

## THE COOPERATIVE NATURE OF CONVERSATION. EVIDENCE FROM CONVERSATIONAL EXCHANGES

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The cooperative dimension of human linguistic communication has been gaining increasing recognition as a central problem in the evolution of language. Our paper documents the phenomenon of cooperative norms in conversation, with evidence gained through the application of the tools of Conversational Analysis (CA) to a corpus of spoken conversational exchanges. The backdrop to our discussion is the concept of planbox escalation, a 'default' exclusively goal-oriented strategy, which we relate to the notion of *Pan economicus* from comparative psychology. We focus on the way conversational exchanges, especially what we call economic exchanges, diverge from the predictions of this model, thus pointing to the existence of cooperative norms.

### 1. Introduction

The cooperative dimension of language has been appreciated in linguistics and philosophy at least since H. P. Grice (1975). However, as is well known, cooperation in general is not evolutionarily stable and constitutes an exception to the rule rather than the natural default state. Consequently, when viewed from the evolutionary perspective, the cooperative nature of human linguistic communication constitutes an important problem and an explanatory target.

In theory, cooperation is not normally expected to evolve because Darwinian agents act to maximize (inclusive) fitness, and under ordinary circumstances the alternative strategy, i.e. defection, leads to greater fitness gains. This prediction is consistent with research on our closest relatives, chimpanzees, who prototypically behave as self-interested agents maximising their immediate payoffs (hence the term *Pan economicus*, cf. Jensen et al. 2007). Although recent studies point to important exceptions from this pattern (e.g. unrewarded instrumental helping, Warneken & Tomasello 2006), we take it to be a safe general conclusion that the behaviour of unenculturated apes usually approximates the *economicus* stance, which contrasts starkly with human natural other-regarding proclivities.

In our paper, we do not intend to offer speculation on the origin of cooperation in hominins (creatures whose phylogenetic distance from *H. sapiens* is smaller than from the genus *Pan*). Rather, we:

- (1) provide evidence for the other-regarding<sup>1</sup>, i.e. highly cooperative, character of (a subset of) conversational exchanges, thus documenting empirically an important difference between human communication and the predictions of the default 'selfish' model of communication; the data come from the analysis of spoken exchanges studied with the methods of Conversational Analysis (e.g. Sacks & Schegloff 1973, Sacks 1992, Davidson 1984, Pomeranz 1984);
- (2) on the theoretical side, we connect our findings to a broader model by Tomasello (2008); while this can be seen as a post-factum fit, an advantage of our findings is that they have been reached independently of this model.

## 2. Goals and planboxes

An interesting perspective on the problem of cooperation is afforded by a study of conflicts and conflict resolutions in conversational exchanges. In discourse and text linguistics, linguistic communication – and prototypically conversation – is often understood in terms of goals that conversants seek to accomplish by means of a communicative act (see e.g. Widdowson 1975, de Beaugrande & Dressler 1981, Krzeszowski 1997). A common approach to goal-orientedness in discursive interaction, particularly in textual and computational theories of communication, is based on the idea of problem solving first proposed by Newell and Simon (1972) and developed by de Beaugrande and Dressler (1981). Accordingly, a problem is defined as a pair of states – the initial state and the goal state – “whose connecting pathway is subject to failure (not being traversed)” (de Beaugrande & Dressler 1981: 37); the problem is solved when the pathway leading from the initial state to the goal state is found. In the case of verbal communication, connectivity between the initial and the goal states is established by *discursive pathways*, that is, discourse constitutes a means of traversing the path from the starting point to the goal. Problem solving is closely related to planning, the process by which participants evaluate possible pathways in terms of their utility in forwarding the goal state and, on the basis of such evaluations, opt for the pathway which appears to be the most expedient. In short, planning consists in choosing the most expedient discursive strategy.

De Beaugrande and Dressler explain what discursive strategies are by using

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<sup>1</sup> An other-regarding act does not imply psychological or genetic altruism, and could still be reanalyzed as 'selfish' in the sense of increasing the agent's own fitness when a broader spectrum of costs and benefits is considered.

the notion of a *planbox* introduced by Schank and Abelson. “Planbox” is “a particular method of achieving a goalstate” (Meehan 1975: 82). Furthermore, de Beaugrande and Dressler propose that planboxes should be arranged with regard to the degree of escalation they involve – from the least violent to the most violent. Thus, escalation is seen as a consequence of blocking away the goal state. Consider the following example (de Beaugrande & Dressler 1981: 170):

John wanted Bill’s bicycle. He walked over to Bill and asked him if he would give it to him. Bill refused. Then John told Bill he would give him five dollars for it, but Bill would not agree. John told Bill he would break his arm if he didn’t let him have it. Bill let John have the bicycle.

