CHAPTER THREE

INTENTIONS IN SPOKEN COMMUNICATION. STRONG AND WEAK INTERACTIONIST PERSPECTIVES

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1. Introduction

Speaking has traditionally been reputed an intentional activity. From St. Augustin's theory of sign to Grice's pragmatic theory, the presence of intentions has often been conceived as a defining feature of human verbal communication. However, it is one thing to make an intuitive appeal to the notion of intentionality, but quite another to give to that notion a clear explanatory role in pragmatic accounts of spoken communication. This latter task may appear difficult to accomplish, and in fact many have questioned that it is feasible at all.

Various arguments have been proposed in order to show that the very notion of individual intention is problematic, if not untenable, as an explanation of spoken communication. One major line of reasoning consists in emphasizing the role of social interaction, conceived of as prior to and constitutive of individual intentions. In other words, individual intention would be something which needs to be explained as a product of communication, rather than something in terms of which communication could be explained. This argument, however, admits of a variety of more or less radical interpretations. For instance, in a weak interpretation what is rejected is simply the idea that the action of speaking is generally prompted by an explicit representation of the communicative goal to be pursued, and that the hearer has explicitly to recover that representation in order to understand the message conveyed. Such an interpretation does not preclude the possibility that individual intention plays some explanatory role, on condition that intentions are not conceived of in terms of explicit representations. Yet, some scholars embrace a stronger interpretation according to which human communication does not involve individual

intentions in any interesting sense, and we had better substitute that very notion with a different one, let us say, with the notion of collective intentionality, or the like.

Elsewhere I have explored and defended the weak interpretation, with regard both to the speaker's and hearer's point of view respectively, in Mazzone and Campisi (2010) and Mazzone (2009; in press). However, in those previous papers I did not directly compare weak and strong interpretations, or address in any detail the arguments proposed by the latter. A closer analysis and a rebuttal of the strong interpretation is precisely the aim of the present work. This analysis, however, does not have an exclusively negative motivation: on the contrary, an accurate evaluation of the arguments in favour of a strongly social perspective on intentional communication allows a better understanding of the subtle interweaving of social and individual aspects in communicative intentionality. In particular, one major conclusion I will draw from the present analysis is that a robust comprehension of the actual individual intentions involved in speaking is a key component of communicative interactions, even under the assumption that those interactions may in turn play a significant role in determining communicative intentions.

In practice, I will start by summarizing the weak argument from social interaction that I embraced in Mazzone and Campisi (in press) and Mazzone (2009; in press); then I will discuss some versions of the strong argument from social interaction, in order to show that they cannot call into question the notion of individual intention–although they may help us to refine our comprehension of that notion.

2. Intentions from the speaker's side

In an ideal sense, intentions are goal representations i) delivered through practical reasoning about behavioural ends, ii) being causally efficacious in prompting actions oriented toward those goals, and iii) put to use in the service of online control of behaviour (cfr. Pacherie 2006). The third condition concerns, more specifically, the maintenance of current goals until they are accomplished, the inhibition of alternative courses of action when needed, and the fine-tuning of action through monitoring of the fit between intended and actual outcomes.

However, we may doubt whether the exact sequence of events from step i) to step iii) always occurs when humans are engaged in actions of some sort. In the first place, it is immediately clear that only exceptionally we perform extensive practical reasoning about behavioural ends before

acting: therefore, the first requirement is very rarely met. We will return to this issue soon. In the second place, in Mazzone and Campisi (in press) a large body of literature is reviewed which shows that goal-directed actions are often quite automatic, in the sense that they are prompted unreflectively by environmental cues rather than by anticipation of the outcome. In practice, as far as routinized activities are concerned, associative schemata are formed which link behavioural responses, their outcomes, and the circumstances in which those responses are normally triggered; once such schemata are in place, the simple presence of the appropriate circumstance may trigger the behavioural response even when a representation of the outcome has not (yet) been activated. Outcome representations, however, may be subsequently activated and recruited in the service of online behavioural control. In fact, step iii) seems a much more robust requirement of what we incline to call "intentional behaviour" than step ii): on many occasions goal representations might not be the triggering cause of goal-directed actions, even though those representations play a role in assuring that the goal is consistently pursued.

In order to see why point iii) appears to be a necessary and sufficient condition for there being intentional action, consider the following lines by Hommel (2003, 597):

"[I]t was William James who pointed out that "no creature not endowed with divinatory power can perform an act voluntarily for the first time". The reason is that intentional action presupposes a goal and, hence, some expectation about the effect of action, almost by definition".

In other words, it cannot be said that we have acted in a certain way intentionally, that is, with the intention to fulfil a certain goal, unless we had known in advance that our action was in fact apt to pursue that goal. This can be understood in the first place as meaning that we must have previously stored some knowledge about the relationship between behaviour and outcome. Furthermore, our action could hardly be considered intentional unless that stored knowledge has actually played some role in driving the action towards and until its expected outcome. If someone does not know that an action has certain consequences, or if such a knowledge has been irrelevant for all the course of her behaviour, then it can hardly be said that she has performed a goal-directed action intentionally. On the other hand, it does not seem a necessary condition for an action being intentional that the outcome representation is what actually triggers the action. Therefore, condition iii) appears to be necessary and probably sufficient for there being intentional action.

