

## Creating Interpersonal Reality through Conversational Interactions

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### Abstract

We understand interpersonal reality as consisting of those social facts that are informally created by people for themselves in everyday interactions, and involve the collective acceptance of positive and negative deontic powers. We submit that, in the case of interpersonal reality, Gilbert's concept of a joint commitment is a suitable view of what collective acceptance amounts to. We then argue that creating interpersonal reality, even in common everyday-life situations, typically requires conversational exchanges involving several layers of joint commitments, and in particular joint commitments to projects, joint meaning, and the joint commitments that are constitutive of conversations.

*The remedy for unpredictability, for the chaotic uncertainty of the future,  
is contained in the faculty to make and keep promises.*

Hannah Arendt

### 1. Introduction

We are all aware of the crucial importance of social reality in our everyday lives. From simple mundane events like going for a walk together or giving a birthday party, to the most complex cases of organisational and political life, humans continuously engage in activities that can be understood only by taking into account their ability to collectively create and maintain social facts.

In the last two decades, thanks to a wealth of contributions from philosophy, sociology, and psychology, a fairly consistent picture of how social reality works has started to emerge. According to most authors, social facts are basically a matter of collective intentionality, and in particular of collectively accepting that certain states of affairs hold. There is also a widespread consensus that such states of affairs crucially include the attribution of deontic powers to certain subjects. Still, many aspects stand in need of clarification. For example, how exactly do deontic powers relate to collective acceptance? How do people concretely create and maintain such powers?

Indeed, even if one takes collective acceptance to characterize social reality in general, it is plausible to assume that different types of social reality may involve different notions of acceptance. In this paper we concentrate on social reality 'in the small,' as this is continuously created by people in everyday interactions. In this type of social reality, that we call *interpersonal reality*, the subjects who are liable to the deontic powers that are created are exactly those who jointly create them. Obvious examples of interpersonal reality are the obligations created by informal promises and agreements.

Within the limited scope of interpersonal reality, in this paper we deal with two issues that we take to be crucial. The first such issue is to specify what collective acceptance is, and how it creates deontic powers. In Section 2 we defend the view that, as far as interpersonal reality is concerned, collective acceptance can be understood in terms of joint commitment, as defined and analysed by Margaret Gilbert in numerous publications. The deontic powers that are constitutive of interpersonal reality can then be viewed as the obligations, rights, and so on, that are intrinsic in joint commitments.

The second question we are concerned with is how interpersonal reality is concretely produced. We argue that creating interpersonal reality, even in simple everyday-life situations, involves conversational interactions with several layers of joint commitment. The first layer that we analyse is the one of joint commitments to projects: in Section 3 we argue that joint projects are typically negotiated in conversational interactions, in which joint commitments are created incrementally. In Section 4, we turn our attention to how meaning is produced and maintained in such conversational interactions. We argue that meaning should be regarded as a collective construction of the interlocutors; we therefore introduce the concept of joint meaning, which can itself be understood as a type of joint commitment. Then, in Section 5 we analyse a third layer of joint commitments, which are constitutive of what it is to participate in a conversational interaction. Finally, some concluding remarks are presented in Section 6.

## 2. Collective acceptance as joint commitment

Our treatment of interpersonal reality starts from the analysis of social reality offered by John Searle (1995). According to Searle, social reality includes all facts that hold thanks to states of collective intentionality. Institutional reality is then viewed as a special case of social reality, consisting of those facts in which collective intentionality is used to impose status functions. In turn, such functions amount to the collective acceptance of positive or negative deontic powers, and have the general form,

We accept (S has power (S does A)).

As Searle remarks, the term “we accept” should be construed broadly, to cover both ‘active’ and ‘passive’ forms of collective acceptance (like acknowledging, recognising, going along with, etc.). Indeed, even if one takes Searle’s condition to characterize institutional reality in general, it is plausible to assume that different types of institutional reality may involve different notions of acceptance. In this paper we concentrate on interpersonal reality, that we understand as those cases of institutional reality in which the subjects who create certain deontic powers are exactly those who are liable to them. Our first goal is thus to specify what collective acceptance amounts to in the case of interpersonal reality.

