Zeitschrift: Studies in Communication Sciences : journal of the Swiss Association of Communication and Media Research

Herausgeber: Swiss Association of Communication and Media Research; Università della Svizzera italiana, Faculty of Communication Sciences

Band: 6 (2006)

Heft: 2

Artikel: Communication within human activities

Autor: Carassa, Antonella

DOI: https://doi.org/10.5169/seals-791105

Studies in Communication Sciences 6/2 (2006) 29-48

Antonella Carassa*

COMMUNICATION WITHIN HUMAN ACTIVITIES. A RESEARCH PROGRAMME FOR THE PSYCHOLOGY OF COMMUNICATION

In this paper I shall take a general stance on communication as part of joint activities. To analyse how interactions unfold, I shall show how two aspects have to be taken into consideration: the personal features of actors (intersubjectivity, knowledge, motivations and emotions), and the structure of joint activities. The latter consists of the entire system within which individuals perform their actions, including the social and institutional framework (norms, roles, powers, operational models) that shapes the activity and the material and symbolic artefacts used by the actors. Three areas of research are of particular relevance: social cognition and intersubjectivity, practices of collective work (workplace studies), and interpersonal relationship.

Keywords: communicative acts, joint activities, intersubjectivity, interpersonal relationship, cooperative work.

* University of Lugano, antonella.carassa@lu.unisi.ch

1. Introduction

In this paper I will present a conceptual framework that is coherent with an intuitive and pre-theoretic conception of communication: communication is constitutive of human interaction and of joint activities in particular. According to this view, research on communication requires us to understand the nature of human interaction and identify the specific features of the communicative components.

In particular, Psychology contributes to the investigation by introducing *subjects* in the study of interaction. Two fundamental lines of research are of relevance. On one side, a theory of subject demands an investigation of *cognitive architecture*, namely the innate mental capacities that shape interaction with the physical and social world. The account of architecture allows us to understand the nature of communication, grounding on empirical evidence about cognitive, emotional and relational aspects of the human mind.

On the other side, to introduce subjects in the study of interaction means to consider how an individual enters in a specific interaction with her personal history, her personal way to give meaning to events and to establish interpersonal relationships. These aspects are particularly relevant in some contexts that I will refer to in the paper.

The structure of the paper is the following. In Section 2, I present a conceptual framework on communication. In Section 3 some aspects of Tomasello's work on language acquisition are discussed in order to present an example of research fitting with the framework and able to offer empirical evidence to support it. In Sections 4, 5 and 6 I present three research fields that investigate crucial aspects of the conceptual framework and that I consider in synergy with research and didactic perspectives of the USI Faculty of Communication Sciences: social cognition for communication, situated joint activities and interpersonal relationship. Finally, I will make some concluding remarks.

2. Communication: the conceptual framework

2.1. Communication as part of joint activities

If we were requested to describe an ordinary piece of our everyday life, we would quite possibly articulate our description in terms of a series of activities we engage in: we go for a walk, we cook a meal, we write a

paper, and we participate in a meeting or in a family dinner. It is natural to conceive of our life as parsed in activities: agency is in fact a basic dimension of our experience, and due to the intrinsic interactive and social nature of our mind, we feel to be taking part in a network of socially and culturally defined activities. Some of these activities are individual, other are joint. The latter are based on collective intentionality, a form of intentionality that implies mutual engagement: each participant is committed to do her part of a larger collective plan. Suppose, as in a famous example of John Searle (1990), that we are pushing a car together: I am pushing a car as part of our pushing a car, and my intention is derived from our collective intention to push. If at a certain moment it turns out that you are not pushing after all, but only pretending to do so, I am not only mistaken about what *you* are doing, but also on what *I* am doing, because I thought not just that I was pushing a car but that *we* were pushing a car.