This argument, however, does not license the conclusion that conditions i) and ii) are never met, or that they are of no importance for human intentional behaviour. Of particular interest is condition i). When we limit consideration to the immediate temporal vicinity of action, it is undoubtedly true that actions are almost never preceded by practical reasoning, be it about goals or means. However, there is an important long-distance relationship between action and deliberation: a given action does not need to follow a prior deliberation immediately for the former to be affected by the latter. In particular, Mazzone and Campisi (in press) recall that practical reasoning about what we should do in given circumstances may progressively come to change habitual behaviours, to the point of creating new habits which are more consistent with our overall preferences. As a consequence, an habitual and automatic behaviour could be intentional in the sense of condition i), to the extent that it has been deliberated in the past. Since humans spend a large amount of time in the social practice of rational discussion, where reasons for action are given and asked for, and since this practice is to some degree internalized so as to become an individual habit, then it is reasonable to assume that most of our habitual behaviours have been reflectively evaluated, at some point of our existence, with regard to their fit with our preferences. In this precise sense, most of our automatic behaviours may be intentional according to condition i) as well.

It should be emphasized that, in the picture drawn by Mazzone and Campisi (in press), intentions are not conceived of as propositional attitudes, as they have been in traditional philosophical accounts. That is, intentions are not linguistic or quasi-linguistic formulations of goals; they appear to be much more complex entities. As we saw, in order to have intentions a cognitive system needs to represent correlations between behaviours, outcomes and contexts (i.e., the circumstances in which those behaviours may take place). Furthermore, since intentional actions are often nonetheless automatic, they presumably involve sub-cortical circuits which are responsible for procedural processing. More generally, the representations involved in intentional behaviour seem to be for the most part modal (that is, sensory and motor) representations, rather than propositional ones. According to the model proposed by Dehaene et al. (2006), conscious and controlled processes require the establishing of a long-distance loop between independently activated sensory-motor representations and higher association cortices. With regard to the latter, a crucial role is played by pre-frontal and anterior cingulate cortex, which are responsible for maintenance of the current action until its end, sequential organization of action, and active inhibition of alternative

behaviours. Given this complex picture, a quasi-linguistic representation of goals is certainly not sufficient, and presumably not even necessary, for actions to be intentional.

Moreover, since we assume that intentional actions are mostly driven by behavioural schemata, it should be kept in mind that schemata at different levels of generality and abstractness need to be integrated in order to produce a coherent flow of action. Goal-directed actions have a hierarchical structure, with super-ordinated goals being implemented by sequences of lower-level goals (Grafton and Hamilton 2007). Moreover, behavioural schemata must be adapted to particular contexts, thus generating specific contextual outcomes. These observations pose a serious problem as to which outcomes are actually intended. In our picture, behaviours are intended in a crucial sense -condition iii)- to the extent that their outcome is actually represented and attended so as to guide action. However, the recall of outcome representations in the service of online control is probably always partial and sparse, and it is far from obvious that some level of abstraction and generality is necessarily attended to the detriment of others, in every circumstance and for the entire course of action. Therefore, we should seriously consider the possibility that no such thing as "the" intention underlying an action exists; rather, each instance of human behaviour could have its own complex pattern of intentional and automatic components.

To sum up, as should now be clear, the picture we propose is very far from the philosophical conception of intentions as simple propositional representations, possibly following from deliberate reasoning, explicitly attended by the subject and being the triggering causes of action. On the other hand, our picture is compatible with some of the arguments offered against individual intentions. For instance, according to Dennett (1989) intentions do not exist except in the eyes of the observer -so to speakwhen she adopts an "intentional stance" on behaviours. One of Dennett's chief arguments to this effect concerns the alleged semantic indetermination of intentions: as is well known by philosophers, it is far from easy to say exactly which beliefs and desires, and hence which intentions, are involved in a single action. This observation, however, is wholly consistent with our proposal: to the extent that we conceive of intentional actions as driven by patterns of behavioural schemata, there need not be any explicit propositional representations of the ultimate goal. Another important set of critiques comes from the anthropological literature. Duranti (1998, 2007), for instance, has argued that speakers are not basically driven by their individual intentions; linguistic behaviour, in particular, is rather embedded in social routines which have a social

normative "strength" of their own. Consequently, what a speaker does in a conversation is not simply what she consciously thinks she is doing: when we enter a routine it is this same routine which essentially decides for us. We could speak here of a sort of proxy-intention: intentions we might not entertain consciously, or even represent at all, but that are socionormatively embedded in the behaviours we are engaged in. But this is consistent with the idea of intentional behaviour as largely automatic, based on habits which are promoted by routine social actions.

A fine illustration of this point is contained in Garrod and Pickering (2007). They observe that "[i]n dialogue, what one interlocutor says imposes constraints on what her partner can say next. For example, a question usually requires an answer." As a consequence, the repeated practice of dialogue "may make production more automatic" than it would be in an ideal monologue condition (ib.: 10): answering a question is largely an automatic response, triggered by the question itself without any deliberate consideration of goals. Garrod and Pickering specifically focus on the existence of verbal routines delivering automatic processing. However, social routines of any sort, be they verbal or not, could constrain types of communicative moves. For instance, Levinson (1992) has proposed that, on the basis of social regularities we are exposed to, we store in memory a large variety of "activity types", conceived of as "goaldefined, socially constituted, bounded, events with constraints on participants, setting, and so on, but above all on the kinds of allowable contributions" (ib.: 69). Activity types apparently have a sequential structure, since they prescribe which moves, be they communicative or not, one has to perform at any point of a given activity. Participation in such social regularities can therefore be expected to produce routinization of behaviour of the kind envisaged by Garrod and Pickering; as a consequence, as soon as the agent is engaged in social interactions, she is prompted to react quite automatically to preceding pieces of behaviour in accordance with the stored activity types.

These are good examples of what Duranti has in mind when he speaks of routines with a social normative "strength" of their own. Through internalization of social regularities, an agent may unreflectively pursue outcomes that she does not explicitly represent at all, or at least, whose representation is not the triggering cause of action.

