioning must be answered or refuted in the speech of the subject.

Contemporary theories of the self grapple with the dilemma that we are not just the sum of our positions nor are we positioned around a kind of core self or ego.¹⁴ Alterity precedes individuality but the latter continues to exist only within the possibility of community. A dialogical self can only operate within a linguistic field of enabling constraints. To be an actor in such a field is to be constituted as such. That constitution is indeed multiple and diverse, reflexively enabling us to resignify ourselves. The limits of that resignification are also the limits of the field and the limits of the body. We are not multiple actors in one body, ultimately we can be constituted by the other only one other at a time. We are singular bodies after all. And our bodies provide not only the limits but are also the source of the discontinuity between how we are constituted and how we wish to constitute, the discontinuity between desire and act. To address oneself as another is to recognize one’s sociality and individuality; to recognize our constitution in words not of our own making or choosing. In being so constituted we, in turn, become capable of constituting the other and resisting our own constitution. It is also then a matter of being able to address another as oneself.

Notes

1. I would like to thank the organizers of the Second International Conference on the Dialogical Self, Ghent, Belgium, October 2002, especially Hubert Hermans and Leni Verhofstadt-Denève, for inviting me to give an extended presentation upon which this chapter is based.
2. I should add that this partakes of a much broader set of claims perhaps better captured by the term the ‘social mind’ (cf. Valsiner and van der Veer 2000), referring to a tradition of theorizing that has its roots in Vygotsky on the one hand and Baldwin and Mead on the other and that emphasizes the fundamental social origins of human selves while not necessarily denying their agentic or autonomous character.

3. Meaningless because the abstract functional categories of mainstream developmental, social and personality psychology cannot begin to conceive of sociality except within the narrow confines of a mechanistic individualism.
4. Taylor (1987) argues that when in rejecting a point like, autonomous self, contemporary theorists have chosen either a Nietzschean reading (such as one finds in the later Foucault) that argues against reason and epistemology for a spirituality of self-making (radical will) or a phenomenological reading that seeks out an intentional path and argues for a self that is deep and authentic (Heidegger).
5. See R. Proietti's chapter above.
6. This is an extension of an earlier discussion of Habermas in Stam (2002).
7. This originary self-relation founded on communication in vocal gesture is the notion that in vocal gesture "the actor affects himself at the same time and in the same way as he affects his opposite number" (Habermas 1992: 176). Vocal gestures become meaningful because I become aware of another's perspective in the hearing of my vocal gesture. The self-relation that is the outcome of conversation with oneself "presupposes linguistic communication" (178).
8. Although Habermas' translator uses the 'practical-relation-to-self' as a useful translation, it could also be rendered as simply 'relation-to-self'.
9. Habermas adds that "the formation of moral judgments [...] is referred to a forum of reason that simultaneously *socializes* and *temporalizes* practical reason [...] the anticipation of an idealized form of communication is supposed to preserve a moment of unconditionality for the discursive procedure of will formation" (1992: 184). In other words, Habermas claims that ideal speech situations are made necessary by the formation of post-conventional identities.
10. On this account we can still look to Habermas for an account of resistance as well as a communicative ethics, yet it seems to me that his developmental account does not necessarily require the theory of communicative action.
11. See N. Davey's chapter above.
12. See the contributions by I. Marková and K. Mahendran in this collection.
13. I have glossed an important aspect of Butler's theory, namely her account of the constitution of the subject as the "psychic life of power", a reading of Lacan through a Foucauldian problematic (1997b). Where Habermas turns to Mead for an account of subjectivation, Butler turns to psychoanalysis.
14. I have not mentioned the relationship that could be drawn here between those concerned with a dialogical self and the notion of positioning that Rom Harré and his colleagues have developed. The affinities are obvious and could usefully lead to some enlargement of an understanding of dialogue (see e.g., Harré 1998, Harré and van Langenhove 1998).

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Complexities of self and social communication*

Colin B. Grant

The suspicion that this voice is a simulating voice, that this body is only a body of simulation, that this recollective understanding is only an understanding which simulates memory, that the wound inflicted upon me is a self-inflicted wound, a wound without a name.

Kurt Drawert, *Nacht. Fabriken*

1. Introduction: problems of dialogue and interaction

The following article seeks to sketch an answer to the question: “What does it mean that communication has itself become complex?” (Leydesdorff 2001: 170). The aim is to recognize the paradoxical complexity of contact and instability on three levels in relation to the self and society, namely cognition, communication and social systems. By recognizing social interaction not in ontological terms, but instead in functional terms and without recourse to transcendental epistemology, theoretical and empirical gains can be made. Here, the concept of fictionality is important. It can be used in the empirical context of the contingency of communicative interactions within social systems and subsystems, for example, in ‘closed’ communication contexts, in contexts of communication ‘dysfunction’ and in contexts of communication risk.

Thus, a theory of complex communication represents a theoretical turn: if Wittgenstein introduced the linguistic turn, now we are faced with the communicative turn (Leydesdorff). What are its characteristics? On the epistemological level, the communicative turn stresses the self-referentiality of the functional differentiation of communication *systems*. Three movements are therefore characteristic of this turn:

1. Communication, in simplified heuristic terms, is distinct and derived from semantics. Contingencies of a semiotic, semantic, pragmatic and cognitive character are differentiated with greater rigour from logical and syntactic determinations.

2. The concept of *reference* in social terms must also be problematized and enriched by paying greater attention to the fractal relationship between communication and 'the reality' (cf. Schmidt 2001).
3. The category of reality must also be problematized. The clear interdisciplinary connections derive from a fundamental question: the exploration of the problematic status of meaning and reference, theories of deconstruction, social systems and constructivism.

This chapter seeks to examine the (radical) implications of interdisciplinary communication theories for our intuitive, dialogical understanding of interaction (see also Grant 2000). Three areas are to be considered in this interdisciplinary modelling of communicative interaction: cognition, communication and context (society). In part one, the concepts of reference and self-reference will be explored in constructivist terms. In essence, it will be argued that if cognition is a self-referential operation as opposed to one in which reference is made to an external reality, then this means communication (with others) occurs, as it were, *despite* the closure of cognitive processes. If cognition is indeed closed, in the sense that there can be no 'contact' between one mind and another, or indeed between one mind and 'reality', then 'contact' — and this means interaction by implication — should be remodelled to take account of such closure. For reasons of cognitive closure, therefore, communicative interaction can be more adequately viewed as a precarious process. The general concept used to conceptualize communication here is that of contingency in a social-theoretical sense, i.e. a form of indeterminate determination.

The semantic of interaction was idealized in Enlightenment thought in the philosophical discourse of Kant (the public use of Reason) and in the theatre of Lessing (the resolution of religious conflict through discourse). As the late Niklas Luhmann put it:

The semantic of interaction laid down in the 18th century is concerned with a person-to-person relation. At the same time, it *interprets* itself as a model of society'; 'an understanding of interpersonally enriched reciprocity is no longer compatible with functional needs and forces the retreat of interaction theory into communality (Luhmann 1993: 153; 122–my translations and emphasis).

Largely unchanged, the interaction paradigm continues to predominate in social communication models to this day and — under the influence of such varied theorists as Mead, Buber, Bakhtin, Husserl and Habermas — to inform much of the human and social sciences. Taken at a weak, intuitive level of extension, the concept of interaction is unproblematic: people interact all the time. However, this is not the end of the story, since the term is more often than not accompanied by strong claims. It is taken as a synonym for generalized modes of interaction, and often

modelled as dialogue, dialogism, exchange of meaning or even intersubjectivity. These models raise some key issues discussed outside communication studies *strictu sensu*, for example, in social theory and logic, and connect with such notions as symmetry, reciprocity or even correspondence. It is argued here that it is at this point of transition from intuitive notions to generalized models where problems relating to the theoretical modelling of ‘interaction’ emerge. For it is at this point that intuitive beliefs are all too often reified. Or, as some have said, ‘minds’ can become ‘intertwined’.

The central argument presented here is that, however defined, models of the self, meaning and dialogue have changed little since the emergence of the semantic of interaction and fail to offer a plausible theoretical account of complexity in human communication. Furthermore, despite the more recent development of communication theories in range and depth (in, for example, information science, cybernetics, media science and constructivist communication theories), conservative interaction theories display a remarkable resilience and obscure some relevant questions. This chapter seeks to examine the implications of interdisciplinary communication theories for our intuitive understanding of interaction (see Grant 2000).

Theories of dialogue and related theories of dialogism are inscribed into the rationalist semantic of interaction Luhmann described. Where the semantic of interaction concerns the code of social interaction and communication, dialogism concerns the person-to-person relation in interaction and communication. If the rather essentialist conception of dialogue as *dia-logos* (via the word, via reason) is suspended, then it can be said that the modern-day understanding of the concept of dialogue rests upon premises of exchange and interaction. This type of dialogue concept suggests duality and relationality and characterizes everyday expectations of the dialogical character of communication comprising (1) a relation of ‘argumentation partners’, (2) a relation towards ‘concrete others’ and (3) a relation with ‘all the possible others in the universe’ (Böhler cited in Grant 2000: 46).

Dialogism, as distinct from dialogue, is a “general epistemology for cognition and communication” (Linell 1998: xi), replacing monologism, and its emphasis on communicative transmission, with a model of interaction in which actors are “mutually co-present” (Linell 1998: 13):

[...] dialogue exhibits a *double dialogicality*; it is ‘dialogical’ both in the contexts of situated interaction and within the sociocultural practices established over long traditions of indulging in such interactions. (Linell 1998: 54)

In the name of conceptual clarity it is worth distinguishing between dialogue as a practice of communication, dialogism as epistemology and dialogicity as the description of dialogue processes. Dialogism is conceived as a corrective of classical dialogue theory (e.g. Buber). Where such theories emphasized symmetry, reciproc-

ity and freedom from coercion, dialogism emphasizes such empirically verifiable features as hedges, vagueness and polyvocality:

As an empirically grounded model of communication, such a view of dialogue based entirely on symmetry and equality would be unfruitful and counterfactual. In a modern empirical, yet dialogistic approach to discourse, another kind of definition of 'dialogue' seems more appropriate; 'any interaction through language (or other symbolic means) between two or several individuals who are mutually co-present' (cf. Luckmann 1990). (Linell 1998: 13)

The critique of monologism and stability of communication theories is fruitful. However, the definition of 'dialogue' as any interaction practice based on mutual co-presence is so wide as to suggest the risk of conceptual generalities. Typically in dialogistic approaches, the self, intersubjectivity and dialogism are conceptualized as stable concepts. Thus, the self possesses an "amazing" regulatory capacity amidst multivoicedness and minds can be intersubjectively "intertwined" (Hermans 2002: 147).

Herman's metaphor of intertwining minds could indicate one of the root problems of both interaction and dialogue theories. Dialogical interaction is conceptualized as communication in which the isolation of the subject *qua* monad is resolved; any closure of the mind is thus a "solipsistic hell" (Friedman 1992: 23). In place of this infernal solipsism is the human who comes to awareness of himself "in our dialogue with other selves" (Friedman 1992: 5). Thus, 'individuality' is always contextualized by the Buber-inspired "essential We" and the "ontology of the between" (Friedman 1992: 4; 3). Already, the onerous force of dualism makes itself felt. Reality is disconnected from the subject/self and located in an ontological sphere of dialogue, a "whole communal reality" or "the reality that is given to us" (Friedman 1992: 42; 18).

Rather more plausibly, Gergen sees dialogue as a central component of social constructionism, with its emphasis on "discourse as the vehicle through which self and world are articulated" (1999: 60) where meaning is an "emergent property of coordinated action". The shift in the conception of meaning from mentalism to social construction is productive. It is also compatible with a view of understanding as a process which cannot be reduced to a world in which identities merge or fuse in mutuality or intersubjectivity. Since "social understanding is not a matter of penetrating the privacy of the other's subjectivity" (Gergen 1999: 147), there is a real need to see communication in terms of the impenetrability of the mind of the other.

Even where there is recognition of a 'fluctuating 'I'', it seems that the real complexities of multivoicedness are neutralized in the semantic of interaction and related dialogical theories. If the self really is intertwined, then it is not with other minds but with other voices in the sense proposed by Bakhtin (Bakhtin 1984). And

this multivoicedness should not be seen in terms of a *normative stability* where conflicts, miscommunication and dissonance are *resolved*. If, as Bakhtin suggested, the self is enveloped in the mist of heteroglossia, then voices are contingent. Contingency and complexity rather than intersubjectivity are the mark of the communications of selves.¹ The concern to be addressed here is that there is a theoretical gap between recognition of the autonomy of actors and the conceptualization of a transcendental dialogical sphere. The two positions seem incompatible.

2. Uncertainties of Intersubjectivity

In the context of society, this kind of *ontologized* dialogue concept guarantees the integration of speakers and allays any suspicion of solipsism. Integration through dialogical relationality (cf. Buber: “In the beginning was the Word and the Word was relation”, 1958) presupposes reference to a common world that anchors speakers into a relation of reciprocal intersubjectivity. This dialogical principle is perhaps most famously taken up by Habermas in *The Theory of Communicative Action* in which he applies Husserl’s concept of a horizon of expectation rooted in consciousness to a social (intersubjectively contestable) world rooted in communication. Put briefly in this context, communicators, aside from pathological communication, stake validity claims (truth, sincerity, authenticity) which protect the lifeworld of shared experiences from the clutches of a reason oriented solely towards its own survival. Since Habermas regards the linguistic and the social-theoretical model as complementary, the quest for intersubjective consensus functions both as a discursive practice and as the motor of social integration. Attention will return to social communication theory below.

Husserl had considered the lifeworld as the forgotten sediment of meaning of natural science (that is to say, as a form of compensation for a loss of meaning in the specialized sciences). However, this lifeworld would also mean that “a community of men and each particular man are vitally immersed in *a concrete surrounding world*” (Husserl 1960: 135—my emphasis). The lifeworld concept therefore oscillates: between the world as it is perceived by the subject and the world that transcends the restrictions of subjective perception, turning it into a community of monads:

Something that exists is in intentional communion with something else that exists. It is an essentially unique connectedness, an actual community and precisely the one that makes transcendently possible the being of a world, a world of men and things. (Husserl 1960: 129—emphasis in original)

Husserl sought to work out a dynamic relation between phenomenon and consciousness. Put simply, to the extent that the subject constitutes the importance of

the phenomena around him, it relates itself to a perception of the phenomenon in its character as the other. The orientation to the other (as Mead put it) enables the subject to overcome its isolated (monadic) status:

Only by starting from the ego and the system of its transcendental functions and accomplishments can we methodically exhibit transcendental intersubjectivity and its transcendental communalization, through which, in the functioning system of ego-poles, the 'world for all,' and for each subject *as* world for all, is constituted. Only in this way, in an essential system of forward steps, can we gain an ultimate comprehension of the fact that each transcendental 'I' within intersubjectivity (as co-constituting the world in the way indicated) must necessarily be constituted in the world as a human being (Husserl 1997: 185–186—emphasis in original).

Husserl was not here considering such interaction structures as the family, church or friendship, but the reasons for which various subjects can perceive an object intersubjectively. The same insight opens up an infinite range of others, an objective nature and an objective world. Intersubjectivity acquires transcendental status in so far as such others constitute a "monadological community" of different selves.

Within the shadow of intersubjectivity theories Linell's theoretical framework for a "dialogical theory of misunderstanding and miscommunication" reveals much about the constraints of dialogical interaction theory. His dialogical/dialogistic model is seen to stand in opposition to what he terms the monological model which is based on a model of communication as transmission via a conduit. In the sense that monological communication models based on the transmission of meaning were outdated and in need of revision, the dialogical approach certainly introduced much-needed plausibility. However, the dialogical interaction concept has succumbed to its own type of normative conservatism in replacing one communication model with another based on strong intuitive claims. Here, the use of the concept of intersubjectivity as closely related to the dialogical model exposes the passionate belief in the new model which renders it blind to deeper implications of a view of communication as an unstable process: "Understanding and misunderstanding (in discourse) concern degrees of intersubjectivity and are therefore pertinent to mutualities in dialogue" (Linell 1995: 177); and "misunderstanding clearly presupposes some (lack of) intersubjectivity" (Linell 1995: 208):

The reciprocity of perspective-taking may be understood as based on an implicit 'contract' on the part of the interlocutors, who, in the unmarked case, assume that the other strives for intersubjectivity in communication. Therefore, intersubjectivity is at the same time both the presupposition and the project of the communicative exchange. (Linell 1998: 43)

Admittedly, the loose association of the concepts intersubjectivity, mutuality, shared knowledge and understanding may be politically attractive (in the name of

inclusionary politics), but too often theoretical models break up into normative intuition. Indeed, the influence of Goffman's interpersonal ritual concept exposes the intuitive roots of certain mainstream interaction concepts: "[...] it behoves the recipient to show that the message has been received [...] and] that the recipient has an appreciative, grateful nature" (quoted in Graumann 1995: 14). As a result, where the monological approach is rightly criticized for its gross simplifications, the dialogical model proposed in its place is over-simplified on cognitive and communicative grounds and its conceptual apparatus can induce reification:

The speaker is assigned the status of interpretive authority when it comes to the meaning of his/her own utterances. But this holds most unambiguously for reference, not necessarily for descriptive (or other aspects) of meaning. In other words, the speaker knows what the intended referents are, but s/he may be mistaken in her/his choice of words for describing them (Linell 1995: 180).

Despite references to asymmetries, the dialogism paradigm anticipates the resolution of communication in the form of shared meaning. It can be exemplified by Linell's three-step model based on Mead and Marková detailed below:

- Step 1: B understands m (where m is the meaning of the utterance)
- Step 2: A knows that B understands m
- Step 3: B "knows that his understanding of m corresponds to what A wanted to make into shared knowledge" (Linell 1998: 45)

The anticipation of a stable resolution implicit in Linell's dialogism means that premises are advanced without further critical inquiry. In this model alone there are three concepts which can be made problematic: understanding, meaning and shared knowledge. If understanding is seen as a grasp of externally generated meaning, this model is plausible. However, understanding can be viewed as an internal process of cognitive constructions made by the autonomous subject. Meaning is unstable — it is neither wholly contingent on the form of the utterance nor on the intentions of the speaker. It is also inferred, and thus always subject to a process of selection. The notion of shared knowledge can be seen in terms of the separateness of minds (cognitive autonomy) as a fiction — and, in social terms, as a functional or operative fiction (see Schmidt 1994, 2001 and Grant 2000). For the purposes of a simple comparison the three-step model could thus look like this:

- Step 1: B selects from a (where a is the appeal of the utterance)
- Step 2: A imputes the (appropriate) selection to B
- Step 3: B may impute that his selection of a corresponds to A's intended selection, but this correspondence is a complex fiction which drives communication.

Alternatively, B may impute² that his selection does not correspond to A's intended selection.

In terms of a social theory of knowledge, the (fictional but functional) consensual field otherwise known as understanding belongs to a metadescriptive area beyond the couplings of the closed neuronal system (Roth 1987). Interaction, however defined, always relates to the social domain. The relation connects cognitive autonomy to social orientation (Schmidt) and the relation between individual construction and social construction resides in understanding seen as a consensual field of homeostatic coupling. The criteria for good understanding do not, however, lie outside the realities of interlocutor A or interlocutor B, but in the relation of interaction itself and nothing else:

There are no criteria for correct or wrong understanding independently of the interaction between people. In this process, understanding is revealed as a cognitive-social mechanism for the selection of desirable types of behaviour and thinking. (Rusch 1992: 216—my translation)

Although interaction is not conceived as a rational universal principle, it does stem from expectations of results of certain actions which in turn generate frames, scripts and schemata. Interaction regarded in this way does not negate solipsism in a cognitive sense since the actor is ecologically open as a result of its necessary relation with its environment. Understanding is thus a fictional coupling of expectations. By contrast, self-understanding, closely related to self-referentiality, is the notion that the agent in relation to its environment is able to understand. However, in order to create the functional fiction of a *general* understanding, this extremely precarious subjective understanding (Rusch 1992: 227) must receive the confirmation of understanding by means of agreement:

The point of departure was the hope that the world of experience, sooner or later, would be revealed as an ontological world beyond itself, that is to say, a world of objective reality. This hope has gone unfulfilled. (Glaserfeld 1996: 194—my translation)

For Schmidt (1994: 34) the delicate question relates to the ability of subjects, *despite* cognitive solipsism, to orient themselves in an environment in which they communicate beyond their cognitive autonomy by means of fictionalization.³ In this sense, communication cannot be separated from fictionalization and risk is not merely an external factor, but embedded in communication and cognition. Given such inescapable contingencies of communication and cognition the risk environment cannot be said to be confined (Giddens 1991). In addition, the inherent fragility of the “narrative of self-identity” does not simply derive from the “backdrop of shifting experiences of day-to-day life and the fragmenting tendencies of modern institu-

tions” (Giddens 1991: 185–6), although these constitute undeniable factors of risk. Rather than seeing risk primarily or merely as an external object ‘out there’ (such as commodity capitalism or the pluralization of expertise — Giddens 1991: 195), it can be argued that communication without risk is inconceivable. Paradigms which assume stability, such as the semantic of interaction or the paradigm of dialogism may concede that there are asymmetries in communication or that rational inclusive communication is a counterfactual ideal, but when they do so, they tend to deflect attention from the deeper contingencies of communication which are intertwined with the autonomy of actors and the vague semiotic appeal of language.

3. Beyond intersubjectivity

From within the dialogistic paradigm, attempts have been made to introduce some complexity — notably, as noted above, with the concept of asymmetry as “an intrinsic feature of dialogue” (Linell and Luckmann 1991: 2–3) in communicative interaction. Although asymmetry is seen as an empirical contextualization of interactions, it does not compromise the essential intersubjectivity of dialogism. In this sense, then, asymmetries can be resolved in and through communication:

Asymmetries and inequalities are not only compatible with assumptions of mutuality and reciprocity, they are themselves essential properties of communication and dialogue. Indeed, if there were no asymmetries at all between people [...] there would be little or no need for most kinds of communication. (Linell and Luckmann 1991: 4)

Despite acknowledging such asymmetries, Linell and Luckmann insist that inequality does not presuppose brutal empowerment or discursive terror, nor does it vitiate interaction, because participants discover themselves in a relation of dependency. In brief, the dialogical view of interaction remains intact.

According to Luhmann, inequality and dialogue cannot be forced into a model of compatibility since “The semantic of interaction [...] *interprets* itself as a model of society.” Luhmann’s conception of asymmetry is therefore sociologically and cognitively far more radical than that proposed by Linell and Luckmann. He unmasks the survival of theories of dialogue and related theories of intersubjectivity as a reflection of an enduring consciousness of imperfection/perfectibility (pure understanding?), based on the rationality paradigm. It is worth quoting Luhmann’s views on intersubjectivity at some length at this point:

Contrary to what is often assumed, the functioning of social relations, which we take here to be the autopoiesis of society, does not depend on ‘intersubjectivity’, let alone on ‘consensus’. Intersubjectivity is neither always given, nor can it

be produced (which would imply that one can determine whether it has been achieved or not). *By contrast*, the crucial point is that communication is continued — however the consciousness required for this is stimulated. It is impossible to tell in communication whether systems of consciousness are ‘authentically’ involved or if they simply contribute what is necessary for the continuation. [...] The premise of ‘intersubjectivity’ or consensus can thus simply be abandoned. It cannot be traced back to a subject, or a social *apriori* or a ‘lifeworld’ or indeed anything else as a reduction to something which would always have to be given as a precondition of all communication. (Luhmann 1997: 874–875—my translation)

Following Luhmann, consensus can be viewed as a pragmatic interaction process among systems as opposed to a rational understanding based on the intersubjectively verifiable exchange of validity claims. Since it cannot be determined at what point intersubjectivity has or has not been achieved or produced, it is not inherently embedded in communication.

Communication is not only radically porous (Grant 2003—in press). Neither the lifeworld/system distinction nor the system/environment distinction pays adequate attention to system-crossing, or shifting contexts, violations or ‘misreadings’, which cannot be ‘subtracted’ from communication. Within a normative framework of understanding, Linell sees instability as a by-product rather than unavoidable feature. Under the assumption that intersubjectivity can be *achieved*, it can nonetheless occur that “[o]ther parts of individuals’ understandings may remain private, and therefore communicatively irrelevant, until they somehow get expressed or ‘leak out.’” (Linell 1998: 79). Leaks in communication are thus seen as occasional dysfunctions or unintended consequences or lapses. This perspective thus assumes that leaks take place against the backdrop of stable, hermetic communication over which speakers have control in terms of production and reception. The alternative view proposed here is that such leaks are not occasional dysfunctions but are embedded in communication as part of its multi-faceted contingency: if speakers are cognitively autonomous, if meaning cannot be predetermined and understanding is an internal construction without correspondence to any external reality then there is no clear dividing line between the private and the public. In other words, assumptions of stability concerning meanings, shared knowledge and understanding are actually at variance with a radical view of dialogism.

This precariousness of communication renders the self-referentiality of any system a relative value. Just as the biological system (e.g., human being) could not exist without a porous skin, so too, communication systems cannot operate hermetically. The frontiers between systems tend, if not to dissolve, then at least to become ‘fuzzy’. The concept of porosity in communication-theoretical terms signifies an environmentally open hybrid *state and dynamic process* which in turn make the operational closure of systems highly unstable. Hybridity in communica-

tion terms can be seen as intertextuality, the confluence of private and public discourses, hacking, viral and virtual communication and so forth. Consisting of a solid matrix (syntax, grammar, but also codes) and a void space (semiotic vagueness), environmentally open hybridity implies an interplay of structure and a fluid environment (receptions and responses of readers, addressees, listeners, eavesdroppers, plagiarists, hackers and so forth). Porosity is thus also a much more *contingent* concept than structurally defined notions of dissemination and iterability.

Of course, Luhmann has always conceptualized his systems as self-referentially closed in their operations *and* structurally open to the complexity of the environment. The only ground to be gained in making this distinction more diffuse lies in seeing communication as porous. As a corollary, it is possible to see systems and indeed lifeworlds as perhaps rather more precarious entities than Luhmann or Habermas are prepared to do. Here, it is most revealing that Habermas, albeit from a different epistemological base, has more recently reached a similar conclusion:

The everyday hermeneutics of mass communication are indeed a melting pot permeated by subcultural value orientations and in which the evaluative vocabularies of public speech are constantly subjected to revision [...]. Public speech remains *porous* to innovative stimuli to the extent that it is not moulded in the deformed communicative structures of a network of autonomous publicness. (Habermas 1995b: 558—emphasis in original; my translation)

From within the paradigm of dialogism, the conception of communication as a normative ‘project’ with an ultimately common horizon does not exclude ‘miscommunications’ or “the indeterminacy of situations, the practical ingenuity of agents, and the constructive and variable elements in the situated practices of interaction” (Linell 1998: 59). Asymmetries of status may account for such difficulties and Linell refers to vague language within this context. Vagueness is viewed loosely in pragmatic terms (and not in the epistemic terms of Williamson, for example, meaning the limitations of our knowledge). Thus, vagueness is not determined by the inability of man to know the complexities of the world, but is a feature which can be resolved in the course of interactions. On this view vagueness migrates towards salience in exchanges (Linell 1998: 44) as something to be corrected. Once again, the dialogistic paradigm assumes a *resolution of communication complexities* where such a resolution cannot be imposed. If vagueness is seen in as both the impossibility to say whether a statement is true or false (the so-called principle of bivalence) and also as the non-correspondence of minds and communication practices, then vagueness does not vanish in resolution. This is not to deny increasing salience or relevance of certain topics. However, since cognitive autonomy and complexity do not diminish, vagueness remains — possibly as a shadowy background (Grant 2001b).

4. Self (reference), meaning and implications for dialogue

Models of interaction between human agents would be incomplete without reference to reference. But what does this reference refer to? It might be intuitively felt that unless there is some kind of cognitive disturbance, our perceptions establish and maintain contact with ‘reality’, thus enabling us to make statements about that reality with a degree of certainty: ‘I see you’, ‘Those trees are green’. A philosophical realist argues against the sceptic that to doubt the existence of external reality (‘Do you see me or do you think you see me?’) is to adopt a counter-intuitive stance (‘Everyone knows those trees are green’). The relationship between our perceptions and reality is understood in realist terms as a relationship of some form of reference to an objective world. In other words, assertions are taken to refer, and correspond to (external) reality. Such anti-realism runs counter to views that an independent reality exists as “our common-sense idea” (Searle 1995: 158). Social actors are not solipsistically limited, but follow ‘we intentions’ based on the intuitive factuality of external reality (Searle 1995: 26). In other words, there is such a thing as collective intentionality which cannot be reduced to individual intentionality.

The question of reference is relevant here given the aim of this chapter to model social communication theory to take more adequate account of the risks of the self, dialogue and meaning. Sociolinguistic and discourse linguistic approaches have long since enriched denotative-referential functions with connotation at many levels of complexity. However, unless semiotic and pragmatic issues are to be neglected, then the full implications of connotation and other dimensions must be taken into consideration. Admittedly, even critics of correspondence theory, retain a belief in referential semantics. Putnam, for example, argues “that there exists a unique *natural* mapping of sentences onto sets of possible worlds” (Putnam 1997: 74). Mapping is a looser concept than correspondence in the sense that it relates not to precise relations of equivalence, but rather to the relations between sentences and sets or ranges of possible worlds. Despite the wider extension, however, the concept of mapping is far from implying fictionality in the sense proposed here (Putnam 1997: 197). Putnam remains committed to realism since “concepts which are not strictly true of anything may yet refer to something”:

If a number of speakers use the word ‘electricity’ to refer to electricity, and, in addition, they have the standard sorts of associations with the word [...] then, I suggest, the question of whether it has ‘the same meaning’ in their various idiolects simply does not arise (Putnam 1997: 201).

Thus, according to Putnam, stability of reference comes about pragmatically, i.e. through use. Although the shift to a pragmatic level of questioning does indeed make the question of reference more relevant for questions relating to social

communication, it remains disingenuous to suggest that the question as to whether references have the same meaning ‘does not arise’. Admittedly, there may be plausible pragmatic reasons for adopting such a position, for example, so that social interaction can be observed as taking place smoothly. However, this interaction remains precarious precisely because there is no guarantee that my use is the same as yours. That the difference may be suspended for pragmatic communication purposes may well be true; it is nonetheless equally the case that there is no guarantee that meaning is as stable in use as this position suggests.⁴

Bühler’s account of the appeal (or appellative) function of language is instructive here. His triadic language model can be made useful in conceptualizing communication as fundamentally appellative in a radical sense. According to Bühler’s famous organon model, language enacts three ‘semantic functions’: expression (*Ausdruck*), representation (*Darstellung*) and appeal (*Appell*). The last named function (the term is derived from the Latin *appellare*) is to be stressed here. The language sign is “a *signal* by virtue of its appeal to the hearer, whose inner and outer behaviour it directs as do other communicative signs” (Bühler 1990: 35). The concept of linguistic appeal is intended to be a revision of the term ‘triggering’ in the sense of a triggering of reactions and in analogy to sex appeal (Bühler 1990: 35). Crucially, it focuses on the role of the person to whom the appeal is being directed: “[...] in human and animal communication with signs it is the appeal that first and most exactly becomes evident to the analyst, namely in the behaviour of the receiver.” (Bühler 1990: 38). The concept of appeal is used here in a more complex sense in so much as the capacity of the sign to direct reception is seen as modest at best. Appeal, then, is taken to be an *open-ended communicative sign*. If the sign is an appeal, then it goes without saying that meaning cannot be taken for granted.

As noted above, in terms of social theory, Luhmann provides a link between communication and the implications of the shift from referential models to self-referential models of systems. This is not the place to reconstruct his intricate theory of social systems (for this, see Luhmann 1986). In *Essays on Self-Reference*, Luhmann states:

Societies are a special case of self-referential systems. They presuppose a network of communications, previous communications and further communications and also communications that happen elsewhere. Communications are possible only within a system of communication and this system cannot escape the form of recursive circularity. Its basic events, the single units of communication, are units only by reference to other units within the same system. In consequence, only the structure of this system and not its environment can specify the meaning of communications. (1990: 145–146)

According to this view, communications do not establish a connection with external reality, but recursively construct communications networks. Recursivity im-

plies redundancy and redundancy creates meaning (conventions are a classic case of the self-reference of communication codes where meaning is constructed *from within*, as it were). The recursivity of communication which Luhmann sees as being central to society requires closure upon itself.

The concept of system closure can also be applied to neurological processes and perception. Perception can be viewed as a self-referential neurological process in a closed organ (the brain), according to which direct contact with external reality is precluded (Roth 1987); the environment merely transmits electrical impulses which are incapable of penetrating the brain. Data processing (in neurological terms) is independent of outside reality to the extent that the language of the nervous system is independent of ‘meaning’. In rather more iconoclastic terms, the language of the brain is a series of clicks (von Foerster in Schmidt 1994: 15).

A shift is thus carried out from a conception of the brain as a recipient of stimuli towards the internal functioning of the brain as a constructor of reality. A study of the internal connectivity of the brain in the field of neurosemantics is a study which underlines the self-reference of the brain and the internal representation it constructs as realities:

[...] we should no longer understand the brain — in accordance with the classical paradigm of information theory — as an externally induced, information-processing system whose quality we then describe by means of a suitably diversified disturbance theory in which the signals of the brain as an internal space are always comprehended in relation to an external stimulus. Instead, we must understand the brain from the inside to the outside, we must understand the rules according to which the elements of this organ pass the ‘balls’ to each other and hence understand what is represented in the brain’s internal space. (Breibach 1996: 19—my translation)

Dialogism assumes the givenness of shared realities which makes the notion of the autonomous mind a monological one and instead implies a “thinking out loud together”, “cognition in practice”, “socially shared cognition” or “distributed cognition” (Linell 1998: 21). Two criticisms can be made at this point. On the one hand, dialogism acknowledges the polyvocality of communication environments. However, while refuting the separation of cognition from communication, the contingencies of polyvocality are neutralized without justification. The corollary of heteroglossia (as Bakhtin understood it) is the immersion of speakers in multi-voiced worlds. The (rather Messianic) affirmation that cognition is socially shared short-circuits the multiplicity of voices. If communication and cognition are interrelated processes, then a multiplicity of voices must be accompanied by a multiplicity of minds. Thus, dialogism is not an ontology and intersubjectivity cannot be “achieved” as some kind of external *telos*: the communication of sepa-

rate cognitive actors requires a theoretical approach to complexity and contingency which dialogism is not prepared to recognize:

[...] dialogism would stress the interaction of the mind with the physical and social environment in all the activities of perception (intake), cognition and understanding (processing), remembering, and of course, *a fortiori*, overt interpersonal communication. These cannot be seen and understood in terms of information processing within autonomous minds. (Linell 1998: 21)⁵

Linell's dialogism rests on a realist social constructionism and is distinguished from 'radical social constructionism' or 'radical interactionism'. The shortcoming of the radical view lies in its alleged contextlessness: Linell maintains a belief in the existence of "realities out there", stating that to see realities as the product of discursive construction is to remove context from communication and interaction (Linell 1998: 52). In summary: "constructivism conjures up individualistic ideas: the individual constructing his or her reality without a social context" (Linell 1998: 59).

Just as the view that the brain is independent of 'meaning' need not induce irrationality or chaos, so, too, the cognitive autonomy it implies does not send us sliding down a slope into social atomism (see von Glasersfeld in Schmidt 1994). By means of operative fictions of collective knowledge (the term fiction is used here since it is only ever collective knowledge as a social construction), the cognitive autonomy of social actors is communalized (Schmidt): "understanding is something like a useful fiction (in H. Vaihinger's use of the word).⁶ We presuppose understanding in order to assume that communication is reasonable, because we assume that other people 'think'" (Schmidt 1995: 322–323). On the other hand, "Meaning [...] is a completely open structure, excluding nothing, not even the negation of meanings. As systems of meaning-based communication societies are closed and open systems. They gain their openness by closure." (Luhmann 1990: 146–147).

The contingency of communication (its *internal risk factor*, one might say), reference — or vagueness in a semiotic sense — also makes the notion of fixity of reference problematic. For Putnam, the "reference is fixed by the fact that that individual is causally linked to other individuals" (Putnam 1997: 203). Thus, "the referent in that person's idiolect is also fixed, even if no knowledge that that person has fixed it" (Putnam 1997: 202–sic!). Here, too, criticisms are called for. If there is no guarantee that meanings used are identical ('I see you but my 'you' is not yours'), then there is no guarantee that reference is fixed. It is important to stress that there is temporary stabilisation of social communication. However, this stability is produced above the contingent uses and references of speakers. Stability of reference, in other words, is an *a posteriori* social (Putnam uses the term 'collective') construct.

There have of course been recent attempts from within the realist tradition to introduce greater instability into descriptions of communication without jettisoning referential semantics. The problem remains that instability is destined to be underexplored if a realist epistemology is pursued. Thus, attempts to reconcile realist theories of reference to an external reality and polysemy achieve little in terms of a theory of complex social communication. For example, a referentialist conception of “semantic potential” argues that expressions can be applied to a ‘collection of real situations’ (Recanati 2001: 202). This criticism of Waismann’s conception of the open texture of concepts (see Grant 2001b: 45–46) derives from the belief that the real ‘source situations’ underlying ‘semantic potential’ act as an ‘input for the contextual construction of sense’ (Recanati 2001: 204). This model can contribute to a complex theory of communication by virtue of the concepts of polysemy and semantic potential. On the other hand, it affirms the ‘reality’ of ‘real’ situations without investigating the construction of that reality. The argument made here is that this reality is as unstable as communications. The semantic potential model reifies source situations and contexts and thus removes their instabilities. The semiotic appeal model offered here views source situations as constructs and contexts as potential polycontexts (in the sense proposed by Luhmann 1997). This inevitably implies recognition of greater contingency.

From within the critical realist paradigm, in terms of a social theory of universal pragmatics, Habermas appeals for a revised concept of reference without abandoning realist foundations. Accepting that there is no representational correspondence between language and facts, he argues for a new concept of reference which will be able to explain how it is that speakers can refer to the same object (Habermas 1999: 18).⁷ In realist terms, the ‘objective world’ is still held to be the backdrop for our assertions (“a system for possible references” — Habermas 1999: 37) in which reference can be made to the same object: “The presence of possible alternatives expresses the realist intuition that we refer provisionally to an extension of the concept which is assumed to be independent of language” (Habermas 1999: 37). Whether or not Habermas is able to reconcile his realism with his own semi-constructivist admission that we make assumptions about reality is open to some sceptical questioning. Although it is unproblematic to say that ideal truth assertions are contingent on language, this relates to only one side of the double contingency of communication. The other side of contingency is that there is no guarantee that our references transcend language in establishing a reference to a ‘reality’ outside our own reality constructions; and if they do, it is only by means of imputations (von Glasersfeld, 1996) of other possible worlds. These imputations are also constructions, and, therefore, contingent — since they also vary from speaker to speaker. In other words, the notion of reference does not imply the fixity of an object (in the

sense proposed by Putnam, above), but instead assumptions about that fixity for social and cognitive purposes. If we assume that actors are autonomous, communication contingent and reference vague and unstable and only sustained by complex fictions, then can we conclude with Gergen that “[...] the final stage in the transition to the postmodern is reached when the self vanishes fully into a stage of relatedness. One ceases to believe in a self independent of the relations in which he or she is embedded.” (Gergen 1991: 17).

Postmodernism — even if we acritically accept that it means the saturation of the self by a “plurality of voices vying for the right to reality” (Gergen 1991: 7) — does not mean the obliteration of the self. Rather, it is a symptom of the heightened awareness of the self in complex realities which have become pluralized (Schmidt). If the self has become unmoored (Schmidt) from erstwhile certainties (including the very notion of a reality), then its environment has become ever more complex. Awareness of complexity is not, however, a uniquely postmodern fact; the fragility of the self was increasingly communicated in modernism. The distinction between modernism and postmodernism need not detain us further here. What is important is that the heteroglossia of reality does not efface the subject or the self. It is no coincidence that in social theory there is increased talk of risk or contingency (Habermas, Luhmann) or instability. An awareness of the risk of the self also means a more acute sense of self-reflexivity. The awareness of the need for intervention means that social modernity continues despite the pace of the formation of contingency. As the nation state ceases to act as our immediate environment and awareness of globalizing tendencies is heightened, so our awareness of risk is made all the more acute in “the confines of social arenas, in the common experience of risks and interweaving of collective fates” (Habermas 1998: 77).

If there is no interpenetration⁸ between minds (and this seems axiomatic), then how can the construction of meaning be conceptualized without denying complexity and seeking refuge in transcendental concepts? My concern is that even the concept of dialogism fails to offer a sufficiently complex account of the risks of communication (see Grant 2003). At the root of this difficulty lies a stabilized conception of language in which complexity/risk/contingency are strongly neutralized. Gergen, for instance, avowing faith in dialogue as a “transformative medium”, refers to the “binary basis of language” in the following terms: “Language is essentially a differentiating medium, with every word separating out that which is named or indicated from that which is not (absent, contrary).” (Gergen 1999: 148). The “threat of meaninglessness” (Giddens 1991: 201) is thus perhaps less a threat of meaninglessness since autonomous actors always construct meaning even in the face of severe external pressure. Rather, the sense of contingency of the self is heightened to such a level and intensity that the effort to construct meaning becomes almost unbearable.

5. Self and the communication of social fictions

Although socialization means that language users learn rules and then learn to question them only after they are ‘born into’ normative language contexts, rules are historically contingent over time. There is no pre-ontological or rational need for a given syntax — it reflects functional needs for complexity and risk reduction and varies through time. Miscommunication, misreadings, misinterpretation — even “the inevitability of dialogical misunderstanding” (Hermans 2002: 155) and a series of other instances of ‘unsuccessful’ communication are evidence of the porous quality of rules. As observed above, the lattice-work structures of communicative porosity are closely related to uncertainty. If language users can subvert rules, they can produce improbable communication. To recapitulate: there is then an inter-related progression from autonomy in cognition to a semiotic concept of vagueness to uncertainty in communication and operative fictions of society.

Since signs are cultural constructs they are context-dependent. Here, then, in pragmatic communication contexts, signs are contingent; relations between signs and a putative reality are re-negotiated among users. However, it is certainly not the case that rules in themselves lay down the meaning of our signs. It is not rules which determine what is often referred to as meaning, but the users of these rules in pragmatic contexts. Or, as Glaserfeld argues: “The subjective element remains unavoidable because the semantic link which connects acoustic images with meanings must be actively constructed by each individual speaker” (Glaserfeld 1996: 219—my translation). And since these rules have not come about *ex nihilo*, we can add: the users of rules are not mere users or consumers, but rule-constructors. Without such construction there would be no freedom to subvert them. According to Fischer: “Rules lay down the meaning of our signs, our language. Rule-following is a practice and for this reason rules can only be grounded in a feedforward-loop, i.e. pragmatically [...]” (Fischer 1999: 45—my translation).

Few social communication theorists have been as ambitious in their interdisciplinarity as Jürgen Habermas. On many occasions since the publication of his seminal *Theory of Communicative Action*, he has addressed questions of contingency, the counterfactual and even the concept of entropy. However, despite the range of his programme of universal pragmatics, his treatment of the precariousness of social communication tends to eschew some of the more radical points essayed here:

To be sure, the rational motivation based on each person’s ability to say no has the advantage of stabilizing behavioral expectations non-coercively. But the risks of dissension, which are continually fuelled by disappointing experiences and surprising *contingencies*, are high. If communicative action were not embedded in lifeworld contexts that provide the backing of a massive background consensus,

such risks would make the use of language oriented to mutual understanding an unlikely route to social integration [...]. The constant upset of disappointment and contradiction, contingency and critique in everyday life crashes against a sprawling, deeply set, and unshakable rock of background assumptions, loyalties and skills. (Habermas, 1996: 21–22—my emphasis)⁹

For instance, Habermas attributes to rational lifeworld communicative practices the capacity for communicative renovation “in a communication *threatened* by entropy” (Habermas 1995b: 552—my translation and emphasis). In other words, entropy is seen here as the antinomy of rational inclusive communication and as something which can be avoided. However, since entropy is a characteristic of any complex communication system such as the social communication system with its multiple bifurcations and codes, any control must take place at the cost of a reduction of the very freedom that entropy (as the generation of new information) underlines.

Habermas’ overarching social-theoretical aim (a formal pragmatics of social integration) is valid, but it is achieved by neglecting the fact that it is the contingency of communication which offers the warranty for autonomy. Of course, one danger lies in taking risk in social communication terms as an absolute and thereby failing to carry out the second step which relocates the examination of contingency (i.e. fictionality) in terms of its (social) functionality. If contingency, as a guarantee of cognitive autonomy, is inherent in communication, how can this contingency can be brought into the fold as functional communication without denying freedom or pathologizing allegedly abnormal discourses as parasitic? If communication is indeed so precarious and fictions are all we have, how does society hold together?

Even where communicative or discourse-theoretical approaches are adopted, the result of the amalgamation of Husserlian intersubjectivity, Mead’s ‘other-directedness’ and Schutz and Luckmann’s ‘stock of (common) knowledge’ offers a modelling of communicative interaction in which the dialogical taking of another’s perspective is reified and actors become ‘entangled’ in the perspective of the other. As a consequence of such cognitive premises, mutuality is modelled as probabilistic despite a certain willingness to see interaction or mutuality as fraught with risk (Graumann 1995: 17). However, the probabilism thesis is problematic since the features of instability outlined above — cognitive autonomy, vague semiotics and the deep uncertainty of communication — render a dialogically modelled interaction model based on reciprocity, shared knowledge etc. quite exceptional, if not impossible altogether. A more plausible model in the communication and cognition terms developed above is provided by Wellmer’s fallibilism¹⁰ thesis — admittedly in a discussion of truth and consensus. If communication is a fundamentally unstable operation, then interaction processes take place in a world of contingencies:

We cannot ever rule out the emergence of new experiences, new arguments and new reasons which could require us to question or abandon truth claims held to be secure: a context-transcending concept of truth cannot therefore be founded in the terms of a theory of consensus, but instead only in fallibilistic terms (Wellmer 1992: 23–24—my translation).

Habermas famously argues that social actors are able to overcome the contingency or locality of their experiences by raising validity claims which are counterfactual (Habermas 1999: 26). Whereas it is certainly true that society *processes* contingency in order to operate, there is an inherent dualism implied in the counterfactual concept (as an alternative to factuality). The frontier between the factual and what Habermas terms the counterfactual must be blurred; and if it is blurred, then we have no notion of the counterfactual and instead only different levels of construction (see also Wellmer 1992: 30). This is the essential difference between realist concepts of counterfactual imputations and constructivist concepts of fictional imputations. A Habermasian ideal communication community, the related normative concept of consensus and its political counterpart — discursive democracy — rely heavily on counterfactual ideals that can be intuitively invoked in order to challenge the self-referential logic of systems, abuse of power and violations of language games we witness every day. Whether the counterfactual ideal is sufficient to make good the reality deficit in such an idealized theory is, however, open to serious doubt. It is more plausibly replaced by the concept of operative fictions which remain sensitive to social and subjective construction and heighten theoretical awareness of the porosity and precariousness of social order. This in turn opens the door to analyses of strategies used in the negotiation of evidently fictional relations. Why, when the fiction is evident, do speakers sustain it?