Besides joint commitment, other dimensions characterize these kinds of activities. According to Levinson (1979: 30), an activity type is "a fuzzy category whose focal members are goal-defined, socially constituted, bounded events with constraints in participants, setting and so on, but above all on the kinds of allowable contributions". To realize collective intentionality each partner commits herself to perform her participatory actions on the basis of common knowledge about shared goals, courses of interconnected actions, competences of others, and so on. All these are essential components of what is by now known as the *common ground* of the participants.

If we examine the structure of joint activities, we can easily discover that they lie on a continuum varying from mostly communicative to mostly noncommunicative types: at one pole we find the case of a family conversation, at the other the case of a couple dancing tango, at an intermediate position the case of a team doing a surgical operation. In the last, as in a large part of joint activities, the activity is composed of joint actions of different types: some of them are communicative, others are not.

Let us elaborate this point through an example. Imagine a young man who enters an elegant shop specialized in Irish clothes, to buy a Harris Tweed jacket, preferably in warm colours. He enters the shop and, after a first glance, asks for the desired jacket; the shop assistant shows him the jacket, he tries it on, and expresses his willingness to buy it; the assistant declares the price, he pays and goes out with the jacket carefully folded

in a beautiful bag. All the described acts are constitutive of a business transaction, an institutionally defined activity which prescribes participants' roles, with associated norms, powers, and so on. Due to its institutional and cultural nature, this activity is finely structured and usually unfolds through a scripted sequence. Speech acts, like declaring the price or asking for a product, and physical acts, like handing over a credit card or touching the product, are strictly intertwined and none of them makes sense if it is not considered as part of the whole activity. For that reason, it is claimed by several authors, Herbert Clark in particular, that communication has to be considered as an integral part of larger joint activities.

Within the unfolding activity, communication plays a prominent role by performing a number of relevant functions: it enhances coordination or synchronisation of participatory actions, and it contributes to creating or enlarging a common ground.

Moreover, communication is essential to deal with a further component of interaction, which so far has been largely overlooked but is starting to be considered, also thanks to the work of a number of philosophers like Margaret Gilbert (1996) and John Searle (1995). That is, communicative acts are used to create and manipulate *deontological bonds* between participants. Suppose that the young man of the previous example expresses to the shop assistant his desire to try on a specific jacket; the shop assistant takes it off the hanger and hands it to the client; but now the young man just turns away and starts looking at some gloves. In such a case, the shop assistant feels that a local commitment has been violated: the point is that the the client's expression of his desire, in conjunction with the assistant's action of handing the jacket, has created a *joint commitment* (Gilbert 1996) that binds both agents to perform a specific segment of a larger transaction.

Finally, it is important to note that each specific activity, like a business transaction, a medical consultation or the arrangement of a dinner party, is in its turn embedded in an everyday "system of activities"(Engeström, Miettinen & Punamäki 1999) produced by peculiar historical evolutions within cultural traditions. This system is collectively constructed and continuously renewed: as an example, a surgical operation is performed in a way that depends on how the institutional framework of an health care system has been progressively created and this framework is in its turn shaped by the whole panorama of cultural practices in the domain of health care and in others connected domains. In this line of thought, the Activity Theory argues that the concept of

context can be reconsidered by putting in the foreground the concept of "system of activities".

As in any other system of activities a central role, as originally pointed out by Vygotsky (1978), is played by material and symbolic artefacts by which activity is mediated. Complex systems of activities are in fact heavily supported by a plurality of heterogeneous, integrated technologies, think for example of an air traffic control centre (Goodwin 1996) or surgical team work (Hindmarsh & Pilnick 2002; Mondada 2001). Such type of work practices are cognitively distributed (Hutchins 1995) and show a circular relation between tasks, artefacts and social context (Mantovani 1996a & 1996b). A main consequence of assuming this perspective is to appreciate that studying and designing technologies require us to situate them in the system of activities in which they are used.

With reference to what has been previously said about joint activities, activity theory approach claims that, due also to the importance given to social and cultural dimension of human agency, the concept of context can be reconsidered by including systems of activities as an essential part of it. As a rigorous concept of context is at present still an open and largely debated problem (Duranti & Goodwin 1992) the suggestion is particularly relevant if we are interested in understanding how agents put in practice collective intentionality. In fact, the structure of interconnected activities in which agents are engaged can be seen as an important component of the common ground on which agents move themselves to do things together.