3. Intentions from the hearer side

So far we have addressed the issue of communicative intention from the speaker's point of view. Complementary considerations can be made from the hearer's side (see also Mazzone 2009; in press). The vast literature on this topic has sometimes assumed that reading others' communicative intentions involves complex metarepresentational abilities, that is, the hearer has to produce in the simplest case some propositional representation of the form "S intends that P", where S is the speaker and P a proposition. In general terms, the hearer should be able to explicitly represent the fact that the speaker entertains a certain representation. This assumption, however, has been judged implausibly demanding by many in the field. Consequently, alternative pictures have been proposed where, in line with the account of communicative intentions we gave above, intention reading does not also require propositional representations.

In fact, one possibility is that the goal-directed behavioural schemata subserving the speaker's communicative performances are also what drives the hearer's understanding. This might appear quite a reasonable hypothesis if only one considers that speakers are hearers as well. For instance, let us recall the Garrod and Pickering's example of questionanswer pairs: when someone listen to a question and unreflectively responds with an answer, such response can however be considered the effect (or the manifestation) of an implicit understanding. That is, whenever the speaker answers a question she can also be said to have understood the question as something designed to obtain an answer.

This is but another formulation of an assumption that is widely held in the psychological literature on intentional action: the assumption that planning and understanding a goal-directed action are two sides of the same coin, and possibly depend on the same kind of behavioural schemata. Bernhard Hommel (Hommel *et al.* 2001; Hommel 2003), for instance, has put forth the "theory of event coding", whose main idea is that goaldirected actions are represented in terms of their perceived effects by means of sensory-motor associations:

"First (i.e., as a baby or a novice of a given task), we move in a more or less random fashion, that is, without being able to predict or aim at particular action effects. However, moving always produces particular sensory effects that we can perceive. The codes of these perceived effects are automatically associated with the motor patterns producing them, thereby creating bidirectional movement-effect associations" (Hommel 2003, 596).

Hommel then suggests that while action planning can be performed through searching for a motor action associated to an intended effect, action understanding is inversely performed through searching for a possible effect associated to a motor action. As Sebanz et al. (2006, 71) put it, "actions are not purely coded in terms of visual properties of the observed movement, but rather in terms of action goals". This is sometimes intended as meaning that one understands the action's goal on condition that she can find a complete motor schema of the action, so that she may perform a motor simulation of the action till to its end (Umiltà et al., 2001; Fogassi et al., 2005). This assumption is at times referred to as the "motor theory" of action and social cognition (Gallese, 2003; Blakemore-Decety 2001). A couple of things, however, should be emphasized. First, it is far from obvious that goals can be coded in terms of motor schemata in every case: for instance, as Jacob and Jeannerod (2005) have noticed, by pressing a switch an agent can pursue the goal of turning on the light. Now, such a goal has apparently to be coded by a visual rather than a motor schema, since there cannot be motor schemata of the light having being turned on. Second, it also seems that contexts can play a key role in understanding goals. For instance, in Iacoboni et al.'s (2005) experiment a tea-cup was put in two different contexts, an after-tea context and a before-tea context, so as to suggest that the cup was grasped, respectively, in order to clean it up or to drink tea. It could be argued that there are in fact motor schemata both of washing the cup and ingesting the tea, and hence that the goal can be specified by those schemata in accordance with the motor theory. However, the experiment is based on the assumption that "the context suggested the intention associated with the grasping action (either drinking or cleaning)" (ib.: 529), and this fact seems to show that intentions can be inferred on the basis of experiential associations between motor schemata and contexts, rather than by motor schemata alone. Putting the pieces together, we might say that understanding a goal-directed behaviour needs the observers (or hearers) to have stored sensory-motor associations between actions, contexts and outcomes, which is exactly the conclusion we have drawn from the agent's side.

Interestingly, actions, contexts and outcomes are also crucial components of what Gergely and Csibra (Gergely et al. 1995; Gergely and Csibra 2003) have called "teleological reasoning", that is, a form of behaviour interpretation which is already at play in babies as young as twelve months and is reputed to be a precursor of genuine intentional reasoning. Early teleological reasoning is in fact supposed to show the same structure that will be found later in proper intention-reading: agents are understood as pursuing some goals, and as doing so rationally, that is, adopting "the most efficient (rational) means available to them within the

constraints of the situation" (Király et al., 2003: 755). Actions are then conceived in terms of rational means for accomplishing goals in given contexts, thanks to an intuitive principle of rationality. For instance, in an experiment

"twelve-month-olds were habituated to a computer-animated goal-directed event in which a small circle approached and contacted a large circle ('goal') by jumping over ('means act') an obstacle separating them ('situational constraint'). During the test phase we changed the situational constraint by removing the obstacle. Infants then saw two test displays: the same jumping goal-approach as before, or a perceptually novel straightline goal-approach. They looked longer (indicating violation-ofexpectation) at the old jumping action (maybe because it seemed to them an inefficient means to the goal now that there was no obstacle to jump over), but showed no dishabituation to the novel straight-line goalapproach (possibly because this action appeared to them the most efficient means to the goal in the new situation)" (Gergely-Csibra 2003: 288).

The sensitivity of twelve-month-olds to the rational fit between action, context and goal may be the basis for action interpretation in infancy, and for the subsequent storage of behavioural schemata which will be put to use in planning and understanding action. Therefore, on the one hand the intuitive principle of rationality might determine the structure of stored behavioural schemata: given the importance of rational relationships between actions, contexts and goals, it is reasonable to assume that these three components are also integral to coding of actions. On the other hand, applying behavioural schemata to concrete circumstances might not be a purely mechanical affair, for at least two reasons: first, schemata might be underspecified with regard to specific situational constraints; second, schemata have to be flexibly applied to circumstances which are not entirely predictable. As a consequence, a fresh assessment of rationality might be required in order to ensure a good fit to present contexts.