Hans-Joachim Giegel argues that modernity induces an increase in the risk of dissent, but also (in the name of social cohesion and functionality) the need for consensus. The risk of dissent and the need for consensus form the “consensus paradox of modernity” (Giegel 1992: 8) — consensus could be viewed here as an operative or functional necessity rather than an ontological necessity. The same mounting risk of dissent destabilizes Habermas’ concept of communicative reason based on understanding. However, Habermas himself makes explicit the universal pragmatic premises of his communication theory and thereby delimits it from everyday language use in a highly revealing and little acknowledged way:

[... Under] the microscope every understanding proves to be occasional and fragile. By contrast, philosophical hermeneutics investigates the interpretative competence of adult speakers from the perspective of how speaking and acting subjects make incomprehensible utterances in an alien environment comprehensible. Hermeneutics is concerned with interpretation as an *exceptional accomplish-*

ment, which becomes necessary only when the relevant segments of the lifeworld become problematic [...]. (Habermas 1992.1: 130–131—emphasis in original)

At this point, the gap between universal-pragmatic presuppositions of communicative rationality and the turbulent, “occasional commonality” (Habermas 1992.1: 125) of everyday language experiences appears to become unbridgeable. Indeed, the connection between ideal and reality becomes so tenuous that Wellmer has criticized *The Theory of Communicative Action* as disingenuous, ahistorical and metaphysical. Habermas can in fact only sustain his ideal speech situation by means of hermeneutic abstraction. At best, infinite consensus as the *telos* of communication can be functional as a counterpoint to the distortions of everyday communication and thus highlight the interventions and colonization attempts made by the ‘system’.

There must be a nagging doubt that to see language and cognition as contingent and coupled only by fictions is to open a door beyond which descends a slippery slope of anarchy, solipsism, relativism and perhaps even social atomism. This need not be so. Cognitive autonomy, fictionality, non-correspondence and communicative instability can be reconciled with social stability without recourse to dialogism, intersubjectivity and consensus and their acritical premises. To destabilize communication theory (Grant, 2003) is to extend analysis to the varied factors of contingency in communication. Any attempt to model communication as resolved or stable in pragmatic, cognitive or epistemological terms is destined 1. to deny contingency and 2. neglect instabilities and their precarious negotiation in communicative interaction. Contingency is not a synonym for alienation but an inescapable component of our experiences.

Notes

* See my related article “Complex Communication and the Self at the Edge”. *Theory and Psychology* (forthcoming).

1. Hermans refers to the “complexity of the contemporary self” and even to the “inevitability of dialogical misunderstanding” (Hermans 2002: 157; 155). However, the assumption is always that the self is intersubjectively intertwined. Thus, complexity is reduced from the outset.
2. See S. J. Schmidt’s reflections on imputations in the next part.
3. According to Humberto Maturana, living systems are interactive systems. In order to be capable of self-definition, they must be cognitively closed but open to their environment. Realities stem from those constructions which offer the highest number of couplings to the highest number of cognitive systems. Consensus is thus a question of maximizing inclusion. Coupling with such realities now becomes the operational criterion of the living system as a

social element. The realities of a social system are obviously not mimetic representations of ontological realities outside actors, but are mental operations which seek to maximize the homeostasis of the living system (adaptation to already existing schemata, incorporation of pre-existent knowledge) and of the social system (adaptation to the orientation modes of ethics, culture and ideology for example). In this way, truth, as a metaphysically unknowable quality, becomes a question of viability and ethics, for the same reasons, is defined in accordance with its functionality in society (cf. Grant 2000). See also R. Proietti's contribution to this collection.

4. Putnam himself has more recently conceded this very point (as Rorty points out) in "Realism with a Human Face" (1990): "[...] elements of what we call 'language' or 'mind' penetrate so deeply into what we call 'reality' that the very project of representing ourselves as being 'mappers' of something language-independent is fatally compromised from the start. Like Relativism, but in a different way, Realism is an impossible attempt to view the world from Nowhere." (quoted in Rorty 1998: 43—emphasis in original).

5. Linell also sees intersubjectivity as an ontology: "The reciprocity of perspective-taking may be understood as based on an implicit 'contract' on the part of the interlocutors, who, in the unmarked case, assume that the other strives for intersubjectivity in communication. Therefore, intersubjectivity is at the same time both the presupposition and the project of the communicative exchange." (Linell 1998: 43).

6. See Vaihinger, H., 1924. *The Philosophy of 'As if': a system of the theoretical, practical and religious fictions of mankind*. K. Paul, Trench, Trubner and Co., London and Harcourt, Brace and Co.: New York.

7. All translations from this work are the author's.

8. The term is misleadingly used by Luhmann and other constructivists.

9. According to Habermas, the lifeworld is composed of a "context which constitutes the horizon and processes of understanding among social actors, a reservoir of assumptions and organized cultural values" (Habermas 1995a: 590–591). Actors in the lifeworld, unlike actors in the system, communicate rationally without seeking to impose their views. See K. Mahendran's chapter in Part III of this book.

10. Fallibilism: "the doctrine relative to some significant class of beliefs or propositions, that they are inherently uncertain and possibly mistaken. The most extreme form of the doctrine attributes uncertainty to every belief; more restricted forms attribute it to all empirical beliefs, to beliefs concerning the past, the future, other minds, or the external world" — *The Cambridge Dictionary of Philosophy*, R. Audi (ed.) 1995. Cambridge: Cambridge University Press: 261.

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PART II

CONSTRUCTING COMMUNICATION

Histories and discourses

An integrated approach to communication science*

Siegfried J. Schmidt

1. Preliminary questions

Anyone who attempts to define the notion ‘communication’ or develop an explicit concept of ‘communication’ will rapidly come to realize that there is no precise conceptual clarity in scientific theory. The reason for this absence is that notions and concepts are inscribed into a network of concepts in the tradition of existing discourses about these very concepts. ‘Communication’ is a particularly instructive example of the discursive embeddedness of complex concepts. We know from the history of communication theories with their vast number of communication concepts that the notion of communication is enmeshed with concepts from areas which are among the most important and complex of the human and social sciences.

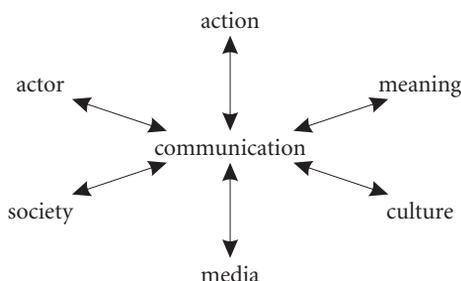


Figure 1

Communication is defined in the relevant discourses as, among other things, autopoietic social symbolic events without actors but also as the symbolic action of

actors; as mass communication induced by the mass media or as face-to-face communication; as an exchange of information or as an orientation-orientation of cognitively autonomous actors; as a basic operation of culture or as the instrumentalization of collective knowledge and so on.

A second significant understanding of the scientific-theoretical problems of concept definitions can be referred to as 'autology'. 'Communication' can only be defined in or through communication. The *definiendum* thus presupposes the *definiens* and makes use of it. The same holds for descriptions of cultures which can be carried out only in the framework of cultures of description and also for conceptualizations of the media which can be made only in the media or indeed for descriptions of action which require actions of description.

A third scientific-theoretical understanding relates to the dilemma of complexity. Hitherto, conceptual definitions of 'communication' have either pursued the principle of breadth or depth. For example, the Laswell Formula¹ has become so excessively complex by virtue of the attention it pays to additional factors of influence that operationalization is no longer conceivable (a similar point can be made in the case of media impact concepts). On the other hand, the case of semiotics displays a depth of specification in its definition of the concept of the sign, for example, that ever more detailed areas of reference can emerge.

Finally, there is a fourth point of particular significance and which can be placed under the heading 'Preliminary Problems'. The formation of every theory and every attempt at a definition must start somewhere. But how is one supposed to deal with this necessity? On the one hand it is quite understandable that theorists claim truth, transparency, objectivity or similar certainties as their point of departure. On the other hand, a second-order observer — and theorists or scientists should consider themselves as such — is in a position to know that every start under the sun is contingent. From the history of philosophy and the sciences we know that every start-up operation is accompanied by a hard cost-benefit analysis. For instance, the start-up operation of Greek philosophers such as Empedocles, Leucippus or Plato (with the aim of introducing with the concept of knowledge two independent components, namely subject and object), introduced dualism — a philosophy which defines our day-to-day and school philosophy to the present.²

What form could an alternative to this mainstream take?

2. An alternative

The cost of assuming identities or entities as part of the theoretical start-up is well known. In what follows I shall try to describe processes in which this start-up is considered to be an undertaking subject to revision.

Let us take as an example the processes³ of perception or description. An actor performs a perception process in the course and as a result of which he perceives something as something. In a process of description an actor describes something which appears as an object of this description. In other words, these are three-part processes in which no single component is independent of the others: perceiver, perception and perceived are mutually self-constituting.

This analysis shows that all events and actions relating to consciousness are system-specific since they are tied to the context-specific operations of actors. In other words, talk of objects can only mean talk of objects-of-perception or objects-of-description. The actor should not simply be disregarded just as the instruments a physicist uses to conduct observations or analyses should not be. Objects, as Werner Heisenberg was one of the first to say, are relations, references or posited reference.

If we refer to conditions of reference then we are also referring to the presuppositions of such conditions. This is where we make contact with a mechanism which is of fundamental importance in our reflections on theories of communication and culture.

3. Positing and presupposition

In *The Science of Logic* Hegel defined cognition as “[...] an act of positing, which also defines itself as presupposition” (1965 III: 299). In my view, this conceptualization provides an opportunity to go beyond dualistic thinking.

S. Jünger (2001) has offered a plausible explanation as to why consciousness cannot be circumvented because it refers to something in its relation to itself: consciousness is always consciousness *of* something and thus always presupposes itself. How can consciousness then claim that it is referring to something when it is *not*? According to Jünger, this paradox can be explained through relationality as the principle of consciousness. If processes of reference are to be observed at all, consciousness requires areas of reference, points of reference the differentiation of which makes references observable in the first place. The observation of the difference between consciousness and something which has become conscious assumes that the differentiation has already taken place despite the fact that the differentiation is not observable in this process.

In terms of the conception of observation, Jünger proposes a significant extension of existing approaches based on a theory of observation (Spencer Brown, Luhmann⁴ and others): observation is conceived as a process of double differentiation:

[This process — ed.] enables the differentiation between A and B only by means of the differentiation between A *and* B, emerging in a second-order observation as

the differentiation between C and [A and B]. It is by no means trivial, but in fact necessary here to ground the first-order observation through a second-order observation which in turn must naturally be conceived through a new observation as the relation between D and {C and [A and B]}. In this sense, observation constitutes a three-part dynamic relation which must claim duality and can only be identified as a three-fold relation by further observation. (Jünger 2001: 35–translation ed.)

By means of another language game Jünger's insights support exactly Hegel's insight above. Consciousness operates with the game of positing (consciousness of something) and presupposition (without consciousness, there is no thing) on all levels including reflexivity; for the presupposition of positing can only be observed as such in reflexive reference and so repeats afresh the game of positing and presupposition.

Although it is not possible to pursue Jünger's insights any further at this stage, against this backdrop a non-dualistic epistemological conception can be outlined in a third language game. This chapter proceeds from the hypothesis that in all actions⁵ broadly defined as being determined by consciousness — that is to say, in perceiving, thinking, observing, communicating and in non-linguistic action — we operate with distinctions which are contingent because they are selected from a pool of possible options. This means that every distinction posits a presupposition which guides action in the distinction in question. From the basis of the reflexivity of differences set out above it can be argued that if I describe something as being *young*, then I am operating on the basis of a presupposed old/young difference. This in turn relates to the presumed unity of this difference: age. The unity *young* can thus only be specified as the difference of a difference.

In everyday practice we neglect such reflexive connections and operate with the term *young* as if it were a unity independent of consciousness and description. In order to offer a more precise description of the concrete operating mode of this mechanism of positing and presupposition the following terminology is proposed. A distinction is made between *semantic categories*, *semantic differentiations* and *differences* as follows:

1. Semantic categories mark socially relevant dimensions of meaning, e.g. age, sex, values, feelings, ownership, authority etc. They function in the sense of nodes in a network of categories. This network constitutes the (flexible) semantic system of the meaning orientations of a society. This semantic system has evolved in the history of a given society and co-orientates the actions of its members.
2. These categories are given concrete semantic form by means of a varying number of semantic differentiations which can either be bivalent (e.g. old/young) or multivalent (ice-cold/cold/luke warm/warm/hot).

3. Where a concrete difference is made (e.g. a pretty young girl), a possibility is selected (with varying levels of consciousness) from a pool of semantic differentiations. This possibility acquires its semantic valency from the difference from the possibilities presupposed in such positing. Here, pretty, young and girl ‘make sense’ by using the difference to ugly, old and adult by reference to the categories age, appearance and sex.

In principle, the semantic system of meaning orientations must be conceived as being applicable independent of time and independent of actors. However, it only guides action when actors actually use orientation options in concrete situations, when they make differences which means performing positing which requires presuppositions.

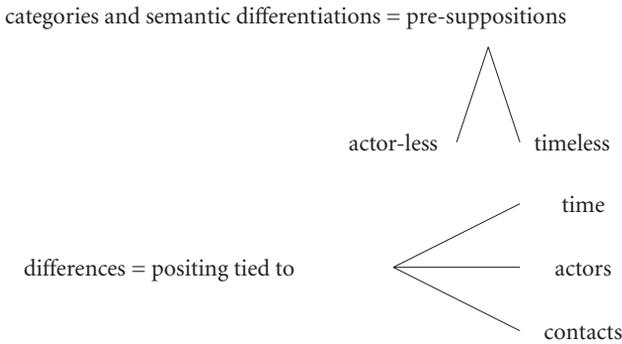


Figure 2

Positing and presupposition must be conceptualized as being complementary in a precise sense. They constitute a unitary context of effect (according to general systems theory — cf. Schlosser 1993) which in turn constitutes a specific reality by means of the effectiveness of references⁶ and not through a specific ontological configuration in reality.

I refer to the semantic system of the possibilities of meaning orientation as the *reality model* of a society. It can be defined as the collective knowledge at the disposal of every individual member of a society which emerges from acting and communicating and is systematized and sustained by practice and communication. This shared, common knowledge co-orientates the interactions of actors via shared expectations and imputations (that is via the elaboration of structures which are reflexive and selective in their operations). Reality models systematize interaction with the whole range of areas of reference considered to be important for practical

life — namely the environment, actors in the environment, forms of socialization, feelings and values.

Such a reality model only becomes effective if a practical programme known as *culture* emerges at the same time. *Culture* regulates possible relations of categories and differentiations, their relevance in practical life, affective content and moral significance in a socially binding manner. It thus makes the differences of actors socially effective. Culture fulfils the function of enabling and schematizing options for actions in all socially relevant areas of life.⁷

The use of the culture programme by cognitive systems generally occurs in an unreflected manner as an infinite process of the connection and evaluation of semantic categories and differentiations which enable the emergence of what is described as meaning in the actor. For this reason, actors experience meaning as a continually functioning culture programme, as focused action in the semantic sphere which must be presupposed in every positing if the experience and ascription of meaning to actions and communications is to be possible at all for actors.

In the light of these considerations, the emergence of communities and societies presupposes the co-genesis of reality models and culture programmes. In and by virtue of this co-genesis both constitute a mutually constitutive context of impact which co-orientates all meaningful processes in a society. Social integration is constituted by the reference of all actions and communications to this context of effect which is binding for all actors.

Societies constitute themselves as the processing of the context of effect of reality models and culture programmes, as the unity of the difference of reality models and culture programmes which must be conceptualized as being strictly complementary.

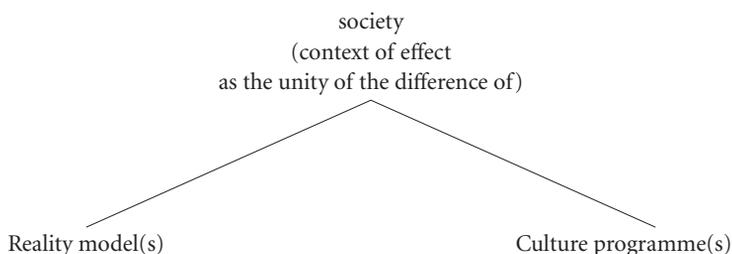


Figure 3

On the basis of our socialization in the framework of this context of effect we orientate ourselves in each action and communication to this context and thereby synthesize our actions into sensuous stories and our communications into sensuous discourses. Histories (in the sense of Schapp 1953, 1959) and discourses also constitute a complementary context of effect by relation to the unity of the difference

between reality model and culture programme. Thus, the logic of positing and presupposition works perfectly.

One of the operational conditions of these contexts of effect is that they work with the difference between self-reference and allo-reference in order to differentiate between relations (*I direct my attention to/speak about something*). It is now possible to reconceptualize the apparent plausibility of dualistic realism. Realists do not see this positing of difference as a ‘cognitive manoeuvre’ but rather as a representation of an ontological given although — as mentioned above — Werner Heisenberg made it plain that things are relations and not objective identities. Put differently, realists or dualists are convinced that the philosopher’s famous table is and must be there before I can perceive it; its real existence is the precondition of my perception. This means that positing and presupposition are conceptualized separately.

By contrast, according to the argument presented here, assumptions or affirmations of existence prior to or outside relations such as perception processes are redundant and misleading. The intuitive security about the existence of the table is a result of a successful perception process or a communication in which the table is a theme. We see and speak of tables *as tables*, which is to say in relation to the preconditions of meaning orientation which we presuppose in positing according to specific situations (in this case in the relations of perceiving and communicating). We know what a table is from successful experience and descriptions⁸ of tables. Or, in the words of S. Jünger, reality is determined by the effectiveness of relations and it is impossible to break out of this framework (Jünger 2001: 64). Whether ‘the’ reality is recognizable or not is nothing other than a misleading question — just as misleading in fact as the distinction between unrecognizable reality and recognized reality. We live in *thereality* which is *ours*. The world is always precisely our world and this is not a relativistic but a descriptive statement. And in this world we can perform the most daring discourse manoeuvres such as thematizing unrecognizable reality, making affirmations of existence, levelling accusations of relativism etc. In the complementary context of effect of meaning orientation and action we experience ‘real’ reality — and in this reality we can speak freely about other realities which thus belong to reality (even if this is only in the form of negations).

Thus, the realism problem cannot be *solved* (this explains why all previous attempts to do so failed) but merely *dissolved* by following Wittgenstein and showing the fly the way out of the fly bottle.

4. Communication

Following from the reflections above it is possible to conceptualize communication as symbolic social action by actors with the help of communication instruments or media (see below) for the purpose of the co-orientation of the meaning production of actors. In the same way, the semantic aspect of communication can be distinguished from its action aspect; it thus makes sense to speak of communication actions. Communication actions can be synthesized by means of combinations into communication processes in discourses.

The symbolic *coupling of meaning* occurs on the basis of the *materiality* of communication instruments. We neither exchange thoughts nor impressions nor intentions in communication actions and instead can merely use semiotic materials (phonemes and graphemes) and non-verbal indicators for the purpose of meaning production. It must therefore be assumed that semiotic materialities condense (or encode) social experiences in contact with such materialities in such a way that guarantees a sufficient co-orientation of communication partners. Actors use these materialities as relations between signs and standardized experiences which they acquire in the course of their linguistic socialization and the validity of which they presuppose and posit as collective knowledge.

Communication actions occur in stories and discourses which in turn derive their meaning orientations from the context of effect of reality models and culture programmes. This meaning orientation functions as the presupposition for communication which is legitimized by positing in every communication action in histories or discourses. Since there can be no examination of the validity, let alone objectivity, of communication independently of these circumstances, such meaning

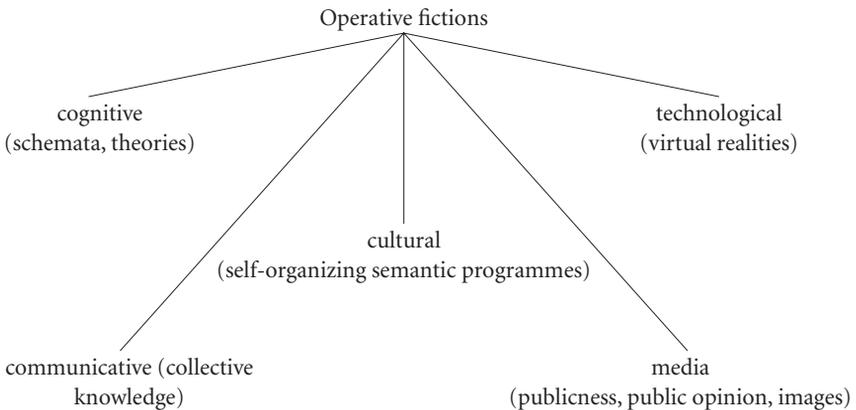


Figure 4

orientations operate as operative fictions (cf. Schmidt 2000a, 2001: 15–16). These co-orient the acts of positing of actors because each actor (with varying intuition) assumes that all other actors orientate themselves to such meaning orientations. Operative fictions can be identified on several levels.

Operative fictions operate in the form of the collective knowledge which can be produced by each actor in varying amounts. This can be made plausible by considering the emergence of communication (cf. Merten 1977 and Schmidt 1996) in the following way.

It is assumed today that reflexivity is one of the most important mechanisms in the emergence of communication. By means of mutual observation people were able to accumulate knowledge in the form of experience which in turn could be used in the constitution of expectations (X has to date always acted in this way and he will do so again). In addition, on the basis of the reflexivity of observations people could know that other people held this knowledge; as a result, expectations developed into expectations of expectations which could subsequently be tested against experience.

In addition to this reflexive mechanism founded in knowledge there was a development of reflexivity in terms of the assumption of motives and intentions of actions. This reflexivity can be termed the imputation of imputations.

The communication actions which emerged on the basis of both such reflexive mechanisms underwent enormous expansion by the evolution of language as a symbolic instrument of communication where communication possibilities could be differentiated according to their thematic, social and temporal dimensions. It now became possible to talk to each other about those present and absent and about what is seen or indeed merely thought in the past, present and future. This process of differentiation underwent two further shifts in complexity since negation and metacommunication could duplicate everything.

Put figuratively, it was necessary to tame such an unforeseen increase in complexity. Here, three mechanisms worked together:

1. Schematizations on the linguistic level (from the phoneme to construction patterns for words and sentences) and also on the communication level (discourse regulators and macro-forms of communication — cf. Schmidt and Zurstiege 2000).
2. Operative fictions (collective knowledge) on the level of language knowledge and encyclopaedic knowledge.
3. Selectivity through the integration of communication actions in specific histories or discourses in which, put simply, not all actions and communications can be performed at the same time.

By virtue of the social ‘taming’ of communicative complexity understanding became possible despite the fact that we cannot look into the heads of others or think together but can only speak to each other. Reference here is to processes of agreement and not ‘understanding’, because the emphatic concept of understanding is problematic in as much as it presupposes that as a recipient in and by communication one can achieve a duplication of statements of the intentions and contents of the communicator. By contrast, if actions and events related to consciousness are connected to the actors (see Section 2 above), the expectation of such understanding becomes illusory. What can be achieved instead is a balance of the intentions of communication and coupling actions, that is to say the fulfilment of expectations which communication partners direct to the various communication actions in histories and discourses. This balance can be guided by collective knowledge, action practices in histories and discourses and also by previously acquired problem-solving strategies which all relate to the context of effect of reality models and culture programmes — positing and presupposition.

5. Reality — media realities?

Section 3 concluded with the statement that the problem of realism cannot be resolved, it can only be dissolved. It is a problem which for many years has been central to the discussion about communication and media theory. Do ‘the media’ reflect ‘reality’ correctly? Does the news represent the event or does the news construct such an event? Does the news presuppose the event in the same way perception (apparently) presupposes the table?

As set out on many other occasions (Schmidt 2000a), I conceive of the ‘medium’ here as a compact concept which integrates four dimensions and areas of effect:

1. communication instruments (such as language and pictures)
2. technological devices (such as internet technology on the side of receivers and producers)
3. the social systems orders of such devices (such as publishing houses or television stations)
4. media offers which result from the coalescence of these components and can only be interpreted in relation to this context of production.⁹

Communication instruments such as language and pictures are distinguished from media because they can be used in all media. It therefore makes sense to use the difference between communication instruments and media in order to observe and describe the differences in the uses of these instruments in the various media. One example here would be the Internet as a hybrid medium.

Both communication instruments and all media since the advent of writing have on the one hand expanded our forms of perception and on the other disciplined them in relation to the various medium-specific conditions of perception and use. This explains why there are literates and illiterates for every medium. For this reason, media (systems) have developed a dual effectiveness: on the one hand a semantic effectiveness by means of the manifest contents of *media offers* (cf. Schmidt 2001: 20; 22) and on the other by means of the structural effects of instruments and orders which go considerably beyond the individual media user's capacity for control and recognition as the Internet demonstrates so vividly. The 'construction of reality' occurs increasingly and inevitably by means or with the aid of the use of modules taken from the complex media system of functionally differentiated societies (the *modularization of reality construction*), but also by means of the adaptation and transformation of styles of enactment in the media (ranging from violence to emotion). This happens above all because the media have long since become the most important instrument of socialization (see Schmidt 1996 and 2000) and because we increasingly undergo experiences with media offers which have no correspondence with lifeworld experiences.

None of this renders obsolete the (ontologically defined) dualism of life reality and media reality still invoked by so many. Media realities have long ceased to be considered to be duplicates of an extra-medial reality or as pure fictions. Rather, they are seen as results of the functioning of media systems which enable the emergence of *sui generis* realities as results of the *reality competence of the media system in question*. These media realities can then be *received* by actors in other realities in fundamentally diverse ways and *used* to create further new realities. The simple mechanisms of reference of the European tradition such as true/false, real/unreal, real/virtual and real/fictive have long since been embedded in an expanded pool of reference modalities (known as the *modalization of reality evaluation*). This shift certainly includes 'indifference', although indifference is interpreted here as the conscious positing of a difference *vis-à-vis* the normality of the difference as can be seen in the vast area of computer games where the question of reality is irrevocably suspended. Reality categories are no longer preformed through 'reality' but emerge and are confirmed in the interplay of diverse reality tests to which process results are subordinated. 'Reality' as a normative ortho-reality is replaced in the discussion by the notion of a continuum of sensuous *virtualities*. These virtualities initially differ from each other in the form of their creation or emergence but are then *pragmatized as one reality* with good reason by actors in histories and discourses according to their reality tests.

It is possible to distinguish between primarily technical, cognitive and media-constructed virtualities. The emphasis is placed on 'primarily' because the demarcation lines cannot be drawn exclusively. It is surely more than coincidentally

inviting to see the transition from the autonomous and iron text of the Gutenberg Galaxy to the elusive hypertext networks in the Internet as a telling analogy of such a development.

The realism question can thus be *dissolved* in relation to the media in the following way: if reality is conceived as realities which emerge from system-specific operations then the ontological dualism of event and news disappears. Perception events and media events should no longer simply be equated with each other and subordinated to their status as a model or copy of reality. Each media event results from the specific operativity of the medium in question — only television is capable of producing world events every day in 15 to 20 minutes. The comparison of a media event with an event of perception or experience in turn occurs as a system-specific operation which enables the emergence of a new reality. Once it is understood that media do not *depict* but instead *produce*, then the dualism of model and copy, fact and representation can be abandoned and the fly can also be shown the way out of the fly bottle.

6. Media, culture, contingency

In the context of these reflections it is necessary to emphasize the specific ambivalence of the relationship between *culture programmes* and media. On the one hand, culture programmes need the media (and actors) for a continuous communication of its applications. At the same time, these programmes must accept that the media establish selection preferences which obey the system conditions of these media and are not directed towards a balance of activities with all option types. On the other hand, such thematizations — whose second order observation is facilitated if not in fact induced by the media — make the contingency of the culture programme undeniable: the necessary status of a culture as a communication culture (before the discovery of the media) or as a media culture also promotes the conditions for the corrosion¹⁰ of that culture. The mass media generate publicness (*Öffentlichkeit*) for what they consider to be socially topical or relevant and always in accordance with the logic of the internal conditions of the media economy. Since the 17th century at the latest European societies have learned from the media that there are other cultures and they have interpreted such cultures according to the options of their own culture programmes, that is to say by means of the manipulation of differences such as foreign/domestic, civilized/wild, close/remote, local/exotic or simply interesting/uninteresting.

The more societies increase the degree of their observability by the development of media systems, the more urgent the question becomes as to the functional and integrative performance of culture programmes for actors and social subsystems

alike. As graphically demonstrated by the modernization of media societies (Schmidt 2001) in the last thirty years, reflexive observation structures inevitably lead to *serious experiences of contingency*.¹¹ Societies whose reality models and culture programmes are exposed to a constant thematization in complex media systems thus necessarily develop media cultures which are marked by a high level of plurality and a low level of compulsion in traditional problem solutions. They are more acutely exposed to radical complexity reductions by means of a whole range of fundamentalisms.

The media constitute their own specific realities as a result of system-specific operations in which there are games with facts and fictions¹² which are defined by these very realities. Both the pluralization of realities and their observability from a second order observer position ineluctably leads to experiences of contingency and to a recognition of the reflexive interconnectedness of all these realities. If the invocation of 'reality' as an ortho-reality disappears, however, how is complexity reduced? The response of modern media culture societies is as follows: (generalized) *contingency is reduced by (specific) contingency*. In this way, societies re-introduce in their media-induced self-observation what observation theorists have long described as the construction of realities in self-organizing systems by means of a structural decoupling from 'the reality'.

7. Conclusion

If an alternative theory is advanced then it is justifiably questioned against already existing theories. What is then the gain of an alternative theory of histories and discourses on the basis of the mechanism of positing and presupposition?

In foundational theoretical terms this approach reduces some of the difficulties of radical constructivism in its current versions. These include the close connection with (neuro)biology which has almost surreptitiously been interpreted as a natural science foundation of constructivist epistemology. They also include constructivism's concomitant concentration on the individual and his cognition which has — as has often been pointed out — weakened it in terms of social and action aspects. Finally, these versions include the lack of attention paid to the role of the media and a covert dualism which is embedded in traditional constructivism in the form of the difference between experiential reality and ontological reality.

The proposal outlined here operates without ontological assumptions about its objects or circumstances as starting operations. Instead, observable processes such as perceiving and describing are observed in relation to their fundamental operations such as positing/presupposition, reflexivity or selectivity. Objects and circumstances then result from the successful operation of such processes in which something is perceived or described — *as* — something in contrast to something else.

In contrast to Luhmann's systems theory this outline proposal is empirically operational. Here, the empirical is not conceived in the traditional (positivistic) sense as the observation of data (of givens), but instead in processual terms as a methodologically regulated production of facts (of constructions) from the perspective of a second order observer (see Schmidt 2000a for further detail).

Finally, this approach also seeks to overcome the almost religious manicheism of systems theory versus action theory which are not seen as alternative theories but as observation variants. Systems theory concentrates attention on macrosociological meaning orientations whereas action theory focuses on context and actor-related processes. The proposal for a theory of histories and discourses is a form of systematic observation management which brings both actor-related processes and meaning orientations which go beyond the actor into view. — Here, too, it is to be hoped that the fly may leave the fly bottle.

Notes

* Translated from the German by the editor.

1. That is to say: Who? Says what? In what channel? To whom? With what effect? (Editor's note).
2. "At the beginning of philosophy we do not find problems, but un-problematized premises. These premises are dichotomous distinctions (in epistemology and the philosophy of language the dichotomies language/world, description/object, statement/object, being/consciousness, subject/object among others). The attempt to clarify the relation between the components of these dichotomies leads to philosophical problems (the problem of objectivity, reference, identity, external world, but above all the problem of truth)." (Mitterer 1992: 11).
3. The term 'process' is used in a very general sense to refer to events and actions relating to consciousness.
4. See Spencer-Brown, G. (1972). *Laws of Form*. New York: Julian Press and Luhmann, N. (1990). *Essays on Self-Reference*. New York/Oxford: Columbia University Press (Editor's note).
5. Cf. Janich, 2000 on the concept of action used here.
6. I adopt Jünger's formulation here (Jünger 2001: 64).
7. For further detail on this succinct thesis the reader is referred to various other writings. Cf. Schmidt, 1996, 2000 and Schmidt, *Geschichten & Diskurse* (in press).
8. Compare Mitterer's comments on the connection between the object of description and the description of the object in Mitterer, 2001.
9. See Avgerinakou's chapter in this collection.
10. Cf. Colin Grant's contribution on communication porosity in this collection.

11. Cf. the contributions of C. Grant and B. Porr and F. Wörgötter in this collection.
12. See the contributions in Baum and Schmidt eds., 2002.

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Autonomy, self-reference and contingency in computational neuroscience

Bernd Porr and Florentin Wörgötter

1. Introduction

The theory of social systems has become a powerful tool for the understanding of social interaction and communication (Luhmann 1995). It explains how and why social subsystems emerge, how communication can be interpreted and even how we can generalize the communication medium. The underlying paradigm, the general systems theory of self-referential systems, has its origin in a variety of fields such as biology, cybernetics and philosophy (Rogers 1994). One of the most important principles of systems theory is self-reference (von Foerster 1985). In systems theory, the concept of self-reference refers to the re-production of elements out of elements. This implies that elements must be self-compatible to themselves so that the elements can reproduce themselves. The advantage of this self-compatibility is that the quality of the elements (temperature, neuronal activity or behaviour) can be omitted. Thus, the relations between the elements do not need to be converted from one quality to another: neuronal activity triggers neuronal activity and behaviour triggers behaviour.

2. Self-reference

The principle of self-reference will be the starting point of this chapter. Our task is to identify self-reference and its consequences in the field of computational neuroscience and its related areas.

Self-reference is given when (in Luhmann's words) compatible elements generate themselves again and again (Luhmann 1995: 33). This is obviously only possible in recursive structures. In the area of control theory (or electrical systems theory) recursive structures are the basic tools for solving control problems (Oppenheim and Schäfer 1975). Thus, signal theory seems to be a good candidate

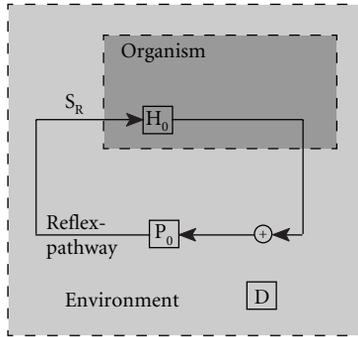


Figure 1

for describing self-reference which will now be explored. The simplest form of recursive control is via feedback loops which are commonly used in a variety of everyday situations. A classical example is room-temperature control. When the room temperature decreases the central heating is switched on and the room temperature will be increased in order to re-establish a certain desired temperature. Self-reference seems to be established in such a system by the closed loop through the environment: every time the central heating is switched on the room temperature increases and the sensor senses this change.

The equivalent of a technical feedback loop in an organism is a simple reflex loop. Simple animals rely on reflexes, for example for walking or for finding food, but the reflex is also a behaviour which is found in humans. For example, this behaviour can be seen when somebody touches a hot surface and then pulls his hand away.

The expression ‘reflex’ is to a certain extent misleading as it is tempting to see the system as a stimulus-response or input-output (I/O) system. However, a stimulus-response system is an *open loop* system which does not correspond to a reflex/feedback loop. From control theory it is well known that if we cut the feedback loop the system’s properties deteriorate. Thus, the simple feedback loop itself can only be explored as a whole and not if we cut the loop and turn it into an open loop system. We go as far as to state that this typically reductionist approach of treating systems as open loop I/O systems, used so often in the natural sciences, can be very misleading when it comes to more complex closed loop situations. Therefore, we call our approach *non-reductionistic* and will only consider the organism’s behaviour when it is embedded in its environment. The reason why an organism is often seen as a stimulus-response system is due to the fact that — naturally — an *observer* sees the organism in that way. As for the organism itself it is only possible to ‘see’ itself as a closed loop system since the loop is essential in defining the properties of the whole system.

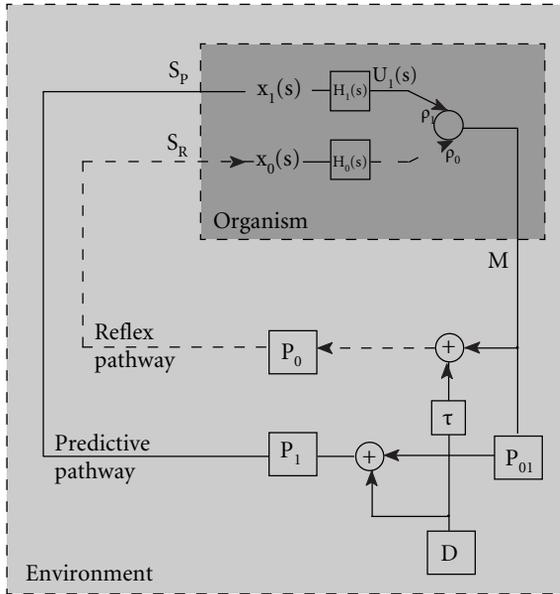


Figure 2

The concept of self-reference demands the compatibility of the self-reproducing elements such as neuronal signals which are expected to generate neuronal signals or behaviour which also is expected to generate other behaviour. In the above examples this seems not to be the case since neuronal activity is transformed into motor reactions (e.g. force) and the motor reactions are transformed into sensor events (e.g. pressure, temperature). However, it is necessary to transform neuronal activity directly into other neuronal activity. This problem can be simply solved if, in a radical approach, we employ the organism's perspective. Von Foerster (1985: 5–41) argued that at the sensor surfaces of the organism all sensorial qualities are eliminated and converted to neuronal signals. The same applies to the motor output but only the other way round. Since the motor output feeds back to the sensor surfaces every motor *signal* leads again to a sensor *signal*. The sensor-motor loop can now be completely closed when we accept that, from the organism's point of view, only those signals are of interest which actually feed back from the motor output to the sensor input. The transfer from the motor output to the sensor inputs happens in the environment but is expressed in terms of the *organism's signals*. Thus, we will use the *internal* signals (elements) of the organism for the description of the *external* environment. Any motor reaction which 'goes into the world and will never return' cannot be of any interest to the organism.

In terms of signal theory this means that the feedback loop determines for the organism what is a (useful) signal and what is (useless) noise: only motor reactions which feed back to the sensor inputs are potential candidates for becoming a signal (which is useful). Otherwise they are noise. Noise is from the organism's point of view the source of contingency. Formally this is introduced by the disturbance D (Figure 1) in the environment. This disturbance is again described from the organism's point of view as there are an infinite number of disturbances in the world but only those disturbances which disturb the feedback loop can be of any interest to the organism. Since the feedback loop is described in terms of neuronal signals the disturbance can also be described by the organism's internal neuronal signals.

3. Self-referential temporal sequence learning

Any feedback loop has the inherent disadvantage that the organism cannot predict when the disturbance D will actually happen (D'Azzo 1988: 147). It can only react after the disturbance has occurred which poses a problem for the organism which should be solved. This can be achieved if the organism can turn the contingency of D into certainty or be able to *predict* the disturbance D . We return to the reflex example: the reflex itself cannot prevent the sensor event 'pain' from occurring since it can react only after it has occurred. Only if the organism is able to *learn* the relation between the pain and, for example, the heat radiation (which precedes it) can it avoid the painful stimulus by generating an anticipatory motor reaction. As heat radiation and pain follow in a *sequence*, learning has the task of learning this temporal sequence in order to generate an early motor reaction. Thus, in general, temporal sequence learning of sensor events enables the organism to generate *anticipatory behaviour* in order to react faster than before.

How is temporal sequence learning achieved in our model? Figure 2 shows the extended circuit of the formal organism and the formal environment. Again we have the reflex pathway with transfer functions H_0 and P_0 . Additionally, we added a pathway from the disturbance D to the input S_p and a delay τ which triggers the reflex pathway later than the predictive pathway via S_p . Thus, the disturbance enters the organism early via S_p and late via S_r . If the organism is able to learn the temporal relation between S_r and S_p it should be able to generate an early motor reaction which eliminates the disturbance before it reaches the input S_r . Temporal sequence learning can be used to eliminate this objective disadvantage of a reflex — that is to say that it always reacts too late. Consequently, learning takes place when the reflex is triggered and the past is analyzed if predicting signals exist which could be used to generate a motor reaction in order to prevent triggering of the reflex. Therefore the

past becomes a construct which is related to the self-referential structure of the organism.

At this stage it is necessary to concentrate on the different learning paradigms of sequence learning which are offered in computational neuroscience and to decide if one can develop autonomous behaviour. Learning of sequences has a long tradition in psychology which began with Pavlov's classical conditioning and has been mathematically formalized by Sutton and Barto in the form of Temporal Difference (TD) learning (Sutton and Barto 1982). The learning scheme proposed by Sutton and Barto is a *supervised learning* scheme which needs an *external teacher* (in the environment). Since we want to describe autonomous behaviour we cannot use a learning rule which relies on teacher-like evaluation arising from the environment. We need a learning rule which is non-evaluative and self-organizing. This leads to another class of learning rules which are called *unsupervised learning rules*.

Amongst these unsupervised learning rules there is one learning rule which is of special interest in this context since it analyzes temporal sequences and is biologically inspired. New results from neurophysiological experiments suggest that the temporal timing of neuronal signals is crucial to synaptic learning and therefore to synaptic weight change: if the pre-synaptic activity precedes the postsynaptic activity then the synaptic weight is increased and if the timing is reversed it is decreased (Zhang et al. 1998). This rule is called spike timing dependent synaptic plasticity (STDP) or simply 'Temporal Hebb' since it is a special form of classical associative Hebbian learning: while standard Hebbian learning only develops associations between events which occur around the *same* time, temporal Hebb learns associations between sequences of events. The learning rule operates unsupervised which seems to be good for explaining the autonomous behaviour of an organism since this is *self-organizing*. The rule develops by itself without external supervision and is guided only by using a general paradigm, in our case the learning of temporal sequences.

The unsupervised learning rule seems to have direct links to constructivism, as it claims that all constructions are autonomously self-constructed by the organism. This is the outstanding feature but also the curse of such learning: self-organization always has the inherent danger that the results become *arbitrary* and therefore *useless* to the organism. Many have criticized the constructivists precisely for that reason: anything goes, the results of the 'constructions' (or unsupervised learning) are completely arbitrary (Hachmeister 1992). This has been rebutted, for example, by Schmidt (in Grant and McLaughlin 2001). The standard solution of the theory of neural networks is that so called 'boundary conditions' are introduced which reduce the degrees of freedom (thus limiting the range of possible constructions), so that the network becomes confined within sensible boundaries. However, these boundary conditions really only camouflage the experimenter outside the organ-

ism who actively interferes to prevent the network from becoming arbitrary. Thus, it seems to be that purely unsupervised learning is not applicable and it is clear that some form of reference must exist. In our autonomous organism the solution is again the reflex pathway which can be seen as a ‘genetic’ basis: the reference is given by the pre-wired fixed reflex pathway. The reflex pathway defines what is zero in time and therefore defines the present. Every sensor signal which arrives *earlier* than the reflex signal is beneficial to the organism in the sense of *predicting* the unwanted reflex; every sensor signal which comes later is useless. Although we talk about the future and the past, the actual structural change in the organism is performed in the present. The band-pass-filters can be seen as a functional differentiation of the organism in order to make the past useable for operations in the present.

However, the reflex is only the starting point for the development of more complex sensor-motor loops which can be built up by recursively predicting each other. But it is the reflex which kick-starts learning and prevents the organism from developing arbitrary behaviour. Thus, in this sense we can say that temporal Hebb in conjunction with feedback loops is self-referenced unsupervised learning with the objective of improving the organism’s feedback loops. For that purpose we have modified the pure unsupervised temporal Hebb learning rule and developed a special learning rule which incorporates both properties: it is unsupervised but it has its initial reference in the form of the reflex loop. Learning starts with the reflex loop and then develops more complex behaviour in superseding the reflex loop with more complex sensor-motor loops.

4. Robot application

This section will show that a robot can incorporate important aspects of autonomous behaviour which we find in ‘real’ organisms. We follow Maturana’s argumentation that a biological organism works deterministically. This means that all processes in the organism can be explained by causal relations, in our case by signal theory.

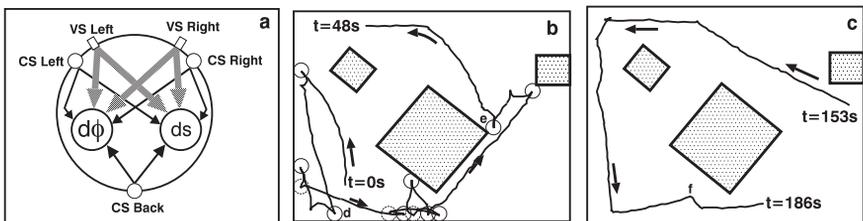


Figure 3

Figure 3 shows the robot and the schematic drawing shows the internal connections. The robot has two ‘neurons’ which represent its speed (ds) and the steering angle ($d\phi$). The standard behaviour of the robot is to drive simply straight ahead. Two different sensor types are installed on the robot: bump sensors and vision sensors. The bump sensors are connected with fixed synapses to the 2 neurons (thin lines). These predefined and fixed connections establish the robot’s reflex: every time the robot senses a bump it performs a stereotypical reflex such as a retraction reaction in order to avoid the obstacle. The reflex enables the robot to continue with its journey. The connections from the vision sensors are first set to zero strength so that the robot only uses his reflex mechanism when a collision occurs (Figure 3).

In this case the robot experiences its environment as maximally contingent but the observer experiences the robot as completely predictable in its behaviour. Learning has the task of detecting the temporal relation between the vision and the bump sensors. After having successfully learned the relationship between the vision sensors and the bump sensors the robot is able to change its direction before it bumps into a wall (Figure 3). In order to achieve this, learning is completely self-organizing and needs no external teacher: the reflex behaviour drives the learning. The reflex determines the reference in time and learning has the task of determining those sensor events which are earlier than the reflex. The behaviour after or during learning (and learning in our example never stops) is not completely predictable for an observer. It is only obvious that the robot learns to avoid bumps after a while but *how* this is actually done is always different. In one experiment the robot simply waits in front of an obstacle and rests there. In another experiment the robot develops more complex reactions. But every experiment is unique and develops ‘another’ robot.

4.1 Engineering and biology

Following this presentation of the robot experiment we shall now attempt to demonstrate the differences between our model and those of a typical engineering model. In engineering there is an external observer, the engineer, who wants the system (for example, the robot) to do precisely what he or she wants. This can be achieved by hard-wiring all properties into the system or by ‘teaching’ the system the desired response which is a standard technique (and idea) in computational neuroscience. Before ‘learning’ the neural network does not behave in the desired manner, so the engineer ‘teaches’ the system with a special signal until it has reached the desired behaviour. Thus, first the system exhibits unpredictable or undesired behaviour. Then later (after learning) it becomes completely predictable in the sense that it is now useful for the engineer (who is part of the environment).

