Coding Elementary Contributions to Dialogue: Individual Acts versus Dialogical Interactions

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INTRODUCTION

By human dialogue we mean an interaction between two or more co-present participants using a system of signs. This involves reflexive, multi-layered and mutually interconnected processes that simultaneously fulfil diverse communicative functions. Research into dialogue reflects this complexity, displaying great variation in the issues examined and in the analytic methods applied. For example, what participants in a dialogue say and do is analysed by some researchers in terms of individual acts and in terms of dialogical interactions by others.

Individual acts refer to discursive processes and their products conceptualized by the researcher, at least for some purposes, as if they were autonomous units produced by individual participants. Such analytic procedures amount to a far-reaching abstraction from contexts.

By contrast, dialogical interactions are such discursive processes and their products that are conceptualized as joint, coordinated and mutually interdependent activities of both (all) participants. This conceptualization presupposes that interactions are viewed as multi-functional and reflexively interconnected activities embedded in the dynamics of a dialogue.

The latter types of assumptions about dialogical interactions entail, however, that many traditional research methods, in particular coding, appear as highly unsuitable for the study of dialogicality. Coding, by definition, dis-connects reflexively interconnected activities and freezes the dynamics of dialogue into timeless and stable units. This has given rise to divergent attitudes on the part of researchers. On the one hand, there are those, many of them psychologists, who regard coding as part of the necessary methodological arsenal in the analysis of human interaction. They usually see no particular deep-seated problems in transforming interactions into units of individual speech acts or individual
expressive behaviours. Rather, they may argue that the disadvantages of coding schemes may be outweighed by their psychometric advantages. On the other hand, there are those, mainly sociologists and discourse analysts, who doubt the usefulness, not only of coding but of quantitative methods in general. They argue that the dialogical properties of interaction entail insurmountable problems for all coding procedures. For instance, the feasibility of coding human interaction was seriously called into question by ethnomethodologists (e.g. Garfinkel, 1967), and by conversation analysts (e.g. Atkinson and Heritage, 1984), for whom it has been part of conventional wisdom that dialogical theory is incompatible with coding and quantification. They maintain that only qualitative methods can capture the interdependence, multifunctionality and reflexivity of human interactions.

Yet, one can argue that there are some research problems for which qualitative and ethnomethodological analytical approaches are not sufficient. Thus, coding could be motivated by clinical interests, i.e. by the aim of diagnosing abilities of particular individuals to use language in communication or to take part in interaction. For example, one might intend to examine a problem as to what kinds of institutional environment encourage or discourage clients with impaired speech, in dialogues with their carers, to ask questions. In order to study such a problem, it would be necessary to carry out the following steps: first, to define the relevant features of different institutional environments; second, to determine the criteria for their comparison; third, to identify and code dialogical contributions that count as questions in dialogues of people with impaired speech; finally, coded data would have to be quantified, correlations between frequencies of the different types of questions and contextual conditions to be calculated; and so on. Similarly, Heritage and Roth (1985), in their examination of news interviews, analysed questions and other kinds of activities using three distinct coding frameworks and at least one of these schemes is fairly interactional in kind. Clearly, specific research problems require specific methods, and certain forms of clinical, comparative and evaluative research are likely, for one reason or other, to rely on quantified data.

The question whether it is meaningful to analyse dialogical interactions, i.e. multi-functional and reflexively interconnected dependencies, only qualitatively, or whether coding and quantification has its place in the analysis of dialogue, has by no means a simple answer. For us, this issue is a matter of persistent concern. It is not, though, simply a matter of finding a middle ground between qualitative and quantitative methods in the study of human interaction. Rather, our concern is primarily a conceptual one. Given that dialogue involves joint, coordinated and mutually interdependent activities, is it meaningful, under any conditions at all, to analyse them using coding procedures? What should the properties of coding systems be to make it meaningful?

We shall discuss here the problem of coding elementary contributions to dialogue (turns or "utterances") rather than coding of larger units. e.g. episodes of different sorts (narratives, repairs, misunderstandings, teachings, etc.). Most coding systems have taken the route of treating elementary contributions to dialogue as individual acts (or behaviours). We shall, therefore, first clarify the conceptual difference between individual acts and dialogical interactions, and then discuss the methodological implications of this difference.