Let me insist on these two conclusions. First, just as goal-directed actions are presumably driven by behavioural schemata based on rational relationships between circumstances, actions and outcomes, so people presumably understand actions by applying the very same schemata to others' behaviour. Therefore, both from the speaker's and the hearer's side, we should not think of intentions in terms of propositional attitudes: behavioural schemata are at the same time more complex and closer to sensory-motor experience than propositional attitudes are. Second, an assessment of rationality seems to be integral to both action and its understanding. The principle of rationality plausibly affects the arrangement of stored behavioural schemata, but also their application to current circumstances in order to get the best fit between actions, goals and specific contexts.

4. Radical interactionism

What we have said so far implies that there are no such things as individual intentions only on condition that these are conceived of as propositional attitudes entertained by subjects before they speak, and in fact causing them to speak. We suggest that the notion of individual (communicative) intention should be revised so as to meet our previous considerations: a subject has an intention only when there is some goaldirected behavioural schema which prompts (maybe automatically) her behaviour, can be put to use in the online control of action, and can also be recruited for an explicit evaluation of rationality–that is, an evaluation of the action's efficacy in pursuing a given goal in the given circumstances.

However, many have argued that a mere revision of the notion of individual intention would not be sufficient: the notion should rather be abandoned. A key argument for this conclusion is that the individual mind/brain would not be the right place to look for intentions. Gallagher (2008: 553) has well summarized this position with the following words:

"In many instances what we call intentions are not the properties of one individual-they are properties that arise in and are shaped by my ongoing interaction with the other person. They may be shared intentions or they may be intentions in conflict, but in either case they may be the product of the interaction itself. In this way intentions can be intersubjectively constituted-co-constituted. Sometimes this happens in such a way that intentions emerge in the interactive process and in some cases I discover my own intention (or the other discovers her own intentions) only in acting. Sometimes I first discover what my intention is only because the other perceives it and responds accordingly".

To be true, this quote may seem to address the essentially factual point that, "in many instances", interaction might contribute to determine individual intentions. Then, individual intentions would not be merely "individual", in the precise sense that one has to take into account how intentions may sometimes depend on a super-individual dynamic. As it stands, the quotation does not preclude the possibility that agents do have individual representations concerning their own goals, and that this has some role in the explanation of intentional action, though often such

representations would emerge in the course of interaction with others. However, considerations like those in the above quotation often aim to a more radical conclusion than this: the conclusion that individual representations cannot play any role in accounting for intentions.

Both in the philosophical and the anthropological field, for instance, it has been suggested that the notion of individual intention (and even of individual representation) would be integral to a rationalist, individualist and Cartesian account of human action, where a disputable separation between mind and reality is assumed, and intentions are thought of as internal representations which are open to introspection and explicit thinking –as if they were, so to speak, in the possession of the subject. In contrast with this account, a relational and dialogical view of people's psychic life is sometimes argued for (Shotter 2005; Mehl-Madrona and Pennycook 2009), where intentionality and even representations are thought of as "distributed between us" rather than located in a private, inner space. In an anthropological perspective, this is motivated by the fact that human action is essentially embedded in cultural practices and regularities. In Duranti's (1999: 135) words: "For anthropologists, the crucial issue is whether it is possible to separate intentional acts from the cultural context in which they are produced". As we already saw, Duranti (1998; 2007) draws the conclusion that social routines have a strength of their own, so that when people are engaged in such routines it is this strength, rather than individual will and representations, which accounts for their behaviour.

Therefore, one should not think of human intentional behaviour as something under the rational control of subjects. Such a rationalist and individualist view appears to be culturally specific to Western tradition, while it is hardly present in other cultures. In particular, a well-documented case is that of Western Samoan villages, where in fact the meaning of utterances is conceived as the product of an interaction rather than as something located in an individual mind (Duranti 1993; 1998; 2007). However, since Western speakers are used to give explicit, post hoc intentional explanations of action and communication, the notion of individual intention may play a role in their social explanatory practices, though not in a general theory of intention. As Arundale (2008: 255) puts it:

"Is there any place for intention in explanations of language use [...]? Yes, in that intention appears prominently in the post hoc accounts for utterances and behaviours that Western speakers offer and that recipients construct and attribute to speakers [...]. Intention can thus be understood productively as a member's resource in accounts for instances of language use, although not as a theoretician's resource in explanations of language use in interaction".

Now, my claim is that whilst some of the previous arguments are presumably correct, nonetheless they do not license the alleged conclusion. To begin with, I do not need to insist anymore on the correctness of Duranti's claim about the existence of social routines. endowed with a normative strength, to which most of the times agents conform without reflection. A related point is that human behaviour is rarely driven by explicit rational deliberation: routinization promotes the creation of efficient, straightforward automatisms which then play a major role in human life. Moreover, there is wide consonance among anthropologists about the cultural specificity of our conception of mind: the Western model of rational action is apparently not shared by other cultures. Finally, Gallagher is certainly right in pointing out that in the course of communicative interaction subjects may engage in negotiation of goals, so that the ultimate goal emerges from an intersubjective dynamic. However, in the next sections I will consider these points in more detail, in order to show that they do not license the conclusion that individual representations have no role to play in a theory of intentional action. On the contrary, individual representations of goals are even presupposed by a closer analysis of interactionist arguments.

5. Normativity

The appeal to the social and normative nature of intentions is sometimes used to argue against any account of intentionality couched in terms of individual representations. As it seems to me, however, the above considerations (sections 2 and 3) have robustly showed a sense in which individual representations implement intentions after all. One possibility is that we can speak of intentions also at a different, social and normative level, and that intentions of this sort are the ones which are not affected by what occurs at the individual level.

