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Situated Communicative Acts: A Deontic Approach

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Abstract

We delineate a theory of communicative acts as situated actions, through which agents co-construct a viable situation by creating or otherwise manipulating deontic affordances. We rely on Gilbert's theory of plural subjects to introduce the concept of joint meaning as a type of joint commitment. We then show that our approach allows for an innovative treatment of indirect speech.

Keywords: Situated communicative act; joint commitment; joint meaning; deontic affordance; indirect speech.

Introduction

Language is an indispensable tool for human interaction. If we are interested in the relationship between what is said, the mental representations of the interacting agents, and the situation in which the interaction takes place, a fundamental contribution has been given by Speech Act Theory. After entering the Cognitive Science world in the late 1960s (Cohen & Perrault, 1979), models based on Speech Act Theory have been worked out to deal with language understanding (Allen, 1983), language generation (Appelt, 1985), dialogical exchanges (Airenti et al., 1993), and so forth.

Already in the early 1980s, however, Stephen Levinson (1981) argued that Speech Act Theory is inherently inadequate to account for real communicative interactions; more recently, Herbert Clark (1996) criticized Speech Act Theory for neglecting the intrinsic participatory nature of communication; and Jacob Mey (2001), to make another example, insists on the need to replace the concept of a speech act with the concept of a *pragmatic act*, because in general the communicative contribution of an utterance cannot be reduced to a well-identified illocutionary act, not even if the notion of an indirect speech act is brought into play.

Scholars who express discontent with Speech Act Theory often defend a *situated approach* to linguistic communication (Mey, 2001). The idea is that the communicative contribution of an utterance can be understood only if the overall situation in which the interaction takes place is taken into account. However, this type of claims are more of a research program than a fully-fledged theory: in our opinion, no satisfactory treatment of what it means for a communicative interaction to be situated has been developed yet.

In this paper we submit what we take to be a step to a theory of situated communicative interactions. In our view,

the situations in which interactions take place are partly given and partly collectively constructed by the agents themselves during the interaction. A crucial aspect of a situation, from the point of view of communication, is its deontic component, which can be treated in terms of *joint commitments* (Gilbert, 1996, 2000, 2006). We suggest that an agent's communicative acts may be regarded as actions that enrich the current situation with new *deontic affordances*, which can be accepted, rejected or further negotiated by the other agents. According to this view, a substantial component of the force of a communicative act lies in its power to enrich or modify the network of commitments that bind the interacting agents. While we are not the first to deal with the deontic dimension of communication (see for example Traum & Allen, 1994; Walton & Krabbe, 1995; Clark, 2006; Searle, 2007), our treatment of meaning in terms of joint commitments appears to be novel.

The paper is structured as follows. In the next section we defend a situated and deontic approach to communicative acts; in particular we introduce Gilbert's concept of a joint commitment and analyze its relationship with communication. Then we show how our approach can be applied to deal with an important aspect of communication, namely indirect speech. Finally we draw some conclusions and delineate possible directions for further research.

Situated Communicative Acts

If communication is to be understood within a situation, what *is* a situation? Obviously the physical setting is important; moreover the context in which an interaction is carried out is crucial to set the values of indexicals like *now*, *here*, *I*, and so on. But this is going to play a marginal role, if any, in determining the communicative force of an utterance.

It is widely accepted that situations are best regarded as sources of *affordances* (Gibson, 1979; Norman, 1988; Carassa et al., 2005), that is, of action possibilities that are perceived by the agents. Such affordances may exist in a situation before the agents start to carry out an interaction. More interestingly, agents often produce new affordances that enrich the current situation. Consider for example Ann and Bob walking in a wood in search of mushrooms; suddenly Ann, who at the moment is somewhat far from Bob, shouts,

(1) "Hey, there are some gorgeous ones here!"

This utterance may be interpreted as a “pushmi-pullyu” communicative act (Millikan, 1996), to wit, as a communicative act that is at the same time an instance of informing (an assertive) and one of inviting (a directive). But this would leave out an important part of the story. After producing Utterance 1, it would be inappropriate for Ann to walk away, without waiting for Bob to reach her; if she did so, Bob would be entitled to complain and to ask for an explanation (“Why didn’t you wait for me?”). To explain this fact we may assume that Utterance 1 also has a commissive force: if Ann invites Bob to join her at place X, she has to stay at X until Bob either reaches her at X or rejects her invitation. Finally, it is easy to imagine Ann producing Utterance 1 in a jubilant tone, thus expressing a feeling of joy.