**INDIVIDUAL BEHAVIOURS AND INDIVIDUAL ACTS**

Let us first consider two main ways in which individual processes and products are conceived in speech and dialogue research. First, one can categorize utterances as *expressive behaviours*. Thus, utterances can be taken as some kinds of expression units, either grammatically defined or specified as a stretch of uninterrupted talk by one speaker. In this case they can be viewed as activities produced by either of the participants. The identification of such units could be important, say, for clinical purposes, in diagnosing the individual's linguistic ability and for the assessment of his or her vocabulary or of some other behavioural capacity.

The second way in which individual products are referred to in the literature on speech and dialogue is more contentious. Researchers often assume that interactions can be subdivided into *individual acts*. The study and the analysis of individual acts has a long tradition of research. In order to identify individual acts, researchers have commonly resorted to analytical procedures that subdivide the stream of discourse into smaller and supposedly more manageable units. These units may then be coded in terms of individual acts, e.g. 'speech acts' [according to some system derived from Searle's (1975) theory]. However, for reasons that we will further elucidate below, this kind of individual act is 'individual' only from a particular perspective, i.e. the one that defines them, for specific reasons, as an individual's contribution to interaction based on that individual's cognitions. We assume that all individual acts are of a social nature not only in terms of their social origin and cultural meaning (cf. Mead, 1934; Harré, 1983; Mühlehäusler and Harré, 1990; Valsiner, 1988; Leudar, 1991) but also in terms of their local, interactional micro-genesis.

**DIALOGICAL INTERACTIONS**

We have already defined dialogical interactions as processes and products that are jointly co-constructed, coordinated, contextualized and mutually interdependent activities of both (all) interactants. They come to the fore when the researcher is concerned with pragmatic meanings and sense-making activities. Such interactions and activities, being multi-functional, are parts of overarching communicative projects (for this term, cf. Luckmann, 1990). For instance, when Mr Smith
is mowing his lawn on a Saturday morning (Rommetveit, 1992, p.25), his activity
can be understood in terms of one or, more plausibly, several of the following
‘projects’: beautifying the garden, keeping up property value, engaging in physical
exercise (and, therefore, working), pursuing leisure-time activities (and, therefore,
no: working), or avoiding the company of his wife. Which of these senses are
brought into language is determined by the participants’ co-construction of their
(conscious or unconscious) communicative purposes (Valsiner, 1994) and by the
dialogically established contexts.

Although the concept of interaction has a long tradition in social science (for
a review of the significance of the prefix ‘inter’, cf. Farr, 1990), it is still much
in need of elaboration. The term ‘interaction’ has been applied to very different
kinds of relations. For example, it is used in the statistical analysis where it refers
to the effect that the manipulated variables have on each other. In social science
one refers to interaction between two individuals; between individual and society;
between individual and environment; and so on. In general, the concept of
interaction between two entities in mainstream science presupposes the existence
of independent entities that, for one reason or other, enter into mutual
dependence.

We define interaction, following others (e.g. Dewey, 1942; Mead, 1915;
Pearce and Cronen, 1980; Harré, 1983; Leudar, 1991) as a process involving
interdependent and complementary co-actions of participants. Actions and
contexts are related much like figure-and-ground. They come to existence
together and they co-change (or co-develop) together. They form a unified and
dynamic system, a gestalt, and all that goes on within this dynamic system is an
internally related transaction. In contrast, the above-mentioned notion of
interaction, as conventionally conceptualized, Dewey (1942) argued, implies a
separation of the dynamic system into two components and therefore, a
disintegration of this primarily unified and dynamic system.