Our system behaves the other way round: for an *observer*, first the behaviour of the robot is completely predictable due to its reflex. After learning, the robot's behaviour is no longer predictable for an observer since the robot has found one behavioural solution out of many possible solutions. From experiment to experiment the robot develops differently so that, in spite of the fact that the robot always starts from the same 'genetics' (reflex), the behaviour after learning is always different. Having two robots developing in this playground would create different behaviour. Thus, the robot's behaviour is no longer completely predictable. This leads to a problem in the environment: the robot's environment has to cope with the robot's unpredictability or autonomy. This is the complete opposite of a technical solution: in a technical solution the observer wants to have a predictable system. Thus, one can differentiate between two different paradigms: the 'Engineering paradigm' and the 'Biology paradigm'. The 'Engineering paradigm' is always interested in a particular desired behaviour which is achieved by an external evaluation of the system's behaviour. In the 'Biology paradigm' the organism follows its internal objectives and there is no external evaluation.

4.2 Predictive value

We have developed an information measurement which measures the robot's internal ability to predict the triggering of the reflex which we call *predictive value*. It reflects the use of the vision sensors to prevent the triggering of the bump sensors. Figure 4 shows the development of the predictive value for the two vision sensors in relation to the steering angle. In Figure 4 both sensors are intact and used for the prediction of the bump events which occur (or could occur). In Figure 4 the left vision sensor is partly blindfolded, giving a very bad response. This leads to a low predictive value on the left vision sensor. Thus, this information measurement can show how the robot integrates new environmental signals in order to reduce the uncertainty experienced by the feedback loop. The uncertainty is due to the fact that

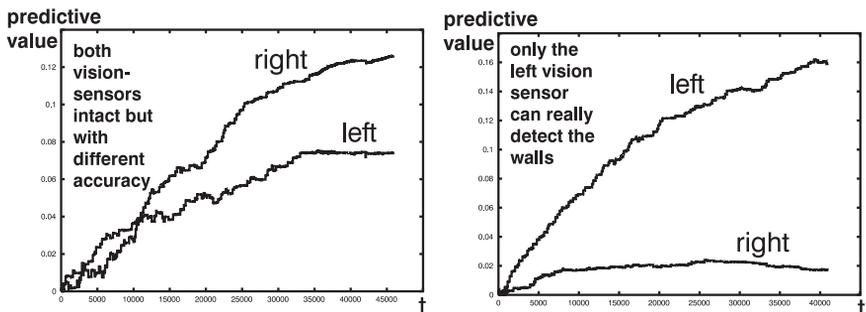


Figure 4

the feedback loop can only react *after* a disturbance has occurred. The predictive signals are able to generate a reaction before the disturbance (bump) can be sensed.

Now one can switch over to an external observer in the outside world who has no access to the robot's internal structure. For an observer, the growth of the predictive value can be interpreted (in an apparent paradox) as *growth in unpredictability*. This is due to the fact that the robot develops *different* strategies (that is to say, more than one) to avoid bumping into objects. As mentioned above, Figure 3 shows the outcome of only one experiment. In other experiments, the robot simply waits in front of a wall and does nothing. Thus, an observer in the environment experiences the robot's behaviour as more and more unpredictable. This rise in unpredictability poses an additional problem for another robot which wants to predict its observed environment where other robots behave in a quite unpredictable manner. This effect is described by Niklas Luhmann as double contingency which is central to his theory of communication. To this issue we will return in the next section.

5. Luhmann's systems theory revisited

Luhmann's systems theory has in part served as the underlying paradigm at the basis of this chapter. However, even Luhmann admitted that his systems theory was work in progress and at this point a critical reflection of Luhmann's work should be undertaken. In particular such areas as system/environment, element/relation, self-reference, system differentiation and complexity/contingency will be discussed.

Luhmann starts with the assumption that there are systems in the environment (Luhmann 1995: 12). This basic premise *per se* will not be questioned here, however it is important to ask how we can identify systems in their environment. One way to identify systems is to identify their boundaries which separate them from their environment. However, boundaries can only be *observed* from the environment (by an observer). The system itself cannot use the boundary to distinguish itself from the environment since it operates in a self-referential manner and therefore has no simple way of determining its boundaries. The detection of the boundary by the system itself would mean that the system can localize the disturbance D and therefore decide what is inside and what is outside. However, in a simple closed loop this is not possible since the disturbance can enter the loop at any point. In order to distinguish what is inside and what is outside, the organism has to identify the disturbance in the environment. This can only be achieved by additional inputs (or loops) as presented in this chapter (by the predictive input). The feedback loop is its own blindspot and cannot reflect about itself as in the moment it reacts it is already too late. In Spencer Brown's words (Spencer Brown 1969) this problem can

only be solved by another distinction (or, in this case, by the predictive input). This conforms with the work of Luhmann and von Foerster but is distinct from Maturana's approach. Maturana demands that the self must be aware of its boundaries from the beginning. For Luhmann, on the other hand, the system must emerge first and then become aware of its boundaries. For example, an organization is often formed by people who simply meet somewhere and then become aware of their 'connectivity'.

However, there is a second way to distinguish what belongs to the system and what does not. This is the distinction between element and relation.² Elements only reside within the system's boundaries and therefore distinguish the system from the environment. Elements are for example neuronal activity (as used in this work), behaviour or communications. Relations, on the other hand, have the task to organize the generation of new elements. In contrast to elements, relations can cross the boundaries in Luhmann's theory and establish causal relations between system and the environment. The relations create the possibility that the environment is able to influence the system's behaviour since some relations enter the environment and get back to the system. Therefore Luhmann called his system open and closed at the same time. A system is said to be operationally open in the sense of the relations and structurally closed in the restricted existence of the elements within the organism's boundaries.

The other reason for allowing the relations to cross boundaries is the definition of complexity. Complexity can be measured on both sides of the boundaries of the organism and therefore the new reference makes it possible to distinguish between system and environment. This is achieved by identifying complexity gradients between the system and the environment which shows that the definition of element/relation and system/environment can be connected by the complexity gradient. At this point we would argue that Luhmann's definition of complexity is not radical enough. In this chapter we have seen that both the organism's transfer-function and the environmental transfer-function are completely formulated from the organism's point of view. As the organism operates only self-referentially with (neuronal) signals, the transfer-function of the environment is also formulated by internal signals. We can identify Luhmann's elements by the signals which are transferred by the transfer-functions (H_0, H_1, \dots). However, the definition of the relation proposed here is different from that used by Luhmann. In our theory the relations are completely described from the organism's point of view. This is due to the fact that a transfer function obviously also determines the temporal development of the elements (signals). Thus, element and relation are not separable and are both part of the robot's description of the external world formulated by its *internal* transfer-functions. These transfer functions are formulated by the internal signals and relations of the robot/organism.

In contrast to the theory presented here, in Luhmann's theory the relations can enter the environment (Luhmann, 1995: 25). Such a view re-introduces the transformation of one modality into another, like the transformations of pressure to neuronal signals. This would however lead to a description of the external world by inhomogeneous elements (different qualities) and relations. An external observer might be able to observe this inhomogeneous structure of relations between different types of elements. However, constructivism has the task of avoiding both problems: the transformations from one quality to another and the elimination of the observer-problem. Both problems have been solved by introducing self-referentiality. Self-referentiality implies that the organism observes itself; it therefore changes the point of view from an external observer to an internal observer. The external observer faces the problem of identifying the right feedback loops since the feedback is not observable from the outside. The internal observer observes the right feedback as only those actions can be observed which reach the sensor of an organism. The introduction of external relations leads to the problem, namely that only an observer can identify these relations. The demand for an external observer opens the door to *interpretations*: what is a relation and what is not. Finally, this can lead to a meta-observer who claims objectivity and who is able to identify all relations in an 'objective' manner. This dispute has been resolved by radically employing the organism's perspective which determines automatically the relevant relations, namely those relations which feed back to the organism. Relations are inevitably connected to the elements since they are the relations which connect the elements. If we take Luhmann's theory as an extension of constructivism the relations can only have the task of connecting the internal signals of the organism. This has been made explicitly clear by the use of transfer-functions which incorporate both the (internal) signals and relations (which determine the dynamics of the internal signals).

As a consequence of the above the organism's boundaries cannot be identified by the two differences: element/relation or system/environment and have to be identified differently in contrast to Luhmann's work. A solution of this dilemma can be found in considering the disturbance *D*. This contingency can be used to define the 'outer' world if we accept that contingency is a property of the environment and not of the organism.² The organism itself does not voluntarily generate contingency but the environment does. Therefore there is a way to define 'inside' and 'outside' from the organism's perspective. We suggest a definition of the boundary of an organism also by the *contingency* generated in the environment. To make the plausibility of this argument clearer, the simplest form of feedback can be considered, namely the fixed reflex. The reflex has a desired state which should be reached. The feedback loop shall not disturb itself in the sense that it shall operate deterministically towards a desired state. Now we consider an environment which provides

only a deterministic feedback which means that the feedback is not disturbed. Without disturbances in the environment the feedback loop has always reached its goal, namely its desired state; the feedback loop is not actually needed. However, with disturbances the goal cannot always be maintained (in the case of a fixed feedback). Since the organism itself generates no contingencies these unwanted changes can only come from the environment. Thus, it is possible for the organism to distinguish between organism and environment in locating the disturbance.

As stated above, Luhmann uses a complexity gradient between the organism and the environment to identify the organism's boundaries. Since the complexity is defined by worldwide relations this definition is not applicable to our work. We suggest a definition which is based on the source of uncertainty which is observed by the organism in the environment. However, for the definition of 'meaning' Luhmann used the difference of determinism and contingency, which is very close to the approach proposed here:

[Instead,] we begin from the fact that there must be mechanisms that, regardless of what triggers them, produce adequate determinacy. The difference between meaning and world is formed for this process of the continual self-determination of meaning as the difference between order and perturbation, between noise and information. Both are and both remain necessary. The unity of the difference is and remains the basis for operation. This cannot be emphasized strongly enough (Luhmann 1995: 83).

Meaning is strongly related to the concept of relations since it is a special form of relations for social systems and psychic systems. Since Luhmann only uses the general definition of relation/complexity in the first chapter of *Social Systems* and later on only the definition of meaning there is little impact on the work as a whole.

The simple reflex loop referred to above is usually the result of evolutionary selection and is pre-programmed in the organism at the moment of birth. However, as stated before, the reflex loop has inherent disadvantages which can be tackled by learning (as part of the ontogenesis). Learning is an important aspect in both the theory proposed here and in Luhmann's theory. Luhmann speaks about learning in the sense that the generation of new elements should reduce uncertainty or risk. This is related to our approach in the form of predictive learning in anticipating the looming disturbance.

However, the difference between Luhmann's model and the model presented here is the starting condition *before* learning. Luhmann adopted the concept of the learning process from Heinz von Foerster (von Foerster, 1985) who stated that 'order emerges from chaos' (or noise). Von Foerster argues that before learning the nervous system is in an *unordered* or possibly even chaotic state. Due to the interaction with the environment the system organizes itself and becomes more and more structured. In Luhmann's words the relations are first arbitrary and then

later they are selected by the learning process (Luhmann 1995). The opposing view is taken here. Before learning, the organism is already highly ordered in the form of innate reflex-loops. Learning leads to an improvement in the form of anticipatory behaviour. Thus, new behaviour is generated in order to eliminate the disadvantage of feedback loops. In this way, the development of the organism is the other way around in our work in contrast to Luhmann's and von Foerster's work. The number of relations increases and does not decrease if we use Luhmann's terminology. In this sense, the position adopted here is closer to Piaget than to Luhmann.

Piaget (1971) argues that at the beginning of ontogenesis an organism is only determined by its innate reflexes. In Piagetian theory, learning is achieved by the assimilation of new sensory stimuli into already existing reflexes. This process can be repeated infinitely in generating more and more sensor-motor loops. These learned sensor-motor loops are called 'schemata'. In the first 18 months of a child's life these schemata are extensions of the sensor-motor reflexes which Piaget summarized as 'sensor-motor-intelligence'. It is interesting to note that the newborn child is completely unable to differentiate between its 'ego' and the environment like the initial reflex in our robot example. Only during learning does the robot seem (to an observer) to 'perceive' the obstacles as objects and avoid them. In the context of Piaget's description our robot has acquired a very simple form of sensor-motor-intelligence since it is able to build up more complex behaviour by integrating more and more sensor-signals. Noise or contingencies seem to be a *constitutive factor* in establishing an organism and give the feedback loop the right to exist. This might seem trivial from the observer's point of view but for a self-referential system (like an organism) it is essential and the basis for its phylo- and ontogenesis. It is argued here that the organism's development starts from the reflexes and learning extends the behavioural possibilities of the organism. Luhmann argues the other way round (order is constructed from noise).

For the social scientist it is of particular interest when the environment of an organism consists of *other* organisms. Organisms in the environment are also treated as disturbances which interfere with the autopoiesis of the first organism. As pointed out above, learning tries to reduce uncertainty from the organism's point of view. If both organisms are able to learn, both organisms try to predict each other. Luhmann called this phenomenon the double contingency problem. The double contingency problem is the catalyst in developing a social system. Rather than discussing the detail of the social aspects of contingency,³ we identify those salient aspects which are related to computational neuroscience.

As pointed out above, the *other* organism (which we from now on shall call '*alter*') is experienced as a disturbance by the first mentioned organism (called '*ego*'). Since the disturbance is formulated by internal signals, the behaviour of *alter* is also described in the context of *ego*'s signals. Thus, the behaviour of *alter*

influences *ego* only if it appears as a disturbance. Learning emerges only if there are sensorial modalities which have predictive properties in relation to the feedback loops (or in general to the existing structure). The same applies to *alter* which describes *ego* by its own signals. At this point it is obvious that the form of communication between *alter* and *ego* is more complicated than simple information transmission. In Luhmann's theory this is reflected by the difference of utterance and information. The utterance is in this case the organism's behaviour. However, only if the utterance is useful⁴ to the organism does it appear as an internal signal — as Luhmann argues in his communication model which clearly distinguishes between these two aspects of communication.

However, Luhmann could not resist integrating the communication model of Shannon and Weaver (Shannon and Weaver 1949) into his work. The original application of the Shannon and Weaver model is the transmission of telephone signals. This model fits perfectly in the domain of engineering solutions where we develop a *tool* which has to be as reliable as possible (see above the section about engineering *versus* biology). The benefit of the Shannon and Weaver model is that it is able to evaluate the quality of a transmission channel. Such a channel is simply an extension of our sensory apparatus in the sense that we can 'displace' our ear to a remote place. Consequently, the goal is to preserve the original signal as much as possible. However, this model does *not* take into account the difference between utterance and information. In the Shannon and Weaver model information can directly flow from one organism to the other and be directly processed by the other organism. Shannon and Weaver were aware of this problem and argued against using the model for human understanding. The question of the use of the utterance received by *alter* for *ego* is not raised. Therefore the model stays on the level of the utterance. Even the introduction of noise cannot address the difference between utterance and information. Noise in the Shannon and Weaver model leads only to the *ambiguity of utterances* which is caused by a poor transmission. Constructivist theories (such as Luhmann's) cannot define communication in the way Shannon and Weaver defined it since the organism integrates an external signal in the context of its internal feedback. Since all organisms must be considered unique (at least after learning) the self-generated reactions are also unique. In other words, in the Luhmann-model (and also in ours) the behaviour of *alter* is evaluated by the internal structures of *ego* and *vice versa*. The existence of a universal code at the neuronal level is therefore questionable and even the weak form of such a universal code called 'intersubjectivity' cannot exist. This would assume a direct transfer from one organism to the other as if their neuronal signals could be directly transmitted. The Shannon/Weaver model is of little utility in the context of a constructivist paradigm since it suggests a direct information-transfer from one organism to the other.

Even in everyday language the metaphor of the Shannon and Weaver model is often used and suggests a direct transfer of information containers from one person to another. However, if we take the self-referentiality of a person (or organism) seriously this direct transfer does not make any sense to the individual and only the illusion of such a transmission is left. Therefore it is more appropriate to talk about *fictions of dialogue* rather than a direct dialogue as transmission or exchange (Grant 2000). In the context of constructivism it is more fruitful to avoid the transmission metaphor, and to concentrate on a system-level which only deals with behaviour (or action).

The foregoing argues that as long as we radically employ the organism's perspective we are confronted with the problem that every organism is in principle unique and requires unique analysis. In this sense Luhmann took the right step and introduced another system level which consists of the elements which he calls communications (and are observable as behaviour). On the level of behaviour we are able to observe organisms and how they *react* to each other. However, Luhmann stresses the fact that behaviour must be integrated into the organism's internal description and he uses 'communications' as basic elements. These elements consist of utterance and information as stated above. In this chapter we will stay with the behaviour as the constituting element of the social system since it stresses the fact that only behaviour is observable. The main way in which to describe behaviour is by its connectivity or by its relations. The relations determine what is possible and what is not possible.

The behaviour of an organism becomes more and more unpredictable for an observer while the organism gains security in predicting its environment. This poses a problem for the behavioural system since it becomes generally more unpredictable. This generates in turn more unpredictability for the organism (in our robot example, represented by D). Such a development is not desired from the organism's perspective. The only way out of this dilemma is to reduce the unpredictability at *both* system levels: in the neuronal system and in the social system (or the action/communication-system). Luhmann's solution to this problem is the differentiation of the social system into sub-systems with a reduced behavioural connectivity which is equivalent to more observed predictability within the subsystem. Typical examples are the establishment of themes, rituals, institutional rules and binary codes. The financial system for example uses the binary code 'affordable or not' and thus reduces the number of possible connections to two. At this point it should be noted that boundaries of social subsystems can also be identified by disturbances generated in the environment. However, the development of the boundaries themselves is a gradual process and they are usually fuzzy. Therefore a model is appropriate which takes into account the fuzziness of social boundaries and we can consider those boundaries as porous (Grant 2000: 53–55). At this stage further research has to be

carried out with a *population* of robots/organisms to gain more understanding about what happens when organisms are able to predict each other's behaviour.

6. Conclusion

Applying self-reference in conjunction with neuronal 'learning' to a technical system (here: a robot) leads inevitably to a conceptual focus on autonomous behaviour. Autonomy is defined internally in the sense that the organism has to reduce the environment's contingency. For an observer the problem is the other way round: while the organism is gaining certainty about the environment the observer (*viz* the environment) experiences the organism as more and more unpredictable. To have other organisms in the environment poses the problem that each organism during learning becomes a source of contingency for other organisms. In order to tackle this problem contingency has to be reduced on both levels: the neuronal level and on the behavioural level.

Notes

1. It should be noted that Maturana uses the same distinction but with another terminology. The 'organization' of a system is equivalent with a specific class of self-compatible elements (for example neuronal signals). Since the elements only exist within the system's boundaries, the boundaries are defined by the elements. Maturana's 'structure' of a system is established by the relations of the system. This structure can change due to evolution or learning while the organization always remains the same.
2. See C. Grant's contribution above for a contrasting view.
3. Social aspects of contingency are discussed by C. Grant, S. J. Schmidt and L. Leydesdorff in this volume.
4. 'Useful' in the sense that it can be related to the organism's autopoiesis and therefore the structure of the organism.

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Interaction versus action in Luhmann's sociology of communication

Loet Leydesdorff

1. Introduction

The theoretical oppositions between Luhmann (1984) and Habermas (1987) were framed in terms of 'systems theory' versus 'action theory' (cf. Habermas and Luhmann 1971). 'Action theory' may seem less alienating than 'systems theory' because 'actions' can be intentional. The analytical distinction between theories that are based on 'action' or 'interaction' as micro-operations of social systems, however, is more fundamental than the one between action and systems theory. Luhmann's sociology can be considered as different from other systems-theoretical approaches because it assumes 'interaction' as the basic operation of social systems.

Both 'actions' and 'interactions' can be considered as micro-operations that can be aggregated from a systems perspective. Actions can be aggregated, for example, into 'institutional agency,' whereas interactions may become increasingly complex by operating upon one another in a non-linear mode. Action can also be considered as an operation integrating social systems historically (Parsons 1937; Habermas 1981), while interactions enable the actors to reproduce the differentiation.

For example, Latour (1987) proposed a constructivist approach in which 'actors' would be 'followed' in terms of their actions. Actions are then used as a historical *explanans*. The observation of an interaction, however, assumes a perspective from which one can reconstruct the observable events (e.g., actions). Like action, interaction occurs in history, but the system of reference for interaction is necessarily an interhuman construct. Interaction is by definition reflexive. The two operations of 'action' and 'interaction' cannot be reduced to each other because of this difference in their epistemological status.

From an interactive or network perspective, one can attribute an action to an actor, but this attribution can also be reconsidered since interaction potentially rewrites the past, for example, from the perspective of a (historical) present. 'Interaction' thus provides us with an evolutionary category that operates at the

network level, whereas actions remain to be attributed to the historical development of agency in terms of individuals or groups who carry the evolution of systems of social interactions. While actions can be expected to vary, interactions tend to evolve into systems of mutual expectations.

2. The double hermeneutics of sociology

The epistemological difference between ‘action’ and ‘interaction’ was already fundamental to Weber’s Marx-critique. Marx focused on historical action and wished to make predictions on this basis. Weber raised the question of the ‘sociological meaning’ of actions. From Weber’s perspective, sociology uses historical instances for an understanding of the operation of analytical constructs (e.g., ‘ideal types’). Against Marx, Weber (for example, 1904; 1917) maintained that the historical accounts cannot inform us about a system’s logic operating in history. The analyst ‘understands’ the actions in what can also be called a *verstehende Soziologie*.

Understanding itself raises the question as to how people and analysts construct meaning in *interactions*. A ‘double hermeneutics’ between the analyst’s and the participant’s level of action and accounting has since Weber’s time been a constitutive problem of sociology (Giddens 1979). The dimension of external observation versus participation can be cross-tabled with the distinction between ‘interaction’ and ‘action’ (Table 1). A participant can also be an observer, but the analytical status of an observation is different from that of participation.

Table 1. The generation of a double hermeutics in sociology

	participation	observation
action	actor	report
interaction	role	discourse

From the perspective of reflexive interaction at the network level, ‘action’ by a participant can be considered as a role attributed to or carried by an actor. Expectations with respect to actors are constructed within the network of communications among the observers. The interactive networks operate in terms of non-linear feedback loops on actions. From an action theoretical perspective, however, the network effects are attributed to the intentioned actors in terms of linear relations of cause and effect. The unintended consequences of actions remain unexplained.

By considering communication as the unit of analysis — or more precisely as ‘the unit of operation’ — of social systems, Luhmann’s sociology shares with symbolic interactionism a focus on interaction. Symbolic interactionism, with its roots in American pragmatism (Blumer 1969), however, has been strongly con-

trusted with social systems theory (Grathoff 1978). Luhmann mainly added to symbolic interactionism the question as to what global dimensions of communication may mean for local interactions. How and to what extent are the local or 'first-order' observations structured by higher-order communications? But in order to ground the next-order level, Luhmann defined the basic operation of social systems as 'second-order observations': how does the network system enable us to make distinctions and to provide these distinctions with meaning at the network level?

3. Symbolic interactionism

In his authoritative study of *symbolic interactionism*, Herbert Blumer stated: "The importance lies in the fact that social interaction is a process that *forms* human conduct instead of being merely a means or a setting for the expression and release of human conduct" (Blumer 1969: 8). Blumer traced the roots of the interactionist approach to Mead's reformulation of the self as the result of a process of social interaction (Mead 1934: 26f.) in which the communicative structure pervades action. Society exists inside the individual in the form of language and thought (Cooley 1902).

The basic unit of analysis in the interactionist account was defined as the joint act — the interactional episode (Lindesmith, Strauss and Denzin 1975: 4). The interactional episode is part of the larger society. In empirical studies, however, the larger social system was consistently treated as a result of interactions in micro-situations. Blumer for example, stated:

However, in seeing the organization as an organization of actions symbolic interactionism takes a different approach. Instead of accounting for the activity of the organization and its parts in terms of organizational principles or system principles, it seeks explanation in the way the participants define, interpret, and meet the situations at their respective points. The linking together of this knowledge of concatenated actions yields a picture of the organized complex. (Blumer 1969: 58)

The resulting 'picture', however, has the status of an account that can be communicated. This communication is no longer necessarily confined to the situation in which it emerged. As noted, the epistemological status of an account is different from an observable action because the observational report is reflexively organized. It contains a knowledge claim that can be validated by the participants and/or as a contribution to a sociology.

The need for a bottom-up approach to the validation does not follow logically from a focus on 'interactions', but was implied in the programmatic preference of symbolic interactionism for the analysis of 'micro-situations'. Knorr-Cetina, for

example, argued that the ‘situational approach’ is the road sociology must take for *methodological* reasons, since:

[...] unlike the natural sciences the social sciences cannot hope to get to know the macro-order conceived in terms of emergent properties: they are methodologically bound to draw upon members’ knowledge and accounts. (Knorr-Cetina 1981: 27)

How can an analyst understand ‘members’ knowledge and accounts’ other than by situating them in a context that has first to be (re)constructed from these same ‘members’ knowledge and accounts’? A reflexive turn is implied that adds to the analysts’ understanding of the members’ accounts. Whereas the micro-constructivists demand — as a methodological constraint — that the interpretation be validated locally, the accounts feed back into the situation from a *perspective*. This analytical angle makes the observation reflexively available as an observational report in contexts other than the ones in which they originated and were validated.

On the one hand, the micro-constructivists have substantiated their critique of systems approaches, arguing that in order to be useful for empirical research, a model should be able to account for the specificities of localized action and interaction. The focus on specific episodes has resulted in a richness of substantive understanding which cannot easily be brought into a systems perspective. The latter abstracts from the substance of the accounts by comparing them at the aggregated level. The reports can then be considered as contributions to a discourse. However, the accounts, and not the actions reported within them, provide the variation from this perspective.

On the other hand, the situationalist approach fails us if we wish to understand why interactions are ‘concatenated’. Some authors in this tradition have tried to specify control as, for example, emergent ‘alignment’ (e.g., Fujimura 1987), but the control mechanisms of the social system (e.g. codification processes) cannot fully be specified from within the situations. The historical report of the sequence only reflects the dynamics that produced the sequencing.

The systems perspective originates from taking a reflexive turn. Observations, for example, were defined by Luhmann (1984) from his ‘second-order’ perspective as the operation of first distinguishing and then indicating the distinctions made (*‘Unterscheiden und Bezeichnen’*). The designation provides the distinction with meaning. It should be noted that the operation of ‘observation’ thus defined implies two operations. By (re)combining the network operation with the historical information, the analytical perspective adds to an understanding of the historical cases. For example, one may also wish to raise the question why some things did *not* happen? In addition to the cases that happened to occur historically, one is sometimes — that is, under methodologically specifiable conditions — able to specify

expectations about what might have happened. Historical accounts provide the systems theorist with empirical materials for the formulation of hypotheses.

4. Structuration theory

Some interactions are more likely to occur than others; previous interactions 'constrain and enable' future interactions. 'Structures' seem to operate as constraints both statically, that is, at each moment in time, and dynamically, that is, over time. Giddens proposed in his 'structuration theory' (1979) that structure be considered as a virtual operation which 'constrains and enables' action *ex ante* and 'aggregates' actions *ex post*. However, Giddens deliberately refrained from a specification of this 'duality of structure' as a virtual operation since — in contrast to Marxism and systems theory — the empirical sociologist should, in his opinion, foreground that "social reproduction has itself to be explained in terms of the structurally bounded and contingently applied knowledgeability of social actors" (Giddens 1981: 172 ff.).

In order to prevent any specification of structure 'outside time and space' in empirical research, Giddens (1984) then recommended *as a methodology* that 'structure' be described only historically and contextually, that is, substantively operationalized in terms of historical instances. In Giddens' opinion, the mutual contingencies of structure and action can be studied by 'bracketing' the institutional dimension when the analysis is at the level of strategic conduct; conversely, the latter can be bracketed when one analyzes the former.¹ So, the two perspectives are developed as different views of the same matter; the two pictures together could provide a fuller insight into the mutual contingencies.

The definition of structure was thus shifted to 'a rule of sociological method', but Giddens refused to draw the consequence of defining structure formally, that is, as a network operation. The 'virtual operation' of structure, however, is analytically different from its substantive instantiations. Giddens was himself aware of the problem that the core concept of his theory, that is, the 'duality of structure,' cannot be defined by using 'bracketing' (e.g., Giddens 1979: 95). It is argued here that structuration theory contains all the elements, but for programmatic reasons, denies the analyst the possibility of specifying the operation of 'structure' at the level of a social system. Furthermore, Giddens warned against making structure the subject of sociological theorizing when he wrote in the following strong terms:

There can be no doubt about the sophistication and importance of the work of some authors currently endeavouring to develop Parsons' work in novel ways, particularly Luhmann and Habermas. But I think it is as necessary to repudiate the newer versions of Parsonianism as I do the longer established varieties of non-Parsonian structural sociology. (Giddens 1984: xxxvii)

5. Luhmann's proposal

Perhaps even more than Habermas, Luhmann has been deeply influenced by Parsons' systems theory. Parsons considered 'action' as the integrating operator of social systems: the analytical dimensions of an action are instantiated and reorganized in the performative dimension. The identification of the system with observable action, however, has led to a reification of systems-theoretical approaches. Social systems could then be considered as historical phenomena (Münch 1982).

Although Parsons (1952) argued strongly that society should be considered as a category *sui generis*, from his perspective the social remains another dimension of an otherwise naturally given system. This meant that the social system was not further analyzed as an *interactive* and, therefore, cultural construct among human beings. Luhmann (1984) confronted this problem of confusing the historical level with the analytical by proposing a consideration of communication as the running operator of the social system. Interaction could then be considered as a basic operation for producing meaning within social systems.

This proposal thoroughly solves the puzzle of combining the explanatory power of systems theory as a theory about communication and control on the one hand with the richness of the descriptions in studies from interactionist traditions on the other. The social system contains instances that are historically realized, but it can be considered as a multi-dimensional space of other options that could perhaps be realized in the future. The focus on the dynamics of the network enables us to integrate the micro- with the macro-approach. Middle-range approaches can also be appreciated because the analytical definition of the systems of reference becomes crucial to the specification of a research design.

Which networks can be considered as relevant for studying a specific research question? How can networks be delineated? Because of the freedom to specify expectations on analytical grounds, Luhmann's sociology is very different from that of Giddens or Habermas. The latter begin with historical observations, while Luhmann's theorizing begins with expectations that are based on 'horizons of meaning' (Luhmann 2002b; cf. Husserl 1954).² This theory therefore allows for formalization without losing the relation to interactive accounts which in turn provide the variation. From a network perspective, 'second-order observations' refer to a theory about possible observations. The observables can then be evaluated in relation to the theoretical expectations.

The social system is constructed bottom-up, but in a network mode. The interactions at the network level add uncertainty to the aggregations of lower-order units. In the formal language of statistics one can formulate that the aggregations contain 'within group' variation, but that one expects also 'between group' variation. A classical example is that of a school expected to contain more variation than

that contained in the sum of the classes within it. One can expect additional variation between the classes, since the classes also contain structural variation (Leydesdorff 1995). The structural dimensions of the system may initially (and partially) be latent for the agents involved, but as the networks develop by further aggregating, the architecture of a social system can become more apparent (Lazarsfeld and Henry 1968). A perceptive analyst is able to develop hypotheses about the latent dimensions of a virtually operating structure. The inference by the micro-constructivist that one would be unable to specify 'organizational principles or systems principles' accounting for the activity of individuals is no longer valid from this perspective.

The organizational principles can be explained historically in terms of how they have been constructed at the network level. They are not given naturally, but constructed historically. However, once constructed the constructions may begin to feed back on agency in a mode very similar to Giddens' 'duality of structure.' Unlike Giddens, however, the focus in Luhmann's constructivism is not on the construction process, but on what is constructed, that is, the social system. It should be noted that our knowledge about this system has the status of a hypothesis. The social system should not be reified; it remains operational and under (re)construction.

Analytical theorizing about this operation can be informed by historical observations, but the systems theorist takes a reflexive turn. It is argued here that Luhmann's sociology should primarily be read as a theory that informs sociological hypotheses by structuring them into a coherent framework. Any knowledge claim, however, remains itself an operational part of the social system, that is, as another account (Latour 1988). From this perspective, sociological theorizing can be considered as contributing to empirical research by providing knowledge claims or hypotheses to be validated. Luhmann himself formulated it in the following terms:

The soundness of this reflection, however, arises — and this can still be ascertained by this reflection — from a form of social differentiation that no longer allows for any binding, authoritative representation of the world in the world or of society within society. (Luhmann 2002a: 75)

6. Differentiation and integration

Accounts by membership participants contain an address distinct from accounts of sociological observers who wish to contribute to the development of their discipline. The social system differentiates in terms of roles. Neither 'the system' nor 'the situation' (nor 'everyday language' or 'action') necessarily integrates the different

(sub)systems. 'Integration' is a special case that requires explanation. In a pluriform society, one expects frictions among discourses (based on observations and reports from different perspectives). The frictions expected can be observed, for example, in the case of competing paradigms.

The structural consequences of previous actions and interactions build up over time. People are historically constrained and enabled by structures that have been constructed at the supra-individual level. These structures are reproduced (or not) because of their institutionalized social functions. These insights about structure and function, of course, stem directly from Parsons. However, when Parsons' original 'unit of action' is replaced with 'interaction,' the systems under study are no longer only integrated by the operation. The interacting systems can both be integrated locally by action and at the same time differentiated in the reproduction. Interaction operates in cycles.

The cycles may begin to resonate. Different levels of nested interactions can be distinguished analytically. These levels can be considered condensations of these recursive operations, that is, communications about communications. For example, Luhmann (1975) distinguished between 'interaction,' 'organization,' and 'society'. The interacting agents can be expected to remain different, although they are able to exchange using an interface. When the networks reproduce distributions that are based on differences, the structural characteristics of these differences can be called 'differentiations'. The interfaces then also tend to become institutionalized, for example, as organizations.

Unlike symbolic interactionism with its pronounced focus on micro-level 'interactions', Luhmann proposed a view of 'communication' as the basic operation of social systems. From this perspective, 'interaction' can be considered as a specific form of organizing communications, notably face-to-face communication in the present. As in Giddens' structuration theory, communications can also be aggregated and structured into contingent organizations and at the macro-level of society. The starting point of this social systems perspective is that every action can also be considered as a communication among human beings (Luhmann 1984: 149). What cannot be communicated, cannot be considered as part of a social system. It should be observed that this definition includes non-verbal communication. Interaction is then the specific form of communication in which the participants are reflexively aware of the contingencies in the communication because of each other's presence. The 'double contingency' of the interaction structures action on both sides as a factor other than the individual lines of action. A structuration of the interactions can be institutionalized, for example, in marriage. The reflexive awareness of the double contingencies and asymmetries in mutual relations then induces cognition about the situation for each of the interacting actors.

From this reflexive perspective, action can be redefined — as in symbolic interactionism — as attributed by a network of social relations. However, the network perspective stands orthogonally to the actor perspective: agency is no longer considered as the cause and communication as the attribute, but *vice versa* and the system is grounded in communication. An actor may take action (or not) given one's position in the network. The communication first provides the events happening with meaning. Meaning can be perceived by an actor (or not); reception is more crucial for interaction than taking action (Luhmann 1990).

Providing 'meaning' for events is crucial to all human and inter-human systems: social systems operate in terms of generating and reproducing meaning. This conclusion can be considered a common heritage shared by Weber's sociology, Husserl's phenomenology, and the American pragmatists. Human beings interact reflexively, that is, in relation to one another; they evaluate whatever they observe, and although they are able to distinguish between the dimensions of 'facts' and 'values', the social science enterprise only takes off when the analysts also question what things mean to people.

The generation of 'meaning' at the social level can be considered as a consequence of human interaction. Individuals are also able to entertain 'meaning' discretionarily, but 'meaning' is reproduced by communication. Using a scheme from cybernetics, Luhmann inverted the argument about the dynamics of meaning from the perspective of systems theory: human interaction can be reorganized by the social system of communications *because* social meaning is generated by interacting individuals. As meaning is repeatedly constructed bottom-up, the constructed (next-order) system tends to take over control when specific configurations can increasingly be stabilized.

Social systems and individuals can be expected to process meaning differently (Luhmann 1986). For example, individuals can further develop as identities that may manage to map meaning one-to-one to their subjectivities. The axis for the representation at the social level, however, stands orthogonally to the axis of internal processing by an individual. Whereas the individual processes thoughts and consciousness, the social system enables us to develop, among other things, *discursive* knowledge.

7. The generation of a knowledge base

When human beings interact, they generate uncertainty³ at the network level. One is able to handle this uncertainty because one has learned to cope with it by providing meaning to some actions and not to others. In the sociological literature, this has been discussed under the heading of the double contingency that provides

meaning in social interactions (Parsons and Shils 1951: 3–39; Parsons 1968; Luhmann 1984: 148 ff.).

Both uncertainty and meaning can be expected to circulate among human beings. Languages enable us to provide a communication with meaning *and* to distinguish the expected information content of the message at the same time. This dual processing can be considered as the evolutionary achievement that has enabled the social system to develop the complex dynamics of a cultural evolution. The system develops in substantive and reflexive layers at the same time, but potentially in an uncoordinated way. The social system then emerges as a dynamic and flexible coordination mechanism among different levels for expectations.

The message provides meaning for the information contained in the message. For example, a word only has meaning in a sentence. Upon reception, the information can be rewritten as a signal of meaningful information and noise. This selective operation is recursive, that is, it can reflexively be applied upon itself. If the operation leaves traces over time, meaning can be invested in specific selections. The system can then provisionally be stabilized. In principle, stabilized systems can be further selected for globalization, that is, meaning which has been achieved historically can be compared with a horizon of possible meanings. Knowledge can then be developed as a next-order reflection allowing us to distinguish between meanings that make a difference and those which can provisionally be discarded as too uncertain. Thus, socially organized knowledge production further codifies the meaning-processing systems on a next-order layer.⁴

The stabilization of discursive knowledge in the social subsystem of scientific communication can be considered as a cultural achievement of the Scientific Revolution of the 17th century. Individual knowledge production is made interactive and in need of validation by communication. Modern sciences can no longer be understood in terms of the knowledge of single individuals. The study of the development of the sciences in terms of scientific revolutions (Kuhn 1962) has made us aware of the nature of social systems of communication as distinct from individual consciousness systems and their sum totals (Leydesdorff 2001a). The social system contains surplus value based on the interactions among human beings and their aggregates into groups. The social system of interhuman expectations is initially nothing other than a plastic medium in which individuals process meaning and uncertainty, for example, by exchanging in these dimensions. When repeated over time the process can become increasingly structured. The media of social communication can become differentiated. A modern society, for example, is highly structured in terms of carefully constructed balances between different types of communication.

The operating structure of the social system is reproduced at the level of the social system by using our individual contributions as a variety of inputs (e.g.,

knowledge claims), although the processing is highly structured. Thus, human beings are not external to the system, but 'structurally coupled' to it in terms of the distribution of their inputs (Maturana and Varela 1980). The network of communications can be expected to drift into provisional solutions to the puzzle of how to communicate all these inputs in an efficient (albeit perhaps suboptimal) way. The individual contributions provide the variation, while communication structures select by reinforcing some variations and not others.

The development of cognition as a next-order layer on each side — that is, at both the social level and within individuals — provides meaning-processing systems with another selective device that can feed back onto lower-level selections and underlying variations. However, this mechanism is structured differently in social systems (Luhmann uses here the word *dividuum*) and in individuals. While individuals process cognition internally, the social system manages to construct — under the historical conditions of emerging modernity — discursive knowledge as a control system for (scientific) communications.

8. The functional differentiation of communication

What does the social system add when the inputs are selected for organizing the communications? Here, the sociologist can build on metaphors which have been available since the founding fathers of the discipline (e.g. Comte), notably, that the social system can be expected to develop evolutionarily in stages. First, there was the primitive organization of society based on kinship relations which can be considered as a segmented system. Next, civilizations were formed based on a hierarchical and stratified structuration of the processing of meaning. In this stage, the levels of organization provided the main differentiation. However, the one-to-one correspondence between levels and control functions can be dissolved under historical conditions.

When the organization of society could no longer be contained within a single hierarchy (at the end of the Middle Ages), another format was gradually invented in the social system, namely functional differentiation. This new form was shaped in the 15th century, for example, when the House of Burgundy ruled over the Low Countries. The Dukes of Burgundy were neither Emperors (of Germany) nor Kings (of France) and, therefore, they suffered from a lack of religious legitimation for claiming autonomy. Given the social and power relations of the time, monetary unification was invented as a means to bind their 'Empire of the Middle' (between France and Germany) together.

Philip the Good unified the monetary systems of Flanders, Brabant, Holland, and Hainault in 1433. In 1489, the silver 'stuiver' (or 'sous') was legally standard-

ized as one twentieth of a golden guilder (florin) in all the Burgundian Netherlands (Groustra 1995). This monetary union lasted until 1556. The coordination eroded because of the inflationary imports of silver from the Spanish colonies during the 1540s and the protestant uprisings in the Netherlands in the 1550s. When the Dutch revolt gained momentum in the 1570s and 1580s, the northern provinces also decided that they no longer needed a King 'by the Grace of God', but that they could organize the political system as a republic. The sciences and the arts, once set free from religious control, could then begin to flourish. The principle of functional differentiation entails that various symbolically mediated communication systems can operate to solve problems in society in a heterarchical mode, that is, alongside each other. Over time, these parallel systems can develop functionality for one another. Functionality, however, is further developed along orthogonal dimensions. Thus, one can expect that it will take time to develop from the stage of a breakdown of the horizontally stratified hierarchy into differentiation with functions along orthogonal axes as another mode of social organization.

The different function systems use various codes for providing meaning for communication. Whereas the hierarchical (catholic) system had only a single centre of control — that was based on a holy text — economic exchange relations, for example, could now be handled by making payments. The symbolically generalized medium of money makes it no longer necessary to communicate by negotiating prices verbally or imposing them by force. The specification of a price as an expected market value speeds up the economic transaction processes by organizing the communication in a specific (that is, functionally codified) format.

Functional differentiation first had to be invented and then also accepted as a solution to coordination problems at the level of the social system, for example, by recognizing privacy (e.g., in love relations) *vis-à-vis* public relations, market relations for exchange, and political state formation as different domains of communication. After the 'phase transition' from a hierarchical mode of communication to one in which functionality prevailed, the differentiation began to feed back on the institutional organization of society, for example, by questioning the functionality of the traditional organization. This was then reflected in an emerging discourse (during the 18th century and notably in France) about desirable forms of social organization.

Luhmann emphasized in a series of studies entitled *Gesellschaftsstruktur und Semantik* (The Structure of Society and Semantics) that although semantic reflection is needed for stabilizing functional differentiation, functional differentiation of communication should not be considered as a process within language, but one that precedes language structurally, that is, at the level of society. Communication becomes functionally differentiated as a *social* order; the semantic reflection and codification can be expected to lag behind. This social process of changing the

mode of organizing communications among human beings can be expected to take centuries, and it cannot fully be completed because the complex system builds upon subdynamics that contain and reproduce forms of less complex organization as their building blocks.

For example, the hierarchical order of communication in language with Latin and then French as the sole *lingua franca*, was gradually replaced with a segmented system of 'natural languages' which could exist alongside each other as more or less equivalent. A system of nation states emerged in the 19th century as a sustainable form of shaping institutional structures that reintegrated the different functions in specific forms of organization. The prevailing tendency towards functional differentiation, however, continuously upsets historical arrangements. Functional differentiation allows for handling more complexity at the global level since it is based on a next-order reconstruction. The reconstruction transforms all 'natural' (given) forms by infusing them with knowledge-based inventions. The global system, however, is constrained in terms of the development of retention mechanisms that enable its reproduction.

9. The evolutionary mechanism

The American and French revolutions can perhaps be considered as the first deliberate attempts to reorganize a society institutionally so that it would be able to sustain the pluriform multiplicity of functions that characterize a modern society. The functional domains (e.g. markets, sciences) can be considered as global subsystems of communication, but at lower levels specific formats had to be generated in order to optimize the processing of information and meaning locally. While 'interaction' occurs also spontaneously between people, organizations have to be constructed.

Under the condition of functional differentiation, three levels can be distinguished at which one can expect that the function systems are recombined (cf. Luhmann 1975): (i) in 'interaction' as face-to-face communication; (ii) organization in a social system (providing criteria to distinguish those who are within from those external to a specific domain); and (iii) society (which can be considered as the coordination mechanism among functions at the global level). These three levels reconstruct segmentation, hierarchical stratification, and heterarchical differentiation of meaning processing, respectively. The organization of integration in institutions is thus analytically distinguished from the ongoing processes of functional differentiation among the globalizing subsystems (such as the economy and the sciences). The interfaces make possible translations among codes that provide different meanings to communications. However, the interfaces have first to be invented and developed at specific places.

The functional subsystems operate by coding communications specifically: for example, the market codes in terms of prices and payments, the sciences code communications in terms of whether they can be considered as functional for truth-finding and puzzle-solving, and political discourses code communication in terms of whether power and legitimation can be organized. Intimate relations code in terms of love and affection. The integrating levels, however, are not specific in terms of what is being coded. They solve the puzzle of how to interface the differences in codings locally. Agents at these different levels of aggregation can be expected to contribute to the differentiation by translating among differently coded meanings.

A range of global functions can be expected to resonate in inter-human communication. Functional differentiation means that some dimensions can be selected and others deselected in specific orders of communication. The integrating mechanisms can be considered as functional for organizing the differentiated communications at lower levels. They serve the retention of previously achieved levels of sophistication in the communication — or they may fail to do so. If they repeatedly fail to do so, an organization can be dissolved and replaced, yet without seriously affecting the dynamics of functional differentiation that can be expected to prevail at the global level.

This theorizing would remain completely speculative if it were not possible to develop empirical research questions on its basis. The historical example of how a monetary standard was developed at the end of the Middle Ages, provided us above with a first example of how one can use this theory as a heuristics for studying evolutionary developments in social processes. But can we also apply these methods more quantitatively and analytically? (Leydesdorff and Oomes 1999).

What does a communication system do when it communicates? It selects a system's state for a communication. A social communication system can be expected to contain a very large number of system states, since the number of possible states increases with the number of the carrying agencies in the exponent. For example, if one throws two dice, one has 6^2 (= 36) possible combinations. N dice would provide us with 6^N possibilities, and similarly a group of ten people with six media for communication would allow for 6^{10} , or more than 60 million possible combinations. A communication actualizes one or a few of these possibilities.

A large number of the actualizations may be volatile. One communication follows upon another without necessarily leaving traces. Selections then remain juxtaposed or, in other words, they are not correlated. However, selections may become correlated (if only by chance) in two respects, notably at the same moment in time and over the time axis. Along the time axis, 'variation' can be considered as change in relation to stability in the selections. At each moment in time, 'variation' can be considered as the sum of local disturbances, whereas structure selects for the

function of this input. Structure, however, has to be built up historically before it can act as a systematic selector. In summary, a stabilized (and therefore observable) system contains two types of selections that operate concurrently: one by the network at each moment in time, and another over the time axis.