According to this analysis, Utterance 1 appears to be significantly overloaded, realizing at the same time an assertive, a directive, a commissive, and an expressive act. Rather than being an exception, however, a case like this seems to be the rule. Indeed, every directive act involves a commissive component; for example, if Bob asks Ann to bring him a cup of coffee, he thereby commits to wait for the cup of coffee to be brought by Ann, to accept it, and (at least in normal conditions) to drink it: any deviation from this pattern of behavior would have to be justified. Symmetrically, commissive acts typically include a directive component; for example, if Ann says to her father

(2) “I’ll come visit next Sunday,”

then she not only makes a promise, but also implicitly asks her father to stay at home next Sunday to welcome her.

A first consequence of these considerations is that it may be sensible to abandon the idea that a communicative act be classified as an assertive, or a directive, and so on. A better choice may be to assume that, in general, communicative acts serve several functions at the same time: an assertive function, a directive function, a commissive function, and an expressive function. But why is it the case that a single communicative act tends to serve different functions? The answer, we believe, is to be found in the way communicative acts combine with the overall situation in which human interactions are carried out.

In a forthcoming paper (Carassa & Colombetti, 2009) we argue that communicative acts should be regarded as actions that produce *deontic affordances*, to wit, the opportunity for the hearer(s) to enter a deontic relationship with the speaker. More precisely, communicative acts typically produce *pre-commitments*, which can then be turned into *joint commitments* by suitable reactions. The concept of a joint commitment, that we consider as fundamental for a situated approach to communication, has been introduced and extensively analyzed by Margaret Gilbert. Here we can only sketch the crucial features of this concept; for an extensive treatment we refer the interested reader to Gilbert’s works (1996, 2000, 2006).

Gilbert’s concept of a joint commitment

According to Gilbert all genuinely collective phenomena (like joint activities, collective beliefs, group feelings, social

conventions, and so on) involve a special kind of commitment, that she calls a *joint commitment*. A subject may be personally committed to do X, for example as a result of an individual decision: such a decision may be rescinded, but until this does not happen the subject is committed to do X. Being committed to do X is a desire-independent reason or the subject to do X; however, in the case of a personal commitment the subject is the only ‘owner’ of the commitment, and can rescind it as he or she pleases. Contrary to personal commitments, a joint commitment is a commitment of two or more subjects, called the *parties* of the joint commitment, to engage in a common project ‘as a single body.’ Therefore joint commitments are not separately owned by their parties, but are, so to speak, collectively owned by all parties.

In view of the purpose of this article, the main features of joint commitments are that: (i) they are desire-independent reasons for action that are intentionally created by agents in interaction; and (ii), they consist of deontic relationships between the parties, more specifically of directed obligations with their correlative rights and entitlements. If a group is jointly committed to do something, then every party is obligated to all other parties to do his or her part of the joint activity, and has the right that all other parties do their parts. It is characteristic of joint commitments that all such obligations are created simultaneously, and are interdependent in the sense that each party is bound by the joint commitment only as long as the other parties are so bound. If and when all its obligations are fulfilled, a joint commitment is itself fulfilled; on the contrary, if one of its obligations is violated, the joint commitment is violated (which, in many cases, implies that the joint commitment ceases to exist).

The content of a joint commitment need not be a collective action: a group of subjects may commit to holding a certain type of attitude, like a belief, a desire, a disposition, a feeling, and so on. As we shall see, joint commitments to beliefs (also called *group beliefs* by Gilbert) are particularly interesting for our current goal. A few observations are important here. First, all joint commitments, inclusive of commitments to beliefs, are desire-independent reasons for *action*. To give an example, suppose that Ann and Bob jointly commit to believing that drinking coffee is bad for one’s health; later on, they will have to behave in certain ways, or else their commitment will be violated. Second, joint commitment to a belief should not be confused with what is usually called *common belief* or *mutual belief* in the Cognitive Science literature: in particular it is possible for a group of agents to be jointly committed to believing that *p*, while it is common belief of the same group that not-*p*. The reason is again that joint commitments are reasons for action: being jointly committed to believing that *p* just means that the parties are committed to behaving in ways that are compatible with such a belief; what the parties actually believe is a logically independent issue.