Within the large context of .activities, let us consider now what kind of action communication is from a psychological point of view.

2.2. Gricean theories of communication

Some roots of contemporary studies of human communication can be found in the work done by philosophers of language like Grice (1957, 1975), Austin (1962) and Searle (1969, 1979). The overall framework they developed was then adopted by more psychologically oriented researchers like Sperber and Wilson (1986), Clark (1992, 1996), Airenti, Bara & Colombetti (1993), Tirassa (1999). Most of these perspectives are based on Grice's reduction (1957) of human communication to a multi-level configuration of the intentions of the speaker, a configuration that is often referred to as a *communicative intention* and has also been analysed from a formal point of view (Colombetti 1999).

Such Gricean theories of communication share the view that an essential aspect of communication is its *overtness*. Technically speaking, this means that by a communicative act a speaker intends to achieve certain results on her partner, and intends to achieve such results at least in part through the partner's recognition of her intention. In other words, the recognition of the communicative intention plays a key role in any successful communicative act.

Assuming a Gricean point of view on communication has at least three important consequences. Firstly, if the effect of a communicative act on a partner is at least in part due to the partner's recognition of the speaker's intentions, any theory of communication will have to take into account the human ability to represent the mental states of others. Secondly, the role of intention recognition makes it possible to explain how people can communicate through a wide variety of expressive means, not necessarily linguistic or even codified by a previous convention; for this reason, the classical concept of a *speech* act has to be replaced by the more general notion of a communicative act, stressing the independence of communication from the external codes in which it is expressed. Thirdly, there appears to be a strict connection between the overtness of communicative acts and the fact that, as I mentioned before, a basic function of communication is to create and manipulate deontological bonds.

Thanks to these features, I believe that a Gricean approach can be considered as the right starting point for the development of psychological theories of communication, in which communication is conceived as a mental phenomenon, more precisely as a form of social action rather than a form of mere information transmission. This implies that research on how human beings interact with others through communication has to be framed in a broad conception of the nature and functioning of the human mind and of agency, social agency in particular.

A Gricean perspective allows us to attribute the quality of being communicative even to a single act. It is obvious, however, that in general the full meaning of a communicative act can only be appreciated in the larger context of the joint activity of which the act is part, and in which all the actors play their roles and coordinate with the others against a background of common knowledge that includes shared goals, general knowledge of the world, cultural knowledge, professional expertise, and so on.

2.3. Interpersonal relationship

In the psychological perspective, to be in communication with others means also to create, maintain and modify interpersonal relationships with others. Through communication, individuals, besides expressing specific contents, produce a definition of themselves and their partners and of the nature of the relationship that binds them as well. These aspects of communication will be introduced in Section 6.

3. A paradigmatic example: Tomasello's work on language acquisition

The aim of this paragraph is to present, in broad strokes, Michel Tomasello's work on language acquisition, as a paradigmatic example of research coherent with the conceptual framework depicted in Section 2 and able to offer empirical evidence to support it. The interdisciplinary author's perspective explains the development of communicative abilities in terms of both the individual's innate cognitive features (i.e. cognitive architecture) and her social participation in joint activities in a given cultural environment.

In his seminal book "The cultural origins of human cognition" (1999), Tomasello argues that human beings are different from any other species for their ability to "identify " with conspecifics, which leads to an understanding of them as intentional /mental like the self. This single adaptation is extremely powerful as it enables special forms of cultural learning through which humans create cultural traditions, values, norms and artefacts that can "ratchet" up in complexity over generations.

This ability is a key element for humans to pool their cognitive resources with others in social groups and for communicating with them, as largely shown by studies on ontogeny of intentional communication.