If we consider Searle’s conception of human intentionality, it is clear that the expression “we accept (S has power (S does A))” is meant to describe a mental state of an individual subject, where “we accept” describes a psychological mode and “(S has power (S does A))” describes a representative content. Searle has repeatedly defended the view that a subject can individually hold mental states in “we” modes, but, to our knowledge, the only such mode for which he has provided a detailed analysis is “we intend” (see e.g. Searle 1990, 2007). Basically, Searle explains how a collective intention can be related to singular intentions through *by-means-of* relationships. It is

not obvious, however, that an analogous argument could be worked out for collective acceptance; and without a clear understanding of what collective acceptance amounts to, one cannot justify the claim that it creates deontic powers.

In the realm of interpersonal reality, collective *acceptance* is actually a case of collective *construction*. This means that rather than just going along with a set of institutional facts that have been created elsewhere, as it happens for example in the case of a layperson's acceptance of legal and political reality, the relevant subjects intentionally and jointly construct a piece of institutional reality, so to speak, for themselves. We submit that the type of collective acceptance underlying interpersonal reality can be analysed in terms of *joint commitment*, a concept defined and thoroughly investigated by Margaret Gilbert (1989, 1996, 2000, 2006). By making a joint commitment, a group of subjects collectively bind their wills to uphold some content 'as a body.' In her work, Gilbert has defended the view that joint commitments underlie all types of collective behaviour, from simple everyday activities like going for a walk together, to the most complex cases of political reality; but in this paper, as we have already pointed out, we shall confine our treatment to the former type of phenomena.

Gilbert has repeatedly argued that joint commitments have a crucial normative component. While other authors who deal with collective forms of commitment appear to hold a different opinion (see e.g. Tuomela 2005, 2007), in Gilbert's view it is constitutive of joint commitments that they entail directed obligations and the correlative rights. A point on which Gilbert often insists is that the normativity involved in joint commitment is *sui generis*, and must not be confused, for example, with moral or legal normativity; but, with this qualification, there can be no joint commitment without certain deontic relationships, because a joint commitment consists in such relationships. Moreover, the causal role of joint commitments on human behaviour can be explained in terms of the entailed deontic relationships. Contrary, for example, to intentions-in action (Searle 1983), a joint commitment does not directly cause a piece of behaviour; rather, the directed obligations that are entailed by a joint commitment function as desire-independent reasons for a subject to perform certain actions. This has the important consequence that joint commitments, irrespective of their content, have a world-to-mind direction of fit; we shall come back to this point in Section 4, when we discuss the concept of joint meaning.

Is our interpretation of collective acceptance as joint commitment sufficient to show that collective acceptance creates "deontic powers"? Searle's use of this term appears to encompass all kinds of deontic relationships between subjects; therefore, the problem is to show that joint commitments can account for all kinds of mundane deontic relationships that are created by people in their everyday interactions. But how are we to characterise the class of *all* mundane deontic relationships? To our knowledge, no such characterisation is available in the literature. However, it is plausible that there is a strict correspondence between mundane deontic relationships and legal relationships, because most likely legal relationships are an institutionalised version of the same types of deontic relationships that people informally create in their everyday interactions. Therefore, we believe that a suitable characterisation of legal relationships can be transferred, *mutatis mutandis*, to the realm of interpersonal reality.