Dialogical characteristics of interactions

The examination of the literature on dialogue, conversation, social interaction
and social communication that pertains, in a very broad sense, to socio-cultural
theories of mind (e.g. Baldwin, 1897; Mead, 1934; Volosinov/Bakhtin, 1973;
Wittgenstein, 1958; Rommetveit, 1974; Wertsch, 1991; Marková and Foppa,
Foppa, 1995) reveals repeated references to several defining characteristics of
interaction. While some of this literature presupposes such characteristics without
formalizing them explicitly (e.g. Mead, 1934; Wittgenstein, 1958), other literature
states them explicitly (e.g. Duranti, 1991). Without trying to present an exhaustive
picture, the most common defining characteristics of dialogical interactions
found in the literature appear to be the following:

a) Co-construction of meanings: this characteristic appears to form the very basis
of interaction. Meanings in dialogue are constructed jointly by the dialogical
participants (e.g. Mead, 1934; Volosinov/Bakhtin, 1973; Sacks, Schegloff
and Jefferson, 1974; Pearce and Cronen, 1980; Harré, 1986; Bakhtin, 1986;
Linell, 1990; Atkinson and Heritage, 1984; Duranti, 1991; Leudar, 1991;
Drew and Heritage, 1992; Valsiner, 1994).

b) Sequentiality: this characteristic refers to the fact that each contribution to
dialogue derives parts of its meaning from its positioning in a sequence (e.g.
Sacks, Schegloff and Jefferson, 1974; Atkinson and Heritage, 1984; Drew

c) Act-activity interdependence: this characteristic states that dialogical interactions
are essentially part of, and dependent on, superordinate activities, which
have been described as activity types (Levinson, 1979), communicative
genres (Bakhtin, 1986; Luckmann, 1992) or language games (Wittgenstein,
1958). There are reflexive relations between speech and contexts (Duranti,

These dialogical characteristics of interactions have been discussed in the
literature in various forms and combinations. No doubt it can be argued that
different or additional characteristics should be considered. For example, Duranti
(1991) included ‘four properties of speech-in-interactions’, namely, sequentiality,
co-construction, reflexivity and multi-functionality.

We shall now illustrate these three characteristics as defining features of
interactions, using an example from our own research.

An example

The example is taken from a conversation between F who has cerebral palsy
and J, who is F’s speech and language therapist. F is unable to walk and uses a
wheelchair. Her speech is dysarthric and she is trying to report a past event to
the therapist J. F is not understood when she tries to tell the therapist that on
Sunday she had a bar supper at Balmaha. Their conversation can be, in an
abbreviated form, transcribed as follows (the data and the transcript are taken
from Collins and Marková, 1995):

J: *okay4
F: lifts head and looks up at J
J: looks round at F
F: hhuh-on Sunday
J: *eh6 Sunday
F: nods
physically disassembled and reassembled by the participants: when the initial attempts at voicing the whole utterance by F are unsuccessful, they resort to spelling, with J first voicing the letters, and F then displaying her understanding by repeating them. Then, after construction of the first part of the referent, ‘bar’, it is the speech therapist F who takes on the role of issuing the utterance, as she proffers a string of guesses, leading her finally to the referent ‘bar supper’. Thus the utterance is not only jointly constructed by virtue of its constituent parts being supplied by both participants, it is also jointly constructed through the shared roles of the two participants: first, one interlocutor takes responsibility for initiating the utterance, and then the other does so, with mutual displays of reciprocality sustained throughout (Collins and Marková, 1995). Moreover, the extract shows how understanding is collaboratively achieved through the production of finely co-ordinated verbal and nonverbal actions. The collaborative nature of this display points to the importance of conceptualizing such actions as ‘a single, interactive activity of assessment that the participants collaboratively recognize, bring to a climax or peak, and then withdraw from’ (Goodwin and Goodwin, 1992, p.81), rather than viewing talk and iconic gesture, and a range of other actions as distinct channels of behaviour to be analysed separately. Yet, Light (1988) argues that in most of the research involving interactive communications of people with impaired speech: 

the behaviours studied to date have typically been coded and quantified in isolation from each other and from the partners’ behaviours . . . Although our theories generally take into account the dynamics of reciprocal behaviour of the dyad, our methodology has tended to centre on individual behaviours (Light, 1988, p.71).

As a result, it is difficult to interpret such data in any meaningful way.

Co-construction of meaning is a general and intrinsic feature of dialogue. There may be different kinds of divisions of discursive labour – it may be more symmetrically distributed than in the above extract – but the point is generally valid.