Intentional communication emerges, at around nine months of age, when children begin to engage in *triadic interactions*, where the child and the adult coordinate their interactions with a third object towards which they share attention. Most often the term "joint attention" has been used to characterize this kind of social involvement. With respect to previous forms of social interactions where contact with others is established by expressing emotions, triadic interactions require the child to begin to tune in to the attention and behaviour of the adult towards outside entities. A first, simple mental dimension of the other, i.e. attention, is represented with a strong motivation to share it. Indeed, first intentional

communicative behaviours have the aim of sharing the reference to an aspect of the external world, as it is evident when children perform declarative gestures such as "showing" a proximal object or "pointing" to a distant object.

Thus non linguistic communication, based on the understanding that others can perform any act, a gesture in particular, with a communicative intention, precedes linguistic communication and offers the necessary background to learn how to perform it.

Given that communicative processes play a role within extended social interactions for children to learn how to use language it is crucial to participate intensively in culturally defined, structured activities such as having a meal with parents or going to a birthday party (Bruner 1982).

It is in these contexts that children become able to recognize communicative intentions of others and to further appreciate which symbols they use to realize their intentions.

In a first phase of his work, Tomasello redefines the traditional concept of "joint attention" largely discussed in developmental psychology: in his terms "joint attentional scenes" are "social interactions where the child and the adult are jointly attending to some third thing and to one another's attention to that third thing, for some reasonably extended lengths of time"(1999: 97).

A novel, important aspect of the concept is highlighted: the elements included in the scene coincide neither with the physical environment that can be perceived at the moment, nor with the specific events explicitly indicated by language. The scene is instead intentionally defined: it occupies "an essential middle ground of socially shared reality between the larger perceptual world and smaller linguistic world". This middle ground consists of an understanding of *what we are doing together*. Even if Tomasello (1999) does not use the term "joint activity", his novel conception of "joint attentional scene" is evidently congruent with Clark's view, an author that he repeatedly cites.

It is worth noting that the author has recently moved his interest towards the exclusively human capacity to participate in collaborative activities by entertaining shared representations of themselves and of the environment, plans in particular, in order to jointly act towards a goal (Tomasello et al. 2005).

Tomasello's empirical work gives strong empirical evidence to the general picture of communication described in Section 2. Through ingen-

ious and elegant experiments he shows how children can learn the meaning of new words (invented *ad hoc* by the experimenter) in the ongoing flow of social interaction without any active teaching by adults. The point is again that children, when asked to participate in a joint activity, such as an amusing pair game, promptly understand the structure of the activity as a whole.

As an example, they understand that they are doing a finding game, or a game where they have to throw down in turn named objects in a curved pipe. In the light of the game structure and, more generally, of the knowledge they have on how humans usually think and behave, they can also understand how each of the partners, themselves included, is intentionally situated in the flow of participatory actions.

Communicative acts are therefore comprehensible to the extent to which they appear to be integrated in and functional to the whole activity. To learn language and, more generally, to learn the conventional use of a communicative symbol, the child has first to understand the other's communicative intentions in the light of a larger network of intentions (communicative and non communicative) so to capture why and how the other is using a particular symbol towards herself.

Secondly, she has to learn how to use the new symbol towards the adult in the same way and with the same communicative purpose that the adult used towards her. To learn this, a special form of learning, namely "role reversal imitation" is needed, that requires the child to represent the interaction from an external view, conceptualizing in third person both the other and the self in order to make their reciprocal roles interchangeable. The intersubjective nature of symbols derives from this process of imitation learning that requires an understanding of other persons as intentional beings engaged in a variety of meaningful social situations.

As we have seen, this understanding is one of the crucial problems of human beings and dedicated aspects of cognitive architecture have been postulated by a number of authors. However, we know much less about this aspect of human cognition than about our ability to understand the physical world. A number of disciplines are presently focused on this topic. In the following paragraph I will briefly outline the area of research on social cognition as one of the more relevant for future developments in communication theories.