In this perspective, it is interesting to consider Jennifer Saul's (2002a, b) analysis of the notion of "what is implicated" by an utterance, that is, the Gricean notion of conversational implicature. Grice has famously distinguished between utterance meaning (i.e., what the utterance literally says) and speaker meaning (what the speaker intends to convey in a circumstance by that utterance), with conversational implicatures being the contextual inferences which lead from the former to the latter. Now, Saul

(2002a: 229) argues that "Grice's characterizations of speaker meaning and conversational implicatures are cast in very different terms-the former completely in terms of speaker intentions and the latter incorporating a good deal about the audience". As a consequence, the notion of conversational implicature would lend itself to a normative account where what does really matter is the fact that the speaker "makes available" a certain thought to the audience, independently of actual speaker's intentions. This has not to be understood, however, as if the audience rather than the utterer is responsible for implicatures. In fact, Saul thinks that neither "utterer implicature" (what the speaker has tried to implicate) nor "audience implicature" (what the audience takes to be implicated) in themselves may determine conversational implicature, which is "a more normative notion than utterer&audience implicature" (ib.: 244).

The general argument for such a conclusion is that the content "made available" by an utterance in a context may diverge from both what the utterer actually had in mind to convey, and what the audience actually thinks that the utterer had in mind to convey. In any case, the responsibility of both utterer (in uttering) and audience (in understanding) is determined by which content the utterance normatively implicates in the context, though utterer and audience may in fact be wrong about that content. Interestingly, this position is very close to Duranti's idea that social routines have their own strength and set the agent's responsibilities independently of what the agent may actually intend. What people do –the meaning of their behaviour– is not to be thought of as the private affair of subjects.

The point, however, is whether a normative notion of that sort might be divorced in principle from how people actually behave. In fact, one thing is to claim that normative implicatures may diverge from what utterer and audience represent on occasion; quite another is to claim that normative implicatures are independent from what in general utterer and audience represent. The latter claim is highly problematic, since the kind of normativity at issue essentially depends on how people behave most of the time. For example, the main reason why a given move in a social routine gains its normative strength is that such a move is what people do, and expect others to do, in that circumstance most of the time. Analogously, an implicature in a context could not have a normative value for us, if it were not the implicature which normally utterers and audiences would converge on. In fact, it would be pointless for the utterer to implicate a meaning in a circumstance, unless as a general rule the audience can be expected to draw the very same implicature in that circumstance; conversely, it would be pointless for the audience to draw an implicature in a context unless as a general rule the utterer can be expected to have intended it.

To sum up, as Grice made clear many years ago, normative notions of this sort are idealizations: concrete behaviours tend toward ideal norms which are not, however, without exceptions. But then, it does not seem fair to say that those norms are independent from facts concerning individuals: although exceptions are allowed, without a robust convergence of actual individual behaviours there would not be any such norms at all. Therefore, even a normative notion of intention appears to presuppose the existence of individual intentions, since the former is an idealization emerging on the latter.

Incidentally, it should be noted that the previous argument is not open to any charge of Cartesian introspectionism: in the framework delineated above (sections 2 and 3), individual intentions are implemented by behavioural schemata which only partially and sparsely may be accessed by agents. In accordance with that framework, the claim is not that the normative notions of implicature and intention depend on what the subject consciously thinks: rather, those notions are said to depend on largely automatic schemata which are in fact responsible for individual behaviour.

6. Rationality

Our proposal to conceive of intentions as schemata involved in behavioural control, rather than as mere propositional attitudes, has also consequences for the rationality issue. Grice's project has been often charged with rationalism and, as we already saw, philosophical pragmatics as a whole has been judged guilty of ethnocentrism for its adherence to the Western model of rational action, a model that does not seem to be shared by other cultures.

It should be noted, however, that in Grice's rational account of communication two points were clearly distinguished. It is one thing for Grice to analyse implicatures in terms of explicit propositional inferences; his insistence on the purposive and rational nature of communication is quite another. While the former clearly was not one of his theoretical commitments (on the contrary, he has insistently declared that explicit deductions were not to be attributed to concrete speakers), the latter has been a core assumption of his theory: "one of my avowed aims is to see talking as a special case or variety of purposive, indeed, rational behavior" (Grice 1975: 28). In practice, according to Grice, people speak in order to pursue some communicative goal, and have to choose utterances apt to

pursue those goals in the given contexts. Complementarily, the audience understands what is uttered by assessing which goals could be pursued by uttering a sentence in a context. These tasks require rationality in the very same sense we described above (one needs to evaluate the efficacy of actions in accomplishing goals in contexts), and can therefore be accommodated within the explanatory framework we proposed above, based on behavioural schemata rather than propositional representations.

If it is true that this non-verbal sort of rational reasoning is already present in children as young as twelve months of age, as Gergely and Csibra's experiments seem to have demonstrated, then it is quite implausible that the exercise of that capacity may depend on the acquisition of cultural frames such as the Western model of rational action. More plausibly, the sensitivity to the rational fit between actions, outcomes and contexts is a universal trait of human action. In this perspective, we should be cautious about the conclusions to be drawn from the evidence concerning Samoan people; in general, the absence in human groups of an explicit cultural model of rational action is far from licensing conclusions on the actual reasoning practices. Astuti (2001: 429), for instance, has summarized her results about the Vezo's conception of mind with the following words:

The article takes to task the well-established anthropological claim that non-Western peoples are free from the traps of dualistic thinking. Although Vezo informants in Madagascar produce statements that could be used to support such a claim, experimental procedures that target their inferential reasoning reveal that they systematically differentiate between mind and body, between the biological processes that determine the organism and the social processes that shape personhood. This suggests that there is a significant discrepancy between people's explicit linguistic statements and their implicit theoretical knowledge.