**Sequentiality.** We have implied that each utterance is dependent on its context for its situated interpretation, and that the context is jointly produced by the participants. Each utterance in the above extract derives part of its meaning from the prior sequence, and it then becomes reinterpreted as the sequence unfolds further. Thus, dialogical interactions are intrinsically sequential. This may be most obvious in the spelling sequence in the above extract: J’s ‘b’, ‘a’ and ‘r’ simply cannot be interpreted if ripped out of their contexts, where they appear as responses to particular utterances, the latter setting up conditions for mutual understanding. But F’s verbal contributions are equally dependent on the local contexts, many being likewise elliptic and responsive to previous context (‘You had a what’, ‘I didn’t catch that word; ‘try once more’, etc.).
Dialogical sequentiaity can also be expressed in terms of the interrelational nature of each dialogue contribution. For example, J’s question ‘you had a what’ is clearly responsive to prior talk, which J has not understood. At the same time, it puts restrictions on P’s following answer. If F chooses to answer the question, she has fairly circumscribed options (of which she in fact selects one: ‘a bar supp(phh)'). She chooses, later on in the sequence, a different option, when she starts spelling ‘B’. F could also have avoided answering the question, e.g. by indicating that she does not want to continue with their joint struggle to construct the joint reference, or by simply staying silent. Each such response would be interpreted in relation to the context given. Once F says ‘a bar supp(phh)’, she has defined a new micro-situation, in which J has to decide how to proceed. In this case, she chooses to pursue the topic, saying she still does not understand, ‘I didn’t catch that word’. And so on. Each contribution has a Janus-like nature, being both context-shaped and context-renewing (Heritage, 1984, p.242), having both reactive and proactive links to other contributions in the local context. These relational aspects of each contribution can be called responsive and initiatory (Linell et al., 1988), respectively.

**Act–activity interdependence.** The third dialogical characteristic is concerned with the ‘why of communication’. In dialogue, speakers’ ‘local dialogical activities’ are usually part of, and dependent on, superordinate activities, such as, for example, genres. The pattern of interactions in, say, a speech therapy session will have specific features that are different from a court trial or a news interview. The kinds, meanings and patterns of particular interactions and of their sequences are parts of a more global, overarching, project. In the above extract F is telling a story to J. The story is jointly constructed by both participants because F cannot tell it on her own. The type of questions that J asks in order to learn the referent ‘bar supper’ reflects the type of activity that goes on. In asking questions, J takes responsibility for non-understanding. Her requests for repetitions, the choice of words, e.g. ‘catch’ rather than ‘understand’, her switching from ‘you’ to ‘I’ when some blame is implied, all facilitate story telling but would be inappropriate in a different frame. For example, the following brief extract from a courtroom cross-examination in a rape trial (Drew, 1992; Gumperz, 1995) may be used here to emphasize our point about act–activity interdependence:

6. G: and you went to *a:uh <09> ah you went to a *bar:*z? in *Boston, <06> is that correct?
7. W: it’s a *club. 
8. C: it’s where uh uh <03> girls and fellas *meet, isn’t it? 
9. W: people *go there. 
10. C: and during that *evening: didn’t mister O come over to sit with you? <08> 
11. W: sat at our *table. 

One can see that in this cross-examination, Witness does not provide direct answers but disputes the Counsel’s use of words. Here the goal of interaction is to establish exact facts so that the judge and jury can make their decisions about guilt and innocence. As Gumperz (1983, p.107) points out the two participants appear to be engaged in a contest ‘in which of the several possible interpretations only one is to be accepted as correct’.

In both cases, clearly, acts and activities co-constitute each other (Levinson, 1979). Sequences of questions get part of their significance from the fact that what kinds of questions are asked and what responses are obtained is made in the service of an overall goal of communicative project which pertains to the whole sequence. The Balmaha example exhibits efforts to identify a common referent, while the trial excerpt involves a contest between competing perspectives on some events talked about.

**CODING ELEMENTARY DIALOGICAL CONTRIBUTIONS AS INTERACTIONS**

Coding is a procedure that involves unitization and categorization of data (e.g. Guetzkow, 1950; Edwards and Lampert, 1993), often with a system of mutually exclusive and exhaustive categories. The usual procedure involves the following steps. The data are transformed into sequences of ‘units’. The units are assumed to have categorical properties. The coder will identify and group such elements that can be viewed as belonging together and treated, from the particular perspective of some research purpose, as being of the same kind. The method involves a predefined system of categories which imposes its own particular perspective disregarding multifunctionality and activity-embeddedness of such units. It is of course always possible to refine the category system and to develop techniques that would to some extent moderate the effect of imposing a fixed set of categories. However, the abstractions involved in coding practices are by definition bound to work in the direction of disregarding the dynamic, multi-layered nature of dialogue.