It follows from these considerations that fulfilling or violating a joint commitment is logically independent of sincerity. If one acts coherently with a commitment, then the commitment is fulfilled even if the subject was insincere

about his or her beliefs, desires, and so on; and if a subject does not act coherently with a commitment, then the commitment is violated even if the subject was sincere. Of course there are often moral reasons for being sincere, but this has nothing to do with the obligations of joint commitment.

Joint commitment and communication

Joint commitments have a puzzling feature: while they come into force at a specific moment (at which they create simultaneous and interdependent directed obligations of all the parties), they are the cumulative result of an incremental process of collective construction. A joint commitment cannot be created by a single member of a group: what is needed is an overt 'offer' of every agent to participate in creating the joint commitment.

In our view, situations of interaction are related to joint commitments in two distinct ways. First, at any moment the current situation may afford an agent the possibility to offer to another agent the opportunity of building a new joint commitment. Second, such an offer is itself a new affordance, more precisely a *deontic affordance*, which is created by an agent to be exploited by the others. Thus by performing a communicative act, an agent both exploits the current situation and enriches it with new deontic affordances.

Let us go back to the mushroom gathering example. Before Ann produces Utterance 1, the situation is already shaped by deontic relationships binding Ann and Bob: for instance, Ann and Bob have agreed to go for mushrooms together, and are therefore bound by a joint commitment to this effect. This type of activity, when performed collectively, normally includes certain practices, like helping each other to gather mushrooms from the same patch, when the agents are lucky enough to find a rich one. Ann's uttering "Hey, there are some gorgeous ones here!" can be seen to disclose a deontic affordance for Bob, which is now in a position to accept (or refuse, or further negotiate) Ann's offer. In a sense, Ann's communicative act produces 'a half' of a joint commitment (which, more technically, we call a *precommitment*): Bob is thereby called to produce the other half, or to reject the offer (with some motivation).

In view of this analysis, we think that classifying Ann's communicative act as an assertion that indirectly realizes an invitation would miss the point. What Ann really does is to introduce a new element in the current situation; such an element is a deontic affordance, namely the possibility for Bob to create a new joint commitment with Ann.

Joint meaning and joint projects

Communicative acts generate two levels of deontic affordances, corresponding to the illocutionary and perlocutionary levels of analysis of Speech Act Theory. At the illocutionary level, the speaker creates a deontic affordance for creating *joint meaning* (Carassa & Colombetti, 2009¹); at

the perlocutionary level, the speaker creates a deontic affordance for engaging in a *joint project* (Clark, 1996).

It has often been observed that the meaning of a communicative act appears to be at least partially undetermined until the hearer takes it up. Consider the following conversation, occurring at a dinner party:

- (3) Ann: "I feel sleepy."
- (4) Bob: "I'll get you another cup of coffee."
- (5) Ann: "Thank you, Bob."

Now suppose that Ann's original statement was intended as an indirect invitation to leave the party; Bob's reply redefines it as an indirect request to receive help in dealing with the fact of feeling asleep; finally Ann accepts Bob's redefinition. We may wonder whether Bob correctly understood Ann's original invitation (and decided to ignore it), or was really mistaken in his interpretation. In a concrete situation it may be impossible for Ann to establish what went on in Bob's mind. But in any case after the exchange Ann and Bob have reached an agreement on the meaning of Utterance 3: independently of Ann's original communicative intention, the utterance has been accepted as an indirect request to receive some support. In our view, Ann and Bob have now achieved *joint meaning* of such an utterance.

