

REASONS FOR MANAGEMENT IN SPOKEN DIALOGUE

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Abstract

This paper characterizes and exemplifies management in dialogue. *Own communication management* (choice and change directed) is distinguished from *interactive communication management* (sequences, turn management and feedback). An attempt is then made to motivate and explain the existence of various types of interactive management in dialogue. The suggested explanations involve a combination of general rational and ethical factors with more specific factors related to particular types of management.

1. Purpose

A point of departure for this paper is that a number of different phenomena in spoken dialogue (like self correction, hesitation, feedback, and turntaking) exist primarily in order to enable management of dialogue. The term *management* has been chosen instead of the related terms *regulation* and *control* because it is less authoritarian and machine-like and allows, but does not require, intentional control. The purpose of the paper is to briefly describe and initiate an explanation of some of these types of management.

2. Background

My account will presuppose a framework for the description of spoken interaction, (cf. Allwood 1984 and 1992), where language and communication, in general, but especially spoken language, are seen as aspects of underlying social activities for which they serve a mainly instrumental role. Communication is taken to be an essential instrument of activity coordination in a given natural and social environment. Spoken communication is constituted by utterances (more generally by contributions) from speakers in specific activity roles to listeners in other activity roles, for example, a lawyer talking to a client or a sales clerk talking to a customer etc. Each role is described in terms of the duties, privileges

and competence requirements which go with the role. The actual properties of the communicative interaction are seen as being codetermined by many different factors including the following:

- (i) The physical, biological, psychological and social background of the communicators
- (ii) The activity at hand with a certain purpose, particular roles and available resources
- (iii) The social, cultural and natural environment (including linguistic and communicative conventions pertaining to environment, activity and individual background).

Since the requirements on both communication per se and on the activities underlying the communication are very varied and complex, management becomes necessary to ensure efficiency, flexibility and quality of both activity and communication.

3. Management in spoken dialogue

In order to get a better understanding of the kind of management which is required, let us now take a look at some features of spoken dialogue. In the descriptive framework presupposed here, an utterance can be subdivided into (i) *management* related parts and (ii) *main message* related parts. Both main message and management features have a backward orientation with regard to preceding discourse as well as a forward orientation with regard to coming discourse. To illustrate consider the following example, where ? signifies rising intonation:

- (1) A (ice cream salesman): ice cream?
B (customer): yes vanilla eh no chocolate

The salesman's utterance *ice cream*, said with a questioning intonation, could, for example, simultaneously express an intended offer and a desire for information about the hoped-for customer's intentions. The utterance with this message would also normally be intended to evoke the prospective customer's perception, understanding and, in the case at hand, positive reaction to the message. Except for the rising intonation, the management features in A's utterance are largely implicit. A relies on the main message and the obvious role and activity expectations generated by the physical, social and artifactual attributes of his location (his ice cream stand and ice cream salesman uniform) to put sufficient interactive pressure on B (cf. Bunt 1993). The rising intonation of his utterance would, however, be counted as a management related feature with an interactive function.

The need for management is strengthened by the fact that contributions (utterances) in a dialogue normally are connected with both sender directed and receiver directed obligations (cf. Allwood 1976). The sender has responsibility for his contribution in the sense that he in many contexts is

- (i) supposed to be sincere, (ii) supposed to have reasons/motives for his utterance, and (iii) supposed (not) to make contributions that (do not)

take the receiver into cognitive and ethical consideration. (The choice of a negative or positive formulation here depends on how strong a version of the "golden rule" you subscribe to.) I refer to these as the *sender obligations of sincerity, grounding and consideration*, respectively.

When a contribution has been made, it normally generates two receiver directed obligations. The first is that the receiver should consider the sender and evaluate whether he is willing and able to continue the contact and to perceive and understand the message. He should also evaluate whether and how he is willing and able to respond to the main evocative intention of the preceding contribution. The second obligation is that he or she should act in accordance with the result of the evaluation, which should mean some form of response to the sender. We can call these the *receiver obligations of consideration (evaluation) and response*. Efforts to satisfy and manage both sender and receiver obligations are an important part of what creates cohesion and dynamics in dialogue.

Let us now return to the customer B, who upon noticing the salesman A becomes connected with A and his utterance through the (receiver) obligation of consideration.