An exhaustive account of legal relationships can be based on Hohfeld's (1923) foundational work. In Hohfeld's analysis, all legal relationships can be classified in two

categories that, in this paper, we shall call *basic* and *non-basic*. Each of the two categories can be reduced to four fundamental relationships: right, obligation, privilege, and no-right for the basic relationships; authority,<sup>1</sup> liability, immunity, and disability for the non-basic ones. Moreover, the four relationships of each category form a logical square, so that only two deontic primitives (one for each category) are needed to define all types of legal relationships; for example, right can be defined as the correlative of obligation (i.e., *A* has the right against *B* that *B* does *X* if, and only if, *B* is obligated to *A* to do *X*), and privilege can be defined as the absence of obligation. These considerations suggest that we can reduce all deontic relationships to two primitives, one for the basic category (e.g., obligation) and one for the non-basic category (e.g., authority).

Before going on, it is important to clarify the connection between basic and non-basic deontic relationships. What is important, here, is that non-basic deontic relationships concern the ability to create new deontic relationships, which in turn can be basic or non-basic: for example, “authority” may denote the ability to create obligations, but also the ability to create new instances of authority. As we have already seen, joint commitments can account for the creation of basic deontic relationships (obligations, rights, and the like). What remains to be shown is that they can also account for the creation of non-basic deontic relationships. Sticking to an everyday-life situation, let us consider the following examples:

- (i) Ann and Bob jointly commit to spend the next weekend together in Venice;
- (ii) Ann and Bob jointly commit to spend the next weekend together in the place that Ann will freely choose by Friday.

In case (i), thanks to their joint commitment Ann and Bob have certain basic deontic relationships (directed obligations and the correlative rights) concerning their going to Venice together on the next weekend. In case (ii), Ann and Bob have certain basic deontic relationships concerning their going to some place together on the next weekend, and a non-basic deontic relationship, to the effect that Ann has the authority to decide where they will go and that Bob is liable to such authority. In this example, Ann’s authority boils down to specifying the ‘value of a parameter’ (the destination for the weekend), which is left undefined at the basic deontic level. The terms “authority” (and the related term “liable to”) may sound inappropriate in this example and, more generally, in the context of interpersonal reality; however, if we are prepared to understand everyday social facts in terms of obligations and rights (i.e., of basic deontic relationships), there is no reason to be sceptical about authority and liability (i.e., non-basic deontic relationships). Clearly, the type of authority we are talking about (which we may call *interpersonal authority*) is *sui generis*: it is created and exerted informally in everyday situations, and as such it may turn out to be significantly different from legal or political authority.

To deal with cases like (ii), Gilbert (2006) introduces a distinction between basic and non-basic cases of joint commitment: more precisely, a non-basic joint commitment is the joint commitment of a group of subjects to *X* as a body, where a crucial component of *X* will be specified by some future event; any type of event, inclusive of human

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<sup>1</sup> Hohfeld’s original name for this legal relationship is “power,” but we use the term “authority” to avoid confusion with Searle’s “deontic powers,” which are probably intended to cover both basic and non-basic deontic relationships.

actions, can play this role. It seems to us that Gilbert's concept of a non-basic joint commitment allows us to understand how joint commitments can entail non-basic deontic relationships: more precisely, a non-basic deontic relationship (like authority, liability and the like) is created by a non-basic joint commitment to  $X$ , in which a crucial component of  $X$  will be specified by some future action of a subject. In case (ii) above, for example, the relevant action will be Ann's specification of the place where she and Bob will spend the next weekend together, and this is exactly what Ann's authority amounts to.

The argument developed so far suggests that joint commitments can account for all types of deontic relationships that are informally built by people in everyday interactions. This implies that understanding collective acceptance as joint commitment (at least as long as we are concerned with interpersonal reality) does provide an explanation of why collective acceptance creates deontic powers. We now move to our next concern, namely, how joint commitments can be concretely created in everyday interactions.

### 3. Joint commitments to projects

According to Gilbert, for a group of subjects to create a joint commitment to  $X$  as a body, it is necessary and sufficient that each member of the group expresses his or her readiness to be so committed, in conditions of common knowledge. No detailed analysis is offered of what "expresses" means, but for the goals of this paper an intuitive understanding of expressing will suffice. Gilbert often remarks that making a joint commitment does not necessarily require an explicit agreement: certain subjects may enter a joint commitment by starting to interact in certain ways, without ever trying to describe what they do together as a matter of agreement. Making informal agreements, on the other hand, is very common in everyday life, and in the current paper we concentrate on this type of situations.