Interestingly, Duranti (1993) has recognized the role played by non-verbal and non-mentalistic rational reasoning in Samoans people:

Given that human action, and speech as one aspect of it, is goal-oriented, Samoans, like any other people in the world, must interpret each other's doings as having certain ends with respect to which those doings should be evaluated and dealt with.

Therefore, what is peculiar to Western tradition is apparently not individual reasoning about the rational fit of means to ends (relative to contexts), but rather the existence of an explicit cultural model based on that process, and promoting the social practice of giving, and asking for, (individual) reasons for action. Arguing, as Arundale (2008) does, that individual intentions may have a role in Western practices of post hoc action explanation but not in theories of how people actually communicate, has the unhappy consequence that our explanatory practices appear ungrounded and gratuitous. This in turn renders mysterious how the social practice of rational discussion may interfere with our automatic behaviour, and even create new habits (see above, § 2). On the contrary, our picture makes it easy to explain this interaction, since verbal reasoning on action is said to preserve the rational structure which one finds in behavioural schemata subserving action and its non-verbal understanding.

To sum up, we are not committed to the idea that human action and its understanding require propositional rationality, although we suggest that the Western model of action is correct as to its general structure, based on the rational congruence of actions, outcomes and contexts. Western post hoc explanations of action capture, though in a propositional and dramatically simplified form, the implicit structure of human action. The absence in other cultures of an explicit model of rational action does not imply that individual action is not driven in general by an implicit principle of rationality.

7. Negotiation

One of the key arguments for strong interactionism is the consideration that meanings and intentions are negotiated among individuals, rather than possessed by single subjects. A communicative move seems to require the completion of the addressee's response in order to acquire its true meaning: in Gallagher's words, the speaker's intention is intersubjectively co-constituted.

Let us first isolate a sense in which this requirement-that the speaker's move is complemented by the addressee's response-is obviously consistent with our previous picture. In fact, we have claimed that actions are driven by behavioural schemata representing expected outcomes, together with actions and circumstances. For example, when producing a question a speaker is clearly aiming to obtain an answer, so that the answer is an expected completion of her communicative move. In this sense, the meaning of a communicative act depends on the expected response, but in a way that is consistent with our commitment to individual intentions. The coordination of speaker and addressee is obtained insofar as the two converge towards the same behavioural

schema: for instance, the addressee correctly grasps the speaker's intention of obtaining an answer.

Interesting cases, then, are not those we have just considered where there is completion without negotiation; rather, the genuine issue is completion-with-negotiation. This issue can be framed in terms of the notion of communicative strength. On the one hand, as we saw in §5, communicative strength may be considered an effect of the weight of precedents: normative value is put on communicative moves which are part of strongly conventionalized routines. On the other hand, however, the strength of communicative acts seems to depend rather on current interactions. In order to further analyse this issue, it is convenient to distinguish three different ways in which the addressee may so contribute to determine the speaker's intention.

One case is when the speaker has a previous determinate intention which is not dependent on the addressee. This case should not be excluded in principle, and in fact we will consider in a moment one instance of it. Incidentally, this is when the word "negotiation" has its literal meaning: interlocutors have their own goals, though those goals can be somehow modified or fine-tuned in the course of reciprocal interaction. Far from speaking against individual intentions, then, this case clearly presupposes them.

Literal negotiation of meaning appears to occur both in cooperative and conflictual communication. An interesting example of conflictual communication, which appeared in Levinson (1992), is the following extract from Haldeman's testimony before the Senate committee that conducted the Watergate hearing:

Q: You saw all of the papers that were being reviewed, did you not?

A: Not all the working papers of the committee. I saw the recommendations that went to the President.

- Q: Did you read the recommendations that went to the President?
- A: I am not sure I did or not. If I did it was not in any detail.

As Levinson (1992: 77) observes, when saying that we saw some reading matter we generally would intend that we read it, though we can surely cancel this implicature by some explicit statement ("I saw it, but I did not read it"). Since the first answer does not contain any such qualification, the interpretation that Haldeman in fact read the recommendations that went to the President seems to be authorized. However, in this context

"we understand the implicature to be cancelled because, given our

understanding of legal inquiries, we know it is often not in the interests of a defendant to cooperate beyond the minimum required to escape contempt of court. In particular, we know that he may try to avoid committing himself to any definite statement of fact; knowing which, the interrogator cannot be content with implicatures that can later be denied—hence he has to ask the second question, that seeks assent for the inference from *saw* to *read*" (*ib*.: 77).

In other words, the interrogator tries to obtain assent to the interpretation according to which Haldeman read the recommendations, while Haldeman refuses to accept this as the correct interpretation of his previous answer. Alternatively, we could say that the speaker has the intention not to convey any precise content as to whether or not he read the recommendations, while the addressee wants the answer to be precise on this point. In fact, there is some indetermination as to what exactly has happened in terms of individual intentions: we will come back to this in a moment. But under any reconstruction, speaker and addressee appear to be driven by conflicting intentions, which they aim to discover and possibly force to their profit. As we saw above (section 2), Levinson's suggestion is that both intentional action and its understanding are largely constrained by activity types (in this case, the type could be something like "legal inquiry"); however, subjects must have stored appropriate behavioural schemata in order for activity types to guide their behaviour and understanding. As far as such schemata are used in strategic control of action, we can say that agents have determinate intentions (we have proposed in fact to conceive of intentions as behavioural schemata driving action, rather than as private thoughts), and addressees may be willing to negotiate and possibly change those intentions.