It should be noted that the medium of communication thus provides us with a first constraint. When written communication is available to a social system, additional mechanisms of transmission become possible other than interactions and signalling in the present (Meyrowitz 1994).⁵ Writing, however, has to be historically invented. As long as a communication system is based primarily on direct interaction, the span of communication is limited, and the selected states of the systems remain mainly juxtaposed. This can be recognized as a segmented order of social communications.

Writing is closely associated with the introduction of a new mode of control of communication, notably the stabilization of a civilization (Innis 1950). The mechanism of written communication enables cultures to span time periods at the supra-individual level and thus to stabilize systems of communication. Because the communication can also be saved for considerable periods of time, the new communications can be correlated to older ones and the selection of specific system states can be stabilized. Time breaks the symmetry in the mutual selections of a co-evolution. Over time some previous selections can be selected for stabilization. In the phase space of possible selections the system then begins to develop along a trajectory. The shape of the historical trajectory is contingent upon the selections that the system manages to handle structurally. For example, a social system in which one is only able to write on clay tablets can be expected to develop differently from a social system in which papyrus or parchment have been invented. The relations between hierarchical interaction (command structures) and face-to-face interactions will vary among systems that are differently mediated.

For instance, within civilizations based on hierarchies, the top of the hierarchy may be a king or an emperor with divine attributes. However, the prevalence of communication in the command structure can also become reflected. The invention of a holy text that integrates the system at a level more abstract than the physical presence of an emperor or king changes the cosmology. A civilization based on a more abstract set of principles can be considered as a high culture. But the reliance on communication — instead of physical force — as the basis for control is self-defeating in the long run because the constructed order needs to be enforced and the communicated order can then be recognized reflexively as historically specific.

The invention of new dimensions for communication that can also be codified at the social level can be expected to turn the tables sooner or later (Arthur 1988 and 1989). When the social system gains an additional degree of freedom, the new

dimension allows the communicators to evade the dilemma of the two previously competing orders. At the outer limits of the spheres of influence between the Pope and the Emperor, for example, in city-states in Northern Italy and in the 'Empire of the Middle' envisaged in northern Europe one could develop trade, art, and sciences. The new communication structures would eventually challenge the catholic order spanning a single universe and its corresponding cosmology. The new order of communications can endure different dimensions of communication which develop next to each other as different structures. Thus, the system recombines the advantages of segmented and stratified communication by inventing the mode of functional differentiation. Functional differentiation entails that communications can be distinguished with reference to the function of the communication. This provides new dimensions that were not available in a high culture.

For example, when the Netherlands were invaded by the French army in 1672, the Prince of Orange needed legitimation for the upcoming negotiations. He sent for Spinoza to join his cortège in order to impress the French generals. That Spinoza had been banned by the Jewish and protestant churches for religious reasons was not in the interest of the Prince. In a functionally differentiated society, the representatives of functions can tolerate moderate conflict because the social system is no longer expected to process a single solution.

An order among the various function systems can be selected and reconstructed in a next round of reflections. If this additional degree of freedom can also be stabilized, this process globalizes the functional differentiation of the system. Some (provisional) stabilizations can be selected for globalization. *Globalization*, however, does not imply that a global system physically and/or meta-physically 'exists'. The functions refer only to a supersystem for which the subsystems can *analytically* be made functional. Initially, the existence of this supersystem remained a religious assumption — for example, Descartes' belief in the Truth of God (*Veracitas Dei*) which would prevent Him from deceiving us all the time. Religious constructions like Leibniz' *harmonie préétablie* would guarantee a cosmological order in the universe.

Since the social system, however, continuously fails 'to exist' at the global level in a strong (physical or biological) sense — it remains a system of expectations — the organization of society can be expected to operate with the tensions between functional differentiation and the locally organized integration of the communication. In the 18th century, the Constitution was invented as a presumably 'universal' text that would bind all communicating agencies as members of a nation state. Soon, it became clear that each nation would have to develop its own constitution. The constitutions organized institutional systems of checks and balances that enabled the political economy to further develop on the basis of the level of functional differentiation that was achieved in the first half of the 19th century.

From this perspective, nations can be considered as institutional arrangements that include and exclude on the basis of nationality. In terms of evolution theory, they can be considered as niches. In ecology, niches are functional for retention because they reorganize the complex environment by stabilizing boundaries.

When the system of nation states was completed (by approximately 1870), the national systems contained mechanisms for solving the major tensions between the state and civil society so that the function systems could be integrated locally, yet in a competing mode. From 1870 onwards, the social system developed a new dimension to further improve these 'national' solutions. With hindsight, this new dimension can be characterized as organized knowledge production and control (Whitley 1984).

10. Technological developments as inter-system dependencies

The sciences have developed continuously since the Scientific Revolution of the 17th century (Price 1961), but the fully developed political economies of the 19th century provided the sciences with an institutional basis for further development. When the disciplines and the specialties then differentiated among themselves and in relation to their social contexts, the idea of a single and universal science had gradually to be abandoned. Interfaces with private appropriation by entrepreneurship and public control in science and technology policies were increasingly developed. Within science, the proliferation of disciplines and specialisms made it possible to dissolve the idea of a single 'truth' to be discovered by science. One could proceed to a mode of 'truth-finding' and empirical 'puzzle-solving' (Simon 1969). Thus, the code of scientific communication became internally differentiated (Gibbons et al. 1994; Leydesdorff 2001b).

Can the function systems also differentiate and complexify in terms of their interactions? In his 1990 study entitled *Die Wissenschaft der Gesellschaft* (The Science of Society), Luhmann wrote:

The differentiation of society changes also the social system in which it occurs, and this can again be made the subject of scientific theorizing. However, this is only possible if an accordingly complex systems theoretical arrangement can be specified. (Luhmann 1990: 340—translation LL)

Is the post-modern order thus eroding the system of functional differentiation (Sevänen 2001)? When studying the so-called 'techno-sciences' as interface organizations with their own dynamics, one leaves the model of functional differentiation behind (Callon 1998). Algorithmic models are needed which allow for next-order effects that are neither intended nor expected. Technological trajectories and

regimes (Dosi 1982), for example, can then be considered as endogenous consequences of non-linear interactions at the interfaces between the sciences ('supply') and markets ('demand').

Luhmann has discussed the organization of interfaces as structural interruptions of the communicative order at the global level:

Society has to develop beyond functional differentiation and use another principle of systems formation in order to gain the ultrastability and therefore sufficient local capacity to absorb irritations by providing organization. (Luhmann 2000: 396–translation LL)

What might this ultra-stabilization of an interaction between functionally differentiated sub-systems mean? Stability requires a form of integration by organization. Indeed, an important condition for the development of modern high-tech sciences seems to be the increasing integration of political, economic, and scientific orientations in research practices (Gibbons *et al.* 1994).

Professional practices can be considered as organized interaction systems that allow for specific recombinations of integration and differentiation in new roles. Integration in the sense of de-differentiation, however, would be evolutionarily unlikely, since the social system might then lose capacity to handle complexity. Thus, these constructed interaction systems are heavily organized, but from the perspective of interactions.

Alternatively, the constructions can be shaped at the level of interactions among organizations. For example, technological developments can be considered as the result of inter-systemic resonances which have been stabilized as new functions in the social system during the last century. The stabilization of interfaces and the *discursive construction of integration* can then be considered as instances of an emerging next-order of global communications.

This higher-order communication can be expected to contain a new *epistèmè* (Foucault 1972: 191): in addition to the communication of substantive innovation and methodologically warranted codification ('truth'), high-tech sciences, for example, translate representations of subsystems of society into scientific knowledge by modelling them, and *vice versa*, by legitimating research results in 'trans-epistemic' cycles of communication (Knorr-Cetina 1982 and 1999). In other words, one is institutionally warranted in changing the code of the communication, for example, because of a flexible division of labour within the research community.

The emerging patterns of the high-tech sciences are not expected to replace the older models, but to encompass them and to guide their future development. The next-order regime induces the trajectories on which it builds (Kampmann *et al.* 1994). In other words, 'high tech' and 'big science' can be considered as results of an 'epistemic drift' of translations between economic innovations and research

questions; and *vice versa*, of the possibility to merge fundamental and applied research questions in terms of selections of relevant representations (Elzinga 1985 and 1992). These newly emerging communication systems contain more than a single codification, and additionally they are able to translate between these codifications internally by using a spiral model of communication. Using computer simulations, for example, developments can be analyzed in terms of processes of representation and communication within relevant scientific-political-economic communities (Ahrweiler 1995): high-tech sciences develop by communicating in terms of recursive selections of interactively constructed representations.

The emergence of 'big science' and patterns of international collaborations in science during the second half of the 20th century can be considered as the institutional acculturation of the new *epistèmè*. The reflexive reorganization of these institutional patterns by using new forms of S and T policies was apparently delayed until the second oil crisis of 1979, when the post-war system entered into a serious crisis at the level of the global economy. The gradual development of stable patterns of scientific reproduction in fields such as 'artificial intelligence', 'biotechnology', and 'advanced materials' in the 1980s and 1990s indicates the viability of a new mode of scientific communication.

11. The globalization of the knowledge base of expectations

The local networks of institutions such as universities, industries, and governments can be considered as carriers of a next order of potentially global communications. These systems can be expected to go through a phase transition in terms of their need for new communicative competencies. The translations no longer occur between 'natural' languages, but between functional codes of communications that are themselves entrained in a flux. This next-order system emerges *within* the system as its globalization. The existence of a global system, however, remains a hypothesis. Since this hypothesis is entertained and communicated, the global level potentially restructures the expectation structures in the globalizing systems. By being transformed on this basis, all 'naturally given' or 'historically constructed' bases of underlying systems tend to become increasingly 'knowledge-based'.

It should be remembered that some selections were selected for stabilization along the time axis. By globalizing, the system entertains the time axis no longer as a historical symmetry-breaking mechanism, but as another dimension. The local realization can then be evaluated from a global, that is, knowledge-based perspective. The global perspective operates on the present state of the system by enabling us to entertain the idea that what has historically been constructed is not necessarily so. In other words, it can always be reconstructed on the basis of new insights. A

knowledge-based system operates on the basis of the current state of the system as one of its possible representations. Each historical representation can be compared to others. The global perspective *adds* an expectation to the local perspectives. Since the various perspectives compete for the explanation of what can be expected to occur, neither the global nor the local perspective can claim priority. The perspectives remain analytically juxtaposed (as hypotheses!), but they interact. As noted, this means at the level of ‘organization’ that the single organization is increasingly networked and that the inter-institutional arrangements become more important for the functionality of organization than the single perspective.

What does this globalization of the knowledge-base mean for ‘interaction’? It seems to me that this can already be observed, for example, in the form of the role of e-mail communication as an addition to previously existing forms of interaction. We have increasingly become aware that interaction is mediated and that one can entertain various forms of interaction with different objectives. Furthermore, one is increasingly able to anticipate interactively the unintended consequences of previous communications. Interactions can thus be expected to become increasingly recognizable as translations among differently coded communications. The programmatic view of symbolic interactionism that interactions can only be concatenated bottom-up in order to inform us about social structure can no longer be maintained without running into serious problems. The methodological restrictions of micro-constructivism have practical implications. Interactions are situated, and thus next-order levels of nested interactions and communications can be expected to resonate within the observables. The situation is overdetermined by expectations based on hypothetical structures. The systems theoretical programme in sociology adds and informs the hypotheses about the feedback loops within the interactions it studies.⁶

Notes

1. Giddens (1979: 81) compares the concept of bracketing with *epoche* in the phenomenological tradition.
2. See N. Davey’s chapter above.
3. For theoretical and empirical reflections of uncertainty in communicative interaction, see the chapters by A. Babrow and M. Dutta-Bergman and C. Grant in this book.
4. Does this mean that syntax could drive semantics? In a complex dynamics, the sub-dynamics (of syntax and semantics) do not drive each other, but co-produce the resulting phenomena by disturbing and constraining each other. The relative contributions of the sub-dynamics to the manifestations can vary situationally and over time.
5. See the contribution by A. Avgerinakou in this collection.
6. See the chapter by B. Porr and F. Wörgötter above.

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Pragmatic interactions in a second language

Beatriz M. M. De Paiva

1. Introduction

The following chapter examines the pragmatics of interactions in a specific communication context, namely second language interactions, whereby conversational interactions between native speakers (NSs) and learners of a second language (or non-native speakers NNSs) is meant. It proposes an integrated interdisciplinary account of such communications, that is to say, one which comprises both cognition- and communication-theoretical approaches.

Pragmatics in second language acquisition studies has been largely dominated by studies focusing on performance or use, rather than on acquisition or development. This might be due to the great impact of sociolinguistics, more specifically cross-cultural pragmatics, leading to studies contrasting native speakers' and non-native speakers' performance of pragmatic aspects. The issues that arise from research in pragmatics in second language acquisition studies are concerned, for instance, with realization strategies of speech acts, their universality, constraining contextual factors and cross-cultural contextual variation. These are broadly the same issues as those which have been investigated in cross-cultural pragmatics (cf. Kasper and Schmidt 1996: 150).

Blum-Kulka, House and Kasper (1989) argue that studies on cross-cultural pragmatics seek to show the cultural specificity of speech act behaviour. These studies aim to provide an understanding of speech act realizations across cultures and languages by showing how different speech acts are performed by non-native speakers with a variety of language backgrounds and target languages. Furthermore, they discuss orientations or traditions which underpin cross-cultural pragmatics: some studies (e.g. Wolfson 1981 and Tannen 1981 in Blum Kulka, House and Kasper 1989) are based fundamentally on Hymes' ethnographic research (cf. Blum Kulka, House and Kasper 1989) where the emphasis is placed on interactional styles in intercultural and interethnic communication.

Another line of research is contrastive pragmatics “based on attempts to extend the scope of traditional contrastive linguistic procedures beyond the levels of phonology, syntax, and semantics to embrace discourse levels of language use” (Blum-Kulka, House and Kasper 1989: 6). Here, two particular issues arise, namely politeness in speech act realization and the universality of politeness phenomena across languages and cultures. A further issue within this research area is the level of directness in speech act realization.

The third kind of research area in cross-cultural pragmatic studies is interlanguage pragmatics (ILP), defined as “the study of non-native speakers’ use and acquisition of L2 pragmatic knowledge” (Kasper and Rose 1999: 81). By examining pragmatic failure, for instance, these studies seek to show the kind of pragmatic knowledge the learner attains at a particular time. Some of the studies within this third research orientation attempt to give an explanation of the phenomena investigated in psycholinguistic terms: pragmatic failure can be explained as a result of transfer, overgeneralization, simplification or reduction of sociopragmatic or pragmalinguistic interlanguage knowledge (e.g. Kasper 1981). Studies stemming from this tradition attempt to extend interlanguage research, usually concerned with linguistic areas such as syntax and morphology, in order to include pragmatic and discourse knowledge. Although more studies in ILP have focused on developmental issues (cf. Kasper and Rose 1999 for a review), it could be argued that there is still a tendency to offer descriptive accounts lacking an explanatory level (cf. Foster-Cohen 2002). This can only be achieved by a critical discussion of theoretical perspectives for the understanding of the development of pragmatic abilities in a second language.

Adopting an integrated cognition and communication-theoretical approach, this chapter seeks firstly to define the specificity of pragmatics in the interlanguage domain. This section will focus on speech act theory in interlanguage pragmatics and the impact of input¹ on the acquisition of pragmatic abilities. Secondly, it will consider developmental accounts of pragmatic acquisition in learners of second languages. Here, two significant approaches will be considered: the two-dimensional model of Ellen Bialystok and the noticing hypothesis of Richard Schmidt. Both approaches share a view on the development of pragmatics as concerned with the information processing hypothesis rather than communicative interaction. In this sense, both attempt to explain developmental processes in cognitive terms. I will examine to what extent their theoretical proposals are compatible with a view on pragmatic development in terms of the integration of cognition *and* communication. Thirdly, this chapter will evaluate the extent to which concepts in relevance theory such as cognitive context and manifestness (Sperber and Wilson 2001) offer a plausible account for characteristics of pragmatic interactions in atypical communication contexts. Here, it will be argued that concepts such as *manifestness* and *relevance* offer a greater potential for the explanation of the development of prag-

matic abilities if communicative aspects are to be properly addressed. If meaning is indeed mediated by complex social codification, then cognitive accounts can at best explain internal mechanisms but at the price of ignoring the environment and the nature of the coupling between internal processing and external environment — even if the perception of the latter depends on the former. If the development of pragmatic abilities were purely internal, then linguistic socialization would, potentially at least, become irrelevant.

2. Pragmatics in interlanguage communication

Hymes (1972) is one of the major influences within pragmatics in second language acquisition studies. As part of “communicative competence”,² pragmatic knowledge interacts with sociocultural knowledge and other types of knowledge, so that the task of a language user in the performance of verbal action “is to select and combine elements from these areas in accordance with her illocutionary, propositional and modal (or ‘social’, ‘politeness’) goals” (cf. Kasper 1989: 39).

Despite also considering Hymes’ notion of communicative competence, Kasper presents a different view of pragmatic knowledge when she argues that to account for the acquisition or development of pragmatic abilities “pragmatics needs to relate (product) description not only to social processes but also to the psychological processes of speech production/reception, as well as to language learning and acquisition” (Faerch and Kasper 1985: 214). To account for acquisitional issues, pragmatics needs to be redefined: contexts are not only social or cross-cultural contexts, but cognitive contexts, too.

Kasper adopts a perspective on pragmatics which stems from Wittgenstein’s notion of language games,³ Austin’s and Searle’s speech act theory and Habermas’ universal pragmatics. According to this perspective, pragmatics is not related to context and use, but is concerned with language as action. In this way, pragmatics is redefined as “the study of acting by means of language” (Kasper 1989: 39).

Against the backdrop of this action focus, Faerch and Kasper (1985) consider three different views of pragmatic knowledge. According to the first view, pragmatic knowledge consists of rules (Labov and Fanshell 1977; also Schegloff and Sacks in their ethnomethodological studies); the second perspective presents pragmatic knowledge as procedures or ‘strategies’, in the sense of problem-solving in order to achieve a goal (Brown and Levinson 1978). The third approach assumes that both rules and procedures are part of pragmatic knowledge (Widdowson 1979; Edmondson 1981). Faerch and Kasper contend that the latter more inclusive perspective offers the “most differentiated description of pragmatic knowledge” (1985: 214).

In the specific case of second language pragmatics Kasper and Rose (1999) identify two roles played by pragmatic knowledge: 1. pragmatics acts as a constraint on the acquisition of linguistic forms, as shown by functionalist and interactionist perspectives of SLA (e.g. Tomlin, cited in Kasper and Rose 1999 and Long 1996); 2. in its second role, pragmatics is construed as a kind of knowledge on a par with other kinds of knowledge such as morphosyntax, lexis and so forth. This chapter focuses on the role of pragmatics as a kind of knowledge in its own right. In this context, studies of speech acts in a second language constitute a major area of research in ILP.

2.1 Speech acts

Speech acts can be seen as the minimal functional or interactional units of human communication, the performance of acts (requesting, stating, apologizing, etc.) and can be defined as direct or indirect, where the definition of indirectness is extremely controversial.

In their study of the contribution of speech act theory to the understanding of second language learning, Schmidt and Richards (1980: 129) argue that an account of speech acts in second language learning must include “knowledge of the rules of use and communicatively appropriate performance”, that is the development of a communicative competence. Speech act theory should thus contribute to a better understanding of environmental (or ‘input’) factors, in terms of speech settings and events and discourse structures, and learning factors, such as inference, transfer and generalization. Their study constitutes one of the first steps in broadening the scope of second language acquisition research from the sentence level to the discourse level.

A major theoretical issue discussed by Schmidt and Richards concerns the putative universality of speech acts. Speech act strategies are claimed to be universal (Brown and Levinson 1978), as well as conversational postulates (Gordon and Lakoff 1971). For instance, according to Brown and Levinson’s model, “interactional systematics [e.g. face-threatening acts], the basis for linguistic realizations, are based largely on universal principles” (Schmidt and Richards 1980: 139). By contrast, Goffman (cited in Schmidt and Richards) differentiates between ‘system constraints’ and ‘ritual constraints’: while the former hold cross-culturally, the latter are expected to vary across cultures. Deviation from Grice’s conversational postulates have also been found (Ochs-Keenan 1976 cited in Schmidt and Richards). Thus, the universality of strategies for speech acts can perhaps only be claimed if described in general terms. In Goffman’s terms, “[...] although system constraints might be conceived of as pancultural, ritual concerns are patently dependent on cultural definition and can be expected to vary quite markedly from society to society.” (Goffman 1981: 17).

In the context of the studies investigating speech acts in cross-cultural pragmatics, Blum-Kulka, House and Kasper (eds., 1989) prefer to adopt Leech's (1983) notion of pragmatic regularities as opposed to pragmatic universals. Kasper and Schmidt (1996), in the context of ILP, assume as universals the existence of speech acts as well as speech act strategies, pointing out, however, that particular strategies are tied more closely to culture-specific pragmalinguistic conventions. So, on the one hand, they accept the existence of universal pragmatic strategies, such as conveying pragmatic intentions and the use of routine formulae, and also contextual variables (Brown and Levinson's concepts of social power, social distance and degree of imposition) as universal constraints on linguistic action, but on the other hand they relativize it, arguing that the specificity of universal contextual variables is subject to contextual and cultural aspects.

Kasper and Rose (1999: 98) distinguish between "socio-cognitively constrained strategies of communicative action" which they construe as universal and "performance issues", such as linguistic realization, conditions that constrain the speaker's use of strategies and the performance of the act itself, contextual appropriateness and cultural values attached to the act and to the strategies by a specific community. Performance issues are considered to be ethnolinguistic issues, and therefore not universal.

Whether and to what extent speech act strategies are considered to be universal has several implications for the learning of speech acts in a second language. Searle (1975), for instance, argues that strategies for speech acts are general, but "certain standard forms tend to become conventionally established as the standard idiomatic forms" (in: Schmidt and Richards, 1980: 140). This means that learners of a second language would have to learn the conventionalized forms in the new language, as well as particularities of interactional styles and appropriateness of second language speech acts in contexts. To date, little research has been done in the development of realization strategies of speech acts in a second language taking into consideration not only intercultural and social differences but also cognitive aspects, such as perception of input and inference. If pragmatic knowledge is interactional knowledge, then an account of the development of such knowledge must integrate all these aspects.

2.2 Input and interaction

If pragmatic development is to be acknowledged as a complex cultural (that is, communication and cognition) process⁴ then the role of input must be defined. Although it has been considered a central construct of SLA theory and research, and despite attempts to define its nature and role in acquisition, the concept of input has remained subject to much controversy. Besides its broad definition, as the linguistic environment available to learners, input in SLA has been construed as

positive and negative data, or positive and negative evidence. Positive data can be defined as primary linguistic data, in other words what learners hear (or read) from native speakers. In her definition of the notion of negative evidence, Schachter (1991: 90) uses the term “corrective feedback” and/or “negative feedback” and sees it as negative data provided by an expert to someone with less expertise. She also claims that a large number of studies have pointed to an expansion of the notion of negative data: confirmations checks, clarification requests, expanded and corrected repetitions and indications of communication breakdown (silence, laughter or Huh? What? questions) could be counted as negative data. Studies on the perception of the linguistic environment by learners of a second language, that is on how input might affect acquisition, have mainly focused on the acquisition of grammar (mainly syntax and morphology). Here, there is a debate about whether primary linguistic data alone, in terms of positive evidence, could possibly be responsible for the achievement of the grammar in a finite amount of time unless negative evidence were made available to the learner.

It can be assumed that the nature and role of the linguistic environment available to learners, or input, can only be assessed in the context of a language learning theory. In this sense, for instance, if one assumes that Universal Grammar (UG) plays a role in the acquisition of at least syntax and morphology, then input as an external factor will be very limited in its role. If, on the other hand, one assumes that conversational interaction between learners and native speakers is necessary and possibly sufficient for acquisition, then input will play a much greater role in the process of acquiring a second language.

A shift in the view of the nature of the linguistic environment, from small units to larger units (discourse), could also effect a shift in insights into its function (see Hatch 1978 and also Schmidt and Richards 1980 above). That is, the linguistic environment seen as discourse, and not as sentences or parts of sentences, would assume an important role in the explanation of the order of the acquisition not only of form but also its links to function. In this context, input has been classified as modified. Modified input can arguably provide both positive and negative data, that is, offering evidence of what is allowed and of what is not allowed in the L2. According to an ‘interactionist perspective’ on the acquisition of grammar and vocabulary (cf. Long 1996), modified input is the result of negotiated interaction as discourse by NSs addressed to NNSs and well formed, though a modified version of the target language. This kind of modified interaction between native speakers and non-native speakers is called *negotiation of meaning*. *Negotiation of meaning* provides learners with “opportunities to attend to L2 form and to relationships of form and meaning” (Pica 1994: 520), in that it makes forms and functions salient to learners. The identification of saliency in cognition and communication terms is the process of everyday linguistic socialization in broadly monocontextual (that is, first

language) environments. In a second language case, the linguistic environment is always at least bicontextual. In this context, saliency becomes more difficult to detect.

Despite an increasing awareness of the necessity of analyzing the nature and role of the input in the learning processes, there has been a tendency to consider input as something external to the learner. In this sense, it is not enough to show that, for instance, negative evidence is available, but also how it affects the learning process, i.e. showing also if learners attend to and utilize this kind of information. There must therefore be an adequate account of both mediation factors which are supposed to link negative data, or more generally modified input, to acquisition, and cognitive processes as part of a learning theory. Input and its perception have to be placed in the context of a theory of mental representation and a theory of language learning. It is in this context that Carroll argues that saliency, or perception of the input is therefore not to be sought (or found) externally, but “results from the contents of our cognitive representations” (Carroll 1999: 361). According to this perspective, input is redefined as a range of mental representations.

2.3 Input and the acquisition of pragmatic abilities in a second language

There have been very few studies in ILP which make direct reference to the relationship between input and the learning of pragmatics.⁵ Bardovi-Harlig (1999) argues that because ILP has been essentially modelled on cross-cultural pragmatics, interlanguage issues, such as the role of input in acquisition, have been neglected in ILP. Nevertheless, there have been some studies in ILP which make direct reference to the relationship between input and the learning of pragmatics.

Bardovi-Harlig and Hartford (1993) conducted a study on the development of suggestions and rejections by non-native speakers of English in academic advising sessions, where learners received feedback (equated here with negative feedback) on the appropriateness of speech acts but not on realization strategies (e.g. levels of directness). The persisting inappropriateness of the use of forms (e.g. politeness markers as mitigators) in learners' realization strategies led Bardovi-Harlig and Hartford to conclude that the development of speech act strategies (specially pragmalinguistic knowledge)⁶ towards native speaker norms is dependent on access to feedback and input.

It seems that, although ILP studies have been catching up with acquisitional issues⁷ such as the impact of input, studies have tended, on the one hand, to present input as an external factor and on the other to establish a direct relationship between its availability and its acquisition and use (see input and the acquisition of grammar above). In other words, if specific pragmatic features are available in learners' interactions with native speakers, then they are going to be learned. Is it the case that the learning of pragmatic abilities in a second language can be seen as

more amenable to the availability of input? Or is it that input to pragmatics is subject to the same conditions discussed in the context of learning grammar? It will be argued here that input provided in interactions between NSs and NNSs and its role in the acquisition of pragmatics in a second language can only be assessed as part of not only a communicative but also a cognitive environment. That is to say that the discussion of the impact of input in ILP cannot proceed without the integration of a theory of acquisition or internal learning mechanisms and the connection of surface phenomena (e.g. formal salience) to deep phenomena (e.g. functional markedness).

3. Cognitive theories of pragmatic development in a second language

In order to go beyond a descriptive level, acquisitional patterns in pragmatics must be connected to a theoretically adequate explanatory framework. Although studies in ILP tend to be of a descriptive nature, there have been some studies which relate acquisitional patterns to an explanatory framework (cf. Hill and Hassal in Kasper and Rose 1999). This explanatory level has been achieved by the employment of theoretical perspectives from the fields of child language acquisition and grammatical development in SLA. Some of these perspectives originating from grammatical development in SLA are concerned with ‘information processing hypotheses’ (cf. Kasper 2001: 3). Bialystok’s two-dimensional model of second language proficiency development and Schmidt’s noticing hypothesis (1993) will be discussed here as theoretical proposals for the understanding of the development of pragmatics in a second language.

Bialystok argues for a model of language processing in terms of both language acquisition and use. Central here is the conception of language proficiency as “the *fit* between the processing abilities of the learner and the task demands imposed by a specific language use situation” (Bialystok 1993: 47). Such a model describes both learners’ competence and task demands on the basis of two cognitive components of language processing: analysis of knowledge and control of processing, the latter developing with experience. Analysis of knowledge is defined as the process of making implicit knowledge representations explicit. Consequently, mental representations of a domain of knowledge become more organized and explicit and can be used for functions not supported by implicit representations. Control of processing is construed as the process of controlling attention to relevant and appropriate information, of choosing what is relevant for carrying out a specific task.

In order to make the model operational for the study of pragmatic development it is necessary both to determine how changes in the representations of

language occur to accommodate pragmatic functions and how attentional strategies develop for the use of language appropriately in contexts. Bialystok subdivides mental representations into conceptual, formal and symbolic representations. Conceptual representations are organized around meanings, formal representations are coded in terms of the structure of the language and refers to metalinguistic knowledge, and, finally, symbolic representations express the way in which language refers, coding between form and a referent. In Bialystok's view, pragmatic competence depends to a greater extent on symbolic representations and to a lesser extent on formal representations. However, she argues that the mapping is not between form and meaning, but rather between form and social context. This context remains arguably underdefined.

Adult second language learners construct their pragmatic knowledge by building a symbolic representation level, that is relating form to context, from an already existing level of formal representations. In order to learn culturally conventionalized forms and rules for pragmatic language use, learners need to analyze existing knowledge by creating new explicit categories and learning new forms. Bialystok argues that children's and adults' acquisition of pragmatic competence are quite distinct: adult acquisition of pragmatic competence in a second language depends basically on the development of "control strategies to attend to the intended interpretations in contexts and to select the forms [...] that satisfy the social and contextual needs of the communicative situation" (1993: 54). In other words, while children's socialization and acquisition of pragmatic abilities occur at the same time, the adults' main task is the control over already existing knowledge representations of speech act sets. If this claim is to hold, speech act markers have to be universal and not realizations which depend on distinct cultures and languages (cf. Wierzbicka cited in Bialystok 1993).

For Bialystok then, the development of pragmatic competence undergoes the same processing mechanisms as other aspects of language: "knowledge for rules of use must be learned, represented, and transformed in the same way as the knowledge that controls other, more formal, aspects of the linguistic system" (Bialystok 1993: 44). Even if adult learners rely on universal and first language pragmatic knowledge in their development of pragmatic competence as they might do in the case of the development of grammar, the question as to whether and to what extent communicative interactions would play a role in the development of communicative competence seems to be at least as pressing as it is in the development of grammar. Is it the case that communicative interactions would contribute more (or less) to changes in, for instance, symbolic representations, that is the mapping of forms and contexts?

It is contended here that not only does Bialystok's model not address this question, but it could not answer it, since the model does not offer an account of how

the processing components (analysis of knowledge and control) develop. In this context, Schmidt (1992) argues that it is not enough to claim that control develops with experience in its own course, rather it has to be explained in terms of learning mechanisms. Most importantly, in the case of the learning of pragmatic abilities, what is missing in Bialystok's model is an account of inferencing processes. In this sense, control as a cognitive component would have to be subject to communicative constraints as well. The development of control cannot be seen in a linear and cumulative way, as Bialystok seems to argue (1994: 161). In other words, if control depends on the language task required in a specific situation, then control has to be construed as a much more contingent notion. It could be argued that since control is conceptualized by Bialystok as a cognitive processing component, it cannot fully account for communicative encounters, since concepts (such as automatization, cf. Bialystok, 1994) which underlie the notion of control, remain confined to a learner's cognitive environment. Selective attention in order to choose, for instance, the best interpretation of an utterance, can be said to be constrained both by learners' cognitive and communicative abilities. Here, the question arises as to what would change if a communicative instance such as the principle of relevance were to be added. Unlike the concept of attention, which seems to be confined to the cognitive environment of an individual, relevance, as a function of contextual effects, considers communication, too. Thus, the concept of relevance has greater potential to explain the choices of interpretations of the utterances learners make in their communicative interactions with non-native speakers.

Schmidt's noticing hypothesis starts from the significant premise that pragmatic and discursal knowledge is not always used in an automatic and unreflective way, but rather seems to be partly conscious. Furthermore, the kind of knowledge which relies on automatic processing might have been established through conscious understanding at the time of learning. However, Schmidt introduces a distinction between understanding and noticing: the concept of *noticing* refers to linguistic material stored in memory, presupposing allocation of attention to some stimulus; the concept of *understanding* involves recognition of rules, principles and patterns. Understanding is the process in which linguistic material is organized into a linguistic system. In this context, he argues that, in the case of the learning of pragmatics in a second language, noticing is necessary whereas understanding is helpful.

Attention is a necessary condition for noticing, but not attention to input in general, rather to linguistic forms, functional meanings and relevant contextual features (cf. Schmidt 1993). Even if the input to be attended to is not general, it can still be considered to be too broad, so that learners would necessarily have to be able to select material or, in alternative terms, determine levels of relevance. Consequently, this selection process must also be explained either in terms of the salient

features of the input itself (where salience is perceived in negotiation by the communicator), or in terms of internal cognitive mechanisms, or more plausibly in terms of an interaction of both.

Schmidt argues that aspects of pragmatic knowledge which appear to be unconscious or implicitly learned might be better accounted for by connectionist models, since principles of pragmatics and discourse are better represented in terms of associative networks than by propositional rules. While learners do not need to consciously count the frequency of occurrence of contextual and pragmatic features they might have to notice specific relevant pragmalinguistic or contextual features for the encoding to be triggered. Again, the selection of features seems to play a great role; nevertheless, Schmidt does not explain the criteria according to which a specific feature is considered relevant. If the acquisition of complex communication performance (i.e. pragmatics) is a question of selecting relevant information amidst an input of grammatical, textual, discursual and social factors, then an account of pragmatic interaction must comprise an adequate theoretical account of both cognition and communication.

4. An integrated account of cognition and communication: Relevance Theory

Relevance Theory can arguably provide an operational⁸ theoretical framework for the explanation of the acquisition of pragmatics in a second language in terms of communication and cognition, in the sense that it grounds communication in cognition. As Foster-Cohen has argued, Relevance Theory, redefining context as psychological, cognitive context, and preferring the notion of *manifestness* to *mutual knowledge*, and *effort-effect* to *rule violating*, represents a challenge to socio-cultural approaches of pragmatics in second language acquisition studies. The main concepts of Relevance Theory could provide a means of understanding the development of pragmatics in a second language considering psychological, cognitive aspects. Furthermore, it will be argued here that such concepts could be more productive for the explanation of the development of pragmatic abilities in a complex linguistic environment, given that they are concerned with inferencing processes on both cognitive and communicative levels. It is not claimed that Relevance Theory could account for the whole of the process of learning pragmatic abilities in a second language, since pragmatic competence is not a unitary competence. In other words, the principle of relevance is just one aspect of pragmatic competence, interacting with other aspects (cf. Foster-Cohen 1994: 246). Sperber and Wilson argue that aspects of conversation, especially those covered by the cooperative principle are best understood by the principle of relevance “and the

processing resulting from speakers' and hearers' inevitable obedience to this innate principle" (Sperber and Wilson in Foster-Cohen 1994: 238). Thus all speakers innately seek an appropriate economy of effort and effect in their communications.

Relevance Theory can be seen as a reaction against the "probabilistic nature of Gricean implicature" (Grundy 2000: 101), in the sense that it wants to go beyond the normative level of Grice's theory, adding a level where meaning can be negotiated. Relevance Theory is not concerned with truth claims. Instead of entailments (what is said) and implicatures (what is implied), what is conveyed is what is *relevant*. So, instead of the four Gricean maxims guiding conversation, Relevance Theory proposes just one principle, the principle of *relevance*. This in turn suggests a shift from a normative to a functional perspective.

Unlike the Gricean notion of implicature, according to Relevance Theory not only implicatures, but also explicatures are recovered as pragmatic inferences, given the indeterminacy of language. In this sense, an underdetermined form has to be enriched by inferences to a full propositional form, or *explicatures* ("an explicitly communicated assumption" cf. Sperber and Wilson 2001: 182). Inferences about the propositional attitude of the speaker to her utterance, or about the speech act description, yield a *higher level explicature* (cf. Grundy 2000: 102). A third kind of inference is proposed by Sperber and Wilson: implicatures are inferences which yield a different logical form from the one of the original utterance, in that its interpretation depends entirely on inferential processes. It provides the most relevant interpretation of the utterance. Although every act of communication yields *explicatures*, *higher levels of explicatures* and *implicatures*, in order to understand what is being communicated, the most salient meaning, an explicature, higher level of explicature or implicature has to be recovered. Speech acts are seen by Sperber and Wilson not as actions, but as attitudes to propositions (cf. Grundy 2000).

The notion of manifestness accounts for what a speaker/hearer is *capable* of inferring or perceiving (even if she/he is not paying attention): "a fact is *manifest* to an individual at a given time if and only if he is *capable* at that time of representing it mentally and accepting its representation as true or probably true" (Sperber and Wilson 2001: 39—emphasis added). Manifestness, a weaker notion than what is 'known' or 'assumed', has the advantage of being sensitive to context and cognition. There are degrees of manifestness: assumptions are more manifest to an individual at a given moment as a function of his physical environment on the one hand and his cognitive abilities on the other. The set of all facts that are 'manifest' to both speaker and hearer is called shared cognitive environments.

Manifestness could be connected to Bialystok's notion of control or selective attention. As a concept, it is more applicable to the complex process of cognitive processing and communicative interactions, since although it also depends on the individual's physical environment and his cognitive abilities, which in Bialystok's

terms could correspond to the task the learner is engaged in and his cognitive capacity to select attention, it adds the idea of a shared cognitive environment. This environment is not simply a mute input, but already selected as a function of processing of effort and effect.

Context here means psychological context. It does involve perception of place or other people, but only as viewed from the inside of the individual. This means a context which is manifest. It is important to make the distinction between given, pre-determined context and the notion of context-formation in Relevance Theory, open to choices throughout the interpretation process itself, where extensions take place when they appear to be needed and only then (Sperber and Wilson 2001: 141). The initial context is the set of assumptions in the memory of the deductive device at the start of a deductive process. Different sets of assumptions from different sources (e.g. memory (long-term, short-term), perception) are selected to be combined with new information forming the context. Selection is not arbitrary, rather it is constrained by the encyclopaedic memory of an individual and the mental activity he is engaged in. The context can be extended in three different directions: a) adding assumptions used or derived from previous assumptions; b) adding chunks of information, for instance from encyclopaedic entries; c) adding input information about the perceptual environment.

Sperber and Wilson posit the 'informative intention' as making "manifest or more manifest to the audience a set of assumptions I" (Sperber and Wilson 2001: 58). The communication of manifestness means that a communicator intends not to modify the thoughts of his audience, but to bring about a modification in the cognitive environment of that audience. Cognitive environments are contingent. Whereas in Sperber and Wilson's terms, 'strong communication' seeks the greatest possible precision in the communicator's expectations, in 'weak communication', often more frequently observed in human interaction, the communicator "can merely expect to steer the thoughts of the audience in a certain direction." One hypothesis deriving from this distinction and the focus on cognitive environments as opposed to cognitive processes is that non-native speakers in interaction with native speakers, that is in a situation of pragmatic asymmetry, could deliberately opt for weak communication with a higher degree of vagueness in order to reduce the risk of a communication which may be precise, but inappropriate. Weak communication, with its appeal to the audience, reduces precision, but operates with imprecise appropriateness. This in turn can increase processing effort. Alternatively, speakers can opt for greater clarity and neglect politeness.

Sharing contexts is a prerequisite for communication, but this does not imply sharing knowledge. Instead of the idea of mutual knowledge, Relevance Theory proposes the concept of mutual cognitive environments, meaning mutually manifest environments (Sperber and Wilson 2001: 45). A cognitive environment is

construed in terms of a function of an individual's physical environment and his cognitive abilities.

Contextual effects and processing effort are non-representational dimensions of mental processes, i.e. they exist even if the individual does not consciously assess them, or even if they are not conceptually represented (Sperber and Wilson 2001: 131). The lack of contextual effect is defined in terms of: (1) the assumption is utterly unrelated to the context or (2) the assumption is already present in the context and its strength is unaffected by the newly presented information or (3) the assumption is inconsistent with the context and too weak to change the context. On the other hand, greater contextual effect is achieved if the utterance builds on previous assumptions by either (a) adding new and related information (b) confirming a weakly manifest assumption currently in the hearer's cognitive environment (c) contradicting an assumption currently in the hearer's cognitive environment.

The central concept of *Relevance* is a relative notion in respect of two factors: its contextual effects and the effort required to achieve contextual effects. *Relevance* is a non-representational property of mental processes. The principle of relevance completes the propositional representation of utterances in context. Individuals aim for relevance by selecting the best possible context in which to process an assumption — the context which enables the best possible balance of effort against effect to be achieved. The achievement of this balance means the optimal processing of the assumption. An assumption is relevant to an individual to the extent that the contextual effects achieved when it is optimally processed are large and the effort required to process it optimally is small (Sperber and Wilson 2001: 145). This represents a psychological dimension of communication, which is missing in, for instance, Grice's Cooperative Principle. As Grundy puts it “[t]his principle [of relevance] reflects a psychological reality with which we are all familiar, that of not being able to get the point, or at least not being able to get the point in the time available” (cf. Grundy 2000: 107).

The principle of *relevance* can also offer insights into the relationship between input (linguistic environment) and second language learning. Carroll (2001: 371–392) investigates second language learners' interpretation of feedback (repetitions, clarification requests) provided by native speakers in relation to contextual effects and processing effort. Here, she argues that the interpretation of feedback is constrained by the principle of *relevance*. Carroll (2001: 375) further claims that feedback, in order to be interpreted as feedback, actually has to violate the principle of *relevance*. The interpretation of linguistic feedback as a correction “represent[s] a rupture in the discourse”. In other words, the interpretation of feedback as feedback requires that the learner rejects the first and optimally relevant interpretation of the native speaker's utterance in favour of attributing to it a corrective intention, resorting, in this way, to a metalinguistic interpretation. To say that the interpreta-

tion of feedback as feedback depends on it being *irrelevant* means that it requires from learners more processing effort with no guarantee that learners will draw the necessary inferences. Although Carroll problematizes the *usability* of feedback in the context of learning grammar, the same issues need to be addressed in investigations of the role of input in the learning of pragmatic abilities in a second language.

Sperber and Wilson's concept of *optimum relevance* is also of great importance in the discussion of the development of pragmatic strategies in a second language. Here, Sperber and Wilson add a second condition, namely: optimal relevance is achieved if "the ostensive stimulus is relevant enough for it to be worth the addressee's effort to process it" and "the ostensive stimulus is the most relevant one compatible with the communicator's abilities and preferences" (Sperber and Wilson 2001: 270). The expectation of optimum relevance as defined by an effect/effort calculation may hold in communication settings in which, *prima facie*, maximum effect is computed with minimum processing effort. The same expectation may obtain and inform interactions in special forms of asymmetrical communication such as communication between native and non-native speakers.⁹

While both communicators may proceed in cognitive terms from expectations of relevance as defined by Sperber and Wilson, in communication terms (from lexis to syntax to pragmatics to social norms) the effect/effort ratio often does not fit with such expectations. More often than not, effect is dissipated or arrested by vague, inappropriate or infelicitous expression which in turn demands greater processing effort. Pragmatic interactions between native and non-native speakers can thus be described as polyphasic (Moscovici).¹⁰ In a schematic sense, two hypotheses can be advanced. Hypothesis A is that the non-native speaker prioritizes the quest for maximum effect and minimum effort by violating discursial norms and undermining pragmatic conventions. Hypothesis B is that the non-native speaker prioritizes complex pragmatic conventions thus losing effect and increasing effort.

In such a difficult communication environment the concept of manifestness (based on the capacity to represent mentally) which is central to Relevance Theory becomes problematic:

One of the advantages of verbal communication is that it gives rise to the strongest possible form of communication; it enables the hearer to pin down the speaker's intentions about the explicit content of her utterance to a single, strongly manifest candidate, with no alternative worth considering at all. (Sperber and Wilson 2001: 60)

Where cognitive effort is often accentuated by unexpected communicative effect and relevance is thus 'reduced' in terms of the above, manifestness also becomes problematic. To operate with an absolute concept of relevance (and it is, after all, posited as a cognitive universal) is to consign such mis-communications, prag-

matic breakdowns etc. to irrelevance. However, such a conclusion confers strong claims on Relevance Theory. In the case of second-language pragmatic interactions, weak claims, where relevance is considered as a counterfactual, might be more plausible and useful in highlighting the gap between information and communication intentions and communication realizations.

Notes

1. Input can be broadly defined as the linguistic environment available to learners.
2. Here, Hymes distances himself from a Chomskian notion of competence.
3. Compare B. Torode's treatment of language games in this collection.
4. See S. J. Schmidt in this collection.
5. Studies of the effects of instruction in ILP will not be considered here, since it constitutes a specific setting with specific conditions of interactions.
6. Pragmalinguistics is defined, according to Leech as "the particular resources that a given language provides for conveying particular illocutions" (Leech 1983: 11).
7. Transfer is an interlanguage issue which has often been investigated in ILP (cf. Takahashi 1996).
8. Relevance Theory is not to be mechanically applied. Instead, it can be made operational by testing some of its constructs, concepts and even idealizations. Cf. the contribution of Vidal in this collection.
9. In such interactions, contingencies are considerably heightened. It should be recalled that Sperber and Wilson criticize conventional pragmatic and semiotic accounts for their failure to address vagueness in communication (Sperber and Wilson 2001: 57).
10. See I. Marková's treatment of Moscovici's concept in this collection.

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PART III

COMMUNICATION ENVIRONMENTS

Between uniqueness and universality

An ethnomethodological analysis of language games

Brian Torode

1. Introduction

1.1 Language games: from universality to uniqueness

This chapter will propose that the description of everyday language and social interaction in terms of ‘language games’, as conceived by Wittgenstein (1934; 1953), amounts to an ordinary or ‘folk’ analysis, which ethnomethodology (EM) (Garfinkel 1967: 140ff; Heritage 1984) should recognize as a proper object of its own enquiry. This would *endorse* the fact that conversation analysis (CA) (Hutchby and Wooffitt 1998; Sacks 1992; Sacks, Schegloff and Jefferson 1974), the most productive branch of ethnomethodology to date, is itself engaged in the identification and analysis of such games, with a special focus on universalist games which we all, as conversationalists, unavoidably play, such as those of opening and closing conversations, telling stories and relating troubles.¹ This proposal would *challenge* the reluctance of ethnomethodological studies of work, the other main branch of the discipline, to identify its object of enquiry in ‘games’ terms ever since Garfinkel (1967) attempted a rigorous distinction between “game-like” and “non-game-like” social situations, in order to focus attention on the latter. It would *invite* ethnomethodological studies of the unique language games which arise in specific settings (see Kleifgen (1997) for a study of workplace interaction in such terms).