4. Cognitive architecture: social cognition abilities for communication

Communication, as any other form of joint activity, requires the agents involved to understand each other as an agent endowed with mental states. A communicative intention is in fact a particular type of intention aimed at modifying the partner's mental states: this implies a representation of the other's beliefs, desires, intentions, emotions and so on, and of the ongoing interaction as well. Using common terms in literature, this capacity can referred to as *theory of mind* or *mindreading*. What form a theory of mind really takes in humans and if and how it gradually develops in children is an open and intensively debated problem in the area of study of "social cognition".

One of the main points is to understand how children can reach a complete theory of mind by which they become able, not only to be sensitive and attuned to others' mental states, but also to verbally describe these states and to reason about them. In discussing ontogeny of communication, Tirassa, Bosco & Colle (2006) consider sharedness as a primitive, innate component of cognitive architecture that allows individuals to capture important aspects of other minds before the end of the first year, opening the possibility for social interactions in terms of reciprocal and coordinated behaviours.

Note that infants are incapable of *not* sharing mental states with their partners with strong limitations in the kinds of interactions allowed. Mature social interactions, defined as "complementary interactions" by Brinck (in press) result from the acquired capacity to understand others as mental agents in a full sense: an essential achievement is the understanding that human beings, even if immersed in the same situation, can assume different points of view on reality, i.e. they can have different goals, beliefs and emotions. Therefore the "beginning of privateness is the beginning of true *mindreading* (theory of mind in a strong sense) where the last one does not coincide with the beginning of sociality but with some special forms of it, especially intentional communication in Gricean sense" (Tirassa, Bosco & Colle 2006). Precisely because we acknowledge the others' point of view, this kind of communication is motivated by the desire to share mental states with the other.

With respect to studies expressively dedicated to communication competences, a broader perspective is taken by researchers interested in studying intersubjectivity, namely the "mutual sharing of experiences", conceived of as a basic dimension of consciousness. The development of

cognitive science in the past two decades shows a shift from the classical view of mind as an information-processing engine using symbols in a language of thought, to the "enactive" or "embodied" view (Varela, Thompson & Rosch 1991), according to which mental processes are embodied in sensory-motor processes and situated in specific environments (Clancey 1997; Glenberg 1997; Carassa, Morganti & Tirassa 2005).

While classical view has mainly supported the "theory of mind" approach, the embodied one takes a different stance, derived from the idea that, in social creatures like us, embodied cognition emerges from the dynamic co-determination of self and other (Thompson 2001). This means that an experiential coupling of self and other is operative from birth and is primarily based on perceptual recognition of other human beings, especially along affective dimensions. Infants are in fact acutely sensitive to time patterns in human movements and can react in synchrony with attuned motives and feelings. Interpersonal body schemas allow emotional contagion (i.e. to feel an emotion similar to the one of another person) and facial imitation, these schemas offering the basis for the development of more sophisticated form of social intelligence.

An essential ingredient for social intelligence is the ability to understand what another person is doing. The fact that we are able to interpret others as agents in pre-conceptual and embodied way, has been recently illuminated in cognitive neuroscience by the Rizzolati, Fogassi, Gallese (2001) impressive discovery of a class of neurons they call "mirror neurons" that display the same activity when an animal accomplishes a goal directed movement (i.e. an action like "grasping a ball") and when the animal observes the experimenter performing the same action. These remarkable results show how the neural system of mirror neurons allows us to recognize the intentional meaning of the bodily movements of another, i.e. to appreciate *which action* she is performing, without inferential processes, rather by means of a direct matching of the mind/body of self and other.

These studies stress that social cognition does not always coincide with explicitly thinking about the contents of someone else's mind in order to explain and predict behaviour. Social cognition includes immediate, embodied forms of understanding of social situation as underlined also by a wealth of developmental psychologists. Concepts such as "identification with the other" (Tomasello 1999) or "virtual other" (Braten 1988; Trevarthen 1979) have been introduced just to explain how chil-

dren experience some basic mental states as shared with others from a very early age.