Could not it be possible, however, that there is no determinate intention behind an agent's behaviour? As far as I can tell, this might happen in two ways. First, the agent's behaviour might essentially be an automatic response, with representation of outcomes playing no appreciable role in behavioural control. Second, given the multiplicity of behavioural schemata which are presumably involved in a single action, it could be difficult for the agent herself to determine which outcome is precisely intended, that is, explicitly represented in the service of behavioural control. When one of these two cases occurs (or both of them occur together), then people could happen to discover their intention "only because the other perceives it and responds accordingly"–in Gallagher's words. This possibility, however, should not be overestimated. On the one hand, given the pervasiveness of goal-directed behaviour in humans, it is easily imagined that mere automatic responses are not very frequent. On

the other hand, most of the times multiplicity of possible intentions might not leave much room for the addressee, since all possible interpretations are largely congruent with each other (as in Levinson's example from Watergate hearing). Therefore, the extent to which communicative intentions are not determined by the speaker, and hence are open to be determined by the addressee, appears to be rather limited.

There are other cases, however, where the speaker may be credited with a determinate intention which is nonetheless dependent on the addressee. In other words, in those cases what the speaker says receives its strength from the addressee, whose expectations the speaker has aimed to incorporate in her discourse. A typical case in point is political discourse. For instance, Capone (in press) has analysed Barak Obama's speeches in this perspective:

"In Obama's speech, I analyze the case in which a politician makes use of the people's voices in order to show that he correctly represents the needs and sentiments of his nation, thus being entitled to represent them as a political leader and to do what is good for them. The speech emerges not as something for which Obama is responsible, but as something for which the people (in particular those attending the electoral speech) are responsible".

Such a phenomenon is but an instance of a general aptitude of humans for "positioning themselves in a Bakhtinian dialogic universe of voices other than their own" (Lauerbach 2006: 198). In other words, we humans are sensitive to others' emotions, preferences and attitudes, and inclined to take them into account in our own discourse, to the point that we could be intended at times as speaking in the name of others: "In Goffman's (1974; 1981) terms, a figure other than the speaker is being animated without the speaker being understood to be either the author of the words or to be responsible for them" (Lauerbach 2006: 198-9).

However, this aptitude for incorporating the others' voices, attitudes and points of view into our discourses makes appeal to a general ability to recognise goals and intentions involved in others' and our own behaviours. As Capone observes, the relationship between the politician and the people whose point of view has to be represented

"is not one of telepathy, but one of rationally guessing what kind of issues and attitudes the represented person would like to have addressed. The political leader has to guess what is of importance to his electorate, and his success is based on that of his rational guesses". In other words, just as in the above case of literal negotiation, so in this case it must be presupposed that there are genuine individual goals and points of view to be recognised in the service of a strategic interaction between subjects. In particular, when the speaker tries to anticipate the addressee's reactions in order to incorporate them into her own discourse, she can do it more or less correctly with regard to the addressee's real goals and preferences. Therefore, the speaker's communicative intention is in a sense determined by the addressee but, once again, in a way that presupposes individual intentions rather than speaking against them.

8. Conclusions

I do not presume to have considered all possible cases of negotiation or, for that matter, all possible aspects of normativity in discourse. Our discussion, however, should have made it clear that in most cases there is no contradiction between socio-interactive co-constitution of communicative intentions and the existence of individual behavioural schemata driving intentional action.

In the first place, social routines may place some normative strength on individual moves embedded in them, and people may perform such moves partly as a mere consequence of the weight of precedents, without any explicit representation of the outcomes. In the second place, there is an intrinsic relationship between speaker's and addressee's moves, since communicative acts are instances of goal-directed behaviour and, specifically, they are oriented from the beginning towards the addressee responses. This may show up either simply in anticipation of the addressee's move (the speaker prefigures the response), or in people trying to strategically incorporate the addressee's preferences and goals in their speaking. The addressee may in turn try to influence speaker's goals, more or less consciously attempting to change the way these goals shape current discourse.

None of these facts, however, is conceivable without presupposing that people store behavioural schemata framing their goal-directed behaviour and their understanding of others. We have proposed that such schemata have a rational structure based on the association between action, outcomes and circumstances. Moreover, since the social practices of rational discussion in humans appear to be based on the very same structure, it is no surprise that reflective processes may influence human action. The Western model of rational action is but an explicit formulation of the way this influence occurs.

Bibliography

- Arundale, Robert B. 2008. Against (Gricean) intentions at the heart of human interaction. *Intercultural Pragmatics* 5(2): 229-258.
- Astuti, Rita. 2001. Are We All Natural Dualists? A Cognitive Developmental Approach. *The Journal of the Royal Anthropological Institute* 7 (3): 429-447.
- Blakemore, Susan, and James Decety. 2001. From the perception of action to the understanding of intention. *Nature Neuroscience* 2: 561-567.
- Duranti, Alessandro. 1993. "Intentions, Self, and Responsibility: An Essay in Samoan Ethnopragmatics". In *Responsibility and Evidence in Oral Discourse*, ed. Jane H. Hill and Judith T. Irvine, 24-47. Cambridge: Cambridge University Press.

1998. Etnografia del parlare quotidiano. Roma: Carocci.

1999. Intentionality. In Language Matters in Anthropology: A Lexicon. A special issue of the Journal of Linguistic Anthropology 9(1-2): 134-36.

2007. Etnopragmatica. Roma: Carocci.

2008. Further Reflections on Reading Other Minds. *Anthropological Quarterly* 81(2): 483-494.

- Dehaene, Stanislas, Jean-Pierre Changeux, Lionel Naccache, Jérôme Sackur, and Claire Sergent. 2006. Conscious, preconscious, and subliminal processing: a testable taxonomy. *Trends in Cognitive Sciences* 10(5): 204-11.
- Dennett, Daniel. 1989. *The Intentional Stance*. Cambridge MA: MIT Press.
- de Wit, Sanne, and Anthony Dickinson. 2009. Associative Theories of Goal-directed Behaviour: A Case for Animal-Human Translational Models. *Psychological Research* 73(4): 463-476.
- Fogassi, Leonardo, Pier Francesco Ferrari, Benno Gesierich, Stefano Rozzi, Fabian Chersi, and Giacomo Rizzolatti. 2005. Parietal Lobe: From Action Organization to Intention Understanding. *Science* 308: 662-667.
- Gallagher, Shaun. 2008. Another look at intentions: A response to Raphael van Riel's 'On how we perceive the social world'. *Consciousness and Cognition* 17: 553-555.
- Gallese, Vittorio. 2003. "The manifold nature of interpersonal relations: the quest for a common mechanism". In *The Neuroscience of Social*

Interaction, ed. Cristopher D. Frith and Daniel Wolpert, 159-182. Oxford: Oxford University Press.

