

Notes on Dialog and Cooperation

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Abstract

This paper describes some of the basic cooperative mechanisms of dialog. This is done by firstly, providing a characterization of cooperation and secondly, providing a brief overview of the mechanisms of dialog and thirdly, showing how regular features of dialog such as adjacency pairs are constituted through cooperation.

1. Purpose

The purpose of this paper is to discuss some of the ways in which dialog is cooperative in nature. In order to achieve this, I will first discuss the concept of cooperation, then briefly describe some fundamental features of dialog, in order finally to exhibit the cooperative nature of normal dialog.

2. Cooperation, communication and activity

The nature of cooperation has been debated at least since Peter Kropotkin's (1902) treatise on mutual aid. In the field of language and communication, an important contribution was made in Grice (1975) where an explication of communication as cooperative was made through the proposal of 4 maxims of rational communication which Grice, inspired by Kant, called the maxims of quality, relation, quantity and manner. In other work by for example Herbert Clark, communication is claimed to be collaborative rather than cooperative, cf. Clark, 1986. My point of departure for the present purposes is the definition of cooperation given in Allwood, 1976. Cooperation is there claimed to be a matter of degree, definable in terms of 4 requirements which would be needed to achieve ideal cooperation. Thus, two or more parties interact cooperatively to the extent that they

- (i) take each other into cognitive consideration
- (ii) have a joint purpose
- (iii) take each other into ethical consideration
- (iv) trust each other to act in accordance with (i) – (iii).

Normal two-way communication is cooperative since it requires at least the following two of the conditions to be met:

- (i) the parties in their actions take each other into cognitive consideration in order to achieve

(ii) the joint purpose of understanding (for at refinement of this analysis of the goal of communication, see below, section 4).

Taking the other person into cognitive consideration is necessary in order to make sure that the information reaches him/her. However, if communication is to be not only one-way, like in a radio talk, but two-way, it's not enough that only one of the parties cognitively considers the other one. Consideration should be mutual. But mutual consideration alone would not be sufficient if both parties made each other understand totally different things. The goal of both parties has to be joint understanding. Two-way communication is thus cooperative in the sense of involving mutual cognitive consideration and the goal of joint understanding. If communication is used for conflict, at least cognitive consideration will always be involved. This is required in order to effectively hurt the other party. Without joint understanding, we should, however, have one-way conflictual communication. In order to have conflictual two-way communication which is perfectly possible, joint understanding must also be involved. Both parties must understand that (and how) the other party has been hurt.

Fortunately, communication is not always conflictual but frequently instead involves ethical consideration and trust. When it involves ethical consideration, this means that the parties (the formulation in brackets gives a slightly stronger version of each ethical maxim):

- (i) try not to hurt each other (make it possible for the other party to seek pleasure),
- (ii) try not to force each other (make it possible for the other party to act freely),
- (iii) try not to prevent each other from being rational (make it possible for the other party to be rational) by for example giving him/her adequate and correct information.

If the parties trust each other, this means that they believe that the other communicators are cognitively and ethically considering them as well as trying to achieve common understanding.

Very often, normal communication exhibits a high degree of both ethical consideration and trust. Below, we shall examine some of the ways in which this is done.

However, let us first introduce another feature which contributes to making ordinary communication cooperative. Most communication takes place as a means for pursuing some joint activity like a commercial transaction, a negotiation or a lecture. This activity involves a joint purpose of its own for which communication serves as a means, i.e., joint understanding must be sought in the service of the purpose of the activity.

Most such activities also involve some degree of cooperation in the sense explicated above, i.e., the participants in the activity have a joint purpose, they cognitively and ethically consider each other and often trust each other as well. The participants mostly participate by occupying the more or less stereotypical roles which are involved in the activity. To use the examples given above, they may act as buyers or sellers, negotiators, lecturers or audience. Each role carries with it certain requirements on competence and certain rights and obligations with regard to

communication and other kinds of action. The requirements are usually conventionalized but yet functional ways of making sure that a given activity can be pursued cooperatively.

What this means is that much communication takes place under a double requirement of cooperation. One requirement is imposed by being a communicating sender or receiver, the other requirement is imposed by occupying a particular role in an activity.

Let us now turn to discussing how cooperation more concretely is involved in dialog. In order to do this we must first briefly examine some of the units, functions and mechanisms of dialog. The framework presented basically follows Allwood, 1995.