He will therefore, more or less consciously, evaluate and decide whether he is able (and willing) to continue contact, to perceive and understand what A is doing and saying and whether and how he should respond, in the event that he is able and willing to continue contact. He could, for example, *do nothing and just watch*, or say "pardon" if he can't hear, say "what is ice cream" if he is learning English, "shut up" if he wants to be insulting, "no thanks" if he wants to break contact in a fairly polite way, etc. In the example given he says "yes vanilla eh no chocolate", which, in the framework mentioned above, could be given the following analysis:

The word "yes" would be classed as a positive feedback giver, with a clear interactive communicative management function (IACM) (cf. Allwood, Nivre and Ahlsén 1992), which affirms part of, or all of the evocative intentions of the preceding utterance. How much is affirmed depends on how the utterance following the "yes" continues. In this case, the "yes", in combination with the lack of relevant counter evidence in the rest of the utterance, affirms contact, perception, understanding and positive reaction to the salesman's offer of service. Since the offer is related to ice cream, the next word "vanilla" which, in fact, refers to a type of ice cream turns the positive reaction into an acceptance of the offer and a specification of the type of service wanted (i.e., a sort of request).

The next words "eh no" are related to what, in the framework mentioned on page 2, is called own communication management (OCM) (cf. Allwood, Nivre and Ahlsén 1990). The word "eh" functions to express hesitation and choice and the word "no" to express cancellation and change. The word "chocolate", finally, gives a new main message specification to replace vanilla which has been cancelled. We thus have two main kinds of management in spoken interaction:

- (i) Own communication management (OCM) and
- (ii) Interactive communication management (IACM).

OCM provides mechanisms which allow a speaker to manage his/her own communication with regard to processing, choice (including hesitation, etc.) and change (including cancellation). IACM provides mechanisms which allow a speaker (and to some extent a listener) to structure the flow of interaction in the following respects:

- (i) Sequencing (with regard to subactivities, topics, speech acts, etc.)
- (ii) Turntaking (with regard to yielding, holding, giving, taking and assignment of turns)
- (iii) Feedback (with regard to contact, perception, understanding and reactions to evocative intentions)
- (iv) Rhythm and spatial positioning.

Together OCM and IACM are therefore essential to make speech and gestures efficient and flexible instruments for sharing of information under different conditions pertaining to activity and interpersonal relations.

4. The Role of Context

In discussing the role of context for communicative management functions and other communicative functions, we can, as is common practice, distinguish a type level and an occurrence (or token) level. On the occurrence level, the meaning (including what here somewhat vaguely is called function) of all contributions to communication depends on context.

Thus, let us contrast the child's utterance in the following dialogue with the salesman's in the preceding one:

- (2) A (parent, returning home): do you know what I have in the bag
 B (child): ice cream?

In both cases, the utterance is "*ice cream*" with rising intonation, but we can easily imagine that the utterance could have different functions in the two contexts. In the case of the ice cream salesman, it expresses willingness to perform service and desire for information concerning whether this service is wanted. In the case of the child, it might merely express a guess on the part of the child. As has already been stressed, this difference in the functional role of the utterance can most easily be explained by the differences in speaker role, activity and preceding utterance that exist between the two cases.

Besides giving a relatively full context dependent account of functioning on the occurrence level, we can also give an acontextual type level account which is a more abstract partial account relying only on the utterance itself. In this case, we might, for example, say that an utterance of "*ice cream*" with rising intonation can be used to express a wish for some type of information related to ice cream which is connected with an

intention to evoke this information. A type level analysis need not, however, be completely acontextual. It can be related to context in an abstract way. For example, the word "I" can be said to always pick out the contextually given currently relevant communicator (or thinker).

Like other communicative functions, management functions on their occurrence level are, thus, contextually determined. For example, depending on context a "no" can be used to negate if it follows an affirmative statement or to confirm if it follows a negative statement. Compare the status of B's utterance in the following two cases.

- (3) A: it is raining
B: no it isn't (denial)
- (4) A: it isn't raining
B: no it isn't (confirmation)

"No" can also be used in other functions, e.g. as a cancellation device for own communication management, as we saw in the example discussed above.