There are indeed different types of joint commitments, depending on the nature of their contents. We shall start our analysis from joint commitments to do something together or, to use the felicitous term introduced by Clark (1996), to carry out a *joint project*.<sup>2</sup> To simplify the treatment we shall concentrate on projects involving two persons, but nothing seems to prevent a generalisation to larger groups.

A joint commitment to a project is the joint commitment to do something together. A first observation is that while a joint commitment to a project binds two subjects simultaneously (in the sense that all the relevant deontic relationships between the subjects are created at once as soon as the joint commitment comes into force), the process of creating the joint commitment is typically incremental, because it is highly improbable that two persons express their readiness to be committed at the same time. Suppose, for example, that Ann wants to create a joint commitment with Bob, to the effect that the two of them will spend the next weekend in Venice together. Between Ann and Bob the following (admittedly unrealistic) communicative exchange may take place:

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<sup>2</sup> To avoid repeating the word "joint" twice, this type of joint commitment we shall call a *joint commitment to a project*.

- (1) (a) Ann: I propose that you and I spend the next weekend in Venice together.  
 (b) Bob: I accept your proposal.

Exchange 1 is an example of conversation, constituted by two moves. By move 1a, Ann expresses her readiness to be jointly committed with Bob in a certain way. Then, by move 1b Bob expresses his complementary readiness. Thus at the end of the exchange Ann and Bob are jointly committed to spend the next weekend in Venice together. They now collectively accept that they are bound by certain deontic relationships; as far as we understand interpersonal reality as the collective construction of deontic relationships, Ann and Bob have created a brand new piece of interpersonal reality.

What is the situation after Ann has expressed *her* readiness, but before Bob expresses *his*? At this very moment, it appears that Bob has a specific interpersonal authority (in the sense clarified in Section 2), to wit, the authority to create a joint commitment simply by expressing *his* readiness. Ann's act of creating such an authority for Bob (by initially expressing *her* readiness) we call *making a precommitment*. Of course, a precommitment is not yet a joint commitment; but by making a precommitment Ann creates a special authority for Bob, namely, the authority to bring about a full-blown joint commitment by expressing his readiness.

As we have already remarked, exchange 1 is far from being realistic. A more natural interaction may go as follows:

- (2) (a) Ann: I would like to spend the next weekend in Venice.  
 (b) Bob: Excellent, let's do it!  
 (c) Ann: Oh, Bob, I'm so excited. I always wished to go on a gondola ride...

Ann's opening move may be construed in at least two ways: as a literal expression of a wish, or as an indirect proposal to Bob. But it is implicit in his reply that Bob interprets it as a proposal, which he contextually accepts. In turn, Ann's counter-reply confirms that Ann accepts Bob's interpretation of her move as a proposal made to Bob, and this completes the creation of the joint commitment to the Venice project.

Bob may as well make it explicit that he construes Ann's opening move as a proposal while rejecting the proposal:

- (3) (a) Ann: I would like to spend the next weekend in Venice.  
 (b) Bob: Sorry, dear, on the next weekend I'll be at a conference in Constance.  
 (c) Ann: Oh, I see. Too bad...

After this exchange, it will be accepted by Ann and Bob that by her opening move Ann made a precommitment, which was not transformed by Bob into a full-blown joint commitment.

At which point does Ann express her readiness to jointly commit to the Venice project with Bob? The answer is not so simple. If we look at exchanges 1 and 2 *after they have been completed*, it is clear that both Ann and Bob agree that Ann's opening move was indeed a proposal to Bob, and thus expressed Ann's readiness to jointly commit to the Venice project with Bob. Though, this fact is by no means settled immediately after the opening move. Indeed, one can imagine a different development of the interaction, like for example:

- (4) (a) Ann: I would like to spend the next weekend in Venice.