Ethnomethodology’s reluctance is closely connected with what Garfinkel and Wieder (1992: 181) refer to as “the unique adequacy requirement of EM methods”. The authors consider as an example an assignment to find and study “a single conversation at a cocktail party” (Garfinkel and Wieder 1992: 182). A weak formulation of the unique adequacy requirement is that “the analyst must be *vulgarly* competent in the local production and reflexively natural accountability of the

phenomenon of order he is ‘studying’.” (Garfinkel and Wieder 1992: 182). This would not be met for example if the conversation were in French but the analyst “d[id]n’t know how to ‘do’ a greeting in French” (Garfinkel and Wieder 1992: 182). For instance, research conducted in the early 1950s from a ‘small groups’ perspective disregarded this requirement, utilizing a method of tallying turns at talk which did not require understanding of the conversation.

The imposition of any universal model of social reality risks infringing the uniqueness requirement. Edward Shils’ 1954 complaint (Heritage 1984: 299) against a proposal to analyze a jury as a ‘small group’, led Garfinkel (1967: ch. 4) to investigate, “what about their deliberations makes them a jury?”. But Schegloff (1989: 217–8) more recently argued that “it surely *does* matter what makes it a small group” and that whatever the particularities of the specific event, “it had in the first instance to be conducted as talk-in-interaction [...] of a particular sort”. Commenting on this, Bogen (1999: 86f) notes that Schegloff’s *technical* interest in events is here shown to depart from an *ordinary* appreciation, which attends to the uniqueness of those same events.

In the spirit of Schegloff’s universalism, we shall first ask what is it about certain interactions discussed by Garfinkel and by Wittgenstein that constitutes them as language games. But we shall not confine our attention to universal games. Rather, we shall propose that the uniqueness of these interactions can be grasped by identifying language games specific to these situations, in short that such an analysis is *ordinary* rather than *technical* in Bogen’s terms, and as such can satisfy Garfinkel’s “unique adequacy” requirement.

According to Jonathan Swift (1733: 353):

So naturalists observe a flea
Hath smaller fleas, that on him prey;
And these have smaller still to bite ‘em,
And so proceed ad infinitum.

The proposal advanced here is that the observation of social reality reveals *language games* (Wittgenstein 1934; 1953), all the way down, and all the way up as well. Insofar as we talk or write about language and social interaction, including our ‘methodological’ reflections on this talk and writing itself, it is as *games* that we do so. The more remote from ourselves the social reality, whether in a micro or a macro direction, the more readily do we make such ascriptions, as we also do to biological systems small and large, to atomic and sub-atomic structures at a micro-physical level, and to stellar and interstellar systems at a macro-physical level. A natural first step for sociological enquiry is therefore to investigate those *universal* games which we ourselves unavoidably play.

In recent sociology, such a start has been made by conversation analysts in their studies of the beginnings (Jefferson 1980; Sacks 1975; Schegloff 1968); and endings

(Schegloff and Sacks 1973) of conversations, and the construction of the turn at talk as a basic unit of activity within conversation (Sacks, Schegloff and Jefferson 1974). A natural next step is to investigate the language games which are routinely played in specific social settings. Instances include Atkinson's (1984) account of 'claptraps' — devices commonly comprising a contrast pair, or a three-part list, used by political speakers to elicit applause from their audience; and Wooffitt's (1992) account of specific story structures which regularly arise in the narration of 'psychic' experiences. These *apply* the methodology of CA beyond the *pure* activity of conversing, to social activities more generally, by studying ways in which conversationalists accomplish such activities as they account for them in talk. As Garfinkel puts it:

the activities whereby members produce and manage settings of organized everyday affairs are identical with members' procedures for making those affairs "accountable." (Garfinkel 1967: 1)

Conversation itself exhibits extra-conversational activity by playing and replaying the language games which constitute those activities.

1.2 Wittgenstein's reluctance to define 'games'

In the *Blue and Brown Books* Wittgenstein introduces his concept² as follows:

I shall call "language games" [...] [the] ways of using signs simpler than those in which we use the signs of our highly complicated everyday language. Language games are the forms of language with which a child begins to make use of words. The study of language games is the study of primitive forms of language or primitive languages [...]. When we look at such simple forms of language, the mental mist which seems to enshroud our ordinary use of language disappears. We see activities, reactions, which are clear-cut and transparent. On the other hand we recognise in these simple processes forms of language not separated by a break from our more complicated ones. We see that we can build up the complicated forms from the primitive ones by gradually adding new forms. (Wittgenstein 1934: 17)

Despite this apparently clear account, Wittgenstein is most reluctant to *define* such 'games'. He expresses two reasons for this reluctance. First, in the *Blue and Brown Books* he suggests that it is wrong to assume that there must be something common to all games. Rather, games form a *family*, the members of which exhibit "family resemblances": "Some have the same nose, others the same eyebrows, and others again the same way of walking, and these likenesses overlap" (Wittgenstein 1934: 17). Second, in the *Investigations* he suggests that 'definition' is itself merely one language game among many, and one which has been given undue pre-eminence in the history of philosophy since Augustine of Hippo (397). Wittgenstein's book opens with an account by Augustine of having been taught

names as a child by his elders who pointed to the object “called by the sound they uttered when they meant to point it out”. Wittgenstein identifies such “ostensive definition” as a primitive language (§2), a simple component of our complicated language, of which “you must already be master [...] in order to understand an ostensive definition” (Wittgenstein 1953: §33, 16e).

In the language game of ostensive definition, “Every word has a meaning. This meaning is correlated with the word. It is the object for which the word stands” (Wittgenstein 1953: §1: 2). This, he says, is a primitive or child-like understanding of language, yet it is one which has held sway in philosophy. The ‘meaning’ game, then, represents the language game of professional philosophy in miniature. Wittgenstein’s point is that to play this relatively simple professional game, one must already be a master of relatively complicated natural language. The philosophical game is not, as it imagines, self-sufficient (*sui generis*).

1.3 Games and non-games, according to Garfinkel

Whereas Wittgenstein is reluctant to provide definitions in general, and definitions of games and language games in particular, Garfinkel — who has otherwise vigorously questioned the adequacy of formal definitions both in professional social science and in ordinary everyday life (Garfinkel and Sacks 1970) — has done so. His proposed definition of games comprises nine formal features (Garfinkel 1967: 140–141). It is offered to identify situations which do *not* conform to the game definition. But he describes many occasions, both simple and complex, which *do* constitute “game-structured episodes” or “game-like” occasions.

Briefly, Garfinkel’s first six properties are as follows:

1. Definite game completion procedures are known to each player.
2. It is always possible to ‘leave the game’.
3. Serious life is suspended to participate in the artificial world of the game.
4. Mutual biographies are specific to the game, including repeated plays of the game.
5. Each single play of the game is an encapsulated episode.
6. Success and failure are decidable within the play of the game, not by outsiders at later times.

We may summarize these in two rules:

I. Each play of the game is episodic, having spatial and temporal boundaries which define a precise beginning (entry point) and end (exit point).

This incorporates rules 1, 2, 3, 5 above.

II. Success and failure are determinable within each play of the game, and across a series of plays.

This incorporates rules 4 and 6.

Garfinkel developed this definition in order to discuss the actions of Agnes, a transsexual person raised as a male, and with male sexual organs, but passing as a female when he first interviewed her in 1958, aged 19. The game model accounted for many specific situations which Agnes recounted in interviews. These included:

wearing beach attire

Agnes was happy to wear a tight fitting bathing suit, but would swim only if a private changing room were available. If not, it was acceptable to not be ‘in the mood’ for swimming.

not driving

Agnes feared a traffic accident in which she might be exposed while unconscious. Therefore she avoided driving.

not drinking

Fearing loss of control, Agnes never drank alcohol.

dating

Generally Agnes preferred multiple dating. In the case of a solo date, she would pre-plan, first checking the boy’s character with her girlfriends, then agreeing explicit rules for petting.

providing a urine sample

When asked to provide a sample for a medical check-up, not knowing whether a test could reveal her sex, Agnes feigned inability, then — pretending she had an infection — persuaded her girlfriend to provide one for her.

These incidents are episodic: each risk period has a clear start and finish, and success (non-exposure) or failure (exposure) is clearly defined. Hence they fulfil the game criteria. However there were other situations which did not fulfil the criteria, either because they had no clear beginning or ending, or no clear criterion for success or failure, or both. One such scenario occurred “frequently: Agnes, by acting in the manner of a ‘secret apprentice’ would learn, as she told it, ‘to act like a lady’” (Garfinkel 1967: 146). For instance, her boyfriend Bill would give her “long lectures” on occasions that she or another woman did something he disapproved of:

Agnes was required to live up to [...] standards of conduct, appearance, skills, feelings, motives and aspirations while simultaneously learning what these standards were. [...] They had to be learned in situations in which she was treated by others as knowing them in the first place as a matter of course (Garfinkel 1967: 147).

Both rules broke down here, Garfinkel suggests, because (i) there was no entry or exit point: the task which Agnes had set herself, of “acting like a lady”, was lifelong, with no time-out; and (ii) success or failure were not clearly determinable.

For Garfinkel, Agnes’ project was a “secret apprenticeship” (1967: 146), aiming to achieve a “continuous development” towards being “natural and normal” in her new life in which she would not be “playing games” in a pejorative sense with her boyfriend or with others. Garfinkel’s game definition serves, in his own ethnographic account of the Agnes case, as a heuristic aid to empirical enquiry, and not as an *a priori* philosophical concept. This definition will be utilized in a reading of one of Wittgenstein’s accounts of such ‘games’.

2. Games in Wittgenstein

2.1 A shopping trip

Consider Wittgenstein’s first illustration in the *Philosophical Investigations* (Wittgenstein 1953: §1: 2e-3e), which is an elaboration of the one provided in the *Blue and Brown Books* (Wittgenstein 1934: 16–17).³ What language games does it include, and how fully are these to be described? For brevity, proposed games and plays are indicated to right of text: these assignments will be justified in the discussion following.

We suggested at the outset that a game has smaller games within it, and these have smaller still within them, *ad infinitum*. In other words there is a complex structure which is nonetheless, somehow, organized in a simple way. This resembles the fact that a classical musical score orchestrates a technically precise division of labour between many instrumental parts in several groups (strings, woodwind, brass, percussion) yet the ordinary listener can easily recognize a single melodic line.

In the first part of the fragment, lines 1–12, we recognize games of *shopping* (G2), *name-recognition* (G3), *colour-recognition* (G4), and *counting* (G5). In prospect, the whole is described as a “use of language” (G1). The singular use is “shopping”. The game of “shopping” turns out to encompass the three other games, which are retrospectively described, in the plural, as “ways that one operates with words”. In the second part of the fragment, lines 12–18 (line 12 is included in both parts), an interlocutor raises questions about the “knowledge” attributed to the shopkeeper (G6) and about the “meaning” of one of the words he used (G7), in games 2–3–4–5. These questions the author (Wittgenstein) apparently dismisses as not part of those language games, and hence not part of his own distinctive language game, of “use”.

Wittgenstein, *Philosophical Investigations*, §1
G=Game; P=Play

	1	Now think of the following use of language:	G1	P1	
	2	I send someone shopping.	G2	P1	
	3	I give him a slip marked "five red apples".	G2	P2	
	4a	He takes the slip to the shopkeeper,	G2	P3	
	b	who opens the drawer marked "apples";	G3	P1	
	5	then he looks up the word "red" in a table	G4	P1	<<< Play >>>
	6	and finds a colour sample opposite it;	G4	P2	
	7	then he says the series of cardinal numbers	G5	P1	
	8	– I assume that he knows them by heart –	G5	P2	
	9	up to the word "five"	G5	P1	
	10	and for each number	G5	P3	
	11	he takes an apple of the same colour as the sample	{G3	P2	
		out of the drawer.	{G4	P3	
		((implied: he concludes the transaction))	G2	P4	
	12	– It is in this and similar ways that one operates with words. –	G1	P2	
	13	"But how does he know where and how he is to look up the word 'red' and what he is to do with the word 'five'?" –	G6	P1	<<< Replay >>>
	14	Well, I assume that he <i>acts</i> as I have described.	G6	P2	
	15	Explanations come to an end somewhere.	G6	P2	
	16	– But what is the meaning of the word "five"? –	G7	P1	
	17	No such thing was in question here,	G7	P2	
	18	only how the word "five" is used.	G1	P3	

Language games:

G1 = Use of language

G2 = shopping

G3 = name-recognition

G4 = colour-recognition

G5 = counting

G6 = knowledge

G7 = meaning

Figure 1

Now the matter can be considered in more technical detail. The narration is in two parts which we will identify as ‘play’ (by Wittgenstein as story teller) and ‘replay’ (in response to questions raised by the un-named interlocutor).

2.2 Play: ‘use’ as a language game

At line 1, the passage opens with a promise to explore a “use of language”. This is the first play of game 1, (G1, P1). The passage ends (line 18) by returning to “use”, i.e. game 1 but I shall identify an additional play *en route*. These two occurrences frame what takes place between them.⁴ At line 2, shopping is introduced. This activity fulfils Garfinkel’s game criteria: the beginning and end, success and failure of a shopping-trip are well-defined. This is the first play of game 2. The ‘slip’ in line 3 is obviously a ‘shopping list’, a common constituent of the activity.⁵ This is play 2 of game 2. In line 4a the shopkeeper takes and recognizes the list: play 3 of game 2. In line 4b he acts on the list by opening the appropriate drawer: we identify this as game 3, play 1.⁶

Surely an intermediate process is omitted here: the shopkeeper must *preview* the list to ascertain that it contains the kinds of things — in this case, “apples” — which he stocks, before checking whether he specifically has five red ones for sale here and now. This will be called game 3* and discussed below.

Lines 5–6 describe, somewhat over-elaborately, a colour-matching exercise: this is game 4, plays 1 and 2.⁷ Lines 7–9 describe an act of counting, comprising game 5, plays 1 and 2. Lines 10–11 involve these three games together in a single repeated action which thus constitutes play 3 of game 5, play 2 of game 3, and play 3 of game 4.

As we have seen, both “language and the actions into which it is woven” are included in Wittgenstein’s notion of a language game. But here we have only his linguistic accounts of action. The question arises as to whether games are distinguishable in the same ways, in language and in action. Wittgenstein suggests that there is not a problem here. There are certainly divergences between (i) linguistic accounts and (ii) the actions concerned. Thus G3 involves first *opening* the drawer (P1) and then taking an apple out (P2). There is no mention of *closing* the drawer afterwards. Neither was there mention of subsequently *restocking* it with apples or other goods. We have simply lost interest in the drawer whose manipulation was only a means to obtaining the apples.

G4 and G5 are each described in similar ways, in three plays: (P1) — an appropriate pre-existing record is consulted (a colour chart; a table learned by heart); (P2) — a word on the list is recognized; (P3) — the correspondence is used to guide the repeated taking of an apple. As with G3* above, and as the interlocutor at line 13 suggests, preview games G4* and G5* are omitted in each case in which the kind of thing it is (fruit, colour, number) is recognized.⁸

One could also object, as partly noted above, that colour matching and counting are not identical procedures. Colour matching is inexact ('analogue'), whereas counting is exact ('digital').⁹ I can count exactly five apples — by visual, tactile, or perhaps other means — but I might be unable to match an exact shade of red, or even to determine what is meant by "precise matching" in a given context.¹⁰ However these points are not a problem if we recognize language game G4: P1–P2–P3 as being a three-part *account* of colour-recognition, and G5: P1–P2–P3 as a three-part *account*, which is designed to match G4: P1–P2–P3, of counting. These *accounts* have an intelligibility which is part of the intelligibility of the activities of colour recognition and of counting themselves. Line 12 presents a recognition problem of its own. However, I suggest that 'operating with words' has the same sense as "using language". This is a second play of game 1, and as such concludes the first part of the text.

2.3 Replay: 'knowledge' and 'meaning' as language games

Wittgenstein's account of shopping as a use of language is complete at line 12. But the interlocutor at lines 13 and 16 recycles the narrative. At line 13 he raises problems which, as we have seen, might be resolved by positing new preview games, *G3, *G4, *G5, prior to G3, G4 and G5. But Wittgenstein is unwilling to do this. He does not explore the detail requested by the interlocutor. His G6 game merely closes the enquiry. As with the drawer, he has lost interest in the colour-matching and the counting. Their manipulation was only mentioned as a step towards clarifying "how one operates with words".¹¹

Wittgenstein's justification for this silence, in lines 14 and 15, surely appeals to the routine of the busy shopkeeper. If challenged regarding the apple's 'red'-ness, he might produce a chart to show that what he called a 'red' apple was considered in the trade to be such.¹² But if asked — why did he suppose that the word 'red' referred to a colour? — he would presumably find the question pointless, not worth his while to explain, given the pressing needs of the working day.¹³

However, Wittgenstein's justification is not specific to shopping. He shows no more inclination to recycle G2 than he does to recycle G4 or G5. Remarkably, for a philosopher, he endorses the practical, no-nonsense stance, "actions speak louder than words". We can *see* the shopkeeper's colour chart, and his enumeration, "one" to "five" is observable and accountable. We cannot *see* how he recognizes that "red" is a colour, so this recognition does not count as an action. Apparently Wittgenstein recognises that we play games, and what games we play. However, for him, our choice of game is not a playful move in a game: it is a given.

This seems to be the significance of Wittgenstein's notion of "form of life", the complement or dark side of his "language game" conception. If 'game' suggests

playfulness, indeed the possibility of repeated different plays (whereby a “multiplicity [of] new types of language, new language games, [...] come into existence and others become obsolete and get forgotten”, §23), ‘forms of life’ remain constant through all these changes: “what has to be accepted, the given, is — so one could say — *forms of life*” (226). In this sense, Wittgenstein seems to say, there is only one game shopkeepers play.

There is a blind spot here. By recognizing that we can find smaller games within bigger ones, and build bigger games out of smaller ones, we can reveal that the choice of a particular game to play is not a given, and enrich our sense of the novel opportunities offered by human interaction. This is a point where, as Garfinkel puts it, we need empirical description as an aid to a sluggish imagination (Garfinkel 1967: 38). Garfinkel’s experimental strategy revealed a choice of games where none appeared to exist. For instance he assigned students “the task of bargaining for standard priced merchandise”. Many “learned to their ‘surprise’ that one could [do so] with some realistic chance of an advantageous outcome” (Garfinkel 1967: 68–69): they persuaded shopkeepers to play new games.

Wittgenstein does not want to acknowledge preview games: in this sense he unimaginatively limits our options. Garfinkel’s conversation analytic followers have described many devices (games) by which previewing is done, thereby choosing between language games to be played, in subsequent talk. These include Sacks’ distinction between precise and imprecise numbers (Sacks 1992: I, 742f); Schegloff’s “Preliminaries to Preliminaries”, (Schegloff 1980); Maynard’s “Perspective Display Series” (Maynard 1991); and Sacks’ account of Preface sequences in the negotiation of story telling (Sacks 1970).

The author’s treatment of the interlocutor in lines 16–17 is similar to his response to that in lines 13–15. He denies that the meaning of “five” can appropriately be questioned. Later, he softens this stance, acknowledging that such questions have a part to play in learning language, but a primitive part, subordinate to a practical understanding of use. Thus G7 invites a language game of “meaning” but this is another game he does not wish to play on this occasion.

Line 18 returns to Game 1 in a third play which concludes the text in the same terms with which it began. Clearly, G1 stands in a special relation to the other games. By virtue of the pathway, trajectory or train by which Wittgenstein has led us through the other games, games G2, G3, G4 and G5 are treated as means to achieve the desired end result in G1, just as shopping is a means to obtain apples. G6 and G7, by contrast, are treated as distractions, dead-ends which are to be avoided *en route*.

We may refer to G1 as the Big Game in this text. G2, G3, G4 and G5 are Little Games which are included in the Big Game. (It is also the case that, hierarchically, G2 is a bigger game than G3, G4, and G5, which it includes.) In this text, G6 and G7 are Little Games which are excluded from the Big Game.

2.4 Institutional and everyday games in Wittgenstein

The text we have been discussing is the second part of the numbered first paragraph of the *Philosophical Investigations*. The first part comprises a quotation from Augustine's *Confessions* (397) and a commentary in which Wittgenstein identifies Augustine as author of the view (the "particular picture of the essence of human language": 2e) that "Every word has a meaning. This meaning is correlated with the word. It is the object for which the word stands" (2e).

Thus the language games which we have identified in the first paragraph of the *Philosophical Investigations* are not all equal, and Wittgenstein's stance towards them is not innocent. Rather, they stand in a specific hierarchical relationship. G7, the language game of *meaning*, has been institutionally predominant in philosophy for 1500 years. G1 is the new language game of formulating everyday *usage* which Wittgenstein proposes to put in its place.

G2, G3, G4 and G5, of *shopping*, *naming*, *colour-recognition* and *counting* are everyday games whose organization it is the task of G1, usage, to describe. In each case it is natural to distinguish the activity itself from the account given of it. Yet analytically these are not distinct: the shopkeeper's activities are performed under the scrutiny and with the participation of the shopper. If questioned he could account for it along the lines which the text suggests. If teaching the colour-matching technique to an apprentice he could describe it as Wittgenstein has done. This could count as a 'rehearsal' (a single play) of the game which the novice is to master by means of many plays, and — presumably — accounts of such plays. In learning a language game, then, there is no absolute distinction between action and account.

Wittgenstein extends the notion of game from non-serious play to serious contexts in which we have no choice but to play the game. He also extends the notion to embrace physical work with objects, conversations accompanying that work, and philosophical enquiry itself. Is this sufficient to persuade Garfinkellian ethnomethodology to adopt language games as their object of study, and to acknowledge their own practice of enquiry as a language game in these terms?

Garfinkel's programme shares much with that of Wittgenstein. Each writer takes sides, ontologically, with everydayness against institutionality, a commitment reflected in a lifelong 'outsider' status in relation to his professional academic discipline. Each develops a positive practice of game analysis¹⁴ and each disdains conceptual definition. A distinction lies in the nature of the data preferred by each. Wittgenstein famously relied on his own *imagination* as a competent member of society,¹⁵ dismissing a fact-gathering approach.¹⁶ But Garfinkel and his successors have insisted on *description* of empirical activities in context, *negatively* as a necessary aid to a "sluggish" imagination (Garfinkel, 1967: 38); *positively* as a foundation for sociology as a "natural observational science" (Sacks, 1992: I, 803).

There are three positions here, distributed between two proposed courses of action, i.e. two language games. Wittgenstein, pursued the *imagination* of language games, forms of life, societies. Sacks pursues a *description* of the society we now inhabit. Garfinkel straddles both, advocating *description* as an aid to the *imagination*. A fourth position could employ *imagination* as an aid to *description*. The Ethnomethodological objection to this is that acts of analytical imagination have no *warrant* in the life of ordinary members of society. Rather than imposing a private language game from the outside, Ethnomethodology seeks a *guarantee* that we are discovering members' publicly presented methods from within our common culture. In Conversation Analysis this guarantee is supposedly provided by the next turn response to any given turn at talk, which displays its analysis of the prior turn. The task of Conversation Analysis is, strictly speaking, not to *analyze* talk but to *describe* the ongoing turn-by-turn analysis of talk being done by ordinary conversationalists (Sacks, Schegloff and Jefferson 1974).¹⁷ In his account of everyday story telling, involving a 'suspension' of the regular turn-taking process, Sacks (1970) shows how narrative comprehension can be *proven* through the appropriate exchange of significant stories by co-conversationalists who are willing and able to place their minds at each other's disposal in this way.

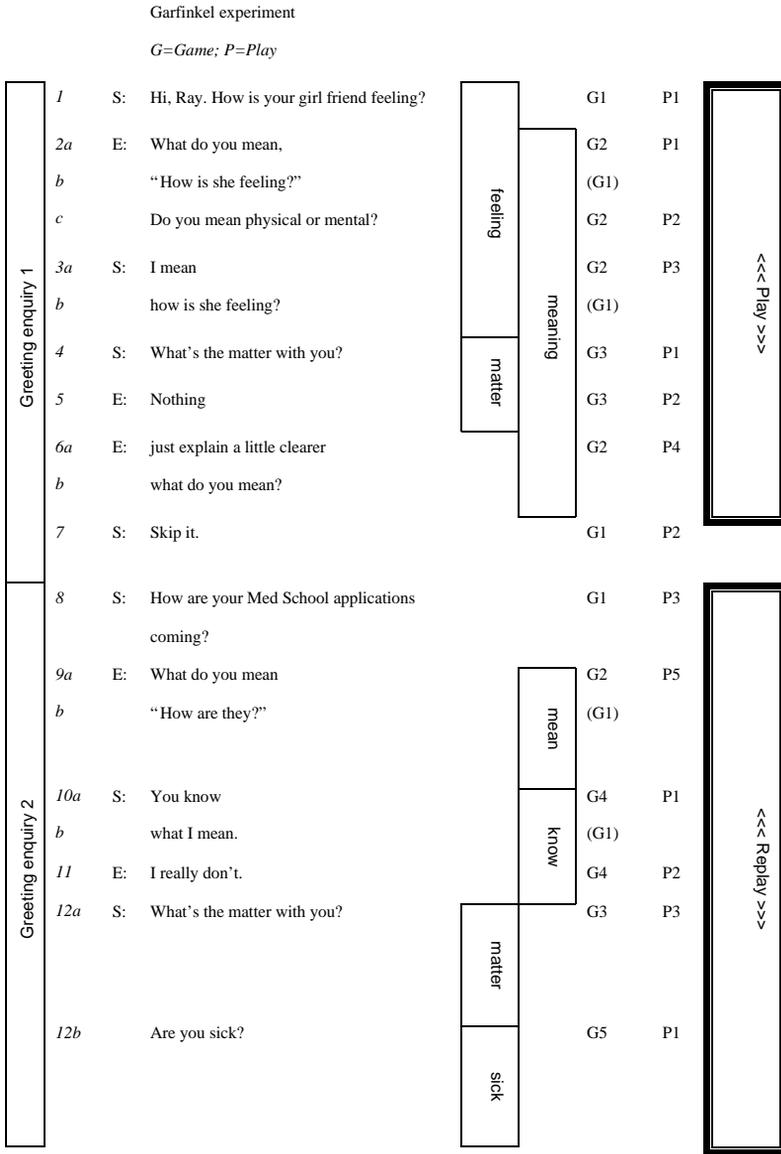
It will be suggested that the successive replay of language games in conversational interaction can also achieve this warrant, and that in fact both the turn-taking model and the story-exchange model are instances of such replay. What is involved can be referred to, in allusion to the account of Agnes, as a "tacit apprenticeship".¹⁸ A brief illustration of it can be found in Garfinkel's early experimental programme.

3. Games in Garfinkel

3.1 A greetings exchange

Garfinkel assigned his students the task of insisting that an acquaintance or friend "clarify the sense of his commonplace remarks", (Garfinkel 1967: 42). The following is one resulting account (42–3). Here, S is the unsuspecting Subject; E is the Experimenter.

At line 1, Subject innocently initiates a *greetings* enquiry, G1 Play 1. At 2a-c, instead of playing the *greetings* game, Experimenter initiates a *meaning* enquiry, G2 P1, (the same game that Wittgenstein rejected), referring to G1 P1. In CA terms this is an Insertion Sequence which temporarily avoids the duty to reply to S's question. In the next play, G2 P2, E offers rival candidate 'meanings'. At 3a-b, S replays the *meaning* game himself, G2 P3, asserting the adequacy of what was said. At line 4, he



Language games: G2 = meaning G4 = knowledge
G1 = greeting G3 = matter G5 = sick

Figure 2

initiates a new *matter* enquiry, G3 P1, but at lines 5–6, E stalls the *matter* game, G3 P2; returning to the *meaning* game, G2 P4, in whose terms he finds fault with S.

In lines 7–8, S concedes defeat in Big Game 1, skips topic (G1 P2) to launch a new *greetings* enquiry, (G1 P3, matching G1 P1 earlier), initiating Big Game 2. At Line 9, E again plays the *meaning* game G2 P5, matched with G2 P1 earlier. To counter this previously winning device by E, S at line 10 launches a new *knowledge* game, G4 P1. E stalls the *knowledge* game at line 11, G4 P2. S replays his *matter* enquiry at line 12, G3 P3, matching G3 P1 earlier. This time around, he guards against E's previous stalling (G3 P2), raising the stakes by proposing a candidate negative response to his own query, namely *sick*, G5 P1.

3.2 The secret apprenticeship of Garfinkel's subject

The predicament of the Subject of this experiment is worthy of further consideration. When he initiated the greetings enquiry he had no expectation of anything untoward. Of course, any such an enquiry may elicit a negative response, revealing something 'wrong' in the life of the one greeted, and initiating a possible "diagnostic sequence" by the greeter (Sacks 1975). However, the response to his enquiry, utilizing the *meaning* game, appears to raise a problem with the way in which he has asked the question. His rejoinder asserts there is no problem of meaning, and 'passes the buck', suggesting a problem (something "the matter") on the experimenter's part. This attracts a "no problem" response but also a question regarding the clarity of subject's remarks. Rather than contesting this, subject lets it pass (conceding a small defeat) and proceeds to recycle the *greeting* game with a new enquiry.

Subject's second enquiry attracts a recycle of the *meaning* query, and this time he has a response ready. He defeats the *meaning* query with a *knowledge* assertion. Although Experimenter negates this new game, this is only an unsubstantiated claim. Subject now recycles his *matter* query and strengthens that too by recourse to a possible institutional label, 'are you sick?'

Subject has learned, by the time its second play comes around, that a game is in progress, which he had no reason to anticipate first time around. Thus, like Agnes, he discovers the game only in the course of playing it. It is a Big Game comprising a specific sequence of Little Games. The *greetings* enquiry game which he innocently initiated was *spoiled* by a *meaning* game, which he *spoiled* in return with a *matter* game. Experimenter return to *meaning* to rebuke, and hence defeat him. The second time around he armed himself with additional *knowledge* and *sickness* games — these are linked along the lines, if you do not know what I mean you are not normal, you must be sick — and in these terms he 'wins' the exchange, upholding his own normality at the expense of that of the Experimenter. Thus in just a few

words these former friends reach an impasse which might require institutional assistance to resolve it.

3.3 Institutional and everyday games in Garfinkel

Garfinkel does not discuss ‘institutional’ issues in his breaching experiments but he does do so in the case of Agnes, previously mentioned. Referring to the distribution of males and females in the population he points out that no transfers occur between these unless “ceremonially permitted” by way of, for instance, “masquerading, play-acting, party behaviour, [...] spying and the like” which are limited “both by the clock as well as by occasions and practical circumstances”. “The person is expected ‘after the play’ to ‘stop acting’” (Garfinkel 1967: 125). Such cross-sex performances count as spatially and temporally bounded ‘games’ as previously discussed. Apart from such play-acting, he suggests:

Persons are reminded to act in accordance with expected attitudes, appearances, affiliations, dress, style of life [...] and the like that are assigned by the major institutions [...notably...] occupational and kinship arrangements with their intended obligatory statuses (125).

Agnes however had crossed the line between male and female:

[She] was all too aware that an alternative path had been travelled [...] and that the transfer was harshly punishable. Like Agnes, the normal knows that there are persons who make the change but he, as did she, counts such persons as freaks, unusual, or bizarre. Characteristically he finds the change itself difficult to “understand”, and urges either punishment or medical remedy. (125)

Thus institutions can (1) assign regular sex roles; (2) license temporary departures from them (play acting), and (3) deal with those persons who seek to make the change in other than a temporary and licensed way. It seems reasonable to identify such persons (called “freaks, unusual, or bizarre” above) as “sick”.

Each of these three institutional tasks is accomplished by specific *language games*. Agnes spoke of the UCLA Medical Centre decision to amputate her penis and make an artificial vagina for her as “an authoritative vindication of her claims to her natural femininity” (133). The researcher himself played other language games with her which offered strong everyday and institutional support for her position:

There were many occasions when my attentions flattered her with respect to her femininity, for example holding her arm while I guided her across the street, having lunch with her at the Medical Centre, offering to hang up her coat, [...] holding the automobile door for her ... At times like these her behaviour re-

minded me that being female for her was like having been given a wonderful gift. [...] At such times she acted like a recent and enthusiastic initiate into the sorority of her heart's desire. (133)

3.4 Language games: from uniqueness to universality

It seems we are able to describe activities ranging from micro to macro and from institutional-impersonal to everyday-personal as 'language games' performed jointly by two or more parties in conjunction with one another, and that both Wittgenstein and Garfinkel endorse some such accounts. But this could be a premature conclusion. Garfinkel introduced the 'game' category not primarily to endorse it — though he partially does so — but to insist, contrary to such writers as Goffman (1959), that it cannot provide a foundational account of social reality.¹⁹

Garfinkel has many objections to the use of 'game' as a universal description of human conduct, and of Agnes' unique predicament in particular. A game is characterized by "reciprocity of perspectives", but Agnes' activities were not. She had secrets she could not reveal to her intimate partner, Bill (notably, that she was raised as a boy) and other secrets she could not reveal to strangers (notably that she had a penis).

As noted above, certain activities — notably, "acting like a lady" for Agnes — are not bounded in space and time, and do not permit immediate assessment of "success" or "failure". According to Garfinkel:

Only in retrospect did [situations] acquire the dramatic features of successes or failures. For our interests, the critical cases were those that had to be handled *in their course* [...] In many of these situations [...] she achieved some approximation to routinised management and "life as usual" (139).

In significant part, it seems Agnes *was* playing a game, but one she had to win. She was unable to relax into a taken-for-granted or *ascribed* natural female status. Instead she must always *achieve* such status. "It was [...] difficult [...] to find any area [of life] that she could not in a few short steps make relevant to the prize" (176). She must needs accurately plan every detail of her ordinary life, never able to relax into the familiar social, psychological, physiological "facts of life" which are supposedly available as a bedrock for normals (182)

Game predicaments are codified and known in advance. But Agnes must continually guard against the intrusion of unknown contingencies which, if they arise, must be assessed by criteria which, as noted above, she cannot share with others. Agnes did indeed act in Machiavellian, i.e. game-playing, manner (184). But to do so she had to take "her scenes of activity on trust, [...] be assured that normal companions were doing so too" thereby securing their unacknowledged help in

“managing” this trust, keeping it in good repair. Giving “good reasons” for actions does not only draw upon such “trust” as a past achievement but contributes to building for the future (185).

For Garfinkel, Agnes’ game-playing relied on something else which was not a game. From conversations with Bill she could learn what was a ‘lady’ as opposed to a woman, i.e. a success or a failure on a particular occasion, but each presupposed that she was female. Rivalry with her cousin provided game-like opportunities to appear relatively more or less attractive, but equally female in either case. But awesome possibilities such as that she was not really female but male; or that she was a transgressor and therefore sick; were not allowed to appear at all. Compared to these, inconspicuous normality was infinitely preferable.

These “demonic” possibilities (184) were to be held at bay by maintaining trust that, whatever else, she was now, had always been, and ever would be, really the identical self-same person, a natural female. However in the Appendix to his Chapter Five, Garfinkel reveals that, five years on, having been successfully “working as a woman, [...] leading a very active, sexually gratifying life as a beautiful and popular young woman” (286–7), Agnes was able to adjust this story, revealing her sex change as a thoroughly practical accomplishment not grounded in a ‘naturally’ stable physiological or even psychological reality.

Rather than some other unproblematic transcendental reality (such as, a natural order of trust between life-long self-same persons) which grounds games as spatially and temporally bounded local accomplishments with problematic outcomes, the Agnes case shows that there are many kinds of games, one embedded within another, and so *ad infinitum*. To coherently maintain our grasp of and share trust in the *unique* idiosyncracies of the particular game which we are playing at the moment may indeed require that, for the time being, we embed that game within, and make reference to, another game — more micro or more macro, more institutional or more everyday, but whatever else more *universal* — which is not in play at the present point in time, though it may become so at a later date, and which thereby lends stability to the present occasion.

4. Conclusion

4.1 Agnes’ games reconsidered

In effect, we discover that Agnes was playing two kinds of games. In interaction with her boyfriend, cousin, etc., she was engaged in explicitly game-like activity which typically involved *evaluation* of herself in comparison to others: acting like a lady as opposed to acting a woman, being seen as more attractive rather than less

attractive by boys, and so on. ‘Success’ or ‘failure’ in such competition is *relative* not *absolute*, and may also be *perspectival* (‘beauty in the eye of the beholder’).

In conversation with Garfinkel, however, Agnes revealed a different game. This involved passing as a female when she carried male characteristics, ranging from (i) definite physical features, notably her penis prior to the castration operation; (ii) possible physical features, e.g. the urine which might characterize her as male in the event of a test; (iii) social features, notably her seventeen-year long biography as a boy. These concerns were everlasting for Agnes. What she wanted never to be put to the test was that she was now, always had been, and forever would be a natural female person. This amounted to *naturalization* of herself, not relative to others (as if one person could be more female or less female than another), and not *perspectival*, but *absolute*.

Garfinkel suggests that naturalization was not game-like since it was serious for Agnes, for whom there was no time-out from it. However this non-game quality was achieved by Agnes *not* playing what for others *was* a game. At school, when passing as a male when she carried female characteristics (developed breasts) she employed routines for “remaining inconspicuous” (149) such as not eating in the lunch room, not joining clubs, avoiding conversations: “whole days would pass and I wouldn’t say a word” (150). The routine of not playing is game-like itself: it may succeed or fail on any particular day. It is played in order to prevent occurrence of the much more dangerous game of putting her natural sexuality to the test. This game rarely occurs,²⁰ but Garfinkel paints a vivid picture of the possible consequences, should it do so, namely “swift and certain ruin in the form of status degradation, psychological trauma, and loss of material advantages” (117).

As is evident from the terms used, this is not an account of Agnes’ individual predicament in her own words, but that of a type of person who has undergone an elective sex change. We are forced therefore to recognize that “unique adequacy” is a relative, not an absolute, concept. Garfinkel painstakingly devoted many months of personally challenging study to his investigation of this young woman’s situation. But he represents that situation as one shared with others, albeit a minority whose numbers are tiny to begin with, and who conspire with the majority population to conceal or deny outright their own existence, which they do by all playing the same game, namely that of “inconspicuousness”.

Evaluation and *naturalization* are not the only games Agnes plays. They are two distinctive points on a hierarchical scale. *Evaluation* is more public, *naturalization* is more private. The game of *inconspicuousness* lies between the two, an attempt to avoid playing the *naturalization* game. There were transactions concerning the revelation of her penis to Bill prior to the sex-change operation, which were never fully divulged to Garfinkel (159): these were surely yet more private than *naturalization* itself since to reach them, the couple passed through that “agony” (158) and

“degradation” (159–60) to a new understanding which involved mutual fears that they might both be *abnormal* (160).

Garfinkel seeks to distinguish *game-like* from *non-game-like* activities, but we would rather distinguish between the *game in play*, and *games not in play* at a particular point in time. The *evaluation* game (how good a woman was Agnes?) presupposed the *naturalization* game (that Agnes was a woman), that is to say, the *N* game was not in play when the *E* game was in play. Conversely, if the *N* game were to be played (is A a woman at all), then the *E* game (how good a woman is she?) would not arise. We are not given an exact account of any specific interaction involving Agnes so we are not in a position to plot the manoeuvrings between these games, but in the case of his greetings experiment we can tentatively do so.

4.2 Greetings and shopping games reconsidered

Consider Garfinkel’s experiment in light of our re-examination of the Agnes case. An *evaluation* game is invited by S’s question in line 1.²¹ This game is spoiled by E’s *meaning* game which in tit-for-tat fashion is spoiled by S’s *matter* game. However E’s rebuke, (“Just explain a little clearer what do you mean?”) followed by S’s climb-down (“Skip it”) establishes a victory of sorts for E.

In the replay from line 8, S challenges E’s *meaning* game with a new *knowledge* game. When E refuses to play this, S again produces his *matter* game, this time with a new candidate diagnosis, *sick*, which could institutionally label S as incapable of conducting ordinary conversation. This is a threatened status degradation which — though small-scale and localized compared with the massive and enduring one which threatened Agnes — can be compared with aspects of hers, for instance with the ‘abnormal’ turbulence between herself and Bill mentioned above. The threat achieves a victory of sorts, so far as the conversation is reported, by S.

We can similarly return to Wittgenstein’s shopping trip. As mentioned earlier, his narrative is introduced in response to one by Augustine relating, as an adult, how he supposedly learned language as a child. We will express his points in Wittgensteinian terms in order to represent the dialogue between them, which may be likened to that between Subject and Experimenter above. Augustine proposes that his elders accompanied their words with bodily gestures — the “natural language of all peoples” — to express orientations such as “seeking, having, rejecting, or avoiding something” (quoted from Wittgenstein (1953: 2e)). Hearing these words repeatedly, the child learns what objects they signify, and is eventually able to use them “to express my own desires”.

There are three language games here. The most universal is the “natural language” of bodily gestures. The most unique is the child’s own speech. Between these extremes are the repeated uses of language in practical settings. For August-

ine, *public* natural gestures and *private* individual desires are prior to practical use of language. Wittgenstein reverses this understanding. Both the desires which a shopper expresses (such as, a wish for five red apples), and the means which the shopkeeper fulfils them, are already shaped by the language games which each knows make their attainment regularly possible. Wittgenstein sets out the ways in which the shopkeeper acts to fulfil these desires, when communicated to him as a properly prepared shopping list. As discussed earlier they are practical accomplishments made up of specific little games which together constitute his ability to play the big game of “shopkeeper”.

The interlocutor interrogates this account, claiming that the shopkeeper’s “knowledge” is one kind of precondition, and the “meaning” of such terms as the number “five” is another kind of precondition, for the fulfilment of the transaction. Wittgenstein disputes both claims. He posits that usage within observable and specifiable language games is a practical, public, hence accountable and analyzable activity in its own right. It is not necessary for the shopkeeper to “know” the colours of his fruit: he only has to be able to reach for the appropriate *aide-memoire* (a “colour sample” is suggested). It is not necessary for him to understand the “meaning” of numbers: it is enough to be able to manipulate them in a purely practical manner (assisted, nowadays, by a calculating machine).

4.3 Game analysis as a folk method

Games we cannot avoid playing do not just include *universal* games such as *greetings* exchanges. They also include more *specific* games which we can recognize in particular interpersonal interactions: here, Garfinkel’s experiment, Agnes’ personal predicaments, and the work of Wittgenstein’s shopkeeper. The warrantability of these relatively *unique* games is proven by their repeatability. In demonstrably attending to its reiterations, the parties to the interaction undergo a “tacit apprenticeship”, i.e. they accountably learn to play the game together. By attending to this reiterability, the analyst can achieve the “unique adequacy” which Garfinkel demands.

Wittgenstein (1953: §43) famously proposed that meaning is in use. We have added, that use is only defined within a language game (compare Wittgenstein (1953: §§42 and 44). By noting that language games encompass smaller games within them and also that language games are assembled into larger games which encompass them, we reveal how the meaning of a micro language-game (device) is realised within the macro language game of which it is a part. In this sense social reality is repeatedly assembled and reassembled, played and replayed.

There is a space waiting to be explored between ethnomethodology — the “uniquely adequate” study of members’ methods for accountably accomplishing social reality in specific social settings — and conversation analysis — the study of

the universally recognizable organizational features of ongoing language and social interaction. Ethnomethodology explores action-in-context, but not its sequentially-structured play-replay game-like features. Conversation Analysis explores sequentially structured game-like features of talk, but not of action (including reported action). The concept of ‘language game’ bridges this gap, and occupies this space as we have tried to indicate in this chapter.

We propose the study of such games, their beginnings and ends, their repeated plays, their inter-relations, as the way forward for ethnomethodology, the study of members’ methods. This study involves us universally in the predicament which Garfinkel ascribes uniquely to Agnes, namely of being in a “secret apprenticeship”, i.e.

Being required to live up to standards of conduct, appearance, skills, feelings, motives and aspirations while simultaneously learning what these standards are, in a continuous project of self-improvement.

Learning them in situations where one is treated as knowing them in the first place as a matter of course, where one cannot indicate that one is learning them.

Learning by participating in situations where one is expected to know the very things one is simultaneously being taught (Garfinkel 1967: 147, adapted).

The concept engages the gap between talk and action, imagination and description and the recycling across episodes which is intrinsic to the notion of a game and its many replays.

Notes

1. See B. Paiva’s chapter in the preceding part of this collection.
 2. The notion of a “language game” was first proposed by Wittgenstein in lectures given in 1933–34 (Wittgenstein 1934: 17f) but not published until the 1950s (Wittgenstein 1953). It has been advocated enthusiastically by many social scientists since that time (Bloor 1997; Pitkin 1972; Winch 1958), however each of these proposals for a Wittgensteinian sociology has proven to be controversial. In recent years the ethnomethodologists Michael Lynch and David Bogen have sought to clarify these controversies. (In earlier years, the ethnomethodologist John Heritage did so (cf. Heritage 1984: 104–5 et ff.)). A significant exchange between Michael Lynch and David Bloor occurred in 1992 (Bloor 1992; Lynch 1992a; Lynch 1992b). An important recent statement of the issues is Bogen (1999).
- Ethnomethodologists reject the claim — made variously by Winch, Pitkin, and Bloor among others — that professional sociology *as it already exists* can provide *the* account of everyday language and interaction which enables professional philosophy to meet Wittgenstein’s critique. They reject this collusion between two professional language games at the expense of all the everyday language games, which each depends upon, yet which

remain unexplicated. They reject the claim that Wittgenstein's criticisms of philosophy can be met simply by an uncritical turn to sociology, for professional sociology is just as much in need of ordinary-language critique as is professional philosophy.

3. The status of this example is ambiguous. With its apparently 'modern' reference to shopping, it is seemingly intended to illustrate the complexities of "our language". In the next paragraph §2 Wittgenstein imagines "a language more primitive than ours" utilized in a builder's yard which could perhaps have been found in ancient Babylon. This primitive language, it seems, comprises just one language game, whereas §1 involves many.

4. In Sacks' terms (1970) they serve as Preface and Response, organizing the intervening passage as a *story*. He discusses the sequential organization of stories within conversational interaction, but illustrates his distinction with reference to a newspaper text, to which the analysis also applies (Sacks 1992: 787).

5. Sacks has written intriguingly on "Membership Categorization Devices" and appropriate "Category Bound Activities" (Sacks 1992: I: 236ff and throughout); see Lepper (2000). It is important to recognize that object categorization devices are also bound to specific activities, which — following Wittgenstein — we call 'language games'.

6. Social historical research could investigate whether in the 1940s shopkeepers kept apples in drawers. Today, fresh fruit, imported from the Northern or Southern hemisphere as appropriate, are on open display at all times of year. But in the past, suitable varieties of home-grown apples were preserved through the winter, wrapped in paper. Wittgenstein may be referring to a variant of this practice.