In the above example of planbox escalation, John’s sole concern is with his goal of getting Bill’s bicycle – in the face of Bill’s refusal, the logic of John’s actions depends on the economic criterion of calculating the amount of resources he is prepared to expend in following this goal against benefits accrued by accomplishing it. It is very important to observe that the underlying rationale of pure cost/benefit analysis legitimises the model of planbox escalation as a default model of communicative interaction: firstly, it is naturally sound from the point of view of evolutionary stability, and secondly, it is actually reflected in the *economicus* ethos of non-human apes mentioned above.

### 3. Conversational exchanges

While it is intuitively obvious that human communication does not follow simple planbox escalation, it is interesting to show empirically the actual deviations from the predictions of the planbox model. In doing so, we base upon the results from an earlier study into patterns of value assignment in conversation exchanges (Żywiczyński 2010). The data, comprised of 81 naturally occurring spoken interactions, came from conversational corpora of contemporary English.<sup>2</sup> Following the tradition of Conversation Analysis (CA), the basic analytical unit of conversation was identified as an *adjacency pair*, that is, a pair of functionally related turns at talking, such as question-answer, greeting-greeting, or offer-acceptance (Sacks 1992). Conversational turns differ in *preference organisation*: turns with preferential organisation are structurally simple and delivered without hesitation, while dispreferentially organised turns are structurally complex and usually incorporate delays, prefaces, accounts, or declination components.

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<sup>2</sup> See Żywiczyński (2010) for details.

Żywiczyński (2010) found a strong correlation between dispreference phenomena and the presence of blockages to conversants' goals, which henceforth will be referred to as *interactional clashes*. Further, the corpus study uncovered two basic classes of adjacency pairs – one class, typified by invitations, offers, requests, and questions, is related to transfer of goods, services, and information; the other class, represented by assessments and self-deprecations, concerns aligning interactants' view on a particular aspect of reality. We will respectively designate adjacencies belonging to these two classes as *economic* and *phatic* exchanges.

#### 4. Phatic exchanges

Pomerantz (1984) notes that conversants routinely coordinate their views on a particular aspect of reality since agreement between them appears to facilitate other discursive activities. Expectedly then, phatic exchanges show a strong orientation towards preferred scenarios, with preferred turns often taking form of enhanced and upgraded agreements in the case of assessments and disagreements in the case of self-deprecations:

- [1] Turn 1 A: It's a beautiful day out, isn't it? ((ASSESSMENT))  
Turn 2 B: Yeh it's just gorgeous ((PREFERRED: HYPERBOLIC AGREEMENT))  
(Pomerantz 1984: 62)

In interactional terms, it can be said that participants of phatic exchanges are particularly eager to acknowledge the clash-free status of their interactions. The corpus material indicated that clash-holding assessments and self-deprecations are relatively rare and when they occur, interactants take strong measures to cushion the effect of clashes. For example, respondents' disagreement is often communicated by means of either silence or non-enthusiastic agreement, such as weakened agreement, token agreement, or downgraded agreement, which gives initiators the freedom to interpret it as a move confirming their prior assessment (preferential interpretation) or as challenging it (dispreferential interpretation):

- [2] Turn 1 A: She's a fox!  
Turn 2 B: She's a pretty girl ((WEAKEND AGREEMENT)) (Pomerantz 1984: 68)

Generally, interactants engaged in both assessment and self-deprecation sequences are focused on upholding the clash-free status of discourse. On the one hand, this tendency is demonstrated by enthusiastic agreements to prior

assessments and forceful disagreements to prior self-deprecations in clash-free discourses (interaction [1]) and on the other by the avoidance of open disagreements to prior assessments and open confirmations of prior self-deprecations in clash-holding discourses (interaction [2]). In the latter case, interactants modify their opinions and even resign from them with a view to averting a crisis created by global clashes. Such a strong orientation of phatic exchanges towards the state of interactional balance indicates that the primary concern of the conversants is collaborative face-maintenance, rather than the pursuit of own instrumental goals via planbox escalation.

### 5. Economic exchanges

In economic exchanges, transfer of goods, services, etc. can proceed in two opposite directions: either from the initiator of an exchange towards the respondent, as is the case in invitations and offers, where the invitee or the ‘offeree’ is the intended beneficiary of the transfer; or from the respondent towards the initiator, for examples in requests and questions, where it is the requester or the questioner who is the intended beneficiary of the transfer. Thus, the directionality of transfer leads to the sub-classification of economic adjacencies into *other-benefiting exchanges* (e.g. invitations and offers) and *self-benefiting exchanges* (e.g. requests and questions). Given the above characterisation, interactional clashes arising during other-benefiting exchanges should be seen as blocking the initiator’s extra-discursive goal of effecting economic transfer towards the respondent, whereas in self-benefiting exchanges clashes block the initiator’s extra-discursive goal to receive economic transfer from the respondent:

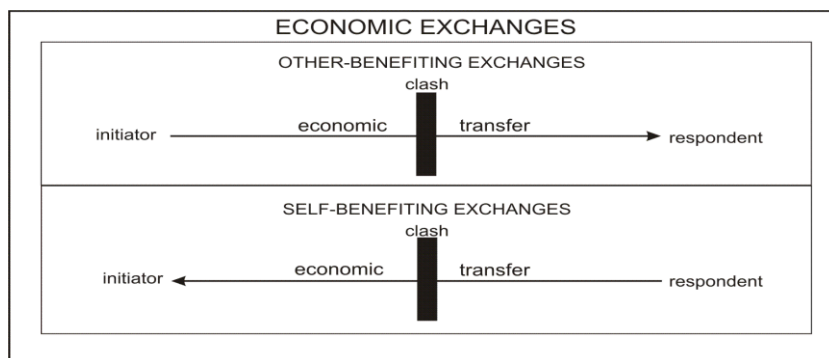


Figure 1. The representation of the economic dimension of discourse in other-benefiting exchanges (above) and self-benefiting exchanges (below)

It turned out that economic organisation has consequences for the interactional structure of exchanges. Namely, when a dispreferred scenario is instigated in other-benefiting exchanges, a reparatory action, i.e. an action undertaken with a view to resolving an interactional clash, is usually started by the initiator (i.e. inviter or offerer), who proposes a modified or an altered version of an original invitation or request, as illustrated below:

- [3] Turn 1 A: Uh: would it be alright if we came in a little early <invitation>  
Turn 2 B: (0.2) <absence of response at the completion point interpreted by A as rejection <implicative>  
Turn 3 A: Would that upset //you? <the initiator's subsequent version of invitation>  
Turn 4 B: I: don't think so (Davidson 1984: 115)

On the other hand, repairs in self-benefiting sequences are usually introduced by respondents. For example in request exchanges, respondents' most common tactic is to grant an altered version of an original request, or alternatively to delay the granting of a request, as in [4], Turn 2:

- [4] Turn 1 A: Will you read me this story  
Turn 2 B: Well after I've washed the dishes I'll read you that story (.) yes

Hence, it can be argued that economic exchanges have an other-regarding character in the sense that initiative for reparatory steps following a clash is taken by the source rather than the target of transfer of goods. To reiterate, in other-benefiting exchanges, where the objective is to bring benefit to the respondent (i.e. intended beneficiary of an exchange), reparatory initiative is taken by the initiator with the aim of effecting some form of economic transfer to the respondent (such is, for example, the role of modified invitations or offers put forward by the inviter or offerer); in self-benefiting exchanges, where the objective is to bring benefit to the initiator (i.e. intended beneficiary of an exchange), reparatory initiative is taken by the respondent with the aim of effecting some form of economic transfer to the initiator (for example, by suggesting altered versions of original requests). Thus, conversants typically initiate reparatory action that is economically costly to themselves but beneficial to their conversational partners. This finding in particular stands in direct opposition to the predictions of the planbox model, in which the strategy of short-term utility maximisation would necessarily lead to opting for the opposite pattern.

## **6. Conclusions**

In our view, the study of interactional processes demonstrates the inadequacy of teleological accounts of conversational interaction, thus documenting the qualitative difference of human communication. Rather than adhering to individualistic agendas, as predicted by the planbox escalation model, discourse participants help each other in accomplishing their respective extra-discursive goals and, in doing so, are prepared to resign from their own economic gains (in economic exchanges) or withhold personal opinions (in phatic exchanges) – as illustrated by the analysis of dispreferred sequences in the preceding sections. These phenomena point to the existence of a normative element which receives priority to the pursuit of individualistic goals: adherence to the norm acts to override the order of participants' short-term extra-linguistic payoffs. In the most general terms, this normative element is expressed as interactants' commitment to cooperate in forwarding each other's extra-discursive goals and – in the event that the pursuit of these goals is blocked – as a commitment to collaboratively solve the emergent interactional crisis.

While an ultra-cooperative character of human communication in general is not controversial, its evolutionary emergence remains a puzzle. Probably the most comprehensive account has been developed by Tomasello (1999, 2008, 2011). Specifically an attempt can be made to explain the emergence of conversational cooperativeness with reference to the evolution of indirect reciprocity based on reputational mechanisms, as envisaged by Tomasello. Seen in this light, our study of cooperative aspects of conversational exchanges both gains support from, and gives ground to, the investigation into the origins of the “cooperative infrastructure of human collaboration and communication” (Tomasello 2008: 201). Undoubtedly, a deeper evolutionary understanding of cooperative norms in conversation requires further research, especially into their universality and acquisition, pointing to the need for cross-cultural and developmental studies.

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