Elementary dialogical contributions are primarily **turns** by single participants (e.g. Linell et al., 1988; Stiles, 1992), although some researchers work with **two adjacent contributions** by two single participants (Stiles, 1992, p.29; also Lampert and Ervin-Tripp, 1993) or with **three-party units**, e.g. initiative–response–feedback (e.g. Sinclair and Coulthard, 1975). Our discussion in the following section will be directed mainly to elementary dialogical contributions of the first mentioned type. The other two alternatives face considerable conceptual difficulties, since it is hardly possible to divide any kind of dialogue exhaustively into adjacency pairs or three-partite sequences.

However, if dialogical interactions are mutually constructed by the participants, are defined by sequential position and are interdependent with activities of which they are part, then coding systems **which do not take these dialogical characteristics**...
known to them. Alternatively, it may be about the other participants’ experience, i.e. the speakers may ask questions about something possibly known to the other participants, describe the others’ feelings and so on. With regard to the frame of reference, either self or other could provide the perspective (viewpoint, schema, or theory; Stiles, 1992, p.62) used in the utterance. Finally, *presumption about experience* refers to whether the speakers, in making their speech acts, presume to know what the others’ experiences (knowledge, opinions, feelings, etc.) are or whether the speakers make no such presumptions.

VRM analysis is based on co-construction since it consistently refers to the self–other relationship. However, since the model makes no consistent use of contexts outside the single utterance, many of the pragmatic meanings are quite often reduced to speaker’s intent (to the extent that this is ‘on-record’). It appears that if co-construction of meaning is conceived only within a single elementary contribution ignoring outside context, it necessarily slips into treating interactions as individual acts.

Yet Stiles’s system, based on self–other relationship, contains certain ingredients of a dialogically-oriented coding system. What is needed, though, is a systematic coding of self–other contribution in each turn, as well as some way of capturing the sequential dependencies between turns and their local context of prior and next turns. We shall return shortly to this kind of coding system.

Coding and sequentiality

For a long time now, some researchers have been sensitive to the fact that interactions are sequentially organized and mutually interdependent and that it is important ‘to discover the degree and nature of this interdependence’ (Barker, 1963, p.12). In the 1960s, behavioural scientists invested much effort in statistical analyses, first to discover how interactions sequentially unfold in time, and second to find patterns in their sequences. It was anticipated that the computation of contingent probabilities would enable predictions regarding the occurrence of particular behaviours on the part of one interactional participant and their particular follow-up responses on the part of the other (e.g. Garne, 1958; Ashby, 1958; Kemeny, Snell and Thompson, 1956; Raush, 1963). As a result it was argued by these authors that the fact that interactional data are dependent should no longer be ignored or seen as an obstacle to research as was the case in classical parametric statistics (e.g. Gottman and Bakeman, 1979). Bakeman and Gottman argued that

In the sequential analysis of observational data . . . we want to detect dependence in the observations. To do this we compare observed frequencies with those we would expect if the observations were independent. Thus, dependence in the data is not a ‘problem’. It is what we are trying to study (Bakeman and Gottman, 1986, p.135).
In order to cope with responses that are delayed or that are returned to after a lapse of time, so-called lag sequential techniques have been devised (Sackett, 1979). Sackett (1978) defined lags as the number of event- or time-unit steps between sequential behaviours. Lag sequential techniques enable the researcher to compute the probabilities of responding to behaviours matched with initiatives after different time lags.

Probability statistics, however, define sequentiality and dependence between units externally, i.e. in terms of patterns of re-occurring acts, e.g. questions, by different individuals. For example, two units such as question and answer are only assumed to be related externally, i.e. as combinations of grammatical forms or otherwise, but not internally, i.e. as an intersubjective co-construction of meaning by the participants in a single communicative project. Sequentiality in speech act theory, as discussed elsewhere (Linell and Marková, 1993), is conceived in a similar manner. The sequences are dealt with as external to particular constituent speech acts and each act is taken as if autonomous and not intrinsically contingent on the act of the other participant.