5. Another Look at Management

5.1 General

On a general level, reasons for the existence of management functions in communication have to do with ensuring an optimal functioning both of communication per se and communication as an instrument for underlying activities. This means that management mechanisms must be able to influence both communication features per se and the various background factors, which, in section 2 above, were said to codetermine the properties of communication. I will here restrict myself to a few remarks which become relevant when communication is seen as a species of motivated rational action and interaction. Given this perspective, the main reasons for communicative management are to ensure the rationality and ethicalness of communication.

Departing from the four factors which according to the present framework are thought to mainly influence activity based features of communication, we can distinguish four general areas which require management both from a rational and an ethical point of view.

- (i) Purpose; purpose relevance (functional)
- (ii) Role; role relevance
- (iii) Artefacts and management; artefactual attunement
- (iv) Social and natural environment; environmental attunement

From a rational point of view, it should be possible to manage communication in such a way that it both achieves its basic purpose - sharing of information - and the purpose of the underlying activity in which the communication is being used. There must, therefore, be devices

that ensure perception and understanding (feedback). It must also be possible to manage it in such a way that it can serve a useful purpose in coordinated activities, i.e., there must be ways of managing the distribution of the communication roles of sending and receiving information (turntaking) and there must be ways of dividing the communication in parts so that it best serves the needs of the underlying activity (sequencing). There must further be ways to manage communicative requirements of a specific role in the activity and there must be ways to manage communication so that it best fits with the artificial and natural environment of the activity.

From an ethical point of view, it must be possible to manage communication in such a way that the following goals are maximized (cf. Allwood 1976, and for a slightly different perspective Grice 1975):

- (i) Freedom of communication
- (ii) Avoidance of pain and possibility to seek pleasure
- (iii) Correctness of information

To a degree which varies with culture and activity, there will be norms for achieving these goals. Often they are norms of communicative politeness used, for example, to manage turntaking or to guide ways of reporting one's reactions to another person's communicative contributions. The goals and the specific norms will form the motivation for different idioms of politeness and can be used as the basis for positive and negative sanctions of interlocutors against each other.

5.2 Interactive communicative management functions

Below, I will now take another look at interactive communicative management functions and attempt to say a little more about their *raison d'être*. I will consider three types:

- (i) sequences
- (ii) turn management
- (iii) feedback.

Sequences

Most complex activities can be subdivided in different ways. Such divisions can be made both with respect to an activity holistically (including communication) and more specifically with regard to its communicative aspects (cf. Schegloff and Sacks 1973). For example, it is often possible to divide an activity into subactivities or topics which in turn can be subdivided into sequences of communicative acts or into sequences of premises and conclusions.

Such units frequently are not merely an analytical tool for a researcher but also have psychological and social reality for the participants in the activity. Thus, they are often connected with mechanisms for:

- (i) initiation (opening, entering an activity, a subactivity or a topic)
- (ii) maintenance (maintaining a subactivity or topic)
- (iii) changing (changing a subactivity or topic)
- (iv) ending (closing an activity, a subactivity or a topic)

From what has already been said, the motivation for mechanisms of this type should be fairly clear. In order to achieve the goals of most activities, a decomposition of the activity as a whole into component subactivities will be necessary on logical, physical and functional grounds. Everything can not be done simultaneously, rather a sequence of partial results which fit into each other is required. Even if in most cases such divisions can be functionally motivated, a subdivision may in some cases be the result of a historically given custom which is no longer clearly functionally motivated. Thus, we add the motivation of historical convention to that of functional necessity. Another special case which is interesting are the reasons for why communicative interactions are divided into distinct utterances (or turns) and characteristic combinations of these (cf. Sacks 1975). The basic reason is perhaps that human beings are not rigidly integrated parts of a collective information processing system, but distributed and fairly autonomous information processing agents who have a need for flexible information coordination. However, since there is also a need for a certain rigidity and predictability, this leads to the building up of communicative obligations in relation to certain evocative communicative intentions in certain contexts. For example, you should try to answer questions or you should try to respond to greetings. This, in turn, leads to the existence of fairly stable combinations of speech acts (adjacency pairs) such as greeting-greeting, question-relevant answer, etc.