Joint meaning is a special case of a joint commitment to a belief: more precisely, it is the joint commitment (of the speaker and the hearer) to the belief that the speaker performed a communicative act of a certain type. All communicative acts produce a first-level, illocutionary deontic affordance, namely the opportunity for the hearer to form a joint meaning with the speaker. But communicative acts typically produce also a second-level, perlocutionary deontic affordance, namely the opportunity for the hearer to engage in a joint project with the speaker. In our example, by Utterance 4 Bob not only proposes to understand Utterance 3 as a request for support, but also accepts such a request. Finally, by Utterance 5 Ann accepts Bob's understanding. After the exchange Ann and Bob are jointly committed to carrying out a specific joint project, in which Bob brings a cup of coffee to Ann and Ann drinks it.

The deontic dimension of communication is, we believe, essential to understand the actual force of communicative acts. We do not propose to drop the more traditional explanations based on epistemic and volitional mental states, like beliefs and intentions; rather, we suggest that also the deontic dimension should be taken into account. In the next section we show that doing so allows one to explain some problematic aspects of indirect speech.

The Deontic Structure of Indirect Speech

Any attempt to use Speech Act Theory to model a real conversation immediately faces a problem: most often, the literal illocutionary act performed through the production of an utterance does not account for its full communicative force.

¹ In the referenced paper we further justify our definition of joint meaning as a joint commitment by relating the creation of a

commitment to the view that communicative intentions are reflexive, in the sense clarified, among others, by Bach & Harnish (1979).

The standard approach to solve this difficulty relies on the concept of an *indirect illocutionary act* (Searle, 1975). The idea is that an utterance, besides realizing a literal illocutionary act, may realize a further indirect illocutionary act. The paradigmatic example is the by now famous “Can you reach the salt?”, whose standard interpretation is that a request of passing the salt (e.g., during a social dinner) is realized indirectly, for politeness’ sake, through a question concerning a preparatory condition of the request.

Searle’s view of indirect speech acts is that they retain their literal illocutionary force, but add a further illocutionary force, which can be reconstructed inferentially by reasoning under assumptions of conversational cooperation. This approach to indirect speech, however, runs into several difficulties. First (as already remarked by Levinson, 1981), an indirect speech act does not always retain its literal force. Second, many (if not most) utterances in real conversations appear to realize a complex set of different indirect speech acts, which are not always related to the literal illocutionary act in a simple way (e.g., through a constitutive condition of the indirect illocutionary act, like in the salt passing example). Third, it is unclear why indirect speech should be so pervasive, given that politeness cannot always be invoked as an explanation.

Basically, we are left with the problem of explaining why indirect speech appears to be a standard way for people to communicate. In a recent paper, Pinker and colleagues analyze some cases of indirect speech, most of which go beyond issues of politeness; as the authors put it (Pinker et al., 2008:833), “People often ... veil their intentions in innuendo, euphemism, or doublespeak. Here are some familiar examples:

- Would you like to come up and see my etchings? [a sexual come-on]
- If you could pass the guacamole, that would be awesome. [a polite request]
- Nice store you got there. Would be a real shame if something happened to it. [a threat]
- We’re counting on you to show leadership in our Campaign for the Future. [a solicitation for a donation]
- Gee, officer, is there some way we could take care of the ticket here? [a bribe]”

The authors propose an explanation of indirect speech based on three points: plausible deniability, relationship negotiation, and language as a digital medium. We shall now analyze the two following examples in the light of our approach based on the concept of deontic affordance:

- (6) “Gee, officer, is there some way we could take care of the ticket here?”
- (7) “Nice store you got there. Would be a real shame if something happened to it.”

The collective construction of viable situations

In many situations, an offer to engage in an illegal transaction has to be disguised, so that *plausible deniability* is assured. Let us consider a direct alternative to Utterance 6, like for example (Pinker et al., 2008:834):

- (8) “If you let me go without a ticket, I’ll pay you \$50.”

Utterance 8 creates a deontic affordance for the policeman, who can now accept or refuse a bribe. Unfortunately, if the policeman refuses to take up the deontic affordance, he may arrest the driver on the charge of attempting to bribe him. The speaker is thus in a difficult situation: if her proposal is accepted, everything will go fine; but if the proposal is rejected, she may get into troubles. According to Pinker and colleagues the indirect proposal, while being sufficiently clear to be understood by the officer, is still enough ambiguous to prevent a prosecutor from proving beyond reasonable doubt that the driver offered a bribe; this fact protects the driver from unpleasant consequences if the officer proves unwilling to be corrupted.