(b) Bob: Excellent, why don't you go with Claire?

(c) Ann: Er, ..., yes, good idea, I'll see whether she wants to come with me.

At the end of this exchange, Ann and Bob accept the fact that Ann's opening move was the expression of a wish, and did not imply a proposal to Bob. But then, how can we assign an objective meaning to Ann's opening move? This example shows that, at least when indirect speech is adopted, it is up to both the interacting subjects to establish whether a conversational move does or does not express a certain type of readiness. The point is that the meaning of an utterance is, in some relevant sense, jointly constructed by all those who are engaged in the conversation. We shall discuss this important issue in the next section.

#### 4. Joint meaning

What is the meaning of Ann's utterance

I would like to spend the next weekend in Venice,

which plays the role of the opening move in exchanges 2, 3, and 4? If by "meaning" we understand *speaker's meaning*, this is objectively determined by Ann's communicative intention. That is, it is just an objective fact of the matter whether Ann's communicative act is the expression of a wish or an indirect proposal to Bob. However, a comparison of exchanges 2, 3, and 4 shows that objective speaker's meaning does *not* determine the final consequences of the communicative interaction. In exchanges 2 and 3, Ann's utterance is construed by Bob as an indirect proposal, and this construal is accepted by Ann; as a result, Ann's utterance is taken to create a precommitment. In exchange 4, on the contrary, Ann's utterance is construed by Bob as the mere expression of a wish, and this construal is accepted by Ann; as a result, no precommitment to a joint project of Ann and Bob is created. In all cases, it is irrelevant to the construction of the joint commitment whether Ann's original communicative intention was to express a wish or to make a proposal.

This example shows that bringing about a joint commitment depends not on the objective speaker's meaning of an utterance, but on the interpretation of the utterance that the two subjects collectively accept. Some clarification is needed here. A precommitment to a project (like spending a weekend in Venice together) is part of an attempt to achieve a *perlocutionary* effect. However, the precommitment itself is realised by way of an *illocutionary* act. We believe that all illocutionary acts are instances of interpersonal reality, in the sense that they create deontic relationships between the speaker and the addressee. But this implies that for an illocutionary act to be successfully completed, the mere *epistemic uptake* of speaker's meaning by the addressee is not enough: in other words, it is not sufficient that the speaker induces in the addressee the belief that the speaker performed a communicative act with a given communicative intention. Rather, both interlocutors must collectively accept that a certain type of communicative act has been performed. When this is the case, we say that *joint meaning* has been achieved (Carassa and Colombetti 2009a).

From the analysis of the examples in the previous section, it appears that joint meaning is essential to the creation of interpersonal reality. Moreover, joint meaning is itself a case of interpersonal reality, because it requires collective acceptance by the

interlocutors that a certain communicative act has been performed. Let us compare once more the communicative exchanges presented in Section 3. After Ann's move,

(1) (a) Ann: I propose that you and I spend the next weekend in Venice together, it would be very difficult for Ann to deny that she has precommitted to the Venice project with Bob. On the contrary, after move

(2) (a) Ann: I would like to spend the next weekend in Venice,  
and Bob's reply,

(2) (b) Bob: Excellent, let's do it,

Ann may still reject Bob's construal, and claim that she was actually expressing a wish, rather than making a proposal. It is therefore impossible to claim that by move 2a Ann makes an unequivocal precommitment. What is the matter, then, after this move? We think that the best way to describe such a situation is to say that Ann has produced an affordance, more precisely an *interpersonal affordance*, for Bob. The term "affordance," here, denotes a perceived opportunity for action (Gibson 1977, 1979; Norman 1988, 1999; Carassa et al. 2005). In the case under analysis, Ann's move 2a creates for Bob the affordance to interpret such a move as the expression of a wish or as a proposal; if Bob interprets 2a as a proposal, and his interpretation is then confirmed by Ann, he will have the authority to accept the proposal, reject it, or deal with it otherwise (e.g., by negotiating a different project for the weekend).