Management of turns

In the present framework, a turn is defined as a speaker's right to the floor. (This definition is slightly different from the classical one given in Sacks, Schegloff and Jefferson 1974). Turns differ from utterances since one can have the turn without uttering anything. One can also utter something without having the turn, for example to give feedback to a current speaker. Norms regulating the right to the floor are connected with such things as who may speak, about what topic, at what time, how long and in what manner. Activities can vary from allowing simultaneous talk with few restrictions as to topic, time, duration and manner to distribution of turns administered by a specially designated .turn assigner, e.g. a chairman who might impose clear restrictions on topic, time and manner.

Turn management is carried out through a number of subfunctions (for an early description cf. Duncan 1974), whose verbal and nonverbal expression is often standardized in a way which may also vary with activity and culture. Some of these are:

- (i) Means for assigning turns
- (ii) Means for accepting the turn
- (iii) Means for taking the turn (interrupting)

- (iv) Means for maintaining (keeping) the turn
- (v) Means for yielding the turn

If we reflect on the reasons and motivations for why there might exist ways of managing the distribution of turns, I would like to point to two types of motivation.

- (i) Physical-psychological constraints: there are physical and physiological constraints on human information processing ability. We cannot both send and receive a large number of simultaneous messages. Even sending or receiving two simultaneous messages causes problems. It is also the case that several simultaneous messages may interfere with each other and lessen the probability that any one of them reaches its destination.
- (ii) Requirements of motivated, rational and cooperative communication and need of conventions to support these requirements:

Given the already mentioned physical and physiological constraints on communication, and given rational constraints having to do with communicating efficiently in some activity and ethical constraints (for example, allowing everyone a just chance to both send and receive information) which are relevant for many types of interaction, a system for managing turns is clearly motivated. Since, however, the constraints already mentioned (physical, rational and ethical) still leave many degrees of freedom for how this system should be managed, we may empirically observe that systems of conventions bound to particular cultures and activities have developed. For example, in Swedish and other western cultures, it is much harder to interrupt someone (take the turn) in a formal meeting than it is in an informal meeting.

Feedback

Another aspect of interactive communication management concerns means to ascertain whether your interlocutor is able and willing to continue, perceive, understand and how he reacts to the main evocative intentions of your message. The set of verbal and bodily means which allow interlocutors, in a minimally obtrusive way, to both elicit and give information about these basic communicative functions has been called the linguistic feedback system (cf. Allwood, Nivre and Ahlsén 1992). As is the case with the systems of turn management, the conventions involved in systems for managing feedback with regard to contact, perception, understanding and main evocative intention vary with culture and activity. So, for example, in informal conversation auditive feedback seems to be more important in Swedish and Japanese conversations than in conversations in the Rio de la Plata area of South America, where visual feedback is more important. An example of activity influence can, for example, be seen in the way a simultaneous "m m" (as an indicator of contact, perception/understanding and possibly acceptance) occurs in informal conversation but not in public lectures (in Swedish culture).

If we turn to the reasons and motivations for management of communicative feedback, it seems plausible that contact, perception and understanding are a sine qua non of one-way communication while two-way communication also requires reactions to evocative intentions. Without feedback, in this sense, and ways of managing it, no communicative activity or system of communication can ever hope to aspire to such properties as robustness, relevance, adequacy and flexibility.

Feedback systems can also be related to another fairly basic type of management in communication, namely, the need for ways of managing (repairing, correcting) other interlocutor's contributions with regard to correctness, relevance, etc. Such reactions to other interlocutors can be seen as a kind of elaborated feedback governed by various types of normative considerations.

As for the reasons for this type of feedback, one might say that it exists in order to provide interlocutors with the means to impose normative constraints (e.g. ethical or rational) on each other.

6. Concluding remarks

In this paper I have outlined a few components of a framework for describing and explaining communicative interaction (cf. Allwood 1976, 1984 & 1992) in which management of the ongoing dialogue plays a central role. To put my claims in a nutshell, I have argued that management is necessary to ensure optimal on-line organization of communication under changeable circumstances in the service of an underlying activity, where both communication per se and the underlying activity are under certain rational and ethical constraints.

The systematic verbal and bodily means for management which exist in spoken dialogue serve to uphold physical, physiological, functional (rational) and ethical requirements on communication.

They also give interlocutors flexibility so that they can handle "on-line" any unforeseen changing circumstances. This, in turn, has the consequence that normal (spoken) dialogue is a remarkably robust system of communication.

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