There is, however, another important aspect that the explanation proposed by Pinker and colleagues does not highlight: even if the driver’s indirect offer is accepted, the interaction will not be construed as a case of bribe, but rather as a favor that the generous officer is willing to do to help the driver. As we said in the previous section, we suggest that: at the illocutionary level, the speaker creates a deontic affordance for the hearer to participate in the production of joint meaning; at the perlocutionary level, the speaker creates a deontic affordance for the hearer to engage in a joint project with the speaker. With Utterance 8, a bribing project is overtly proposed by the driver, and the policeman may just accept or reject it (with possible troubles for the speaker, in the latter case). With Utterance 6, on the contrary, the driver proposes a different type of joint project, in which the officer does a favor to the driver, who in turn will show her gratitude in a tangible form.

Now the policeman has several choices. First, he may accept both the joint meaning and the joint project without losing face. Second, he may accept the joint meaning and refuse the joint project without further consequences, for example by saying, “Sorry, Madam, there’s really nothing I can do for you.” Third, he may want to unveil the driver’s game and bring the underlying bribing project to the light. In such a case the officer may still want to accept or refuse the project. In the latter case, plausible deniability will protect the driver from unpleasant consequences.

It is important to stress that if the generous-officer project is taken up as a matter of joint meaning (be it accepted or refused), it can still be common knowledge of the driver and the officer that what is actually at stake is a case of bribery. This entails no logical contradiction because a group may be jointly committed to believing that *p* even if not-*p* is common belief of the same group: the joint commitment, if successfully created, will be a desire-independent reason for the members of the group to act coherently with the belief that *p*, even if all members actually believe that not-*p* and this is common belief. We think that this is the key to understanding many forms of indirect speech.

The difference between common belief and joint meaning is also a key to understanding Utterance 7. This utterance evokes a situation in which the speaker, as a member of some criminal organization, threatens a shopkeeper of burn-

ing her shop to ashes if she refuses to pay protection money. The difference with the previous example is that, although the threat is indirect, the speaker does not intend to leave it open for the hearer to refuse the proposed project. Why is the speaker using indirect speech, then?

The explanation offered by Pinker and colleagues relies on the fact that “language is tacitly perceived to be a *digital medium*” (2008:836). As a consequence, “overt propositions are perceived as certain and act as focal points, whereas implicatures from indirect speech are perceived as being some measure short of certainty” (2008:837). A corollary is that “indirect speech merely provides *shared individual knowledge*, whereas direct speech provides *common knowledge*, and relationships are maintained or nullified by common knowledge of the relationship type”² (2008:837).

Pinker and colleagues insist that indirect speech can only provide shared individual knowledge because their theory is unable to justify the use of indirect speech if the threat expressed by Utterance 7 is assumed to be common knowledge of the speaker and the hearer. However, it seems to us that in a suitable cultural context the fact that the utterance conveys a threat will inevitably be common knowledge of the gangster and the shopkeeper. This is not a problem for our approach because, as we have already clarified, joint meaning, being a joint commitment, may conflict with what is common belief of the speaker and the hearer. We view Utterance 7 as resulting into the following state of affairs: (i), it is common belief of the speaker and the hearer that the utterance conveys a threat; (ii), the speaker proposes as joint meaning that he is offering a useful service in exchange of a fair payment.

Of course, neither the speaker nor the hearer really believe that a fair transaction is being proposed. But this is exactly what is being suggested as a matter of joint meaning. To clarify this point, consider four possible answers by the shopkeeper:

- (9) “True, safety is important. Could you take care of that?”
- (10) “Kind of you to care, but this is a very safe area.”
- (11) “You can just drop your mask. How much am I supposed to give?”
- (12) “You don’t scare me, get off my store right away or I’ll call the police.”

With Utterance 9, the shopkeeper accepts both the joint meaning and the joint project proposed by the speaker. With Utterance 10, the joint meaning is accepted, but the joint project is refused. With utterance 11, the joint meaning is refused, and the underlying project is unveiled and accepted. Finally, with Utterance 12 the joint meaning is refused, and the underlying project is unveiled and refused.