By move 2b Bob performs two actions at the same time: he interprets 2a as a proposal, and accepts it. At this point, Ann still has the possibility to deny that her opening move was a proposal to Bob. If she does not do so, however (i.e., if she accepts Bob's interpretation), she cannot deny she had precommitted to the Venice project with Bob. Therefore, if Ann does not object to Bob's reply, a joint commitment to the Venice project comes into force.

In exchange 2 the two interlocutors have a freedom of movement that is not available, for example, in exchange 1. This is mainly due to Ann's use of indirect speech in her opening move. Unsurprisingly, the use of indirect speech appears to be very common when joint commitments are involved. The reason is that a joint commitment has a critical interpersonal import, since it creates deontic relationships, and this raises the problem of setting up and maintaining a *socially viable situation* in which the interaction can be carried out (Carassa and Colombetti 2009b). To this purpose, the collective construction of joint meaning plays a central role.

As we have already observed, joint meaning is a case of interpersonal reality. From our assumptions of Section 2 it follows that joint meaning is itself a joint commitment, namely, the joint commitment of a speaker and an addressee to uphold as a body the belief that the speaker has performed a communicative act with a given communicative intention; in other words, joint meaning is a type of *collective belief* (Gilbert 1987).

It is important to understand that even if joint meaning is, in some sense, a "belief," still it is a joint commitment. This implies that the direction of fit of joint meaning is world-to-mind, and not a mind-to-world like in the case of personal belief; therefore, joint meaning does not presuppose that the speaker and the addressee personally believe its content. However, joint meaning is going to constrain the future behaviour of both the speaker and the addressee; the way in which joint meaning serves this function is by

entailing deontic relationships, which constitute desire-independent reasons for action for the interlocutors. For example, after exchange 3 Ann will have to continue her interaction with Bob on the shared assumption that her opening move was indeed a proposal to Bob, independently of her original communicative intention in performing such a move.

In the next section we analyse the basic conditions for the construction of joint meaning.

## 5. Conversational interactions

Do all communicative interactions crucially depend on the creation of joint meaning? This does not seem to be the case. Consider the following example: Bob, who is riding a bicycle, is inadvertently heading toward a big hole in the pavement; Ann sees this, and shouts “Stop!” to Bob; Bob hears Ann’s warning, and immediately pulls the brakes. Clearly, this is an instance of communicative interaction in which no joint meaning is formed, and Bob’s epistemic uptake of speaker’s meaning appears to suffice. What is the difference, then, between this interaction and the exchanges analysed in the previous sections?

It is important to distinguish between *communicative* and *conversational interactions*. Basically, we conceive of conversational interactions as those communicative interactions that crucially depend on the creation and maintenance of joint meaning to fulfil their purpose. Therefore, all conversational interactions are communicative, but not all communicative interactions are conversational. To appreciate the specificity of conversational interactions, we have to understand what is their general purpose, and why this purpose crucially requires joint meaning.

Conversational interactions take place in the context of joint activities, and serve the purpose of supporting cooperation between the interlocutors. The relative weight of the conversational component in a joint activity may vary substantially. On the one hand certain joint activities, like dancing or playing ensemble music, require little communication (either verbal or nonverbal), compared with the total amount of actions that are performed by the participants. On the other hand there are activities, which we may call *pure conversations*, that completely consist of communicative acts; in such cases, the joint activity to which the conversation belongs coincides with the conversation itself. Exchanges 1–4 are short examples of pure conversations. From Ann’s point of view, their purpose is to negotiate a joint project with Bob; to this end, it is essential that for every conversational move joint meaning is formed and maintained. On the contrary, the bicycle example is a case of communicative interaction that cannot be considered as a conversational interaction, because it is not part of a pre-existing joint activity of Ann and Bob, nor is intended to start a new joint activity between them.