For a coding system to treat sequentiality as an internal boundedness of dialogical contributions, it must assume co-construction of meaning by both participants. Co-construction of meaning in interactions has, itself, sequential characteristics: it is orientated both towards past and future dialogical contributions; acts and their contexts are co-constituted. Sequentiality, as a characteristic of dialogical interactions, means that each elementary dialogical contribution is dependent on its prior context and contributes itself to setting up conditions for possible next contributions.

Since requirements on reliability of coding demand a formal basis, one has to base identification of units on manifest features, which in effect brings the analysis to one of (for example, assigning illocutionary meanings to) expression units (sentences, utterances). Thus, it seems as if the logic of coding forces the researcher back to a monological ontology of individual acts and individual behaviours. However, this is by no means a necessary consequence. We have argued in the previous section, using Stiles's system as an example, that one can base a coding system on a dialogical characteristic such as co-construction. What is now needed is a combination of co-construction and sequentiality of elementary contributions. This is the route taken by, for example, Initiative-Response (IR) analysis (Linell, 1990). Here, we analyse each contribution systematically and simultaneously in terms of its retroactive ties (response aspects) to prior contributions and proactive ties (initiative aspects) to possible next contributions. Rather than being separate units (speech acts) in themselves, such responsive and initiatory properties are aspects of all contributions (turns), and as such are combined in different ways. Thus, IR analysis forms a theoretically coherent system of mutually exclusive and exhaustive categories. Like all coding systems, such an analysis is, of course, just a tool for solving certain research questions (in this case: issues relating to dialogue coherence and interactional dominance), but it points to the possibility of designing coding systems consonant with sequential dialogical characteristics of human interaction.

Coding and act–activity interdependence

The third dialogical characteristic, act–activity interdependence, raises in part rather different problems for coding. Let us look at some of the problems involved.

Participants engage in different kinds of discursive activities, and researchers collect data from such divergent sources, in each case with some particular goal in mind. We may be concerned with family interaction (Ervin-Tripp, 1988), problem-solving in small groups (Bales, 1950), (naturalistic or simulated) business negotiations (Donohue et al., 1984; Morley and Stephenson, 1977), interaction with preschoolers or young children in general (Dore, 1977; Blank and Franklin, 1980) and in children with pragmatic difficulties in particular (cf. McTear and Conti-Ramsden, 1992). VRM analysis (Stiles, 1992) has been developed first and foremost for the analysis of psychotherapeutic sessions, counselling and medical interviews (though the system has been applied to many other domains). IR analysis (Linell et al., 1988) was originally developed to deal with various institutional and educational contexts of dyadic interaction. In general, in devising coding schemes, the researchers and practitioners tend to respond to the needs and concerns of particular domains of application (Stiles, 1992, p.35; Lampert and Ervin-Tripp, 1993, p.171).

In devising a specific coding system for elementary dialogical contributions, the researcher disregards the fact that they are dependent on superordinate activities. In coding elementary dialogical contributions the natural structure of conversation – as many researchers conceive of it – disappears. Such a procedure has been a crucial point of criticism by conversation analysts (Scheffgoff, 1993; Heritage, 1993; Firth, 1995) who, in discussing the problem of coding, have raised the question of 'the relevant denominator' involved in determining the relevant frequency measures of various discourse phenomena. For example, suppose we want to determine the interactional role of a marker for the reception of news, e.g. oh (Heritage and Roth, 1995), and we want to know its frequencies in conversations of different kinds. Single markers, such as oh, are embedded in, and their meanings are co-determined by, the communicative practices and superordinate projects. Different activity types do not provide the same opportunities for relevant occurrences of a given unit type, such as oh.