Utterances 6 and 7 have an important feature in common: in both cases the speaker invites the hearer to co-construct

what we call a “viable situation.” In the first case, the bribing project is disguised as an act of kindness that the policeman may be willing to do to the car driver; in the second case, the request for money is disguised as a fair compensation due for a valuable service. In both cases, the speaker invites the hearer to jointly commit to a representation of the current situation that is different from what the same situation is understood to be as a matter of common belief.

Between Utterance 6 and 7 there is also a difference, in that plausible deniability is more crucial to the former than to the latter. This difference is justified by the asymmetric allocation of power between the speaker and the hearer in the pre-existing situations. In the bribing example the policeman has the (actual) power to withdraw the ticket and the (legal) power to charge the driver of attempting to bribe him. Therefore, it is essential for the driver that the underlying bribing project can be denied if it is refused; in such a case the driver will probably pull out and pay the ticket. In the protection money example the situation is different: if the underlying threat is unveiled and the project is refused, the gangster is unlikely to withdraw. He may persist in his attempt to construe the project with the shopkeeper as one of fair trade, but he may also accept to bring the threat out in the open, remind the shopkeeper that he is the one who holds the knife, and insist that the protection money be paid.

Our concept of collective construction of a viable situation also applies to those instances of indirect speech that are viewed as cases of relationship negotiation by Pinker and colleagues. These authors rely on a taxonomy proposed by Alan Fiske (1992), who classifies human relationships in four categories (i.e., dominance, communality, reciprocity, and market pricing), which represent different resource distribution patterns. Many cases of indirect speech, like in particular those motivated by politeness, can be explained as efforts to deprive a communicative act of certain presumptions that are incompatible with the relationship holding between the speaker and the hearer. For example, the indirect request

- (13) “Can you reach the salt?”

is explained as the speaker’s attempt to avoid conveying the presumption of dominance over the hearer that would normally accompany a direct imperative.

Fiske’s scheme may be too basic to explain the complexity of human relationships, but even if one accepts it, taking the deontic dimension into account is still necessary: to be constitutive of a stable interpersonal relationship, a pattern of resource distribution must be *accepted* by the relevant agents. But acceptance is a form of joint commitment, and as such generates rights, obligations and entitlements. Interpersonal relationships can thus be viewed as situation components that are intrinsically deontic and actively co-constructed by the interacting agents (typically over a series of previous interactions).

We can now apply this view to explain the use of Utterance 13 to make a request. In a situation involving reciprocity, like for example a social dinner, an agent has the right to receive certain forms of support from another agent,

² A group of subjects have *shared individual knowledge* of *p* if every member of the group privately knows that *p*. Shared individual knowledge is entailed by common knowledge, but does not entail it.

provided that this has a reasonable cost. In a situation of dominance, on the contrary, services can be claimed irrespective of their costs (at least within certain limits). Inquiring about the hearer's ability to reach the salt without having to leave his place at the table allows the speaker to signal that she would like the hearer to pass the salt as part of an interaction carried out within a relationship of reciprocity, rather than within one of dominance.

Conclusions

We have proposed to regard communicative acts as actions by which deontic affordances are created or otherwise manipulated in concrete situations. Communicative acts produce deontic affordances at two different levels: at the illocutionary level, what is offered to the hearer is to participate in the creation of joint meaning; at the perlocutionary level, what is offered is to engage in a joint project with the speaker. Joint meaning is regarded as a special case of joint commitment, to wit, the joint commitment to believe that a certain type of communicative act has been performed. A joint commitment to a belief (i.e., a group belief) has an important property: it operates as a desire-independent reason for action even if conflicting individual or common beliefs are entertained by the parties of the joint commitment. In our view, this property is the key to understanding the logic of indirect speech.

In this paper we have only scratched the surface of a huge problem, and much further research is needed before we can propose a satisfactory theory of situated communication based on the deontic notion of joint commitment. In particular, we believe that it will be important to understand what elements of mental architecture underlie the human ability to form joint commitments, and more generally desire-independent reasons for action, which appear to go beyond the epistemic and volitional components of cognition that have been studied so far in Cognitive Science (see Carassa et al., 2008, for a first step in this direction).

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