7. The procedure described is more appropriate to the degree of precision required in matching paint or wallpaper with a supplied sample, than to the inexact practice usually involved in selecting fruit.

8. Indeed we might even say that there is a higher level language game here in which a lower level language game is selected from a range of alternatives. Sacks (1992: I: 742) explores some ways in which this is done, for instance approximate numbers and precise numbers are used for different purposes. See also discussion by Kleifgen and Frenz-Belkin (1997). Alternate number series indicate alternate activities, thus in photography 2.8, 4, 5.6, 8 ... (square roots of 8, 16, 32, 64...) identify aperture settings; whereas the series 2, 4, 8, 15, 30 ... indicates shutter speeds.

9. When using a ruler to measure an object — unless it should happen to be made to an exact number of the units in question — a combination of the two is involved. One may judge the book length to be 8.95 inches, where "8.9" is precisely read from the scale but "0.5" is an interpellation, an analogue judgement of the gap between two marks on the scale. Alternatively one may "round" this to 9 inches — "more or less" — where exactness is attributed to the object despite some deviation from the measuring instrument, which is disregarded.

10. If it is a matter of selecting 'the' single red apple from a basket otherwise containing green apples, then it may be possible to do this precisely. If 'a' red apple is to be selected from a basket of mixed apples, this may be an inherently imprecise task since one apple may have a deep red hue in part but green or yellow elsewhere, whereas another maybe of a uniform pale reddish colouring. If the matching is to be done to spectroscopic

specifications, quite different problems arise concerning the measuring instruments and the appearance of both instruments and fruit to the naked eye, etc.

11. Of course Wittgenstein wrote extensively on both topics, both in the *Philosophical Investigations* and elsewhere. But these matters are concluded for now.

12. This issue arose in Call 10 of my Office of Consumer Affairs helpline calls (see Torode 2001), when a caller complained that her clutch was not fully self-adjusting. The helper remarked:

#74 H: (0.2) well I suppose you're back to what's (.) considered in the trade as the definition of self-adjustment (0.1) ye know (0.1) and that like if the trade consider well self-adjustment is (.) to X% hhh you know then (.) it may be reasonable for them to say that that is self-adjustment.

13. Cf. the discussion below of the response of Garfinkel's experimental Subject, when gratuitously asked to explain the "meaning" of his ordinary remarks, (Garfinkel 1967: 42ff).

14. Ethnomethodology has not endorsed the view of Goffman and others that 'game' is a universal analytical category for the analysis of social interaction, but as we have seen, Garfinkel considers the concept addresses a significant part of orderly social interaction. However, in addition to this, it is clear that CA practitioners have made immense use of the concept in a disguised way.

15. Wittgenstein (1953), §§2, 4, 6, and *passim*.

16. At one point, Wittgenstein conducts a dialogue which at first seems to anticipate CA-style research.

§435. If it is asked, "How do sentences manage to represent?", the answer might be: "Don't you know? You certainly see it when you use them." For nothing is concealed. How do sentences do it? — Don't you know? For nothing is hidden. But given this answer [...] one would like to retort, "Yes, but it all goes by so quick, and I should like to see it as it were laid open to view".

But he continues:

§436. Here it is easy to get into that dead-end in philosophy, where one believes that the difficulty of the task consists in our having to describe phenomena that are hard to get hold of, the present experience that slips quickly by, or something of the kind. Where we find ordinary language too crude, and it looks as if we were having to do, not with the phenomena of every-day, but with ones that "easily elude us, and, in their coming to be and passing away, produce those others as an average effect" (Augustine, Latin original omitted).

As against this dismissal, one would have to retort that three decades of CA research have revealed a hitherto unsuspected wealth of miniature languages games — for instance, those for opening conversations, cf Schegloff. (1968) and Sacks (1975) and closing conversations, cf. Schegloff and Sacks (1973) and Button (1987; 1990) — whose precision and complexity would surely be unsuspected by a theorist using imagination alone.

17. A clear account of this proof procedure is given by Hutchby and Wooffit (1998: 15–17).

18. The ethnomethodologist Michael Lynch followed this model in his study of laboratory technicians (1985). Aiming to describe "how the work is uniquely *that* work and not some other instance of 'conversation'" (1985: 9) and considering that "adequate access to the

social order of the lab is inseparable from a competence in the technical practices used by lab researchers”, he eschewed “any account which subsumes an analysis of shop talk within a general conversation analytic” and instead submitted himself to an apprenticeship of several months’ duration in all.

19. See the chapter by A. Avgerinakou in this collection.
20. However, Garfinkel himself provides an anecdotal account of it to Agnes (149).
21. Greetings enquiries more usually request an evaluation of the greeted party directly, e.g. “How are you feeling?”. The usual response involves a positive, neutral, or negative evaluation. Cf. Sacks (1975).

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The transition of a Scottish Young Person's Centre – a dialogical analysis

Kesi Mahendran

1. Four levels of dialogue — a conceptual framework

1.1 Introduction

JM: Two and half years ago, we tried to change the organization, by using the term 'holistic'. However, we never really developed it theoretically or conceptually so I felt we never actually took a holistic approach, it never actually meant anything [...] we all use different terminology and we all come from different backgrounds and it takes us ages to understand each other.¹ (November 1999)

This chapter is concerned with selfhood, dialogue and social change. It focuses on the social integration and consensual functions of communication for the Young Person's Centre (YPC)² in Scotland, which exists to provide guidance, support and vocational training to young unemployed people. The YPC in question wanted to change from a programme-centred service to a person-centred service focused on meeting the individual needs of the young person. Equally, it was keen to reposition itself, in order to ensure its survival in an environment of competitive-tendering. Publicly funded organizations that deliver government training schemes to the young and unemployed are often in transition. However, a change in UK government in 1997 followed swiftly by devolution in Scotland has resulted in a climate of particularly dynamic activity in this sector.

The transition of this YPC is explained here using a Bakhtinian dialogical analysis, as a multi-voiced organization, where the term 'dialogue' is conceptualized on four levels. On a first level, each member is in face-to-face situated dialogue with other members. On a second level, there is the dialogue of the dialogical self. Here, the self is conceptualized as being able to adopt a number of '*I*-positions' (Hermans 2001: 252).³ Thirdly, there is the internal dialogism of words-in-use in relation to a context in which voices articulate competing socio-political discourses. This is

illustrated by, for example, 'JM', a senior manager, when he discusses the problems associated with YPC's attempt to adopt a "holistic" approach. Language is analyzed here as "the instrument of action and power" (Bourdieu 1991: 37).

Finally, this internal dialogism relates to the wider contexts in which the communication occurs, and specifically *why* YPC should wish to become person-centred. On this last level, dialogue is understood as the dialogue of the self (as a social agent) with the public sphere. Furthermore, YPC is understood as a 'thinking' organization, where members are actively engaged in developing their own lay theories or social representations (Moscovici 2000: 22) to inform their practice at work, using information from the public sphere.

Bakhtin⁴ understood dialogue in terms of speech genres defined as "the specific nature of the sphere of communication" (Bakhtin 1986: 60). He distinguished between *primary* (simple) speech genres characterized as mostly oral dialogue, face-to-face everyday conversation and *secondary* (complex) speech genres characterized as having stable, thematic, compositional and stylistic features, such as literary genres, business correspondence, political or social commentary and indeed scientific writing (Bakhtin 1986: 61–64). Therefore, the social psychologist who participates, as an action researcher (see below), occupies an uneasy position between these two genres engaging in dialogue (i.e. primary speech genres) with participants and withdrawing to reflect and write about them from the position of the 'social scientist' (and thus reframing them as secondary speech genres). The account offered here is therefore not confined to the third person observer-perspective that is characteristic of conventional scientific genres, but rather occasionally presented in a narrative form, using the first person, allowing the story of YPC's transition to unfold. Here, I, as a participatory researcher, involved in co-creating the communication, offer no more than a *reading* of events. The premises of participatory action research will be discussed further in Part Two. It is now necessary to consider each of the four levels of dialogue in order that an adequate conceptual framework may emerge.

1.2 Dialogism and self-other relations

An utterance is a link in the chain of speech communication, and it cannot be broken off from the preceding links that determine it both from within and from without, giving rise within it to unmediated responsive reactions and dialogical reverberations. (Bakhtin 1986: 94)

Bakhtin was aware that an utterance is not only understood in terms of what has gone on before but anticipates subsequent links in the chain, considering possible responsive reactions. He explains, "From the very beginning the speaker expects [...] an active responsive understanding. The entire utterance is constructed as it were, in

anticipation of encountering this response” (Bakhtin 1986: 94). For Bakhtin speech occurs between two *active* participants where “orientation towards a listener is an orientation towards a specific conceptual horizon towards the specific world of the listener” (Bakhtin 1981: 282). He terms this orientation “addressivity”:

This addressee can be an immediate participant-interlocutor in an everyday dialogue, a differentiated collective in some particular area of cultural communication, a more or less differentiated public, ethnic group, contemporaries, like-minded people, opponents or enemies, a subordinate, a superior [...] it can also be an indefinite unconcretized other. (Bakhtin 1986: 95)

It is the differing conception of the addressee that defines each speech genre, such as the comments young people write on their application forms at the YPC and the literature produced by the YPC for the young people, staff or potential funding bodies. The art of dialogism is to anticipate accurately how the addressee will construct their understanding. Bakhtin’s dialogism did not confine itself to internal and external dialogue between interlocutors but also to the dialogue evident in discourses more generally. Discourses are taken here to be a system of statements cohering around common meanings and values and by which a particular object is constructed. They necessarily inform the various media-cultural communications and are built on self-addressee relations or self-other relations.

A now classic account of self-other relations is offered by Mead, who conceptualizes the relational self in terms of the *I* and the *me* where “the *I* reacts to the self which arises through the taking of the attitude of others. Through taking those attitudes we introduce the *me* and we react to it as an *I*”; the *me* is thus “the organized set of attitudes of others” (Mead 1967: 174–5—my italics). In Mead’s account, the genesis of the self develops from gesture-mediated interaction to symbolically-mediated interaction and finally, in relation to the generalized other that is the norms of society, symbolically-mediated interaction becomes normatively-regulated interaction. Habermas departs from Mead at this point arguing that Mead does not really explain how we go from exerting an influence on each other to actually understanding each other. In Habermas’ analysis to view interaction as exclusively normatively-regulated is to “ignore the path that leads to propositionally differentiated communication” (Habermas 1987: 23) where the horizons of communication⁵ undergo constant shifts. His understanding of intersubjectivity, in the sense of shared frames of reference, discourse worlds and horizons of expectation, rests, in part, on an analysis of this differentiation. Since increasingly accounts of communication and dialogue emphasize fragmentation and differentiation as a feature of late modernity, there is a danger here of tending towards seeing the individual as no more than a socially constituted self through which languages travels operating according to their own logics.

1.3 The dialogical self

To avoid the risk of solipsism, members of the YPC are understood here as individuals, who are in dialogue when they are alone as much as when they are in face-to-face encounters with others at the YPC. Here the self is conceptualized as centred. To make sense of this conceptualization it is necessary to turn now to the dialogical self. Using Bakhtin's understanding of dialogism, Hubert Hermans extends Mead's account of the *I* and the *me*:

The dialogical self is based on the assumption that there are many *I*-positions that can be occupied by the same person. The *I*-position, moreover, can agree, disagree, understand, misunderstand, oppose, contradict, question, challenge or even ridicule the *I* in another position. (Hermans 2001: 249)

Hermans distinguishes between internal and external positions, where the internal position might be *I* as healthy worker, *I* as social scientist, and the external *I*-position is drawn from one's environment e.g. my colleague, my partner, etc. Thus within the dialogical self, *I* am able to engage in an internal dialogue with these imaginary interlocutors, the internal *I*-position of the social psychologist is able to debate with the external *I*-position of the partner⁶ as well as the internal *I*-position of the healthy worker "forming a mixture of co-operative and competitive relationships" (Hermans 2001: 254).⁷ Naturally, the self cannot attend to inner dialogue at all times, and some voices are more dominant in some contexts than others. It is nevertheless an ontological capacity of the mind and this analysis will attempt to explore the *I*-positions that members of YPC are able to take.

This framework then challenges the twin pillars of neo-positivism and post-modernism, both of which serve to de-centre the self. The self remains centred in two further respects. Firstly, it is centred on an awareness of the metaphysical self with its ability to transcend all the dichotomies and cultural constructions that surround it (e.g. black/white, male/female, young/old, gay/straight) in the form of certain "non-linguistic, no-minded" states of consciousness (e.g. in yoga and meditation). "The *I* is always capable of making an object of the *me* and transcending it. Thus we are always capable of transcending ourselves in our roles" (Porpora 1997: 246). Secondly, it is centred on our agency, the ability to self-organize into groups, to challenge and resist "attempting to make sense of, initiate, influence and cope with events in line with personal values, goals and expectations of the future" (Fryer 1995: 270). The individual in the research is viewed therefore as situated and actively constructing, not as passively receiving the dominant communications, but "as a debater, engaged in an argument either silently with the self or noisily with others" (Billig 1991: 31).

1.4 Dialogism and the public sphere

To fully understand the dialogues at the YPC, we must also tackle a further dimension of such intersubjective relations, not only the subject-subject relations described above, but also the subject-world relations, the relationship between social agent and the public sphere.

This is particularly so with the rhetorical communications at YPC, where members, whether they are managers, staff or young people, are actively engaging in debate with thinking articulated in the public sphere. It is in understanding how individuals make sense of such issues that we turn to Habermas' recent reconceptualization. Habermas rescued the notion of a public sphere from Eighteenth century European bourgeois idealism, for his project of radical democracy based on "procedural rationality" within the modern social-welfare states that came to characterize Europe after 1945 (Habermas 1992: 476).⁸ To Habermas the public sphere was the space in which the reading and discussing public could debate issues such as the question of what to do about youth unemployment, it is understood then as intersubjective arenas, mediated through communication, focused often on matters of public or state interest.

Moscovici, in making sense of the way individuals draw and construct from socially shared spaces, refers to what he terms the "thinking society":

Individuals and groups, far from being passive receptors, think for themselves, produce and ceaselessly communicate their own specific representations and solutions to questions that they set for themselves. In the streets, in the cafés, offices, hospitals, laboratories, etc., people analyze comment, concoct spontaneous, unofficial 'philosophies' which have a decisive impact on their social relations [...]. Events, sciences, ideologies simply provide them with 'food for thought'. (Moscovici 2000: 30)⁹

The study of social representations is the study of this lay theorizing, which exists to make sense of a complex world, to make the unfamiliar familiar, in particular to make sense of the increasing amount of scientific information in everyday life, such as the concept of the 'person-centred approach'. The YPC is conceptualized as a 'thinking' organization, its members are actively in a dialogue with all the socially shared theories and knowledge in the public sphere ranging from 'young people' and 'the unemployed' to 'the culture of dependence', 'the culture of poverty' and 'government training schemes'.

It is important not to regard the public sphere as no more than the social space, where the social space is distributed and differentiated and agents occupy "relative positions" in relation to the space (Bourdieu 1991: 229–230). Rather, the democratic ideal of the public sphere is that it is the arenas where we are able to engage as free and equal citizens in debate. In response to the criticism that he had failed to

fully appreciate the distributed nature of access to the public sphere and the agenda-setting role of the media in shaping this space, Habermas comments that “the modern public sphere comprises several arenas, in which through printed materials dealing with matters of culture, information and entertainment, a conflict of opinion is fought out more or less discursively” (Habermas 1992: 430). What is central to his normative concept is the notion of “procedural rationality”: as citizens we use procedural rationality to debate the way forward on issues of political or public interest.

Jovchelovitch, a major representative of the social representations approach, emphasizes the pluralistic and fluid nature of the public sphere by distinguishing between the traditional public sphere on the one hand (where the inequalities in status structure mean that the worldviews of some are displayed and others’ silenced), and the detraditionalized public sphere on the other (where fluidity and multiplicity in knowledge are dominant). Jovchelovitch sees this social arena as:

a form of social knowledge that comes into being in a social arena characterized by mobility and even more importantly the diversity of social groups, a high degree of reflexivity propitiated by the multiple encounters of different traditions, the massive and widespread circulation of information through the development of the mass media [...] and last but not least the liberal principles of equal access and full visibility (Jovchelovitch 2001: 171).

1.5 The internal dialogism of words-in-use

When members of YPC make utterances on issues they draw from the debates in the public sphere often with a view to influencing practice. Bakhtin was aware that within these genres there were more pronounced extra-linguistic features:¹⁰

[T]his dialogism bears a more subjective, psychological and [frequently] random character, sometimes crassly accommodating, sometimes provocatively polemical. Very often, especially in rhetorical forms, this orientation towards the listener and the related internal dialogism of the word may simply overshadow the object. (Bakhtin 1981: 282)

In the rhetorical exchanges that characterize communication at the YPC, the creative work around the word (elaborations in contexts of use) may come to overshadow what the word normatively refers to. Later, this creative work is explained further, in relation to the connotations that surround the term ‘person-centred’. To understand these is to understand the ‘dialogical reverberations’ to which Bakhtin refers and critically to understand the role of symbolic concepts such as the ‘person-centred approach’ in attempts at consensus and social integration within organizations. Bakhtin’s dialogism concept is built on the relationship

between text and context and Habermas emphasizes “contexts of relevance” as “horizons which shift with the theme” (Habermas 1987: 123).

Power differentials and contextual factors must therefore be analyzed in order to adequately explain the transition of the YPC. People do not internalize passively the social shared knowledge they encounter, they construct autonomously and actively to “answer their own questions”. However, we must acknowledge the pervasive nature of certain socio-historic or ideological discourses (in Moscovici’s sense of “hegemonic social representations”). It is exactly this awareness of power-differentials and their influence on dialogue that has led some researchers to approach research situations in a way which serves to reduce such differentials to move away from the researcher and the researched *upon*, towards the researcher and those he or she co-researches *with*.

2. Method and analysis

2.1 Participatory action research

The epistemological foundation of participatory action research is informed by the view that social knowledge is co-created in the field rather than found. There is a critical awareness that participants will, as outlined above, be making judgements about the researcher in terms of *addressivity*. Thus, the difficulty for researchers within the high levels of reflexivity which characterize late modernity, is to offer an account of collaborative research where one is also participating. One strength of Bakhtin’s dialogism is that it anticipates this. Bakhtin was concerned that the ‘human sciences’ would develop methodologies appropriate to the study of text and context, in a way which goes beyond the ‘voiceless’ monological approach of the exact sciences and called for the human sciences to be “differently scientific” (Bakhtin 1986: 160–1).

In this respect, the research is divided into three phases: Phase One (the *access* phase) from March 1999 until December 1999; Phase Two (the *action* phase) from December 1999 until July 2000; and Phase Three (the *co-analysis* phase) from January 2001 until April 2001. During the Access Phase, there were two aims to collaboratively develop innovations of use (in the sense of changes to the service based on a dialogue with users of the service) to unemployed people and further to create knowledge that was of immediate use to the YPC, rather than knowledge that may become useful upon dissemination. To increase the trust during the access phase certain reciprocity measures were taken, firstly key findings from my earlier research were presented. This research had explored two social representations of unemployment: a representation of individual responsibility for one’s unemployment and a

social representation of a collective responsibility for unemployment (Mahendran 1997: 37–39). Secondly, the conceptualization of self-other relationships as set out above was presented. The aim was to make clear my intentions and competencies and to create “a communicative space” (Kemmis 2001: 100) where the YPC managers would be able to express their conceptual thinking and indicate the kind of research that would be useful to them. It was within these discussions that the YPC responded by explaining the need for an overall ethos about ways of working with young people: the person-centred approach.

Phase Two involved joining the service for eight months and observing, participating and interviewing management, staff and young people. I followed the January 2000 intake of 14 young people from their arrival at the YPC until April 2000. This intense phase of fieldwork involved attending the group’s week-long induction, including a three-day residential course and participant observation during the pre-vocational programmes.

Between Phases Two and Three there was a period of analysis, interpretation and reflection. Here, I had become concerned that my own internal dialogue (an *I*-position I would most frequently adopt with a manager) when analyzing was more often with management. Phase Two began with a presentation and report to the management team of Phase One findings; these were then co-analyzed in a recorded management meeting. This phase also involved six interviews with the original January 2000 group and further attempts at co-analysis.¹¹

In total, the fieldwork involved thirteen recorded interviews and full field notes at another thirty-nine one-to-one or group meetings, which ranged from twenty minutes, a typical support and guidance session, to day-long meetings such as staff development days. Data was managed using the searching and indexing software programme NUD*IST.

The YPC is a street-level organization in Moultrie, a typical small town in Scotland with a local labour market characterized by seasonal employment in the service sector. On entering the main site one encounters the atmosphere of a youth centre, brightly painted walls covered in health promotion posters, warning of the dangers of alcohol, drug abuse and smoking. Advice line adverts for sexual health, advocacy and mentoring. Whilst young people, aged between fifteen and twenty-four, can walk into the centre, they are more commonly referred there from the careers service, secondary school support or another youth training organization. Young school-leavers in the UK who are unemployed must be in attendance with a training centre in order to receive state benefits. The YPC has just over 100 young people in attendance, around thirty members of staff known as key-workers and a team of eight managers. The management team consists of a head of service, two senior managers and five line managers.

2.2 Developing dialogical analysis

It is useful initially to illustrate the stages in a dialogical analysis with the following face-to-face encounter, between line manager 'PE' and myself.¹² The extract begins with a discussion on 'EMcC', a key-worker whom I had observed in Phase One as being very popular with the young people.

KM: he comes in at a different level, I think.

PE: well that's right and I think that's where he's got the advantages he's seen as, he comes in and he does his little bit and then he disappears again. Whereas the rest of us are probably there as a constant thorn in their side. Always bugging them to do this or whatever and you know another one of them is JL [*a new young person at YPC*]. I don't know, I really don't know where he is going, he says he wants to go to the army but [*sighs*] his attitude at the moment, they wouldn't touch someone like him with a barge pole, and you try and sort of get that through to him and then it's 'I'd be different then' ...and you ... try and say, 'if they come and ask you for references or ask us for references about what you are like, how do we know that you are going to be like that?'. That's a story I have heard for years from young people from back in the training centre days. 'We need to be able to endorse you to approve you to an employer but how am I going to be able to do that, look at you now?' then you know 'oh I would be different if I was with an employer, it's because I'm here', I've heard that one for years.

KM: I've heard it as well in the time that I have been there, and it is revealing because it shows you how they see the place, it being *not* a work environment=

PE: =Environment, and they don't, it's fairly clear and I don't think we help that, I mean the amount of time they've got to mill around doesn't ... doesn't create a work environment.

KM: and also I think the way they are treated as well is ambiguous really. In that people sort of regard them, different members of staff regard them in different ways [...]

PE: Oh yes, there is no consistency, there is no consistency in dealing with them in terms of how staff approach, I mean we ... I mean just looking at this lad JL, various staff have sort of spoken to him about being disruptive and GD [*another line manager*] goes in to duty and there is a sort of ... and that's why we have got a disciplinary hearing and I am not saying it is wrong, it is an inconsistency of approach. Others have had dealings with

him or spoken to him about it but we haven't gone down ... necessarily had any findings to go down that road. Maybe it is the right road maybe it's what we need to do with them, to actually bring it home. 'Hold on hear what you are doing is not acceptable and here's the consequences'.

KM: I think there have to be lines, you know everybody else, you and I have to deal with lines within our working environment and they are there and that's kinda how you learn, you make the mistakes and you cross a line and you get the reaction.

PE: But in terms of how we deal with them, [...] you came in and did a bit about the person-centred approach [...] It is all well and good us having this philosophy [...], we go out and tell people that we are moving towards a person-centred approach, but we have not actually done anything to the staff to say, this is what a person-centred approach is about and this is how you deal with it. (July 2000)

In the slightly edited extract 'multi-voicedness' can be seen in the imaginary interlocutors within the dialogue, the "sideways glances" indicated by "a certain halting quality to the speech and its interruptions by reservations" (Bakhtin 1995b: 159). We see the barely "hidden internal polemics", when 'PE' debates the course of action taken by another line-manager 'GD' where 'GD' had given the young person 'JL' a disciplinary hearing. His utterance is "double-voiced" i.e. anticipated the thoughts of the other speaker (Bakhtin 1995a: 106–107) when he comments "maybe it is the right road" and then takes on a new *I*-position, the voice of a more authoritarian manager explaining to the prototypical young person where the lines are. 'KM' responds by saying "there have to be lines", speaking from the *I*-position of the worker constrained by the rules and norms of any given work environment. However, equally, 'PE' addresses me as the action researcher, who presented on the person-centred approach, an approach normatively associated with unconditional positive regard and 'PE' begins his rejoinder on this note. He emphasizes that the staff have not received any training on what the person-centred approach is.

This exchange usefully illustrates the four main stages of dialogical analysis. Firstly, the overall analytical frame of viewing the YPC as a multi-voiced organization where individuals are not only in face-to-face dialogues with each other, but equally each member is to be understood as multi-voiced, able to take different subject positions and articulate different discursive practices and codes. This is illustrated in "PE's" externalized *I*-positions, he takes on the voice of the front-line practitioner engaging with a young person, the prototypical young person, the manager in debate with another manager, the manager in debate with the researcher.¹³

The second stage, involving analysis of the internal dialogism of words-in-use, requires research into the local context and the wider social and cultural frames of references. 'PE' talks of "back in the training centre days" — a comment that draws from the time when young people were expected to fit into the requirements of government Youth Training Programmes. The internal dialogism in this remark is understood in terms of the changing socio-political national context for public organizations that attempt to meet the needs of the young unemployed. And the local context of the history of the YPC as an organization which began with over 350 people in attendance and now has just over 100.

Thirdly, returning to self-other relations, a dialogical analysis rests on the appreciation that each exchange, whilst it appears dyadic, is best understood as triadic. There are a number of ways that the notion of a triadic exchange can be understood. There is the position taken by Marková in her work on the reflexive nature of communication where there are three steps to a "unit of communication": "the first speaker *acts*, the other speaker *responds*, and the first speaker *reflects* upon the turns of both them" (Marková 1987: 137). This process is apparent in the exchange above. There is also Bakhtin's view of the speaker, the addressee and an "invisibly present third party who stands above all the participants in the dialogue" the higher superaddressee, "whose absolutely just responsive understanding is presumed" (Bakhtin 1986: 126). The triad is created by the imaginary interlocutor who exists in the exchanges. Finally, there is a third view according to which the dyad becomes a triad; myself the researcher, the line manager 'PE' and thirdly, our relationship in terms of power, role-expectation and other symmetries and asymmetries (Linell and Luckmann 1991: 9). This aspect of the triadic nature of the exchange, that is the relationship, the relative positions, of the two speakers is analyzed using Bourdieu's account of symbolic capital.

The final stage, to reveal a dynamic epistemology, is a longitudinal analysis of the creative-work or connotations that are added on when words are in use, that is the movement of meaning of the core term "person-centred approach". Connotations are understood here in the sense that Bourdieu sets out as "elaborations" or "individual deviations from the linguistic norm", where "speakers fashion an idiolect from the common language" (Bourdieu 1991: 38–39).

It is the thematic analysis of these connotations that is the key to unlocking what is needed for the YPC to successfully develop an authentic person-centred approach. For example, in the exchange above, 'PE' defines the "person-centred" approach as a "philosophy", according to which "we go out and tell people we are moving towards a person-centred approach". Here, he uses the term in the sense of an ethos that underpins the YPC's activities, earlier he speaks of the YPC's lack of consistency. The term firstly serves to integrate the organization and secondly it serves as a way to present the ethos of the YPC's philosophy to those outwith the

organization. The analysis did not focus on subjective connotations but intersubjective ones, those that are repeatedly used by more than one person, thus suggesting a shared frame of reference. Where such creative work around the term ‘person-centred’, which remained unfamiliar at the YPC, is viewed as an expression of an underlying shared reality. In the final section of this chapter we focus on using this dialogical analysis to explain the transition of the YPC.

3. The transition of the YPC towards a person-centred approach

3.1 The person-centred approach as a centralizing process

Managers were found to exist in a dialogue with the official discourse that is a form of discourse produced by the state that surrounded the organization:

JM: The whole approach changed with the new government and the New Deal from being project-centred to being person-centred though the ‘on your bike’ element from the Tories is still there. (July 1999)

The expression ‘on your bike’ relates to a comment made by the Conservative Cabinet minister, Norman Tebbit, in the 1980’s to explain that when his father was unemployed he was prepared to get on his bike and travel up and down the country to look for work. ‘JM’ adds:

JM: The difficulty is that there are people here [*the staff*] who are very comfortable and stuck in their ways and really feel it is about pushing people through training schemes and that young people have to fit in with the objectives, targets and requirements of the organization and that is what we want to challenge.

To understand the internal dialogism of both these comments requires an account of the wider political context. Whilst there are numerous social and political theories and ideas which were articulated in the public sphere between 1999 and 2001, presented here are two key changes in the ‘official’ discourse in relation to the young and unemployed in the UK. In 1997 the New Labour government, aided by the £5 billion ‘windfall’ tax, created a new activation policy called the *New Deal*. The *New Deal* was designed to shake off the reputation of earlier training schemes and was described as person-centred. Each unemployed claimant was allocated a personal advisor and went through a 13-week intensive *individual work-focused gateway*.

Shortly afterwards, one of the first actions of the Scottish Executive was to set up the Beattie committee which examined young people’s transition from school to work and reported in 2000. It was concerned with “implementing inclusiveness and

realizing potential” and emphasized “open, fair and accurate assessment procedures”; these were to be focused on the young person and “not designed to accommodate the organizational structures or administrative practices of an institution”.¹⁴ It is clear to what extent the managers leading the YPC's transition were developing their thinking in relation to this official discourse. Here it is worth drawing attention to the distinction between dialogue and discourse, YPC were not just being influence by texts in the public sphere, managers often felt themselves to be in a dialogue with ‘Westminster’ as ‘GB’ illustrates:

GB: I mean the really interesting thing is that ... about six months ago, maybe longer than that, over the period of the Labour government there has been several erm...expressions of interest from Westminster about what we are doing up here and how things are going and I am not saying that we have really majorly influenced some of the work that is done down south but I have no doubt they have had a look at what is going on up here.

KM: because these sorts of organizations are quite rare.

GB: that is right and I think to be fair I mean if you said to them out there [*the staff working outside the office*] that at the end of the day, we very well could have influenced the new structure and how things are going down there, they would go ‘prffff’ [*a noise of disinterest or disbelief*] but the reality is that we very probably did.

KM: Especially with this new government who are really researching they're sort of, they are very big on researching and finding out what is going on.

GB: We have more than once been asked to send down information about what we do, and what is going on and that is quite interesting. (March 2000)

There is evidence here of an internal dialogue of the manager who regards himself or herself as recognized and listened to by the government. It is important to be careful in suggesting that bureaucratic managers are simply passively absorbing these discourses. Bakhtin argued that official discourse or what he terms “authoritative discourse” corresponded to “unique” genres requiring special analysis, “the authoritative word demands that we acknowledge it, that we make it our own; it binds us, quite independent of any power it might have to persuade us internally; we encounter it with its authority already fused to it [...] it cannot be represented it is only transmitted” (Bakhtin 1981: 342–4).

One of the more striking findings was the extent to which managers and staff at YPC used terms which when analyzed were revealed to be taken from government discourses and placed in the YPC literature — concepts such as ‘social inclusion’, ‘participation’, ‘outreach’, ‘rights and responsibilities’, ‘youth involvement’, ‘mentoring’, ‘active citizenship’, ‘youth information’ and ‘advocacy’. This is perhaps

unsurprising since the YPC is after all a public organization (there was, for example, a manager who was responsible for ‘mentoring’ and ‘advocacy’). However, when I asked what these two terms meant there was confusion. It is important to remember the triadic nature of such exchanges; a possible reading is that in the face of a psychologist and researcher participants, although they may have been addressed as co-researchers, may still be reluctant to reveal their ignorance, to someone whom they may have addressed as a ‘social psychologist’ or ‘expert’. However, I could not find a written account of what was going to be taken for these terms, i.e., how the YPC was going to operationalize them in their service to young people. This confusion is illustrative of the extent to which ‘official’ government discourse came to resemble ‘langue de bois’ which, as Marková explains in her account of speech genres, is “characterised by containing little semantic information, few references to reality”. (Marková 1997: 266)¹⁵

To Bakhtin such official utterances are subject to centripetal and centrifugal forces — the forces of linguistic centralization and unification are challenged and stratified by centrifugal forces — “the uninterrupted processes of decentralization and disunification”. The result is the “contradiction-ridden, tension-filled unity of two embattled tendencies in the life of language” (Bakhtin 1981: 272). The managers, as civil servants, who may regard themselves in an actual dialogue with ministers, listening and being listened to by the government, take on the centralizing, unifying task. However this will be stratified also by centrifugal forces, as we shall see.

3.2 Presenting the person-centred approach to the staff

The management at the YPC wanted the person-centred approach to be understood, they did not want to repeat the mistakes of their use of the term ‘holism’. They also wanted the approach to be accepted by the staff and hoped it would act as a communicative framework affording the YPC social integration. In February 2000, during a staff development day, the YPC announced the adoption of the person-centred approach. A line manager, ‘MD’, gave a presentation entitled “Effect on our jobs” which focused on where the staff’s responsibilities would begin and end. In addition the key-workers were told, “from now on you will call the young people clients”. The presentation was then discussed in a plenary session. Many of the staff responded by saying that the young people should be asked what they want to be called.

What characterises the addressivity in the expression “Effect on our jobs”, is a belief that the management knew what was of concern to the staff, they anticipated the subsequent link in the chain of communication as staff resistance. Key workers are conceptualised as a group concerned chiefly with the professional boundaries of their jobs. In an interview ‘GB’ reflects on the staff development day:

GB: there was a minor bit of change avoidance in there and barriers that needed to be broken down. There is a big chunk of it that is about self-perception [*of the key-workers*]. So we have been trying to battle our way through that or work our way through that, sometimes it feels like a battle [*laughs*]

KM: change always does. Whenever there is change there is resistance to change in any organization. People fear the unknown

GB: Aha oh absolutely

KM: and they [*key workers*] don't know where it is going to. In a way when it was kind of vocation-driven people were in charge of specific programmes it was clear cut. If it moves away from that there is always that question of where is it going to end up? You could always say it is going to be young people-driven but that's.

GB: But even that is a bit kind of ... when we spoke about it the last time we did, we talked about the need for. When we did the last round of staff development [*the February staff development day*] and reflection and planning there was this issue about clarifying young people as being part of a caseload including any and all and about what implications that had and about drawing the line as to where the YPC staff stops and where we take them to the door of the counsellor and drop them off but we don't go beyond that (...) I think there is probably a need to be clearer yet with the staff on where we want to go.

Again 'GB's' dialogical relationship with the staff is apparent, they are seen as viewing the person-centred approach as a process of being overwhelmed with the needs of young people, perhaps having to play the role of counsellors. A further interesting feature of this exchange is the way that neither of us discusses the possibility of the centre being 'young-people driven'.

3.3 Staff voices: the creation of symbolic capital

Whilst there is not the space here to set out a full dialogical analysis of the staff at the YPC in relation to this transition or to begin the analysis of the dialogues of young people themselves, it is worth considering these issues a little further so that the multi-voiced nature of the YPC may emerge.

GB: We lost some staff [*four years ago*] who were unwilling to change, there is a question of occupational competence. Many staff see their jobs in terms of vocational areas, three to four years ago, we would recruit staff on the basis of vocation. There were two redundancies we were the only section to make redundancies (April 2000).

It became clear in my analysis that many staff were ambivalent about the transition to the person-centred approach, in particular in respect of the role they were expected to play. There was concern, as anticipated, about how such a transition might have an impact on their professional development. The approach of the staff was analyzed in terms of three outlooks.

Unqualified vocational training outlook

Here, key-workers tended to use their own semi-skilled work experience, often in construction, nursing, joinery *inter alia* as the basis for their work with young people. This outlook often involved using personal experience when young as a frame of reference when working with young people, often talking about a first job, punctuality and aspects of work discipline.

Qualified vocational training outlook

Here, key-workers were understood as ‘trainers’ and young people as ‘trainees’. This outlook involved basing personal practice on qualifications in vocational training work; the emphasis was placed on objective measured outcomes and assessments in the workplace.

Qualified caring sector outlook

This outlook, as a result of the new emphasis on measuring progress in soft skills, i.e. personal and social development, tended to draw from education, community education, and social work, counselling and psychology backgrounds. Practice was couched in clinical or community discourse. This perspective develops in debate with other professions and revolves around such terms as ‘self-esteem’, ‘confidence’, ‘motivation’ and ‘positive and negative reinforcement’.

As key-workers work closely together, each member of staff is fully aware of the other outlooks or frames of reference and key-workers are able to adopt or ‘perform’ their part in appropriate discursive practices. Nevertheless, these differences in reflective practice constituted a source of insecurity: many key workers were concerned that the service was moving away from providing vocational training, where there were objective, measured outcomes into unknown or unclear territory. There was concern that an emphasis on ill-defined ‘soft skills’ would not prepare young people for the realities of the world of work.

There were also tensions between those who emphasized *soft* skills and those who emphasized *hard* vocational skills. Some staff felt that others were more involved in the management decision-making than others:

It is rare for language to function as a pure instrument of communication. (...)
Utterances receive their value (and their sense) only in relation to the market (...)

the value of the utterance depends on the relation of power that is concretely established between the speaker's linguistic competencies (Bourdieu 1991: 66–7).

Bourdieu argues that dominant individuals, who often favour the consensus, “can impose principles of de-vision” (Bourdieu 1991: 130). Thus the person-centred model can be understood as ‘symbolic capital’ to which some key-workers have access, and others, those who still rely on the thinking of a programme-centred approach, do not. As long as the YPC offers no training on the person-centred approach the situation continues for there is little normative agreement as to what the person-centred approach actually constitutes. In short, the term is used in reference to its own internal dialogism each time.

3.4 The internal dialogism of the concept ‘person-centred’ in-use

KM: There is a big chunk of theory [*on the person-centred approach*]; well fifty years of theory now and then there are the applications as well in a much more operational sense. Holistic is very =

GB: =It is awfully vague (...) we didn't just need to support them [*the young person*] in learning the job — we needed to support them with coping with the job. And that is where this idea about looking at the young person as not just a ‘trainee’ but looking at them as a whole it's where the holistic came from. And as we explored that the person-centred became quite clear as being the theory, if you like, to hang it on to, which is where it came from. What we have not done which we need to do, which is being quite clear about where it is that we want to go to begin to develop the confidence of the staff. We also need to have things like measurements in place. So that we openly value the other work that they do with young people as well as the work they do to get them through their VQ. (March 2000)

As with the triadic encounter with ‘PE’ earlier, we can isolate the connotations of ‘GB’: ‘person-centred’ relates to the treatment of the young person as a whole, it also is something of an ‘expert theory’ that needs to be explained to the staff who are not seen as already being person-centred. Finally, the person-centred concept is understood as not involving measurement. This last connotation is important since the YPC is an organization which privileges measurement and must demonstrate progress among young people if it is to continue to receive funding.

In the cases of ‘PE’ and ‘GB’ certain shared connotations emerge. In the analysis below we are concerned only with those connotations that are shared amongst key-workers and management, that is not to say collective meanings but rather meanings that are held by more than one person. These can be organized thematically as follows.

The person-centred approach as Ethos

Here, the term is used to suggest a unifying ethos, where 'person-centred' could be used to create symbolic cohesion. Accordingly, its use could be seen to rest on a normative agreement that the job of the YPC was to treat young people both as a whole and as unique individuals and attempt to meet their needs.

The person-centred approach as a feature of progressive reflexive organization

Here, the adoption of the person-centred approach allows the YPC and individual managers to demonstrate they were listening to and being listened to by the government. This progressive theme is also evident in staff comments that young people should be asked what they want to be called. Here, although one can discern the beginnings of a sub-theme, a shared connotation around *youth ownership* as noted this is often alluded to but not developed. A more powerful sub-theme relates to the concept of *customer* or *client*. The person-centred concept was connected to client-centred as we saw by both management and staff, within this, there was the parodic/centrifugal connotation that 'the customer is always right' used by some key-workers. Here, some keyworkers challenged managers' use of the term 'client' by using the term 'customer'.

The person-centred approach as regressive emphasis on immeasurable soft skills

Here, the use of the term can be understood along a soft-hard continuum, where at one end there are meanings which connect with the 'unconditional acceptance' of a person-centred approach. This means that it is interpreted as a requirement to deal with all young people's social and psychological issues. Management members anticipate the *I*-position of the resistant key-worker and talk of drawing lines and measurement. Contrasted with the 'hard' realities of the working world, the person-centred approach was used critically by key-workers to emphasize the extent to which the working world involved work discipline and fitting in with a system. In this last theme, a normative feature of the person-centred approach (its 'unconditionality') was often referred to by both staff and management. Here the 'thinking' aspect of the organization is evident: members as social agents are able to infer "unconditionality" from the social knowledge of the person-centred approach in the public sphere.

'PCA' as consensus?

It is necessary to consider this thematic aspect of the person-centred approach as a unifying ethos a little further. In visits to the YPC towards the end of 2000 members used the term 'PCA' when talking about the person-centred approach. There were no pauses or awkwardness; both staff and management seemed happy to say 'PCA'.

It is a collective connotation created dialogically by members at the YPC to be 'harder', more objective-orientated than the problematic and immeasurable 'soft-skills' connotation. 'PCA' is now used in the YPC literature, where it is written in its full form as 'person-centred job-focussed'.

In January 2001, the YPC submitted a new bid to the European Social Fund. The opening summary of the bid set out the aims of the new project as follows:

The project aims to address social exclusion amongst young people (...) it will assist young people to deal with their barriers to participation and enable them to make a successful transition to employability and active citizenship (...) this project will through person-centred but job-focussed, support young people into any and all areas of available employment.¹⁶

This bid for the pilot project was successful and the YPC was initially awarded £400 000. In October 2001, the ESF awarded a further £2 million to continue their new community-based projects for another three years. However, the difficulty the YPC faces is whether it can continue to develop this approach without truly considering what it is that 'person-centred' means. This final comment about the term illustrates the tension:

CW: I think the key thing that has come from the staff as well as myself is 'to PCA or not to PCA' in certain situations, when is it appropriate when is it not? I mean I think a really good example just recently, is on the residential [*January 2001*] where two young people were sent home because the judgement was that the two young people were not actively participating in the programme. (February 2001)

4. Conclusion: the YPC as a multi-voiced organization

The rhetorical nature of the use of the term 'PCA' in the YPC comes to overshadow the actual object that is being referred to in the sense that it constructs a position from which the YPC as an organization can project itself or argue its case. Manager 'CW's' comments made in the Co-analysis Phase suggest that PCA remains something of an ideal. Its use in their literature is double-voiced since it is designed to appeal to the authorities of European bodies such as the ESF and also anticipates the perceived resistance of those who would emphasize the *conditional* realities of the working world. There is a dialectical tension that exists within this connotation, of 'PCA' being both person-centred and job-focussed. Within the YPC, there are many dialogues: funding bodies, Westminster, the Scottish Executive, other partners, management, staff and young people all exist in a dialogue with each other. There is a social distance in any communication between the sender and the receiver, and in

terms of power-differentials the young people themselves are the most disempowered by the context.

This chapter has been chiefly concerned with demonstrating how a dialogical analysis of the YPC as multi-voiced organization is useful in explaining the transition of the organization. However, the chapter does not set out a dialogical analysis of young people's voices. To present the full story of the multi-voiced nature of the YPC, this would have to be presented along with a fuller treatment of the *I*-positions taken by staff. Although an analysis of the interactions between staff, management and young people has been carried out, this is not the place to present it.

Finally, one can return to what Habermas has called "the blown up role of the client" ([Habermas 1987: 350]. YPC use of this term 'client' is understood here as a further attempt at internal colonization of people's lifeworlds by the imperatives of the system (as defined by Habermas). The notion of 'client' or 'customer' in the sphere of labour amounts to no more than concessions offered by modern social-welfare states or rather active welfare states in the sense of Lødomel and Trickey — a process by which the means of protest against the conditions of being unemployed are neutralized (Habermas 1989: 347–348). We must consider the extent to which the YPC's adoption of the person-centred approach, if it is not built on a dialogue which is inclusive of all the voices in the organization, could amount to a perniciously psychological intervention by state administration into the personal autonomy of individuals when unemployed.

Notes

1. In this chapter I have used ... to denote a pause in the utterance and [...] to denote a section which has been removed.
2. The names of the organization, locality and participants have been changed to ensure confidentiality.
3. See H. Stam's chapter in Part One of this collection.
4. Although the chapter tends to refer to Bakhtin alone, it is well-known that Bakhtin developed much of his thinking with two close colleagues P. N. Medvedev and V. N. Vološinov (the Bakhtin Circle).
5. See N. Davey's chapter in this collection.
6. In Hermans' account the self does not 'take the attitude of the other' in the Meadian sense of internalizing the other in the self. Rather, it takes the position of the other in a dialogical debate in the sense of being able take his/her perspective. (Admittedly, this may be based on a misperception of the other's position).
7. See the chapters by R. Proietti and C. Grant in this collection.

8. I distinguish here between the classical welfare state (1945–1976) and the welfare state of today which is characterized by individualization and social differentiation and are increasingly referred to as the 'active welfare state' in, for example, I. Lødomel and H. Trickey (2000). *'An Offer You Can't refuse'. Workfare in international perspective*. Bristol: The Policy Press.
9. See I. Marková's chapter in Part One of this collection.
10. When Bakhtin uses the term 'extra-linguistic features' he refers to the relationship between text and context.
11. I spoke to a seventh young person by telephone and continue to maintain regular correspondence with an eighth.
12. We had met to discuss the development of the pre-vocational training programme and were debating the introduction of anger-management sessions for young people.
13. It should be noted that the foregoing is simply a 'reading' of another's I-position where these have been externalized.
14. <http://www.scotland.gov.uk/library2/doc04/brsu-02.htm>. This website summarizes the Beattie report published in 2000 (last accessed 13 February 2002).
15. See the contribution of I. Marková in this collection.
16. Taken from Moultrie Council, YPC Project Bid to ESF, January 15th 2001.

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Conversational action

An ergonomic approach to interaction*

Mario Cesar Vidal and Renato José Bonfatti

1. Why ‘conversational action’?

This chapter discusses relevant interactions in the context of ergonomic action which occur neither arbitrarily nor fortuitously. Current thinking about interactions in the context of ergonomic action is still marked by a strong propaedeutic emphasis since existing approaches focus on interactions as a basic dimension of working activity, or linguistic manipulation related to the practical task of work. The ergonomic analysis of work practices still requires interaction strategies which can and should be formalized.