We conclude that act–activity dependence of interactions has practical consequences for coding and we shall draw attention to two of them. First, the differences between applications of the same coding system serve to caution us against heedless comparisons of coded data across activity types or genres. Presumptuousness (as investigated by VRM analysis) in one context may mean
something different from presuppositionalness in another context, and the same
applies to e.g. fragmentation of discourse (as explored in IR analysis) across
contexts. The scientific value of quantifications actually lies more in differentiating
between cases and styles within fairly homogeneous corpora of data (such as
psychotherapy sessions or courtroom examinations, or discourses involving
the same interlocutors in different activities) than in comparisons between wildly
different activities with perhaps entirely different participants.

As we already pointed out, coding is often motivated by clinical purposes, i.e.
by the aim of diagnosing abilities of a particular individual to use language in
communication or to take part in interaction. The second caution is related to
the fact that what an individual A does in the specific interaction is dependent
on the activity type, on the particular conversational partner, and probably on
a host of other factors. Therefore, coding the elementary dialogical contributions
means coding A's actions in that particular (kind of) interaction, rather than A's
communicative abilities or accomplishments in general. Now, if indeed we want
to diagnose A's abilities, across a broader range of activities there seems to be
no alternative but to code A's interactions in a number of different (carefully
selected) types of activity and, possibly, with different partners.

Summary

The examination of the three dialogical characteristics of interactions has
revealed that there are some coding systems which are based, at least to some
degree, on the construction of meaning and on sequentiality. It is possible to
construct coding systems in which these dialogical characteristics are accounted
for more systematically and in more pronounced ways. With respect to act–
activity interdependence, dialogicality can feature to the extent that the researcher
takes into consideration the activity-specific nature of codes and does not apply
a particular coding system universally across different kinds of discourse.

CODING AND THE REFLEXIVITY OF HUMAN DISCOURSE

The three dialogical characteristics, and particularly act–activity interdependence,
involve various aspects of reflexivity of human interaction. One can say that there is
a double reflexivity involved in the analysis of discourse and in other human
projects and actions. The first kind of reflexivity refers to the fact that we are
dealing with data derived from situated language use that is in itself reflexive,
dynamic and multi-functional. The second kind of reflexivity refers to the fact
that coding practices are themselves particular types of discursive activities or
language games.

Consider, first, the reflexive relations between speech and contexts, or what
one may call 'first-order' reflexive relations. What people say in conversation is
to a great degree dependent on their common knowledge that is part of the
culture in which they live. Much of their culturally transmitted knowledge is
internalized, conventionalized and automatized and will enter their awareness
only when the stretch of activities is interrupted for one reason or other or does
not proceed according to taken-for-granted and unreflected-upon routines.
Gumperz (1995) discusses these issues in terms of mutualities of inferencing
and contextualization conventions. In other words, in mundane conversations
speakers may not be aware of their communicative projects and of act–activity
interdependence. Reflexivity between speech and context was shown, for
example, in the above extract of conversation between F and J that we have
discussed in the earlier part of this paper. The process of construction of the
referent by J and F relied on their common and culturally transmitted knowledge.
When J, in searching for the referent, assumed that the word she tried to guess
started with the letters BAR-, she guessed that the word was 'barbecue'. Spending
a Sunday afternoon at Loch Lomond might be a good opportunity for having
a barbecue, so B's guess made a great deal of sense. In contrast, other words
starting with BAR-, such as 'baroque', 'bargain' or 'barber' would not, in
common knowledge within that particular culture, refer to likely events. These
possibilities, therefore, were eliminated by the context itself.

Another kind of ('second-order') reflexive relationship exists between the
application of coding and the requirement of consistency across different
discourse types. Even if coders strive for absolute consistency in coding across
discourse types, the rule systems used are never, strictly speaking, absolutely
invariant across applications and over time. In jurisdiction, a law is continuously
accommodated to cases and practitioners develop routines of application; as a
result new rules of applications are gradually incorporated into the body of
legal principles. Similarly, most coding theorists admit that established coding
categories have to be amended and accommodated, as new kinds of data,
presenting new kinds of coding problems, are taken into consideration. For
example, psychotherapy sessions, language lessons, police interrogations, inter-
action with preschoolers, labour-market negotiations etc. may demand partly
different interpretations and specifications of coding categories. In other words,
the coding of, say, psychotherapy sessions and language lessons with the same
general-purpose system, e.g. either VRM or IR, are in fact subtly different
activities; the coding is sensitive to differences in the activity types of discourse
data. Undoubtedly, part of this activity-specificity will be tacitly incorporated
into the routines of coders, but the goal should be to make explicit whatever
activity-specific coding rules are adopted.