When can we say that two subjects are engaged in a joint activity? A joint activity is a piece of interpersonal reality; coherently with our general assumptions, we take it that every joint activity, inclusive of pure conversations, is performed in the context of a joint commitment to carry out that activity. In turn, such a joint commitment entails that the participants are bound by certain deontic relationships; for example, each participant is both entitled and obligated to give a relevant contribution to the joint activity, and has the right that the other participants do the same. As far as the conversational component of a joint activity is concerned, the participants also share an important piece of

authority, to wit, the authority to contribute to the construction of joint meaning. The reason why we call this “authority” (in the sense clarified in Section 2) is that joint meaning is itself a joint commitment, and therefore it entails deontic relationships; therefore, the entitlement to contribute to the construction of joint meaning is a non-basic deontic relationship.

Our analysis may seem to imply a vicious circle. After all, we have argued that: (i), making joint commitments to projects typically involves conversational interactions; (ii), such interactions require participating in a joint activity (either a pure conversation, or a larger activity to which the conversation belongs); and (iii), every joint activity presupposes a joint commitment to carry out such an activity. But then, how can *this* joint commitment be brought about without falling into an infinite regress?

Clearly, we have to assume that the joint commitment to carry out certain joint activities can be made without relying on a pre-existing joint activity. This is plausible for many types of joint activities, and in particular for pure conversations. The idea is that starting a conversation involves making a joint commitment, but such a joint commitment does not require a previous conversation. In general, conversations begin with an act of *addressing*, which involves subject *A* addressing subject *B*, and *B* accepting being addressed by *A*. Thus every instance of successful addressing is a joint action performed by two subjects. Consider, for example, Ann’s opening utterance in exchanges 2–4,

I would like to spend the next weekend in Venice.

This utterance is addressed by Ann to Bob. In a typical situation, Ann will be close enough to Bob to achieve eye contact; she will secure Bob’s attention and then produce an utterance. In turn, Bob will look Ann into the eyes to make it manifest that he is directing his attention to what Ann is saying. The concrete actions by which addressing is carried out strongly depend on the cultural environment to which the subjects belong, but are largely automatic and part of our background interaction skills. Even if automatic, however, such actions are intentional. This is obvious as far as the addresser is concerned; but also playing the role of an addressee is under intentional control: we all have experienced situations in which, after recognising that somebody is trying to address us, we escape the role of addressee by pretending that we did not notice the addresser’s attempt.

The result of successful addressing is to set up a *conversational dyad* (or, more generally, a *conversational group*). This events take place at the level of intersubjectivity (Carassa et al. 2008),<sup>3</sup> and largely involves the perception of another subject’s intentions, mediated by observable behaviour (see for example Marsh, in press). But here we are concerned with what is entailed by creating a conversational dyad as a piece of interpersonal reality, not with the underlying cognitive processes. We submit that, in entering a conversational dyad, two subjects express they readiness to contribute to the formation of joint meaning, and thus create a joint commitment. As the parties of this joint commitment, they have certain basic and non-basic deontic relationships; for example, when acting as addressees they are obligated to pay attention to what the addresser is saying, and have both the authority and the obligation to contribute to the formation of joint meaning.

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<sup>3</sup> This position appears to be coherent with Gilbert’s point of view on ‘intersubjective’ joint commitments, like those underlying mutual recognition (Gilbert 2007).

Let us now go back to our opening example. Here Ann's goal is to induce Bob to stop lest he fall into the hole; to this purpose, Bob's epistemic uptake of Ann's communicative intention is sufficient, and the formation of joint meaning is irrelevant. Note, however, that a non-conversational communicative interaction may easily evolve into a conversational one. For example Bob, after stopping his bicycle, could ask Ann why on Earth she wanted him to stop, and Ann would have to provide a reasonable justification; in such a case, that Ann warned Bob to stop would become a matter of joint meaning. The point, we believe, is that all communicative acts are addressed to somebody; and an act of addressing, even when it is not intended to initiate a conversation, creates for the addressee the interpersonal affordance to set up a conversational dyad with the addresser.