In such professions as architecture, clinical medicine or administration, interaction is treated as a given. It is known and carried out by the practitioner in the absence of any formal preparatory training for the linguistic performance in the field in question. Ergonomic action is an intensely interactive practice: before, during and after ergonomic analysis interactions are evaluated according to AET (Ergonomic Analysis of Work) methodology. And yet the limited epistemological reflections in ergonomics say little or nothing about communicative action in ergonomic action.¹ This chapter proposes a contribution to this complex debate based on the application of a methodological schematization in a range of work situations in the construction, fisheries and oil drilling industries, banks, hospitals and emergency services.²

2. Conversational action as an ergonomic propaedeutic

The elaboration of such a proposal, however propaedeutic, also requires a debate around the theoretical dimensions of ergonomics. Without going into much detail on this debate, the following sections provide a theoretical overview before proceeding to a methodology of Conversational Action.

2.1 A theory of ergonomics?

The question of ergonomic theory is a delicate one. The twenty different theoretical currents in studies of activity identified (Vidal and Pavard, MS) refer to work activity in a contingent manner, as an illustrative empirical excursus of theoretical models which are not seen in terms of the necessary adequacy *vis-à-vis* the context which is always situated. In fact, the etymology of the term theory (where *theoròs* signifies a synthetic and structured report to the ruler) denotes a strong empirical connotation at the root of the term. If this is not acknowledged, an epistemological obstacle can result. Since ergonomics understands itself as a practice (Wisner) an epistemological debate in ergonomics must thus be grounded in the forms by which conceptual representations are established by practitioners.

2.1 A recent schematization of ergonomic practice and conversational action

Ergonomic practice focuses on the change of causal factors, determinants and conditions of work activity. It therefore requires knowledge about work activity in a given situation. The nature and scope of such knowledge is varied and is either the focal point or an element of a number of disciplines. Its definition varies greatly as a function of the practical aims which the ergonomic analysis of work seeks to observe. This intrinsic duty derives from the fact that ergonomic action is not constituted from an exegesis or exclusively philosophical problematization. Instead, it is induced by a request understood to be the consensual, negotiated and incremental result which establishes the meaning of the quest for such knowledge. This instruction, embedded in interaction, informs ergonomic action in all its stages.

2.2 Communication theories

Communication theories offer three important historical staging posts: Peirce's semiotic theory, the semiological model of Charles Morris and the mathematical information theory of Shannon and Weaver.³ These three approaches make it possible to propose a taxonomy of linguistic acts at syntactic, semantic and pragmatic levels.

The pragmatic aspect of language is defined for current purposes as the use of language by interlocutors in order to act mutually over each other. Several theoretical currents are worthy of mention (see below) in terms of their foundational contributions to the architecture of pragmatics: the theory of expression (Jakobson 1963, Benveniste 1966); the polyphonic theory of expression (Bakhtin 1984 and

Ducrot 1984); the cooperative principle (Grice 1975); relevance theory (Sperber and Wilson 1990)⁴ and speech act theory (Austin 1962).

However, there is a tendency in some foundational pragmatic theories to emphasize language as the product of a singular monological subject.⁵ The transition from the monological to the conversational approach brings two problems into sharper relief, namely (1) the extension of theory beyond the monological paradigm and (2) the parallelism between the analysis of isolated acts and conversation. The Geneva school provides elements of a solution to these problems (Roulet 1981) by proposing a model in which conversation is understood as a system of dialogical and monological components. Here, there are three types of component:

1. *Exchange*, that is to say the smallest dialogical unit constitutive of an interaction. The exchange comprises two conversational contributions (speech turns);
2. *Intervention*, or the largest monological unit as part of a conversation. The intervention comprises a linked whole of speech acts.
3. *Speech Act*, that is the minimal elemental content of an intervention.

The exchange category is crucial in theoretical terms. According to Roulet (1981) two exchange types may be differentiated: exchanges of repair and exchanges of confirmation. Exchanges of confirmation are especially common at the opening and closure of speech intervention. The Geneva model offers a distinction between illocutionary functions in respect of interventions and interactive functions in respect of the constituents in an intervention (in the sense of linguistic acts).

Illocutionary functions can be further subdivided into initiating, reactive and proactive categories. Initiating interventions set out to bring the interlocutor to carry out a concrete act. Reactive interventions are positive or negative reactions which demarcate the agreement or disagreement of the interlocutor. Proactive interventions are responses followed by an intervention which frequently performs an initiating repair function. Interactive functions are further subdivided into subordinate, directive and redundant components. Subordinate components merely reinforce the directive meaning; directive components provide the general meaning of an interaction and redundant components are components without any apparent informational value in the interaction. These concepts provide a point of reference from which it is possible to proceed towards a formalization of interactions for the purposes of a theory of ergonomic action.

2.3 Theory of propositions

Here, by means of intra-determinations connected to the style of the text and not as materializations of abstract structures independent of the text, conversational interaction articulates *meanings* and not merely signifieds.⁶ Meanings are the

primary components of interaction. In terms of an ergonomic theory of Conversational Action interaction thus begins to reveal its situated character. This insight is shared by contemporary ergonomics whose object — work activity — is also basically situated.

2.4 Implicature theory

Interactions evidently relate to more than merely text. Contextual relations make it possible to confer meaning on presuppositions and perceive subtextual meanings which are essential for an understanding of an interaction. The concept of implicature is fundamental in ergonomic theory since content varies according to contextual variation (e.g. hierarchical relations, identification and empathy of interactants).

2.5 Grice's cooperative principle

Grice contends that it is possible to understand and explain why and how something can mean more than is effectively said. Cooperation in conversation can be induced in a voluntary manner and in order to do so there are principles according to which a speaker can effectively act. Grice's insight can provide a foundation for a methodology of Conversational Action. An ergonomist's initiating moves should observe Gricean maxims while the interventions of the interlocutors in ergonomic action can be examined in terms of their distance from such principles.

2.6 Relevance theory

Going beyond Grice, Sperber and Wilson's *Relevance Theory* (1990)⁷ provides criteria for measuring interactional facts (the initiating moves of the ergonomist and the transgressions of the interlocutors in a quest for a balance of effort and effect). Given that the interlocutor merely retains what appears most relevant to him/her, Relevance Theory stresses the importance of the ergonomist's presentation: the relevance of the object of investigation is not necessarily established immediately.

2.7 Austin's speech act theory

In the context of ergonomic action the conception of language as an act — understood here as a molecular element in an activity — adds a further important theoretical element in an ergonomic theory of Conversational Action. This is due to the fact that ergonomic action is a concept which sets out to conceptualise the activity of work observed (as an object of analysis) and the activity of observing (as

an object of epistemological reflection). Thus, the illocutionary preparation for ergonomic action plays a decisive role.

2.8 Discursive action or conversational action?

The systematization of the form of discourse should be conducted in relation to the complexity of the situation to be analyzed. Two key factors in this context are variability and completeness.

The first factor indicates that the systematization of situated interactions enables us to identify an important contextual variable, namely the variable of the organization of work. This means that the organisation of work is not to be considered as a stable given for if it were it would be sufficient to follow a rigorous method and simply construct an *operative model*. The second factor emphasizes the fact that observation in itself is insufficient for a construction of *operating models*.⁸ It is further contended here that the practical objectivity of situations is not defined externally to their context and participants in the determined manner of positivistic approaches but is instead concluded in the act of analyzing the interaction of situated actors in an interpretative approach.

In the issue of the request for ergonomic action the knowledge of the ergonomist and the organization to be analyzed is increasingly specified. It is during this process of approximation that three questions need to be addressed in respect of the context of interaction: topological pre-assessment; suspect neutrality and defensive ideology.

Topological pre-assessments refer to the fact that intervening actors proceed from certain premises established by their field of competence and informed by education, technical training and culture which are rarely explicated. Ergonomic action must be sensitive to such semiconscious knowledge. Existing schematizations are inadequate in that they promote the practice of prejudice and even generalizing formulae.

Excessive objectivity is suspect since clients rarely assess their problems with the desired clarity. It could even be questioned as to why intervention would be necessary in the first place given that ergonomics must go beyond mere generic prescription. Instead, this very definition of the problem requires discursive treatment which would enable the contextualization of certainties connected to the observation of a situation and the contingencies in which they appear. The contribution of situated ergonomics (e.g. Vidal 1995) lies in the joint construction of a formulation of the problem, its origin in situational, contextual, personnel-related or organizational variables and its resolution.

In this context, the discourse of actors in an organization is subjectively mediated; signifiers relate to desired objects or outcomes which are not directly mani-

fested (and go unspoken). Here, the identification of problems and their causes can induce defensive attitudes which, if not acknowledged, can abort ergonomic action.

Since ergonomic action requires a process of clarification about the reality of work it is important to note that the vast majority of ergonomic actions take place in the context of organizational and interpersonal conflicts which in turn generate a *restrictive environment*. Following Schuman's insight that local interactions are contingent on the particular circumstances of actors (as subjects in communicative action), co-operation *strictu sensu* should "include sensitivity to the circumstances and local resources which can resolve the difficulties which emerge in the course of the mutual comprehension the communication seeks to achieve" (Decortis and Pavard 1994).

This ethnomethodological perspective, which is the most appropriate theoretical approach to cooperation,⁹ is inappropriate for the type of interaction under consideration here, namely conversation orientated and complementary to the issue of a request. The basis of cooperation, while being essential, must be consciously, methodically and intentionally constructed in the course of this interaction as a condition for continued interaction and the achievement of results relating to an understanding of work activity and its determinants (be they social, technical, organizational or economic). For this reason, Ergonomic Action requires a method of *structured, targeted and effective conversation*.

3. The construction of conversational action methodology

Conversational Action is a method developed to provide an account of the methodological problem which is created by the fact that various members of a single group engaged in ergonomic action perform distinct interactions which should converge in a final report comprising different experiences. The formalization of such varied accounts enables unique access to interpretations and existing representations of work and also makes it possible to register systematically the contextual variation which is so important for an understanding of situated behaviour. In the case of interactions in the construction industry, the presence of a superior can have an inhibiting effect while regional identities can induce new conversation scripts. In the case of interactions in Accident and Emergency services in Brazil official interlocution took place by military order, making non-regimental interactions impossible. The task is to preserve these moments and translate them into empirical material.

Collective action with an integrated team deals with the following interactional complex: diverse interactions (multiple, synchronous, technically distinct) with unequal partners (social, technical and geographical differences) in an unstable

environment (which is mutable as a function of contingencies and variations which cannot easily be perceived or foreseen). These are *multiple interactions*. At certain times in research of this type each one of the four group members addressed an interlocutor or, in the worst case hypothesis, two interacted with one of the workers in one timescale and in the same situation. Although these accounts could ostensibly relate to the same fragment and could be expected to display similarities in content, the result of such *synchronous interactions* was quite different: it appeared as if there had been a change in register of distinct visits.

The *interlocutions* occurred with partners in which initial co-operation was artificially presupposed. In reality, the beginning of the interaction was a game of mutual evaluation involving social distance and technical differences — with frequent discursive conflict between researchers and workers — and geographical differences where forms of speaking and listening were significantly different. In this context, it is possible to speak of the *chaotic aspect* of such interactions significantly influenced by the starting conditions of the interaction (including the unwillingness to learn something new, the need to combine existing knowledge with new knowledge acquired in ergonomic action and the importance of identifying and naming prejudice). This instability of conversational context can only be observed *ex post facto* as a result of inferential and analytical work of the contingencies which provoked the destabilization.¹⁰

3.1 Conversational action methodology

The selection of an interlocutor is a key element in determining pragmatic contexts. However, the methodological choice of interlocutor is not a given and must be constructed in the course of ergonomic action. In truth, this choice is the criterion for the degree of autonomy in ergonomic action: in many cases the opportunity to converse is seriously impeded or used to boycott such action. Some go as far as to develop forms of Conversational Action based on the impossibility of situated conversation. Conversely, it has been noted that the intensification of conversations in organizations with a high degree of formality is perceived as an impending rupture in the prevailing mode of organization (e.g. a change in management or the possibility of a breakdown in customer service).

The appropriate selection should include people who, from different perspectives and positions within the hierarchy of an organization, can represent observed activity and can then be confronted with a systematic analysis. One simple technique derived directly from this selection is the collection of verbal statements (such as descriptions of an activity) of a manager and employees in his charge. Their discourses are complementary and thus facilitate the necessary scepticism of the ergonomist without compromising the respectful airing of views.

3.2 Reflexivity

If Conversational Action can be systematized by a variant of the course of action proposed by Theureau (1992) and adapted by interactional methods applied to the interviewing model guided by facts, we propose the interview guided by facts of identity as a third source of interlocution. The question reveals empathy created by the factual identity as a facilitator and also, in epistemological terms, raises the question of the distance between subject and object and among subjects. The provisional solution to this dilemma is offered by Latour and Woolgar (1986) who see no contradiction in considering equal and distinct, proximate and distant in dialectical terms since factors which promote identification and distancing relate to nature and culture and *vice versa*. This in turn means the perception of attributes by each interlocutor in an interaction under construction. This perception, as Karwowsky notes (Karwowsky 1991) occurs in fuzzy environments.

4. Premises of conversational action

4.1 Pure observation and interaction in field research

The observation of work activity is the crucial characteristic of contemporary ergonomics. It suggests that the researcher, in the act of observing the real, should consider the limits of an acceptable perspective (see Wisner 1967, 1994). The transition from exclusively experimental practices *in loco* to analyses of the type *hic et nunc* raised a new epistemological challenge: the difficulty of generalizing *hic et nunc* analyses. It is in this context that ergonomics altered the classical focus on behaviour and the cognitive domain to incorporate communication behaviours (Wisner 1993, Descortis and Pavard 1994).

The concept of conversation is central to an understanding of the human being as a subject of social interactions beyond the biological, cognitive and psychological activities of work (Lacoste 1992) and reflected in verbal expression. Interactions at work make it possible to understand work in its playful dimension in behaviour games or in interaction rituals in the sense proposed by Goffman. In addition, the concepts of *scripts* and *frames* present in discourse communities the operational value of identification as would be typical of a given culture or class of representations. It connects with an interaction orientated to perlocutionary dimensions:

Every person lives in a world of social encounters, involving him either in face-to-face or mediated contact with other participants. In each of these contacts, he tends to act what is sometimes called a line — that is, a pattern of verbal and nonverbal acts by which he expresses his view of the situation and through this his

evaluation of the participants, especially himself. Regardless of whether a person intends to take a line, he will find that he has done so in effect. The other participants will assume that he has more or less willfully taken a stand, so that if he is to deal with their response to him he must take into consideration the impression they have possibly formed of him. (Goffman 1972: 5)

This insight makes the formalization of interaction in analysis of work all the more important, both in terms of the object of analysis (where interaction actually constitutes work) and in terms of methodology (the type of interaction to be employed).

4.2 Interaction and social distance

Ergonomic action based on discursive practices immediately raises the difficulty of the social distance between workers, managers and researchers. This conversation which shadows apparent interaction is a foundational issue in ergonomics, especially in the initial phase of the request.

These distances are social constructs in that they are embedded in the rituals (of stereotypical interpersonal relations) and ceremonies analyzed by Goffman. They crystallize the differentiation of discursive communities in given situations or the community which manages a given set of discourse norms. In interaction situations this social fact is inevitable and is connected with the notion of contexts in which communities express themselves in local or situated terms.¹¹ The crucial factor is the perception of the worker as the object of study — his characteristics, behaviours, communication and cooperation — and also as a subject — interests and reservations and secrets (following Abrahão) within the perspective of what is defined here as a triple aspect of negotiation (which must be continuously renewed in the course of ergonomic action), association (where both researchers and social agents validate objects and establish assessment criteria) and incrementalism (in the course of the joint construction of opportunities for change in a potential space).

4.3 Representation, technology and discursive statements

The basic aim of ergonomics lies in transforming work where there is tension between work and the capacities, abilities and limitations of the worker. In the classical account, this would be feasible by introducing knowledge about the human being in the conception or redesign of work situations in relation to the criteria above. The core problem lies in making the transition from knowledge about the human agent in a given situation to the application of this knowledge in technological systems. This transition is not immediate or automatic.

One specific element in this process can be found in the very perception of knowledge in terms of the way in which work is represented.¹² Here, there is a convergence of two historically constituted processes: the production of the discourse(s) of the worker(s) about his work and the context in which interactions are located including the representations of those who conceived the technology. According to Daniellou:

The representation which a subject constructs for himself of a given situation is anchored in a biography which is also, among other things, a social history. And during this history acquired by a person, words and statements in order to describe the constant stages of his work and power and to be able to interact with others about them [...]. The possibility of symbolizing a situation and being able to relate it in discursive terms to others. [...] We advance the hypothesis that the existence of *available statements* to symbolize representations of work performs a key task in the construction of representations for the worker [...]. (Daniellou 1992: 23—translation CG)

The elucidation of these available statements is one of the focal points of discursive research into the language of a worker about his work. However, the connection with a historically constituted context suggests that these statements have been affected by dominant representations of, for example, manual labour or the ‘repetitive work’ of a mason. Moreover, the effect of the confrontation of discursive communities in different poles of power in all probability inhibits the degree of availability of such statements. As a result, equivocal representations tend to predominate. The application of Conversational Action methodology set out above demonstrates that there is significant discursive differentiation depending on contextual variation such as the presence or absence of the manager or regional identification. It is therefore worth considering the possibility of direct interference in the representation or symbolization by the agent with implications for his learning and operational efficacy. Conversational Action can offer access to this interference.¹³

4.4 Premises

Since ergonomic action is focused on situated action (as opposed to experimentalist practice in which variables and context are controlled), in a context in which discursive statements predispose agents to hegemonic descriptions, what meaning can be conferred on the listening, speaking and writing to which the ergonomist will be exposed? And inversely, how will the products of the ergonomic action be received? With these questions in mind, the premises of ergonomic action can be summarised as follows:

1. Even if it is considered to be negotiated and incremental in character, ergonomic action requires the continuous discursive reconstruction of the points of reference of listening, speaking and writing;
2. The outcomes of the action are partial and initially remote from the reality under consideration. This distance must be explicated from the outset;
3. The practice of Conversational Action is based on accuracy, clarification and the question of the other (which can be reformulated and returned to him).

5. Carrying out conversational action

The fact that researchers in interaction often ‘let themselves go’ must be given a methodological foundation in which conversation scripts are located. Interactive categories are referred to here as relational (i.e. occurring in interaction processes) and problem-solving (in the processing of data).

5.1 Conversation scripts

The conversation script involves the formalisation of a ‘conversation with a goal’. This script also sets out to anticipate a map of conversations modelling the characteristic contributions of future interlocutors. In this sense, the script should be used in conversations with people of different positions in the hierarchy. Applications of this method display a marked complementarity.

5.2 Typology of forms of situated conversational action

Schematization is followed by the formalization of a typology subdivided into contextual, relational and explicative categories. *Contextualized conversations* are primarily marked by a convergence of phenomena which operate externally to the content of interaction. They thus enable an initial analysis of the technical, economic and social structures in which ergonomic action takes place. They include:

- a. *Disorientation* — the loss of content by the ergonomic agent who adds conversations at variance with the intentions of the communicative investigation.
- b. *Gradual convergence* — a dialogue in which the ergonomist’s listening feeds his speaking with the object of promoting the speaking of the interlocutor and thus improving understanding.
- c. *Monitored conversation* — where contents cannot be understood without a detailed analysis of the context where normative signifiers refer to the sources of variability which cannot be accommodated here.

- d. *Digression*— where this can mean, for the interviewee, ignorance or defence in the face of the difficulty of the topic. In this latter case the important fact is that conversation has reached an impasse.
- e. *Change of direction* — initiated by the ergonomic agent. It aims to resolve conversation blockages or open up new themes and assumes the form of a concatenation with the interaction or the anticipation of an impasse.

Relational categories comprise situations which relate to real work experience. This contrast appears constantly in the speaking of workers and indicates levels and zones of awareness of the distance between norm and reality.

- a. *Respectful listening* — the most obvious and in practice most difficult category of understanding. Following from what was conventionally referred to as empathic communication (Porter 1950), this category considers that the role of the ergonomist should not lie in solution (since this can be misconstrued as imposition), but instead in capturing and identifying sentiments without opening them to question. This form of listening seeks to perceive the context of reference of the person being listened to with the highest degree of accuracy and with the emotional components conveyed, as if we were the other (Rogers 1968).¹⁴
- b. *Negatives* — correspond to a questioning behaviour which invites rejection. In Conversational Action, the negative is to be avoided. Negations are just one example and are in general the discursive reflex of stressful propositions.
- c. *Invalidation* — on the basis of the negative, strategies for survival are adopted, be they in the form of reducing over- or underloading, be they in avoiding the aggravation of a conflictual situation into an unfavourable position. The ergonomist should seek to identify invalidation in two stages: as the possibility of a contextual alteration of that communication (invalidation as a regulatory procedure) and as a profound problem in the organization if it becomes systematic and indifferent to the context.
- d. *Positivization* — largely used in psychodynamics, in this category the ergonomist manipulates the fact that almost any subject can have at least two perspectives. By counterposing negations and invalidations, the ergonomist can steer conversation towards positivization by digressing from or changing its course. This is a strong and extreme form of behaviour which requires caution in view of the risk of fatigue. One of the most efficient forms of positivization is *reformulation* where the ergonomist should summarize and propose to the person being listened to. Reformulation should distinguish secondary facts and especially the report of the content revealed since this involves person, subjectivity and the information sought. It should focus on subjectivity with a compassionate attitude, avoid questioning the interviewee and carefully indi-

cate that statements have been understood in the context of the situation and subjectivity of the interviewee.

5.3 Explicative categories

Explicative categories comprise conversations which facilitate the transition from interaction to factual schemes sought by the research group. This category involves both the recovery noted by Guérin et al (1991) but also internal forms of conversation of the ergonomic group as a reflection of the complexity of the object under consideration. These conversational forms are verbalizations about the conditions of the activity and their consequences.

6. Conclusion

Key questions in the context of ergonomic action relate to a formalization which could promote progress in ergonomic action methods by taking account of interactive interventions. If such formalization is indeed possible, what form could systematization take? Conversational Action is distinct from the simple observation of situations. This difference is particularly obvious at the stage of the issue of a request what the object of observation is still diffuse and in many cases has not yet been identified. However, in such cases the cognitive mapping of interlocutors should be initiated since this is the point at which the diversification of discursive statements takes place, even in the absence of a robust operating model for the interactions of agents. The systematic application of Conversational Action in diverse situations indicates the effectiveness of the model proposed above.

Notes

* Chapter translated from the Portuguese by the Editor.

1. The first systematic epistemological account in ergonomics appeared in 1996 following a colloquium organized by F. Daniellou. However, even in this collection the place of hearing or speaking is given very limited formalization.
2. See Vidal 1991 and 1992; Silveira and Vidal 1993, Gomes and Vidal 1995, Vidal 1997 and Teodoro and Vidal 1997.
3. See the approach of B. Porr and F. Wörgötter in this volume.
4. See B. Paiva's reflections on Relevance Theory in this volume.
5. See C. Grant's chapter above.

6. For a contrasting view see the contribution of Siegfried J. Schmidt in this collection.
7. See B. Paiva's contribution to this collection for a detailed discussion of Relevance Theory and pragmatic aspects of interaction.
8. The distinction between operative and operating models is derived from Alain Wisner in his attempt to stress the incomplete character of an ergonomic model.
9. See, for example, Schuman 1987 and Hutchin, 1990.
10. See the reflections of Grant, Porr and Wörgötter and Schmidt on communicative instability in this collection.
11. The difference between local and situated is established in the weight attributed to minimal contextual variation, which I refer to as micro-incidents.
12. I follow the concept of representation offered by Eysenck and Keane (1990: 241–250) as meaning the activation of neural relations which are historically constituted. The view presented here is that a representation is also the outcome of interactions between agents in either positive or negative cooperation. It is thus a question of a grouping of actions which implies the context of their production, imposing contours and restrictions on the biological and the social by means of a reaffirmation of the importance of the context of their production and performance.
13. In a different context and with a different methodology, K. Mahendran reaches a similar insight in her contribution to this collection.
14. Compare this approach to the other with that proposed by Marková in this collection.

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'Flaming' in computer-mediated interactions

Anthi Avgerinakou

1. Introduction

In general, CMC is the kind of communication that takes place between human beings via the instrumentality of computers. More particularly, there are three basic categories of CMC that could be distinguished (following Reid's categorization, 1991): (1) electronic mail (e-mail) systems, which allow one to one, or one to many, asynchronous exchanges of electronic messages; (2) chat programmes (IRC), which involve synchronous ('real-time'), one to one or one to many, electronic communication, where the sender's typing is directly transmitted to the monitor of the recipient(s), and (3) electronic fora (e-fora), (or bulletin boards, discussion groups, mailing lists). In these, the messages sent by each user subscribed in a particular list of a database, are disseminated to all users subscribed to the same list, creating an asynchronous communicational forum.

This brief overview of the main computer-mediated modes of communication is necessary here since differences in the structure of each CMC environment (e.g. between synchronous and asynchronous modes of communication as well as between private, public and semi-public situations) evidently have immediate consequences for the kind of social milieu that is constructed through each network.

The particular online discussion forum analyzed in this chapter, is organized as a *point to server narrowcast* forum. This means that each user's message is sent to a server, which then distributes the message only to a specific group of authorized users (December 1996: 22). Thus communication among participants is asynchronous and often there is a significant time-lapse between electronic messages. Admittedly, the structure of this forum has an effect upon the unfolding of communications and exerts some influence on the kind of inflammatory phenomena occurring there.

Generally, from the advent of CMC settings, attention was drawn particularly to the disinhibiting effect that this kind of communication has on users' behaviour. Several surveys in business, educational, and public networks reveal that people engaged in such interactions tend to show more nonconforming, direct,

or even aggressive behaviour than people in other mediated communications or — especially — face-to-face interactions. This unrestrained conduct is known as *flaming*.

2. Recent research on ‘flaming’

Thus far, research on flaming has been dominated by a number of theories which Culman and Markus (1987) collectively described as *cues-filtered-out perspectives*. These are social presence theory, de-individuation theory and media richness theory.

Social Presence Theory holds that due to its lack of contextual cues (eye-contact, facial expression, tone of voice, body language, etc.) CMC is extremely low in *social presence*, which means that its users are less socially oriented toward the other participants than they are in face-to-face interactions (Rice 1984, Hiltz *et al.* 1986).

De-individuation Theory argues that the absence of *social context cues* (cues which allude to the participants’ relative status and the nature of the social situation) in CMC interactions leads to social anonymity and reduced self-awareness. As a result, again compared with face-to-face situations, more uninhibited behaviour is claimed to be encouraged by the medium. Following this approach, many others (Kiesler *et al.* 1985; Seigel *et al.* 1986, Sproull and Kiesler 1991) suggested in agreement that such conditions of submergence in a technology, technologically supported anonymity, and weak social cues, generate loss of identity and uninhibited behaviour.

Media Richness Theory contends that CMC, due to the lack of extraverbal cues and its narrow bandwidth, is relatively inferior for communicating rich information (Daft and Lengel 1986; Trevino *et al.* 1990). In opposition to CMC which is considered a very ‘lean’ medium, face-to-face interaction is held to be the ‘richest’ medium of communication, given the multiplicity of channels available to it. According to this theory, CMC is deemed appropriate for the transfer of simple or unequivocal messages, but insufficient for the communication of more equivocal, ambiguous, or emotional information.

Overall, these perspectives focus on CMC’s relative lack of contextual cues (meaning eye-contact, facial expression, tone of voice, body language, as well as status and social indicators) which is alleged to reduce the users’ self-awareness and induce social anonymity. Therefore, CMC is seen as inferior for communicating rich information as opposed to face-to-face interaction and it is suggested that it should best be thought of as a task-related environment, one not providing a suitable context for social interaction. As a result, in these studies, computer conversations were seen as more depersonalized, more liable to produce friction and thus not conducive to social exchanges.

However, these 'cues-filtered-out perspectives' can be criticized on a number of levels. Firstly, they operate on the assumption that the inherent characteristics and constraints of the medium influence all users in all communicational settings in similar ways. Still, these perspectives could not account for differences detected in various fora concerning what is interpreted as flaming and what exactly are the sparks that 'start the flames' in each case. Moreover, according to these approaches the absence of nonverbal cues in CMC allows for less social information to be transmitted per message. However, the significance of time seems to have been neglected (see also Walther and Burgoon 1992; Weisband 1992, Walther 1996). Given the time, interactants in a CMC group develop a system of contextual cues that can be encoded and transmitted through text (e.g. emoticons, 'smileys', capitalizations, vocalizations, etc.) in order to compensate for the absence of nonverbal communication, and assist them in forming impressions of each other and developing interpersonal relations. In addition, cues-filtered-out perspectives were grounded on the results of laboratory experiments (conducted by Carnegie-Mellon University) in their claims that CMC is "less friendly, emotional, or personal, and more businesslike and task-oriented" (Rice and Love 1987: 88).

These deficiencies and drawbacks in experiment-based CMC studies have been repeatedly highlighted and the need for the application of more flexible and dynamic approaches has been underscored by several researchers in the field.¹ Field studies based on the observation of actually occurring interactions have contradicted their results, finding greater levels of socio-emotional content in CMC. Finally, cues-filtered-out approaches display a myopic bias toward face-to-face communication. Face-to-face communication has been elevated to an ideal against which CMC was found wanting. In other words, CMC was not compared to actual face-to-face communications but to idealized forms of face-to-face communication.

Thus, as a whole, most of the existing research detaches flaming from the context of its occurrence and measures it as if it were an objectively defined characteristic of each electronic message. By employing divergent definitions, different studies have used various techniques in their attempt to identify and measure flaming.

Some of these techniques aimed to: 1. separate the electronic messages according to Interaction Process Analysis (Bales 1950) into task or socio-emotionally oriented (Hiltz *et al.* 1986; Rice and Love 1987); 2. count uses of paralanguage and swearing (Lea and Spears 1991); 3. count insults and name-calling (Siegel *et al.* 1986; Weisband 1992); 4. measure the "increased willingness to communicate bad news or negative information" and the "flouting of social conventions" (Sproull and Kiesler 1986); 5. measure flirting and the expression of personal feelings toward other people (Kiesler *et al.* 1985).

In this chapter however, due to the highly ambiguous and context-sensitive nature of flaming phenomena, such quantitative measurement techniques are not utilized. Rather, qualitative methods of interpretation will be favoured here, which are more appropriate for shedding light on the perplexity and multi-contextuality² of this phenomenon. Conducting measurements of disconnected linguistic phenomena that are purportedly representative of flaming episodes, increases the possibility of arriving at misleading results about the scale of animosity observed in an environment. A word or a phrase also obtains a meaning from the context of its production and the intention hidden behind its use, qualities which can only be disclosed, to the extent this is possible, if flaming is investigated as it occurs and is negotiated within interaction.

As already mentioned, an inflammatory move can have little significance in its own right, but rather gains relevance by its positioning within the course of interaction and its interpretation, and reaction of other interlocutors. In other words, the relative frequency in the occurrence of insults and profanity signs which have been stripped out of the utterances, does not necessarily testify to hostility within the examined group, but could conversely indicate that the endogenously constructed norms of interaction allowed for the use of such words (Baym 1995, Georgakopoulou 2001).

3. Flaming as co-construction

As Thompson emphasises, “flaming does not exist in a vacuum; it requires the ‘fuel’ of interpersonal interaction and the interpretation of that interaction by social actors” (Thompson 1996: 302). Hence, flaming should be sought in a thread of messages exchanged by human actors involved in an interactionally constructed community in which norms are continuously negotiated. Put more clearly, a flaming message is one that appears to run contrary to the norms sanctioned by other participants, and thus provokes their reaction. A threat, an insult, or a highly emotional statement, should not be interpreted as flaming if nobody within the interaction seems to take offence or be insulted by it.

In other words, CMC researchers should avoid interpreting certain kinds of behaviour or messages as flaming drawing on their own expectations of the communication situation they observe, or on expectations they consider prevalent in similar situations. Rather, flaming should be seen as a co-constructed phenomenon emerging between interactants. A flaming message owes its existence not only to the forum participant who produced and posted it, but also to the participant(s) who interpreted it as such. As Thompson again stresses, “flaming is both a media use and a media evaluation — a CMC behavior and an interpretation of that

behavior” (Thompson 1996: 304). Therefore, it is seen here as an inherently contingent, situation- and context-dependent phenomenon. Every electronic forum is manifested — and should be treated — as a unique communication environment within which group members construct the norms which facilitate their interaction. Within this framework, flaming should not be seen as a putative feature determined by an objective reality, but rather as an inherently subjective, situation- and context-dependent phenomenon.

The phenomenon of flaming should be viewed in the specific communicational and broader social context in which it occurs, and therefore has to be treated as a result of both the fixed characteristics of the electronic environment and the social milieu that constructs and accommodates this environment. More explicitly, both the production and interpretation of flaming messages have to be considered within the new social situations created by the communication possibilities afforded by the medium, as well as the ways these possibilities are exploited by interactants. Before taking this argument further, it is necessary to explain what is meant by the terms medium ‘characteristics’ or medium ‘conditions’.

In *No sense of place* (1985), Joshua Meyrowitz considers the social impact of electronic media. He suggests that electronic media affect social behaviour by rearranging the various social stages on which we perform our roles and, as a result, by altering our sense of ‘appropriate behaviour’. They mix previously distinct audiences and encounters by invading the confines of social spheres, they undermine the significance of physical presence as a prerequisite for social interaction, and they allow information to flow through once separate situations. Since electronic media, according to Meyrowitz, have broken down the significance of physical barriers and distance, as the boundaries of inclusion and exclusion of people in a communication process, they have changed the information-flow patterns, restructured the social settings and roles, and consequently modified peoples’ behaviour to match the new social settings, new audiences and new situations.

Following Meyrowitz (1985), it is argued here that the new communicational conditions in CMC, (the dissociation between physical place and social interaction, the hybridization of formerly distinct private and public situations as well as the fusion of oral and literary forms of language), not only render flaming a kind of behaviour that could emerge from accumulated ambiguity regarding which behaviour would be appropriate in the particular situation, but also may lead to the legitimation of some forms of this behaviour.

By combining the ideas of Thompson and Meyrowitz, it is argued here that the emergence of flaming has to be considered within the *wider context* which is co-constructed both by (1) the conditions engendered by the medium (Meyrowitz) and (2) the interpretation and manipulation of these conditions by human actors (Thompson). And for analytical purposes, the factors which inform the delineation

of context and the emergence and the interpretation of flaming, were arranged in this structure where the medium conditions have been further analyzed into three categories (according to their effect).

Factors which co-construct the wider context (in which flaming occurs):

Medium conditions

Disengagement of interaction from physical place

Hybridization of private and public place

Fusion of orality and literacy

3.1 Interpretation and manipulation by human actors

It should be stressed at this point that this is by no means an exhaustive account, or a hierarchical classification. On the contrary, these conditions are not seen as clearly separate or autonomous, but as interconnected aspects which influence each other during the co-construction of the context.

Diversifications were observed among different electronic groups of users, concerning the temporarily validated norms which constituted the normative context as opposed to which distinctions were made between acceptable and unacceptable behaviour, and revealed the inherently subjective and continually changing nature of flaming, displaying it as a constructed phenomenon embedded in the mutuality³ of context and human communication. Both the distinct communication conditions created by the computer medium, and the human interpretation and exploitation of these conditions, contribute to the creation of a temporarily validated normative context as opposed to which distinctions are made between inflammatory and non-inflammatory behaviour within each group. The dependence of flaming on the reflexivity of context and human communication, inasmuch as it is constituted by and is constitutive of the very context in which it appears, reveals its inherently contingent and continually changing nature.

Hence, the construction of the norms and principles which govern a particular community and delineate the fictional distinctions (in Schmidt's use of the term) made between inflammatory and non-inflammatory behaviour is informed not only by the distinct communication conditions created by the computer medium, but also by the human interpretation and exploitation of these conditions. Moreover, these distinctions between appropriate and inappropriate behaviour are not permanent and stable but rather constantly negotiated among each group's members and subject to continual changes.

At this point, it would be helpful to expand on each of these factors and to present some illustrative examples from the data taken from an e-forum organized for the purposes of an undergraduate university module entitled 'British Culture

and Society'. Observation of the forum lasted two years and real-life data from four different groups of students was collected. The information drawn from the online interactions was supplemented by additional evidence deriving from a questionnaire, composed by the tutor and distributed to the students in order to obtain feedback on the forum and improve its operation.

4. Method of analysis

In addition to the overall delineation of the broader context in which the particular forum operates and the attempt to observe the evolution of the interactions within it, heuristic investigative textual tools are required in order for the actual conflict episodes to be identified in the conversations at hand. Admittedly, this textual level of analysis could serve as a starting point in the exploration of the multi-layered meaning and the consequences of each interactant's conversational move, yielding a firm basis on which interpretations can be made.

Hence, it should be emphasized at this point that the models (presented below) that are utilized for the recognition and broad demarcation of flaming episodes within the forum in question are not perceived as representing absolute 'truths', but as "heuristic devices that guide our observation and facilitate our understanding" (Komter 1991: 8) or in the sense that "formal resources are like a reservoir of tools, materials and know-how from which particular academic analytic undertakings can draw in inquiry" (Schegloff 1999: 417). It is from this perspective that the following models are viewed.

From an analysis of the forum, a flaming episode is said to occur when a three-move sequence (comprising a. statement, b. counterstatement, c. counterstatement to b) is observed. As acknowledged by several analysts studying conflict communications in a variety of settings,⁴ discord episodes tend to exhibit these kinds of structural and interactional features.

In other words, for a flaming episode to be initiated, a challenge has to be raised to a claim, and consequently this challenge has to be taken forward by consequent action. This initiatory three-move sequence of flaming episodes, points to the nature of the phenomenon as co-constructed between at least two discussants, and in this respect constitutes a valuable instrument for the distinction of inflammatory incidents within the analyzed forum. Thus, in this study, no confrontation is perceived as developing unless a reciprocal exchange of opposing moves between participants could be observed. Naturally, once a flaming incident is discerned via this methodological process (consisting in the gradual application of these analytical tools), its development and negotiation will be thereafter investigated to the point of its settlement (be it a resolution or simply an end).

Concomitantly, this analysis of segments of conflictual talk in the data is always carried out in close interrelation to the wider context and the conditions pertaining to the situation (according to my previously presented model), and quite significantly, in simultaneous view of the ways in which the actual occurrence of these incidents reformulates the initial context and contributes to the creation of a local ethos of interaction. Such a study of flaming phenomena, in and throughout their actual development and negotiation, sufficiently remedies an issue which in general terms has so far been neglected in almost all conflict or flaming studies, namely, that any type of conflict, argument, or disagreement, is not solely a matter of one person who unilaterally chooses to challenge or contradict another, but also depends on the reception of this challenge or contradiction by the other interlocutor and on his/her consecutive course of action.

Every flaming instance has to be seen within human interaction and norm creation, and not as an inherent property of any message, and is thus investigated in sequences of continuous message exchanges. Examples of data are restricted here to two illustrative messages, some of which have also been abbreviated. The first factor of the model to be examined is the disengagement of interaction from physical place and the communication challenges it raises.

4.1 The disengagement of interaction from physical place

In face-to-face situations physical place and time usually permit the creation of a dominant context which helps the interactants regulate their communications and align their expectations of the situation (Goffman 1959: 109). However, in CMC, time and space are not commonly shared. Each user in a CMC forum participates from a separate place and time, a fact which encourages different perceptions of the communication situation and may certainly induce confusion as far as the boundaries between appropriate and inappropriate behaviour in each given situation are concerned. Consequently, spatiotemporal disengagement undermines all previous physical and social assumptions of the interactants, and allows them to play with their self-presentation and their interactional or community norms (see also Her-ring 1996, Tannen 1998).

Evidently, this playfulness increases the users' communicational possibilities, but it also increases the possibility of misunderstandings and thus the potential occurrence of flaming. On the one hand, by sharing information or posting views in such electronic fora, participants are able to expand their social contacts beyond the organizational and social affiliations attached to physical groups. On the other hand, social roles and affiliations which are supported by physical realities (e.g. hierarchical positioning) cannot remain valid in an electronic forum but are dynamically renegotiated among the participants within the interacting group (see

also Dutton 1996, Danet *et al.*, 1997, Jacobson 1999, Abrams 2001). The presence, but also the position a person acquires within a group lies more in relation to the extent and quality of participation rather than to social pre-givens. This instant reprocessing of norms and patterns within the group may bring about confusion in relation to which behaviour is considered acceptable, and in addition may lead to the sanctioning of norms according to which flaming behaviour could be deemed unobjectionable (and thus adopted).

4.2 Example

Participating in the discussion as to whether homosexuality should be talked about in schools or not, a student (PAW) posts a message expressing an extreme, highly controversial view. His attitude towards homosexuality ignites a long flaming episode within the group. Here, an extract is quoted during which the tutor (T) decides to intervene and strongly object to this student's comments. This in turn causes the student's response and the discussion then bursts into flames.⁵

The student posts:

Let's stop being well-meaning on that subject.
I agree homosexuality is a subject that should be discussed in class; but not taught. How fashionable it may be today to show one's homosexuality, I think that homosexuals are not 'different', as some like to say, but that they are actually sick. [...] But I'm against a banalization of it [homosexuality]. It is a disease, and banalizing it by giving homosexuals the same rights as heterosexuals is, in my view, a tremendous mistake. ([PAW] Wednesday, April 19, 2000 04:18 PM)

In this next message, the tutor counters his arguments one by one, but only one extract of her response is quoted:

[...] >It [homosexuality — AA] is a disease, and banalizing it by giving homosexuals the >same rights as heterosexuals is, in my view, a tremendous mistake.

What possible evidence do you have for saying this? Would you say it to someone you knew was a practising homosexual? I think we should be very careful before making pronouncements about the way other people choose to live their lives. ([T] Tuesday, April 25, 2000 09:10 PM)

The student replies disputing the tutor's authority by writing:

And you, who are you to tell me what I should think or should not think?

It's so easy and fashionable to be on the side of homosexuals nowadays (and fashionable to be one). Why is it that I should prove my thoughts?

[...]([PAW] Wednesday, April 26, 2000 10:26 AM)

The tutor's response appears equally direct and antagonistic:

On 26/04/00 10:26:00, PAW wrote:

>And you, who are you to tell me what I should think or should not think?

I have as much right to express opinions you do not share as you do. Your messages come across very strongly. You have to be prepared to take the medicine you dish out.
([T] Friday, April 28, 2000 02:55 PM)

In this exchange, neither the student nor the tutor seems to consider any authority difference to exist between them. They disagree very openly on the subject, making overt claims and confronting each other, in a way that it is more than doubtful they would assume in class. Both their roles as tutor and student, effective in the physical place of class, appear to be transposed by their roles as interlocutors in the e-forum, where they seem to negotiate their position anew.

4.3 Hybridization of private and public place

According to Meyrowitz electronic media blur the line between private and public by bringing the one into the other and emphasizing the personal and emotional dimensions of public actions. In this merged new state of affairs neither private nor public behaviour is appropriate. In the combined situational setting created by electronic media, some kinds of behaviour that used to be considered inappropriate into formerly distinct settings are now legitimized into an "enlarged 'onstage' area" (Meyrowitz 1985: 6), bringing forth a rather mixed pattern of behaviour. More specifically in CMC, via their interconnected computers, participants interact from their own secluded and secure private place in the relatively open and porous (Grant 2000: 65–66; 2001: 43ff.) public place of the e-forum. The computer acts as a byway which allows information to flow back and forth, through the walls of their private spheres into the public sphere of the forum, and *vice versa*, in an interaction which is divested of the simultaneous feedback and traces (voice, image etc.) of the co-interactants in other types of mediated communication.

These factors contribute to the creation of a polycontextual situation, from which flaming phenomena may potentially emerge. On the one hand, the naturalness, comfort and relaxation which could arguably be expected in a familiar private space from which each person interacts, may steer messages that are more informal in flavour than the ones that would be habitually expected in a comparable face-to-face situation. The informal character of such a message may then be misinterpreted or deemed inappropriate by one or more interlocutor(s), and flames may start. On the other hand, it should not be overlooked that flaming behaviour may be instigated not only by what is actually happening in the specific forum, but also by the particular conditions which prevail in the private environment from which

the person interacts. This, however, cannot be readily monitored and therefore will be left unexplored here.

The following example from my data seems to support the claim that the computer connects the two spheres of private and public, permits an interchange of information between them and creates an augmented onstage area on which social interaction occurs. In an attempt to counter a point made by an interactant (PAW) against homosexuals (the one we viewed before), one female participant (MH) openly disclosed her homosexuality to the group, exposing personal information about herself in a way which is doubtful she would have embraced in direct public communication. These two students have been exchanging messages for some time, strongly disagreeing with each other on this issue, before MH decides to reveal her homosexuality.

Hi M. I just want to know something: you really don't think, though nobody is born so, that there is a sort of (biological? physiological?) disfunctioning at being homosexual? [sic!] In my humble opinion, homosexuals (or anybody) can lead peacefully the life they want to, as long as they're not trying to turn the society nor the rules of Nature to their ways. if thinking that makes me a despicable and intolerant person, well [...]

Ps: It's very, very easy to stand on the good way, on the way of the well-meaning majority, but be on the opposite side, and you're instantly 'wrong'!! [sic!] ([PAW] Friday, May 12, 2000 08:44 PM)

Hi P. I think I've already told you that the fact of loving someone, or feeling attracted by someone has got absolutely nothing to do with with any kind of disfunction. I find it ridiculous. I feel especially attached to this subject, maybe because I've have been going out with a girl for quite a while, and I don't think that I have any kind of disfunction, but, maybe, as you are (at least apparently) straight, and heterosexual, you are in a position to judge if people like me are or not sick.

[...] Could you please tell me what rules of nature you mean? Who sets that rules? Are you talking about having children and that?. What does it make you a better father than a gay one? Honestly, are you so pretentious to think that? And... yes, excuse me, but I do think you are intolerant. Really intolerant. And honestly, I have to say that such a way of thinking reminds me periods in history which should never have happened. ([MH] Monday, May 15, 2000 10:09 AM)

This incident seems to support the view, upheld by other evidence (Hiltz and Turoff 1978; Sproull and Kiesler 1991), according to which a constituent element of the uninhibited conduct found in CMC lies in relation to a higher degree of self-disclosure observed, as compared to face-to-face interactions.

The hybridization of private and public discourse afforded by this electronic medium through the integration of formerly distinct forms of private and public interaction, has given rise to new ways of talking and behaving. This hybridization of forms does not simply denote the decline of public discourse, but rather evinces,

as Bondebjerg maintains, “the arrival of old discourses in a new medium, and the creation of new public images of old forms of life-narrative and of talk”, where “official, public language and *arguing* is merged with very private, everyday language and *experience*, with a tendency to push things towards the personal narratives” (Bondebjerg 1996: 29). Bearing this last comment in mind, it would be appropriate at this point to expand on the fusion of orality and literacy induced by the medium.

4.4 Fusion of orality and literacy

Language in CMC displays a unique juxtaposition of text format to real-time interaction pressures. Although CMC basically consists of written messages, its interactive quality produces several oral features as well, and thus brings to the fore what Walter Ong (1982: 136) labeled as *secondary orality*, a term referring to the “new self-consciously informal style” of the medium, its interactivity and spontaneity.