Therefore, coding discourse data does not simply amount to making a neutral
representation of properties of data; it consists in applying certain coding
conventions to data, selectively imposing a certain structure on the data. The
coding activity itself is of course dependent on, and constitutive of, particular scholarly goals and concerns. At the same time, it is an activity in which one is supposed to apply one single coding system in the same way to all kinds of discourse data.

Like many other institutionalized discursive practices, in the application of fixed administrativ or scientific categories to an ever-changing social reality, coding might be described as 'situated decontextualizing practice' (Linell, 1992). Such practices are firmly embedded within particular cultural contexts, and must be understood as reflexively related to those contexts.

CONCLUSION

In this paper we have pointed to the vast conceptual differences between a stretch of discourse conceived as a series of individual acts (or expressive behaviours) and as a dialogical interaction. Coding of a series of individual acts and of dialogical interactions are conceptually two quite different matters. This issue, however, has often been confused. Researchers, using coding as a method of dialogue analysis, have often failed to distinguish between individual acts and dialogical interactions. As a result, most coding systems have properties suitable for the coding of individual acts but not of interactions.

We have argued that an interaction has a number of dialogical characteristics; amongst them, the joint construction of meaning, sequentiality and act-activity interdependence appear to be the essential ones. We have pointed to the conceptual problems involved in providing coding systems for interactions that could preserve the dialogicality and reflexivity inherent in interactions. What is required are new coding systems and new ways of looking at the practice of coding human interaction. Some aspects of dialogicality are already built into a few existing coding systems. We envisage that in building on these dialogical characteristics, more suitable dialogically orientated coding systems can be developed.

In addition, one must call for an awareness, on the part of analysts, of the reflexivity of the coding practices themselves. For example, one must be aware of the fact that applications of a given coding system cannot be invariant across different activity types. One should be sensitive to the double reflexivity that is involved in the analysis of dialogue and of other social actions.

The practices of coding are themselves worth systematic, empirical studies. Such studies would reveal the kinds of context-sensitive considerations involved in actual coding (cf. Garfinkel, 1967; Cicourel, 1964). With respect to this, a reviewer of this paper has argued that 'a science of coding is not possible, except as a practical matter'. We agree that a coding system is a method (not a theory), a heuristic for dealing systematically with data for some particular purpose (whether research-generated, or clinical or in any other way 'practical'). All scientific activities are 'practical' at one level or another; they are subject to various conditions, some of which are not theory-based in the sense of being derived from a scientific theory of the subject matter. Yet, such scientific practices can be more or less consonant with particular theories or more general theoretical frameworks.

We have argued in this paper that coding of human interaction can be made logically compatible with dialogism. Coding is a situated decontextualizing practice, freezing (for some current purpose) the dynamics of dialogue as well as the analyst's perspective on dialogue. It does not amount to a mechanical application of necessary and sufficient criteria for inclusion under particular categories. Rather, the application requires efforts to create a "fit" between code and data (accommodation of categories, assimilation of data to existing categories). Such methods may be used (when there is some point in using them) alongside qualitative methods. These qualitative methods are situated and decontextualizing too, although in ways that are different from the coding practices.

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NOTES

1 Recently, some CA theorists, notably Schegloff (1993) and Heritage and Roth (1995), have begun to argue that quantification and coding can be used under certain circumstances.

2 We shall assume here that the relevant units of analysis are turns, i.e. contributions that are expressed, i.e. physically produced, by a single participant when he or she holds the floor without interruption. Some analysts and coders prefer sentence-sized 'utterances' as coding units. While there are some consequences of the choice of particular types of unit used in the analyses, we need not go into detail here, since they are immaterial to our basic arguments.

3 In such a case, in order to categorize utterances into, say, short ones with four or fewer words, and long ones, with more than four words, the researcher can ignore the fact that utterances are jointly, i.e. dialogically produced, and that their length is, at least to some extent, interactionally negotiated. Similarly, suppose that the researcher is interested, for some reason, in categorizing and counting occurrences of grammatical
REFERENCES