- Garrod, Simon, and Martin J. Pickering. 2007. "Automaticity in language production in monologue and dialogue". In *Automaticity and control in language processing*, ed. Antje S. Meyer, Linda R. Wheeldon and Andrea Krott, 1-21. Hove: Psychology Press.
- Gergely, György, Zoltán Nadásdy, Gergely Csibra, and Szilvia Biro. 1995. Taking the intentional stance at 12 months of age. *Cognition* 56: 165-193.
- Gergely, György, and Gergely Csibra. 2003. Teleological reasoning in infancy: the naïve theory of rational action. *Trends in Cognitive Sciences* 7: 287-292.
- Goffman, Erving. 1974. Frame Analysis-An Essay in the Organization of Experience. Boston: Northeastern Press.
- Goffman, Erving. 1981. "Footing". In *Forms of Talk*, ed. Erving Goffman, 124-159. Philadelphia: Philadelphia University Press.
- Grafton, Scott T., and Antonia F. de C. Hamilton. 2007. Evidence for a distributed hierarchy of action representation in the brain. *Human Movement Science* 26: 590-616.
- Grice, H. Paul. 1975. Logic and conversation. In: Syntax and Semantics. 3.
 Speech Acts, ed. Peter Cole and Jerry L. Morgan. New York: Academic Press [reprinted in Studies in the Way of Words, ed. H. Paul Grice, 22-40. Cambridge Mass: Harvard University Press, 1989].
- Hommel, Bernhard, Jochem Müsseler, Gisa Aschersleben, and Wolfgang Prinz. 2001. The theory of event coding (TEC): a framework for perception and action planning. *Behavioral and Brain Sciences* 24: 849-878.
- Hommel, Bernhard. 2003. Planning and representing intentional action. *The scientific World* 3: 593-608.
- Iacoboni, Marco, Istvan Molnar-Szakacs, Vittorio Gallese, Giovanni Buccino, John C. Mazziotta, and Giacomo Rizzolatti. 2005. Grasping the intentions of others with one's own mirror neuron system. *PLoS Biology* 3: 529-535.
- Jacob, Pierre, and Marc Jeannerod. 2005. The motor theory of social cognition. *TRENDS in Cognitive Sciences* 9 (1): 21-25.
- Király , Ildikó, Bianca Jovanovic, Wolfgang Prinz, Gisa Aschersleben, and György Gergely. 2003. The early origins of goal attribution in infancy. *Consciousness and Cognition* 12: 752-769.
- Lauerbach, Gerda. 2006. Discourse representation in political interviews: The construction of identities and relations through voicing and ventriloquizing. *Journal of Pragmatics* 38: 196-215.

- Levinson, Stephen C.. 1992. Activity types and language. In *Talk at work* (*Studies in Interactional Sociolinguistics 8*), ed. Paul Drew and John Heritage, 66-100. Cambridge Mass: Cambridge University Press.
- Mazzone, Marco. 2009. Pragmatics and Cognition: Intentions and Pattern Recognition in Context. *International Review of Pragmatics* 1(2): 321-347.

in press. L'intenzione comunicativa in situazione. Un progetto di pragmatica cognitivo-sociale. In *Atti del convegno su La Comunicazione Parlata*, Napoli, February 2009.

- Mazzone, Marco, and Emanuela Campisi. 2010. "Are there communicative intentions?". In *Advances in Cognitive Science: Learning, Evolution, and Social Action. IWCogSc-10*, ed. Luis A. Perez Miranda, Izagirre Madariaga, 307-322. Bilbao: University of the Basque Country Press.
- Mehl-Madrona, Lewis, and Gordon Pennycook. 2009. Construction of an Aboriginal Theory of Mind and Mental Health. Anthropology of Consciousness 20: 85-100.
- Pacherie, Elisabeth. 2006. Towards a dynamic theory of intentions. In Does Consciousness Cause Behavior?, ed. Susan Pockett, William P. Banks, and Shaun Gallagher, 145-168. Cambridge Mass: MIT Press.
- Saul, Jennifer. 2002a. Speaker Meaning, What Is Said and What Is Implicated. *Nous* 36 (2): 228-248.
- Saul, Jennifer. 2002b. What is said and psychological reality: Grice's project and relevance theorists' criticisms. *Linguistics and Philosophy* 25 (3): 347-372.
- Sebanz, Natalie, Harold Bekkering, and Günther Knoblich. 2006. Joint action: bodies and minds moving together. *TRENDS in Cognitive Sciences* 10 (2): 70-76.
- Shotter, John. 2005. "Life inside the dialogically structured mind: Bakhtin's and Volosinov's account of mind as out in the world between us". In *The plural self: polyphonic perspectives*, ed. John Rowan and Mick Cooper, 71–92. London: Sage.
- Umiltà, Alessandra M., Evelyne Kohler, Vittorio Gallese, Leonardo Fogassi, Luciano Fadiga, Christian Keysers, and Giacomo Rizzolatti. 2001. I know what you are doing: a neurophysiological study. *Neuron* 31: 155-165.