Electronic writing, in a way, “adapts the technology of the keyboard, a by-product of print, to the requirements of talk” (Lee 1996: 291) as its users invent textual signs to compensate for the lack of reminders of social context and of body-language in their network interactions. They use ‘smileys’ (or ‘emoticons’), capitalizations, question and exclamation marks, parentheses, quotation marks, commas and full-stops, repetitive punctuation marks, vocal spellings and contractions, etc. creating a generally informal atmosphere for their interactions. Here are some illustrative examples of this mixture between oral and written forms:

[NGA] HI PEEPL (or is it ‘peopl’, or ‘people’...?)
WAT R U BEEN UP 2?

[IR] CU L8ER + HAND :-)

[AA] I feel free to say what I like when I like
it. It’s coooooool....

[T] Whoops! made a mistake while typing.

[RM] I THINK ONE MUST SPEAK THE WAY HE WISHES AND THE
WAY HE MASTER THE LANGUAGE, NOT LIKE HOW OTHERS
WANT HIM TO SPEAK. IN MY OPINION CONVEYING THE MES-
SAGE IS THE MOST IMPORTANT THING.

[NGA] WE ALLOW INFLUENCE/ We ALLOW influence/ WE allow
influence...

This blending of oral and written forms of communication, the merging of formality and informality along with elaborateness and spontaneity, may generate

greater confusion to the users as far as the appropriate behavioural and linguistic style in an online forum is concerned, and thus increase the possibility of flaming (Baron 2000).

Over and above the divergent connotations that signs could carry for each participant in any communication (since these textual signs available in CMC are not established in a uniform way across different electronic fora) their meaning relates to one's experience of other online fora and thus many misunderstandings may occur. For instance, sometimes the intention of a CMC user to lay stress on his/her opinion by using capital letters might be misinterpreted as shouting by others, and cause friction. It is noteworthy that several students of the forum discussed this possibility, explaining that they found the extensive use of capitalizations by some participants particularly annoying. Having covered, briefly, the factors related to the medium's conditions, let us examine its human interpretations and manipulations.

4.5 Human interpretations and manipulations of the medium

Earlier research has shown that in CMC the perception of the medium by the participants is closely associated to the ways that they use it, and the development of their electronic communities (Steinfeld 1986; Myers 1987; Fulk *et al.* 1990; Baym 1995; Boczkowski 1999). As Hiltz (1984: 90) says, "being a member of one group (or subculture) rather than another, seems to shape the experience of the members and the quality of their (electronic) life". Therefore, the composition of each group tends to promote different expectations as to which types of behaviour are considered legitimate within it.

Therefore, flaming, as a context-dependent phenomenon, can only be seen as related to the social norms which are made salient within each forum and at each given moment by the particular group of interactants. The divergent development of flaming phenomena among different CMC groups, indicates the diversified manipulation of the communication conditions by different participants and the construction of a dissimilar normative context which regulates their interactions in each case. Communicators are dynamically enmeshed in the social context of their communications, and *a fortiori*, via their interactions the members of CMC groups have increased opportunities to creatively exploit the medium's attributes so as to play with new forms of expression, explore new identities, get involved in new relationships, and ultimately construct behavioural norms.

In other words, it should be noted that the interactants' individual characteristics, along with their understanding of both the medium qualities and the given situation, are as much part of the context as the medium itself, and thus crucial for the elaboration of their communications and communities. Here, valuable insights

can be achieved by acknowledging that “community is generated through the interplay between preexisting structures and the participants’ strategic appropriation and exploitation of the resources and rules those structures offer in ongoing interaction” (Baym 1995: 139).

4.6 Example 4 — Human manipulation

This noteworthy effect of humans on human behaviour within CMC, is confirmed in my data. At some point, the tutor decided to create a pseudo-persona (i.e. to log on the forum with a pseudonym and assume a pseudo-personality), in an attempt to stimulate the students’ discussions and make them more vibrant (personal communication, November 2000). Having evaluated the students’ conversations as “non-argumentative enough and conventional”, she created Lucie Evangelista, a strongly opinionated and rather radical persona, in order to encourage the students to express their views more “openly and fervently”.

The first intervention of (the tutor as) Lucie appeared in the forum in regard to the subject of whether foxhunting should be banned in Britain or not. The thread of discussion below begins with a previously posted message which suggests the conversational style assumed by the students before Lucie’s intervention:

Hi,

I think foxhunting should be banned at least as a sport. I agree with the people speaking in the cassette when they say that it is cruel and inhuman. If the number of foxes must be kept down it should be done in a more professional way as I don't think one must feel pleasure in killing somebody (as I consider animals 'somebody'). [...] I listened to the cassette and I tried to watch the video about hunt and now I now what is hunters' point of view. I can respect it but I don,'t still agree with them. I simply can't understand them. Are there anybody in favor of foxhunting or hunting in general? ([DC] Thursday, October 28, 1999 02:58 PM)

Lucie’s intervention:

>If the number of foxes must be kept down it should be done in a more >professional way

Well, what would you suggest? We could gas them and leave them to die slow and painful deaths in front of their cubs. We could shoot them or set traps for them which usually leave them wounded and prolong their death throes. These are the current alternative methods.

>[is]there anybody in favor of foxhunting or hunting in general?

Yes, I am. It allows us to get back in touch with our prehistory in a fundamental way. It reminds us that the veneer of civilization is very thin and that we are all savages underneath. It gives one the same kind of thrill that climbing mountains, bungee

jumping or parachuting give. Really I feel we are far too soft these days. ([Lucie Evangelista] Friday, October 29, 1999 03:20 PM)

The student's answer is expressed in a totally different style from her initial posting:

Lucie, How can you think such things!?!?

Do you think it's good coming back the Prehistoric times and behave like those people? Do you know something called 'progress'? And if you want to feel a thrill, why do not limit yourself in doing bungee jumping etc. where just your life take some risks? How can you consider right to kill some animals just to have fun and let men express their instinct [...] (DC) Friday, October 29, 1999 04:24 PM)

Evidently, the ideas which Lucie projects, the style in which she writes, and the mode of discussion she promotes, seem to have played a catalytic role in the evolution of this particular community from mitigated and moderate to more confrontational and direct communication and in the endorsement of norms which would induce or legitimate instances of flaming.

5. Conclusion

In conclusion, flaming was found to emanate from the participants' misaligned expectations from the CMC interaction and the frustration caused by the multi-contextuality of CMC which in turn was partly generated by the medium features. In addition, however, the human interpretation and exploitation of CMC conditions in this case proved to be extremely significant as regards the way in which (a) the challenges presented by the medium were surmounted, (b) the new possibilities for experimentation with forms of identity, behaviour and language offered were manipulated, and (c) a normative framework was assembled as opposed to which fictional distinctions between inflammatory and non-inflammatory behaviour were made. According to the conditions pertaining to their interactions, each CMC group created a shared web of textual and social significations which guarded, coordinated and regulated their interactions. Overall, in conclusion, this study posits that all the factors mentioned operate concomitantly and are of equal importance to the construction of the norms and principles of the particular community.

The introduction of a new communication situation and the destabilization of some institutionally fixed parameters, such as the physical space of a class and behavioural expectations attached to it for both tutor and students, created greater latitude for participants to experiment with their behaviour, explore new identities and renegotiate the rules of their 'game'. Thus, a greater variety of 'language games' was encouraged, which in turn delimited the "institutional constraints [which] function to filter discursive potentials (Lyotard 1984: 17). In this

especially 'agonistic' communication setting, through a constant exchange of 'moves' that increase dissent and conflict, e-forum interactants appear to celebrate individual differences and perform a plurality of selves and voices. With every flaming episode, the normative boundaries seem to be constantly pushed and subverted by interactional negotiations whose goal is the creation of new and ever-changing social constraints.

Overall, flaming gives us a unique opportunity to observe human negotiations of community construction within a new situation. Also, much of the behaviour that is now considered inflammatory between groups will probably become part of the norms that will guide human expectations for electronic communication in the future. As Herring (1996: 4) explains:

on-line communities take shape, generate norms of interaction (for example, rules of network etiquette, or "netiquette") and conflict resolution procedures, literally before our eyes, in text that can be saved and mined later for insights into the genesis of human social organization.

Certainly, as people are growing accustomed to the computer medium and aware of others' 'electronic existence', flaming may start to fade away. However, a certain degree of this unrestrained free expression can be expected to be normalized and progressively incorporated into the behavioural pressures governing human communication and community in CMC.

Notes

1. See the varied accounts of Myers 1987, Walther 1992, Lea, O'Shea *et al.* 1992, Spears and Lea 1994, Walther *et al.* 1994, Baym 1995, Jones 1997, Parks and Floyd 1996, Thompsen 1996, Pacagnella 1997, Rafaeli and Sudweeks 1997, Boczowski 1999.
2. Cf. C. Grant's reflections on polycontextuality in this collection.
3. See the contributions of S. J. Schmidt and I. Marková for contrasting views on mutuality.
4. See the varied accounts of Maynard 1985, Goodwin 1990, Kotthoff 1993, Antaki 1994, Muntigl and Turnbull 1998 and Gruber 1998, 2001.
5. Interventions are reproduced in their original posted form, irrespective of infelicity. (Editor's note).

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Constructing the uncertainties of bioterror

A study of U. S. news reporting on the anthrax attack of fall, 2001

Austin S. Babrow and Mohan J. Dutta-Bergman

1. Introduction

In the fall of 2001, following the terrorist attacks of September 11 on New York City and Washington D. C., the United States experienced several acts of bioterror. Someone was using mail and perhaps other means of transmission to spread anthrax spores. Journalist Robert Stevens, the first recognized case, was admitted to a Florida hospital on October 2, 2001. In the following weeks, at least 22 people were diagnosed with anthrax, 5 of whom eventually died as a direct result of their infection. As of this writing, the perpetrator(s), their motives, and many other features of the attacks are unknown.

This chapter explores major news coverage of the attacks during an eight-day period. Its purpose is to illuminate what is surely one of the central features of these events: the social construction of profoundly significant uncertainty.¹ In so doing, the chapter will also shed light on various constraints — from mundane and practical to ideological — on this constructive process and thereby suggest directions for alternative understandings and deliberative frameworks.

2. The social construction of profound uncertainty

The terrorist attacks against the U. S. in fall 2001 constituted the most dramatic threat to the nation's public health and safety in recent years. As such, these attacks have been not only a grave, threatening challenge but also an opportunity to understand and enhance broad public deliberation on such risks. The current chapter uses social constructionism,² particularly as it has been applied to risk (e.g.,

Cole 1993; Douglas 1985; Lupton 1999; Perrow 1999; Stallings 1990, 1995), to assay the quality of broad public discussion of risk growing out of the biological terrorism last fall. From this assessment we hope to suggest alternative and perhaps more productive orientations for public discussion of bioterror.

We will apply one social constructionist theory that seems especially well-suited to understanding and enhancing public discourse on biological terrorism and the terrorist attacks: problematic integration theory (Babrow 1992; 2001; Babrow, Hines and Kasch 2000; Babrow, Kasch and Ford 1998). This theory focuses in particular on the construction of uncertainty and even more particularly on contexts in which substantial values are at stake. Moreover, the theory emphasizes the dynamic interrelationships within webs of various beliefs, uncertainties, and values as individuals and ever broader, encompassing social groups communicate in their struggles with profoundly unsettling uncertainties and desires.

Problematic integration (PI) theory suggests that uncertainties are never meaningful in isolation. Rather, any given uncertainty is constructed in relation to values (e.g., desire shapes expectation, and *vice versa*) and in relation to various related beliefs and uncertainties. As an example of the latter, uncertainty about the chances of anthrax infection is dynamically related to beliefs about apprehension of the attacker, the availability of treatment, and so on. Indeed, these complexes are often so far-reaching, in terms of the number of potentially relevant values and beliefs involved, that the experience of uncertainty at any one moment is necessarily a function of both the immediate context as well as the broader context of thought, talk, and broad public discourse. In other words, there is so much to think about that is potentially relevant to any one such substantial uncertainty that only subsets can be considered at any particular time. Those subsets are necessarily a function of the currents of ongoing thought and discourse.

Most important to the current chapter, PI theory suggests that uncertainty has many levels of interrelated meanings (see especially Babrow 2001; Babrow *et al.* 1998; Babrow and Kline 2000). In brief, any particular substantive uncertainty, such as one's sense of personal vulnerability to anthrax infection, depends on one's conception of a wide range of ontological and epistemological issues. For example, the risk appraiser considers available evidence (e.g., pertaining to the number of contaminated envelopes in circulation, the trustworthiness of information about this number), the predictability of the world (e.g., of subsequent attacks), and indeed one's sense of what it means to know (e.g., knowing means certainty vs. certainty is an illusion). Moreover, PI theory suggests, these various considerations reflect not only ongoing interactional efforts to cope with uncertainty but also broad, institutionalized coping frameworks.

For example, U. S. society is dominated by modernist thinking, and particularly by deep commitment to what has been called scientific-technical rationality

(see Levine 1985; Lupton 1999), or the interlocking ideas that the world can be understood mechanistically, and that these mechanisms can be understood with certainty (see Bursztajn, Feinbloom, Hamm and Brodsky 1980/1990). PI theory and related frameworks (e.g., Lupton 1999) suggest that this scientific-technical rationality is broadly valued as a means not only of understanding but acting in the world, and hence will guide distinctive constructions of uncertainties such as those associated with the anthrax attack. And, just as scientific-technical rationality will provide the logic for social constructions of uncertainties associated with the attack, so too this logic will constrain social constructions of ways of coping with biological terrorism.

In short, PI and related theory suggests that uncertainties associated with the anthrax attack will be cast as solvable information problems. That is, disciplined application of scientific-technical rationality, by both forensic and medical experts, will answer questions about these apparent acts of bioterror. The limits of this foundational logic will remain largely unseen by those constrained by it.

3. Constructing the uncertainties of bioterror

We have found that the foregoing considerations are powerfully illustrated in mainstream U. S. news coverage of the anthrax attacks. In what follows, we review observations based on a study of all relevant articles published between November 19 through 26, 2001 (i.e., the period before and after November 21, when Otilie Lundgren was identified as the fifth fatality of the anthrax attack) in the *New York Times* and *Washington Post*. The former is broadly considered the nation's "paper of record," and the latter is not only among the most prestigious in the country but also the most respected of the two daily newspapers in the nation's capital. Lexis-Nexis was used to identify all articles containing the word 'anthrax' in the study period. These were then culled to remove all articles in which the word anthrax was used incidentally. In this way, 39 stories were identified for analysis.

The identified anthrax stories were analyzed for expressions of uncertainty. In this thematic analysis, we were guided by various schemes for identifying and analyzing forms of uncertainty (e.g., Babrow 2001; Babrow *et al.* 1998, 2000; Hofstede 1980/1984; Mishel 1988; Stocking 1999). Quantitative content analysis was inappropriate for this enterprise because (a) a great deal of this sort of content is latent rather than manifest and (b) expressions of specific types of uncertainty are frequently difficult to disentangle and hence non-mutually exclusive.

Given the foregoing, data were analyzed according to the precepts of qualitative methods. Specifically, extant theory provided sensitizing concepts (Blumer 1969), the initial interpretive frames that we applied to the discourse. In turn, we

used grounded theory methods (interlocking open, axial, and theoretical coding) to modify or discard these concepts depending on how well they seemed to fit with the data.

3.1 Objects of uncertainty

To begin to understand the social construction of uncertainty in the wake of the anthrax attack, it is useful to note a distinction between objects and forms of uncertainty (see Babrow 2001; Babrow *et al.* 1998). The idea that uncertainties can be differentiated by their objects reflects the simple realization that we may be uncertain about any conceivable aspect of the world; we can be uncertain about many different objects, such as the perpetrator, methods, and motives in the anthrax attack. By contrast, uncertainties can be differentiated by their very nature. In other words, uncertainty about any one object can take many different forms. For example we might be uncertain about the perpetrator of the bioterror because of (a) insufficient information, (b) contradictory information, (c) information of questionable relevance, (d) information overload, etc. Each of these forms of uncertainty has its own distinctive character, results, means of resolution, and so on.

With this distinction between objects and forms in mind, we can note that one striking feature of the task confronting journalists was the number of issues (objects) about which there was uncertainty. During the eight days of reporting we analyzed, the attacker's identity was unknown.³ While information about new victims accumulated, we did not know whether there were other as yet undetected victims, nor did we know who might yet fall victim to spores lingering from past attacks or whether there would be additional attacks. While we were certain that many anthrax victims were infected through contact with contaminated mail, we did not know how two of the victims (Kathy Nguyen and Otilie Lundgren) contracted anthrax. While we knew about infection from animals or other 'natural sources' (e.g., the number of required spores), we were forced to confront the limits on this knowledge (e.g., moderators of anthrax infection, differences between "natural" and "weaponized" anthrax infection) (Stolberg, November 26, 2001: B6). While we knew that anthrax is treatable, we did not know if all (apparent) treatments are equally effective or whether anthrax might be engineered to resist known treatments (Goldstein November 19, 2001)

In short, press coverage of the anthrax attack characterized it by its wide range of threatening objects of uncertainty (Broad November 20, 2001: F1). Virtually every significant feature of the attacks was cast as a study in uncertainty. In addition to the broad range of issues, coverage of these events reveals important features of the nature of the unknown itself as it is conceptualized in the elite press. We turn from objects to forms of uncertainty in the next section.

3.2 Epistemological forms of uncertainty

In considering forms of uncertainty constructed during the eight days of news coverage, one striking feature was the emphasis on epistemological considerations and the relative inattention to ontological meanings or forms of uncertainty (see Babrow 2001). By ontological, we mean a sense of uncertainty rooted in our conception of the nature of the world. For example, we can cast the causes of some event as indeterminate, under-determined, or undetermined (Anderson 1996). Alternatively, we can conceive of uncertainty in epistemological terms. For example, Babrow (2001) argues that numerous forms of uncertainty arise out of the way that we experience information we have about the world. These may be concerns about the qualities of available information, such as its sufficiency (e.g., clarity, volume — too little or too much to manage), or its validity (e.g., freedom from error, ambiguity, consistency, relevance). Alternatively, we may be uncertain about how to organize or structure information.

The foregoing is intended to show that it is possible to conceive of uncertainty as rooted primarily in ontological or epistemological considerations. In view of this, one striking feature of the anthrax coverage was the relative inattention to ontological meanings. The bulk of reporting presented a wide range of epistemological concerns. We turn next to various specific epistemological forms evident in the eight days of news stories.

3.3 Qualities of available information

Most of the epistemological concerns were characterized as problems in the qualities or character of available information. Several of such concerns were evident in the elite news.

3.3.1 *Volume of information*

The amount of available information was a pervasive theme. While we can further distinguish between uncertainty rooted in too little and in overabundant information (Babrow *et al.* 1998), the former was by far the more common during the study period. News authors often commented that we “need much more information,” for example to “determine whether (Ottolie Lundgren’s death) was the tail end of recent cases or beginning of a new set” (Zielbauer November 22, 2001: A1) and to evaluate the efficacy of procedures used to sterilize quarantined mail (Lenhart, November 24, 2001: A16). Moreover, even as the information began to accumulate, such as tests for anthrax spores in Ottolie Lundgren’s home and nearby postal centres, there remained the nagging concern that investigators might have “missed something” (Zielbauer November 24, 2001: B1).

The bulk of explicit references to the amount of information, as illustrated above, expressed uncertainty rooted in insufficient data. There were however some instances of uncertainty arising out of a surfeit of information. That is, the load became huge, and this volume, this super-sufficiency of information itself was a source of uncertainty. For instance, one article reported that the Bush administration was trying to revive ties to academic researchers that had withered because the President had previously shown “little enthusiasm for research spending or getting sound guidance on scientific policy” (Broad November 20, 2001: F1). The President’s science adviser, Dr. John H. Marburger III, expressed hope that scientific “academies and their members at the nation’s universities would be (able) to help evaluate hundreds and even thousands of ideas pouring in from around the globe about how to thwart terrorism” (F1). The article also pointed out several issues limiting the probability that better ties to the scientific elite would enhance the capacity to evaluate the tremendous load of available information and ideas: turf wars, the sheer size of government insulating it from the salutary influence of outsiders, and the doubts about the sincerity of President Bush’s commitment to funding more vigorous ties between the U. S. government and scientific establishment. However there was no expressed awareness of a practical paradox of information overload: “As the amount of available information increases, our need to screen individual pieces for its relevance increases, but our ability to screen decreases” (Babrow *et al.* 1998: 17).

3.3.2 *Novelty*

Another epistemological form of uncertainty was the novelty of the anthrax attack. It was characterized as “the first known deliberate spreading of anthrax spores in history” (Altman November 22, 2001: B7). One official characterized “the effort that led to the discovery of the (Senator Patrick J.) Leahy letter (as) ‘a large and unique operation,’” and as such one “with no estimable probability of success” (Miller and Johnston November 20, 2001: B1). Another official commented, “We had never done anything quite like this [investigation] before” (B1).

Just as U. S. medical, public health, or law enforcement experts lacked prior experience with an anthrax attack, so too ordinary citizens were said to be confronted by the unprecedented nature of the attacks. In the study week, residents of Oxford, Connecticut, home of Otilie Lundgren, the fifth fatality attributed to the attack, struggled to comprehend the events in their normally peaceful town tucked away in the countryside (see below). As another example, residents of Lima, Ohio, home to the facility charged with decontaminating 1 million pieces of potentially tainted mail, were forced to confront the new threat, one without precedence in a community with several known dangers: “tornadoes, escapees from any of three state prisons in town; and chemical spills from manufacturing plants that produce,

among other things, cyanide and ammonium nitrate” (Lenhart November 24, 2001: A16).

3.3.3 *Contradiction*

Elite press articles often noted contradictions that spread with the anthrax attack and subsequent investigations. Some of these inconsistencies were rooted in what appear to be dialectical tensions. Such tensions reflect ontological as well as epistemological issues, so we will consider them in a later section on the interrelationship of ontological and epistemological forms of uncertainty. In the current section, we consider a simpler form of contradiction: that involving conflicting messages.

Conflicting messages can be further differentiated into two forms. In the simplest, the *conflicting messages originated from different sources*. Often these took the form of conflicting expert assessments. A useful way to cut into this is to note that, in the eight days we studied, there were interesting references to an earlier high profile conflict. One article reported that, in the hours following the revelation that a contaminated letter had been delivered to the offices of Senate Majority Leader Thomas A. Daschle (D-S. D.), “conflicting terms (were) used publically to describe the powder, including ‘weaponized’ and ‘garden variety’” (Twomey and Blum November 19, 2001: A1). Another example appeared in coverage of efforts to study an anthrax-laced letter sent to Senator Patrick Leahy (D-VT).⁴ The *New York Times* noted that “(b)oth the Army laboratory and the F. B. I. are eager to avoid the lack of coordination that produced last month’s conflicting assessments from two separate laboratories of the potency and characteristics of the Daschle anthrax” (Miller and Johnston November 20, 2001: B1).

The latter quotation is interesting because it suggests two importantly different senses of uncertainty related to contradictory messages from different sources: sometimes the conflict between the messages is presumably or actually resolvable (e.g., with better coordination), but at other times there is no obvious, straightforward resolution of the contradiction. The former conflicts are easily reported, interpreted, and integrated into a sense of rational, progressive control; the latter are not so easily processed, for they illuminate not only a worrisome unknown but a broader and more elemental and profound limit on consensus. That is, no matter how substantial the available evidence and expertise, there is no guarantee of consensual reality.

This point is most powerfully illustrated during the eight days we studied in the conflicting assessments of the prospects for tracking down the source of the specific anthrax strain used in the attacks. Some investigators were excited by the discovery that all known victims were infected by a particular strain of anthrax, the Ames strain. They reasoned that, if the same strain was used, and if its distribution could be tracked, the trail might lead to the attacker. “When the attacks began, there was

speculation that thousands of labs might have had access to Ames, but that number has been knocked down by anthrax experts. Philip C. Hanna, a microbiologist at the University of Michigan, said: ‘I put it ... between 10 and 24’ (Fainaru and Warrick November 25, 2001: A1). But from the start, there has been disagreement about the feasibility of this line of investigation.

The same *Washington Post* article cited above goes on to quote another expert reportedly assisting the FBI, who admitted that he was “uncertain of the number of labs with Ames but described it as ‘a pretty small list’ that he thought was ‘very discoverable’” (A1). However, the article then reports several powerful reasons to doubt that tracking the Ames strain will be fruitful. First, for nearly two decades, from the early 1980s up through the late 1990s, it was relatively easy for labs to obtain anthrax cultures from the U. S. Army Research Institute of Infectious Diseases (USAMRIID). Second, there are significant reasons to believe that labs receiving the Ames strain in turn shared it with other labs, perhaps without keeping complete and accurate records of these subsequent transfers of the material. At least some recipients of USAMRIID’s largesse admitted that they in turn distributed it to other labs. Third, the strain is likely to have spread without proper labeling to track its movement. “Genetic differences among anthrax strains are slight, and until the advent of genetic typing in recent years, the labeling of strains was often sloppy” (Fainaru and Warrick, November 25, 2001: A1). It is even likely that the Ames strain has reached the hands of agents who would not cooperate with investigations into the movement of the strain. Most notably, one microbiologist who studied Ames asserted that “(t)he probability that (Iraq) doesn’t have the strain is near zero” (Fainaru and Warrick November 25, 2001: A1).

In summary, while some experts argued that it would be possible to track down the attacker by following the trail of anthrax used in the assaults, other experts offered cogent refutations of the arguments for this enterprise (also see Gugiolotta and White November 22, 2001: A1). Interestingly, however, the authors of the *Washington Post* piece that covered this controversy most thoroughly withheld their own judgment. They strained to maintain a precarious balance between the two perspectives and chose to conclude their essay with a hopeful quote: “‘Basically, if some guy’s got this culture on his dirty clothes or on his bench top, he’ll have some explaining to do,’ said (a senior scientist at USARMIID). ‘It’s like owning a pistol that was used in a homicide’” (Fainaru and Warrick November 25, 2001: A1). So, against all the reasons to expect the trail to run cold, we are left with the hope that someone will be caught at home with a smoking gun in hand.

A somewhat more subtle form of conflicting communication appeared in *mixed messages from what was essentially the same source*. For example, even as President Bush urged the nation to return to normal (see the discussion of dialectical tensions, below), to not let terrorists effectively reshape citizens’ lives, federal officials

“limit(ed) access to the lighting of the National Christmas Tree and extend(ed) a ban on public tours of the White House” (Twomey and Hsu November 21, 2001: B1). As another example, while President Bush and other federal spokespersons encouraged citizens to travel, again part of the message that we must return to normal, Vice President Cheney was in hiding (Twomey and Hsu November 21, 2001).

3.3.4 *Reliability and validity of information*

Another form of epistemological uncertainty is concern about the reliability and/or validity of available information (e.g., freedom from error, source expertise or trustworthiness, ambiguity, consistency, applicability). Most notably, while the freedom of observations from random and systematic error is an enormously important question in the social and physical sciences, news articles rarely expressed concerns about these issues during the eight days of the study. Moreover, when it was noted, this form of uncertainty was typically minimized in the elite press coverage. For instance, one article noted that “some preliminary (blood tests for anthrax infection) are more reliable than others” (Weiss and Brown November 21, 2001: A1). However, the same article emphasized that the particular blood tests administered to Otilie Lundgren to determine if she was infected with anthrax are over 95 percent sensitive and specific, and it looked forward to definitive DNA tests by the Centers for Disease Control and Prevention.

Press coverage during the study period also occasionally noted the reliability of environmental tests for anthrax contamination. For example, a *Washington Post* editorial (“A deepening anthrax mystery”, November 22, 2001) gently noted that, earlier negative tests in the Oxford, Connecticut, post office would be shown to be unreliable if mail turned out to be the source of contact in Otilie Lundgren’s death. Bill Burrus, president of the American Postal Workers Union expressed concern more pointedly. Environmental “tests (for anthrax contamination) involve sampling and not every part of a building is checked, he said. ‘Testing is imperfect at best,’ Mr. Burrus said. ‘If there is something on a wall or the lights and if it becomes airborne, there’s a risk of exposure’” (Associated Press November 23, 2001: B6).

3.3.5 *Source credibility*

Yet another aspect of uncertainty about the quality of information is the expertise of its source. The elite press coverage during the test period consistently provided the credentials (e.g., title, affiliation, educational degree) of sources contributing expert testimony. Interestingly, however, one article suggested the challenge of identifying all relevant forms of expertise. A *Washington Post* article entitled “How *the experts* missed anthrax; Brentwood cases defied assumptions about risks” (Twomey and Blum November 19, 2001, emphasis added) reported about the failure of governmental medical and forensic experts to provide sufficient warning to Washington

area postal workers. By contrast, Clarence Raynor, a postal worker who “ferries mail from the Brentwood postal facility to neighborhood post offices”:

[...] knew the arteries of delivery in the city, and he knew that the Daschle letter must have passed through Brentwood. “If (Daschle’s office) is contaminated,” Raynor thought ... “we’re contaminated.” Not that Raynor, 48, is an expert in how bacteria can penetrate or float. But he knew what sorting machines do to a piece of mail. “It is shaken, bounced around, pulled at, tugged at, beaten up [...]. It is not just sitting still.” And he knew how the machines were cleaned, how dust and scraps were blown. “They do it with pressurized air. It’s like an air hose at a service station.” (Twomey and Blum November 19, 2001: A1)

It is important to note that two postal workers at the Brentwood facility, Thomas L. Morris Jr. and Joseph P. Curseen Jr., eventually died from inhalation anthrax. The *Post* article reiterated speculation that their deaths might have been prevented if the risk of infection had been recognized and preventive treatment administered earlier. Hence, more than just medical, epidemiological, and forensic expertise was relevant to the anthrax attack; consultation with experienced postal workers might have provided life-saving expertise. Note too that the title of the *Washington Post* article reveals that the elite press, in recognizing the inadequacy of “the experts”, did not seem to see experienced postal workers as members of the latter elite group.

3.3.6 *Relevance*

One other form of uncertainty related to the quality of available information evident during the study period was its relevance. In particular, it was noted that Centers for Disease Control and Prevention knowledge of anthrax had been limited to its naturally occurring form. That knowledge turned out to be of limited relevance to understanding the germ when it is (a) manufactured to weapon grade and (b) delivered intentionally such as through the mail (Stolberg November 26, 2001).

In summary, coverage during the eight days of the study period constructed several epistemological forms or meanings of uncertainty rooted in the qualities of available information: volume, novelty, contradiction, reliability and validity, source credibility, relevance. Another major form of epistemological uncertainty constructed by news reporting during the study period is revealed in the nature of authors’ formulations of probability.

3.4 *Quantifying uncertainty*

The foregoing makes it clear that qualitative senses of uncertainty — expressed as concerns about qualities of available information — were pervasive features of the news stories appearing in the eight days of the study period. There were, however, efforts to quantify uncertainty. These efforts occasionally took the form of specific

numeric quantities, but they were nearly constantly evident in a host of verbal formulations.

A rare example of a numerically quantified uncertainty, noted above, was the anthrax expert who estimated that the probability is near zero that Iraq does not have the Ames strain of anthrax (Fainaru and Warrick November 25, 2001). More typically, probabilities were formulated verbally. For example, one editorial pointed out that even less probable sources must be considered if Mrs. Lundgren was not infected by a contaminated piece of mail (“A deepening mystery”, November 22, 2001). As another instance, Vinzant (November 20, 2001) characterized the likelihood that previously inoculated individuals remain immune as “various gradations of maybe” (F1). However, by far the most common, even constant form of ‘quantification’ of uncertainty took the form of verbal expressions of likelihood (e.g., probably, maybe, likely), frequent qualifiers on these verbal expressions (e.g., very, slightly, somewhat), and various guarded expressions of truth claims (e.g., it seemed, observation X suggested, according to source Y).

We provide no quotations to illustrate these other nonquantitative formulations because such expressions of the degree of certainty or likelihood were constantly present in every article. This surely reflects the fact that quantification of certainty or likelihood is basic to the way that people come to form understandings and communicate those understandings to others (Babrow 2001). By contrast, the observation of scarce numeric quantitative probabilities is interesting particularly in light of the extensive scholarly or expert literature on uncertainty and decision making, where quantitative probabilities are the *sine qua non* formulation of — and hence prescription for — risk judgment (see Raifa, 1968, for a landmark statement of this view). Perhaps this discrepancy between decision theorists’ prescription and journalistic practice merely reflects a disciplinary difference. But it may reflect something more elemental at work, such as the disjuncture between expert and everyday decision. Or it may be that the discrepancy between decision theorists’ prescription and journalistic practice reflects a disjuncture between comprehension and decision or between decision and communication. If these latter interpretations are most fitting, the infrequency of quantified uncertainties in the elite press raises disconcerting questions. For example, does quantifying decision inputs somehow cross purposes with comprehension of uncertainty? Does such quantification somehow undermine communication about uncertainty?

4. The interdependence of ontology and epistemology

While it is possible to conceive an analytical distinction between ontological and epistemological meanings or forms of uncertainty (Babrow 2001), we saw essen-

tially no significant examples of what might be considered primarily ontological uncertainty during the eight-day study period. In other words, there were the many different epistemological constructions reviewed above, but there was essentially no explicit discourse on uncertainty as an aspect of being. This finding is particularly interesting in view of the culture of scientific-technical rationality in the U. S. Ontological uncertainties might be avoided because they challenge the legitimacy of scientific-technical rationality. Alternatively, disinterest in fundamentally uncertain aspects of the world may be a simple perceptual consequence of monomaniacal pursuit of certainty and mechanistic control. By contrast, other rationalities (e.g., social, political, economic, religious; see Hofstede 1980/1984) frequently conceptualize uncertainty from an ontological standpoint (i.e., uncertainty as a characteristic of some aspect of being). These other frameworks might contribute significantly to understandings of and efforts to combat bioterrorism. However, during the eight days of reporting in these two leading national newspapers, there was, with one fleeting exception, essentially no direct consideration of uncertainty conceived in this way. The one exception came in a story on Otilie Lundgren's funeral, at which Reverend Richard Meisel sermonized: "If we are looking for security in trying to make the world always safe, then we will always be afraid" (Zielbauer November 25, 2001: 1A–42).

In the main, these elite papers constructed uncertainty as an epistemological matter, but with one major exception in which the news accounts implied ontological considerations. That is, some stories noted dialectical tensions. Dialectical tensions are reflected in terms that are "mutually conditioning" (the occurrence, existence, or meaning of one pole is conditioned by its opposite) and at the same time "mutually excluding" (Marquit 1981).⁵ By their nature, these opposites reflect both epistemological and ontological meanings or manifestations of uncertainty. In other words, the notion of dialectical opposition reflects the very character of the world or of being; the world, or existence is comprised of mutually conditioning and excluding essences or elements. At the same time, the notion of dialectical opposition is epistemological in that any understanding of any aspect of existence or being must necessarily imply or depend on its opposite. We can use an example to be succinct: security can neither be nor be understood without threat, and vice versa. Hence, dialectical tensions themselves embody the interdependence of ontology and epistemology. In doing so, dialectical tensions also reveal the interdependence of ontological and epistemological uncertainties.

4.1 Ignorance and knowledge

Perhaps the most basic and subtle dialectic in the study period involved tensions between ignorance and knowledge. Many of the news accounts reflected the idea

that knowledge and ignorance presuppose one another. For instance, the very idea that reporters saw the anthrax attack as permeated by epistemological uncertainties of many forms can be taken to mean that they (and their audience) could come to know what was then unknown. This was the spirit behind news coverage of the multiform investigations that followed the attack and that, in most instances, remain ongoing — because we have yet to transform many points of ignorance into knowns. In short, to conceive of ignorance and uncertainty is to conceive of knowledge and certainty.

Another more subtle manifestation of the dialectic of knowledge and ignorance involved the idea that ignorance is itself a form of knowledge (see Fox 1957). In other words, the realization of ignorance at one level is itself knowledge, albeit perhaps at a higher level of abstraction. We live differently depending on whether we are aware or unaware of our ignorance. Many reactions to the anthrax attack were basically responses to what some characterized as a “wake up call” that Americans received in the form of the first anthrax-tainted letter. U. S. citizens were provoked to see how little they know about terrorism in general and the threat of biological terror in particular.

Recognizing ignorance often entails a cascading sequence of such realizations. This recurred throughout the news reporting on the anthrax attack. For instance, as medical and public health experts rushed to assess the threat and develop strategic responses, they could not help but realize the range of additional biological menaces. In turn, they faced scores of related unknowns. One prominent example was the possibility that smallpox would be used in subsequent attacks. This in turn uncovered several families of uncertainty, such as those related to vaccinations. Many of the latter were detailed in article entitled “Scar search”: Who has been vaccinated (the last routine smallpox vaccination in the U. S. was administered in 1972)? How long ago was their last vaccination (national guidelines recommended an initial vaccination followed by a booster, but practices varied)? What is the duration of immunity through vaccination? Does the nation have enough smallpox vaccine on hand to mount a significant immunization campaign (Vinzant November 21, 2001)? These questions illustrate the cascading sequence of unknowns by which we come to know at a more abstract level the scope of our ignorance at a more concrete level.

4.2 Normality and change

Another basic but prominent contradiction might be called the dialectic of normality and change. In other words, the reporting reflected the nation’s struggle to accommodate to the attack (realize its full meaning via changes in beliefs, attitudes, values, and action) on the one hand and regain a sense of normalcy (integrity,

stability, continuity) on the other. For instance, in the small rural community of Oxford, Connecticut, where Otilie Lundgren became the fifth fatality attributed to the anthrax attack, a selectman described the town's efforts to cope with her death:

“Right now, so far, the community is calm,” she said. “They are not panicking. They are going about their daily lives.” Still, there were signs everywhere that life had already changed in this town, at least for the immediate future. Hordes of journalists packed the Town Hall to search for information about Mrs. Lundgren, and gathered impromptu news conferences at her church and beauty shop ... residents came into the Oxford Pharmacy to ask whether they should get a prescription to Cipro ... (and) other residents said they were considering wearing gloves to open their mail, or at the very least, not stopping by so often to check on it. (Hu and Baker November 22, 2001: B7)

While the article emphasized changes in the town, it also suggested the importance of normalcy, both in the selectman's comment that residents were “going about their daily lives” and also in the wish for a return to the normal, which is expressed in a phrase forecasting a temporal limit on change; it is, perhaps, only for “the immediate future.”

The imperatives of change and normalcy were also poignantly illustrated in an article about Thanksgiving in Oxford after Mrs. Lundgren's death. We learn that the holiday “proceeded *almost normally*” (White November 23, 2001: A14 – emphasis added). The tension played itself out in several specific ways. One interesting example embodied not only the dialectic of normalcy and change but also a corollary tension that we might call the dialectic of possession and loss. That is, at that time of thanks-giving, some residents reported sadness and a deep sense of loss, which they normalized by a heightened sense of thankfulness:

I have an elderly aunt that I sort of oversee,” said (one Oxford resident). “And my future daughter-in-law had a cousin who was five months pregnant who died in the World Trade Center. So I just know how important it is for family to be together this year. [...] As the President says, you can't let the evildoers win. We do have a lot to be thankful for. We live in a great country with incredible freedoms, freedoms we often take for granted. (White November 23, 2001: A14)

This sentiment is also significant for its reference to President Bush's injunction to the nation to combat the terrorists by holding on to normalcy; to allow ourselves to change is to “let the evildoers win.”⁶ But residents of Oxford clearly realized that they had been changed. To ignore that change was to depreciate the deaths, sickness of the afflicted, and the suffering of their loved ones as well as to risk their own victimization. For example, the article reported that “(s)ome (residents) are going on with their lives as usual, while others fear they too could be at risk” (White November 23, 2001: A14). As one put it, “it's just scary that it's so close. New York

(where Kathy Nguyen died) was close enough” (A14). Said another, “We’re a little concerned for our granddaughter. [...] Normally she would go out and pick up the mail. But we’ve stopped that” (A14).

4.3 Freedom/openness and security/restriction

In addition to knowledge/ignorance and change/normalcy, there were other manifestations of dialectical oppositions during the study period. One was the tension between freedom and restriction. This arose in reporting on activities of the new Office of Homeland Security (created by Executive Order on October 8, 2001). For instance, the activities of that Office raised questions about the imperatives of tighter security of national borders versus the value of the national ideal of openness to immigration (Mitchell, November 22: A1). Also closely related to the dialectic of freedom and restriction is the more specific tension between the values of ‘small’ versus ‘big’ government. The newly appointed Director of the Office of Homeland Security, Tom Ridge, was forced to face this dialectic quite directly. “Mr. Ridge, the former governor of Pennsylvania, who campaigned at Mr. Bush’s side when the president ran against big government, acknowledged with some self-depreciation the oddity of now advocating a more robust federal government” (Mitchell November 22: A1). In his defense, Director Ridge asserted that “the government’s mission had changed on Sept. 11 and he murmured a part of the preamble of the Constitution, which speaks of providing for the ‘common defense. [...] I think there’s a legitimate expectation and anticipation on the part of the public that the federal government will do more” (Mitchell November 22: A1). Mr. Ridge asserted the need to “balance” this broadening of government and tightening of restrictions with the values of openness and freedom.

4.4 Effort and luck

One other reported tension was between luck and hard work. A *Times* article reported on “extensive” criminal and medical investigations that were proceeding “around the clock” and which nonetheless left investigators “a little bit surprised and disappointed” and “cautiously optimistic that we could get lucky” (Zielbauer November 24, 2001: B1). “But,” this same investigator added even more cautiously — and contradictorily, “it’s going to take some exhaustive investigative work” (Zielbauer November 24, 2001: B1). Hence the age-old tension between luck and work, which some manage by believing the adage that luck is 1% inspiration and 99% perspiration, whereas others adopt a view similar to one expressed in James Joyce’s *Portrait of the Artist as a Young Man*: “Consciousness, that blunt tool, bucks in the general direction of the truth. Instinct plucks the feather.”

5. Conclusion

Without doubt, the anthrax attacks on the United States in the fall of 2001 were exceptionally frightening and revealing. They were frightening due to the potential scale of the risk and the nature of the threat — a deadly agent, introduced invisibly, through mundane activity (few activities in this country are as taken-for-granted as the daily U. S. mail). There is yet another way to see the values at stake. As far back as the air assault on New York and Washington on September 11, 2001, commentators have asserted routinely that terrorism threatens both life and liberty (especially freedom from fear), which are two foundational American values (or “inalienable rights” as laid out in the nation’s Declaration of Independence).

The (bio)terrorist attacks have revealed other important features of American culture, particularly as it is represented in the elite U. S. press. This chapter has explored ways in which elite daily newspapers constructed the pervasive uncertainties associated with a bioterror attack during an eight-day period at the height of the scare. We found that, while it is possible to conceive of uncertainty from both epistemological and ontological standpoints, press stories during the eight days of the study period emphasized the former to the near exclusion of the latter. That is, uncertainties were most frequently cast as limits in available information, probability estimates, or simply as qualifiers on truth claims. News stories did not reveal efforts to consider directly the idea that uncertainties may reflect the very nature of bioterror, or what we termed ontological forms of uncertainty.

While the elite press did not consider ontological uncertainties directly, it did so implicitly. This occurred in the frequent formulation of dialectical tensions, such as ignorance-knowledge, normality-change, and freedom-restriction. These constructions revealed the underlying interdependence of ontological and epistemological uncertainty, but only implicitly. That is, in none of the stories was there an explicit realization that the challenge of knowing is dependent on the nature or character of that which we seek to know, and *vice versa*. Rather, these news accounts focused obsessively on epistemological forms of uncertainty, which were cast implicitly as surmountable by scientific-technological rationality.

In short, these elite U. S. newspapers constructed the uncertainties of bioterror as manageable challenges to current knowledge. In other words, the bioterrorist attacks suggested a need for what systems theorists refer to as “first-order change,” or change that occurs within the limits of current systemic organization (see Bateson 1972; Watzlawick, Weakland and Fisch 1974). For instance, because we had too little information about risks of anthrax infection, we needed to increase the level of available information on this matter. Where we appeared to have too much information, we needed to marshal the expertise necessary to winnow it

down to essentials. Where the bases for truth claims were uncertain, we necessarily asserted them — but accompanied by qualifiers.

With the single exception in the form of a fleeting report on a Lutheran Minister's sermon, what the press never considered directly was the possibility that scientific-technical rationality is unsuited to the nature of these acts of bioterrorism. In other words, there was virtually no consideration of what systems theorists call "second-order change," or change that reconfigures the parameters of the system, such as its standards of belief and value (again see Bateson 1972; Watzlawick *et al.* 1974). There was no direct recognition of the idea that (bio)-terrorism may by its very nature defy scientific-technical rationality in a variety of ways. For instance, terrorism is often designed to problematize the taken-for-granted, to appropriate convention for unconventional means, to fabricate menace out of the quotidian. The nearest the press came to this sort of realization was in grappling unreflectively with the dialectical tensions arising in the attack and conventional responses.

Why were these most significant national daily newspapers so blind to the possibility that conventional responses were not the only potentially relevant ways of making sense of and coping with the uncertainties related to the attacks? The uncertainties of bioterror are threatening not merely because they involve such apparently great risk to health, life, and freedom but also because they challenge the scientific-technical rationality so characteristic of U. S. culture. In a very real sense, to open dialogue in new directions, ones that open us to ontological uncertainties, requires discourse outside the traditional frames available in the culture. It requires openness to the free and searching exchange of ideas. It also requires an openness in values, and a willingness to see beyond the most immediate possibilities. Because of fear, because of entrenched interest, because the distance we must travel is so great, the possibilities for a meaningful expansion of discourse on bioterrorism are not great. Still, we must become strong advocates for free and broadly searching discourse if we believe that it is essential to national and global safety and survival.

Notes

1. See the contributions of Grant and Schmidt in this collection.
2. See H. Stam's chapter above.
3. Although our review uses the past tense, most of these issues are objects of uncertainty to this day.
4. The letter, which was postmarked Oct. 9 was actually discovered on "Nov. 16 in a batch of unopened mail sent to Capitol Hill and quarantined since the discovery of an anthrax-

contaminated letter to Senate Majority Leader Tom Daschle, D-S. D., on Oct. 15" (*USA Today*, November 25, 2001).

5. The idea of dialectical oppositions does not imply that there is only one opposition to a given term or only one antithesis to a given thesis (Rychlak, 1976). One person may understand the antithesis of a given thesis in a way that diverges from another person's understanding. "This is because what is affirmed in any given thesis is always some meaning expressed in a complex of meaning extensions" (Rychlak 1976: 15).

6. President Bush's message is more meaningfully characterized as a paradoxical injunction (Watzlawick, Beavin and Jackson 1967). As noted in the section above on mixed messages from the same source, the president has repeatedly enjoined the nation to return to normal as a way of combating terrorism at the same time that he has asserted that we now live in a new age of threat that requires extraordinary measures — including many that threaten basic constitutional freedoms — to fight threats to freedom. Indeed, these messages embed paradox within paradox.

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