Let us summarise what we have argued in the last three sections. A joint project is typically negotiated in a conversational interaction, in which interpersonal affordances, precommitments, and eventually full-blown joint commitments are created. This process requires joint commitments to the effect that certain communicative acts have been performed, that is, joint meaning. In turn, contributing to joint meaning presupposes certain deontic relationships, which are part and parcel of participating in a conversational dyad.

## 6. Conclusions

Starting from Searle's definition of institutional reality as involving the collective acceptance of positive and negative deontic powers, we have argued that Gilbert's concept of a joint commitment accounts for collective acceptance, at least in the special case of interpersonal reality. We have discussed the notion of deontic power that follows from such an assumption, and argued that there are reasons to think that all types of mundane deontic relationships can be grounded on joint commitments. Then we have analysed the process of creating joint commitments in everyday conversational interactions. In doing so we have identified three relevant layers of joint commitments: joint commitments to future projects, joint meaning, and the joint commitment to participate in the current conversational interaction.

In this paper we have only scratched the surface of a vast issue, and further research is needed before we can submit a reasonably complete theory of how interpersonal reality is built in everyday interactions. 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 considered so far in philosophy and in cognitive science. As far as we understand the issue at the moment, it seems to us that a reasonable answer is to assume that some cognitive primitive is at work. This means that besides admitting of primitive psychological modes of the epistemic type (like beliefs and perceptions) and of the volitional type (like desires and intentions), it will be necessary to consider a further type of primitive psychological modes, of the normative type. But this brings in further problems, like: What empirical evidence is available that such psychological modes are at work? At what age and how do human beings develop the capacity to form joint commitments, and thus interpersonal reality?

We believe that only empirical research will make it possible to answer such questions. Some initial results are already coming from interesting experiments, in particular those carried out by Michael Tomasello's research group. In general, our conception of joint activities, conversation, and interpersonal reality seems to be compatible with the comprehensive account of human communication put forward by Tomasello (2008). But our view also appears to be coherent with specific empirical findings. Hannes Rakoczy (2006, 2007), for example, investigates young children's ability to participate in pretend play, that he interprets as a cooperative activity involving the collective definition of fragments of social reality (understood along the lines of Searle's account, 1995). Rakoczy's interpretation of pretend play is very close to our concept of interpersonal reality, even if the deontic nature of the commitments involved is not fully acknowledged (see Carassa et al. 2008 for a more detailed discussion of this point). The deontic side of joint activities is investigated by Maria Gräfenhain and colleagues (2009), who reports on a series of experiments on children of 2 to 4 years, carried out to establish whether their understanding of joint activities with an adult involves normativity. The authors conclude that 3-year-olds appear to understand the obligations inherent in joint activities, in particular the obligation to continue a joint activity or to excuse oneself for interrupting it; on the contrary, 2-year-olds do not appear to have a comparable understanding.

Finally, we remark that the central role we give to joint commitments is relevant for a general view of human cooperation (Warneken et al. 2006; Tomasello 2009). For example Brink and Gärdenfors (2003), in a work on cooperation and communication in apes and humans, argue that non-human primates are incapable of future-directed cooperation. The authors consider cooperation within a game-theoretical framework, and their argument is mainly based on the difficulty of developing reliable expectations about the others' behaviour; however, they also consider aspects of cooperation related to normativity, like feelings of shame and the expectation of sanctions from the rest of the group in case of defective behaviour. The crucial problem of future-directed cooperation, as Brink & Gärdenfors (2003:499) remark, is that "it will be difficult to make estimates concerning the behaviour of other agents on the basis of previous experience, since the situation is new and unknown." Indeed, it is reasonable to assume that that long-lasting cooperative activities, and more so those due to take place in the future, presuppose the creation of fragments of interpersonal reality based on joint commitment, which, to quote Hannah Arendt (1958:237), may be the only "remedy for unpredictability, for the chaotic uncertainty of the future."

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