3. Some features of dialog

The basic units of dialog are gestural or vocal (utterances) contributions from the participants. Contributions can consist of single morphemes or be several sentences long. Contributions can be made in and out of turn. In the example below, B's first contribution involves giving positive feedback without having the turn and his second contribution involves being silent and doing nothing while having the turn.

A: look ice cream [would] you like an ice cream
B1: [yeah]
B2: (silence and no action)

Thus, one may make a contribution without having a turn and one may have the turn without using it for an active contribution.

Each contribution has an expressive and an evocative function. The expressive function lets the sender express beliefs as well as other cognitive attitudes and emotions. Except maybe in the first contribution, what is expressed is made up of a combination of reactions to the preceding contribution(s) and novel initiatives.

The evocative function is the reaction the sender intends to call forth in the hearer. Thus, the evocative function of a statement normally is to evoke a belief in the hearer and the evocative function of a question to evoke an answer.

Using these concepts, let us now turn to some examples of the cooperative nature of dialog.

4. Dialog as cooperation

Each contribution to a dialog is associated with the following default evocative functions. A contribution is intended to make the receiver

- (i) perceive,
- (ii) understand,
- (iii) react in accordance with main evocative function and
- (iv) respond overtly.

We can accordingly provide a more fine grained break down of the cooperative goal of communication into four subgoals, one of which is the joint understanding we have already discussed:

- (i) Joint perception and awareness
- (ii) Joint understanding
- (iii) Cooperative achievement of evocative intentions
- (iv) Continued interaction until both parties agree to halt

If these four subgoals are to be cooperatively pursued, whether it be in the service of some activity or not, they impose certain obligations on both sender and receiver.

With regard to both expressive and evocative functions, the sender should take the receiver's perceptual, cognitive and behavioral ability into consideration and should not mislead, hurt or unnecessarily restrict the freedom of the receiver.

The receiver should reciprocate by attempting to hear, understand and to evaluate whether he/she can carry out the sender's evocative intentions. Since perception and understanding mostly function as a means for the sharing of the expressive and evocative functions of each contribution, a cooperative response usually consists in one of the following responses, separately or in combination:

- (i) direct nonverbal action, as when you close a window after having been asked to do so or
- (ii) direct verbal action, as when you answer a question
- (iii) implicitly accepting an evocative intention by contributing a response which implies acceptance, as when you accept a stated belief by exploring one of its consequences
- (iv) overtly accepting through the use of an explicit positive feedback expression, such as a nod or a verbal expression like *yes*, *m* or *OK*, after statement or request.

Since the main thrust of a dialog revolves around the evocative intentions and the reactions to these, a cooperative response usually only involves perception and understanding in the following circumstances: (i) if a message can be perceived and understood but (its evocative function) not accepted or (ii) a message cannot be perceived or understood. In the first case often low key feedback expressions like *m* are used and in the second negative feedback expressions like *pardon* or *what*.

We now basically have an account of some of the main cooperative dimensions of dialog. The goal of a dialog is to allow the participants to share awareness and understanding while at the same time attempting to influence each other as well as to express (and thereby often clarify) their attitudes and emotion. These goals are realized through communicative actions which are guided by cognitive consideration and often also be different types of ethical consideration and trust. The goals are often further reinforced by being linked to the functional role requirements of a particular activity. The dialog successively progresses by the senders providing expressive and evocative information, which the receiver(s) can either implicitly confirm as being jointly perceived, understood or accepted by contributing new information building on the previous contribution or explicitly confirm by the use of the feedback system (Allwood, Nivre and Ahlsén, 1992).

These cooperative mechanisms of dialog now allow us to explain why there should be such phenomena as “adjacency pairs” (Schegloff and Sacks, 1973), “dialogue grammars” (Sinclair and Coulthard, 1975), “exchange structures” (Moeschler, 1989), or “dialogue games” (Kowtko and Isard, 1991).

What the account given above suggests is that such phenomena should not be seen as merely conventional or mechanical properties of dialog. Such a mechanical conventional view would, for example, make it very hard to understand what happens when people respond in unexpected ways. What the present account claims is that the regular and expectable features of dialog instead should be seen as an outcome of cooperation. It has further been claimed that cooperation is a matter of degree which is based on the willingness and ability of the participants. This means that regular dialog features at any moment can be modified, changed or interrupted. The fact that this does not happen more often than it does is a sign of the strength of the role that cooperation plays in human social life.

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