Gallese's "shared manifold hypothesis" proposes that the mirrors system has an important role in enabling empathy (Gallese 2001, 2005) by constituting the neural basis of a primitive intersubjective information space (or, as he defined, shared manifold) ontogenetically preserved in human adults. Such primitive intersubjectivity remains an essential aspect for more sophisticated forms of human empathy and social behaviour too (Gallagher & Marcel 1999).

In spite of the wealth of work done on intersubjectivity, a general look on contemporary studies shows an intense debate revolving around some central still open questions. Which forms of intersubjectivity are distinctive of human mind? How these forms develop? Which kinds of intersubjective behaviours emerge? What is the role of intersubjectivity for cooperation?

Striving to achieve a unified account of intersubjectivity, current cognitive science studies are investigating this aspect of human cognition from an interdisciplinary point of view, founded on philosophical accounts of the phenomenon and on neuroscience results, with conceptual analysis and classification of observational and experimental data offered by developmental and comparative psychology.

5. Situated joint activities and cooperative work

Contemporary studies on joint activities are especially focused on *workplaces* settings for two main reasons. First, as social sciences are increasingly leaving artificial experimental settings, workplaces present themselves as settings particularly suited to study real life situations. Secondly, research on collective work activities has a great impact on the life of organizations and organizational change.

In workplaces persons are engaged daily in meaningful and historically defined activities. The first problem in studying human activities is to choose a level of analysis. At one extreme, activity can be studied at micro-level emphasizing local interaction, negotiation and talk (e.g. studying different forms of turn-taking during business meetings). At the other extreme, activity can be analyzed at macro-level (e.g. studying work evolution in the shift from tailored production to industrial production).

Workplaces studies (Engeström & Middleton 1996) strive for a mid-level approach that allows an understanding of how people experience

agency in social world: how they create individual and collective meanings, how they conceptualize themselves in situations, foresee and plan the future.

This level of analysis is captured by the concept of social practice that addresses activities in their historical and cultural dimensions and in cognitive dimensions as well. Practices do not occur in empty space, but within *communities of practice*, namely communities of people mutually engaged in the pursuit of a joint enterprise, who interact with each other and with the environment, establishing and refining interpersonal relationships, discovering new way of doing things together (Wenger 1998).

In this broad perspective, the focus of studies on cooperative work are the situated practices that a specific community has developed in time through an history of interactions and shared learning between the participants.

To identify practices qualitative methods of analysis of interaction are mostly used, with observations extended for long periods of time. But to understand what people are doing when engaged in a joint activity, communication included, local analysis is not enough. Through ethnographic methods the researcher has to produce a complete description of the elements without which the activity could not take place: values, norms, roles, expertise, operative models, artefacts incorporated in the community (see Piccini, Carassa & Colombetti 2006)

Situated studies on cooperative work are often interested in contributing to organizational change with a particular conception of the researcher's role. According to Engeström, there are two main ways to explain how innovation and qualitative change can be fostered in a given organization. A first explanation proposes that real innovation can be obtained by importing from outside a new model, assumed to be better than the one presently adopted by the organization. The second explanation suggests that organizational change is a complex and multifaceted phenomenon that emerges in organizations as a result of gradual and distributed changes by which actors within the organization try to solve crucial problems in their everyday practices. In this sense, change is generated by continuous situated learning processes, with a strong motivation by actors themselves to create new efficient strategies to reach their enterprise. Accepting this kind of explanation leads us to assume that researchers are not expected to suggest solutions from an external point of view – a strategy that has been largely demonstrated as unsuccessful.

In the participatory approach, the researcher's role has be negotiated with the organization in order to be transparently aimed at fulfilling goals significant to the community itself. For that reason, ethnographic detailed descriptions of work practices are not sufficient to perform intervention of organizational change, they can be offered instead to the community as an important element to enhance self-reflection. The researcher can contribute to the organization's life by dialogically fostering the putting to the test of new operative models, to highlight hidden competences, to discover new possibilities for interpersonal relationships.

Finally, if we accept the idea that practices depend on socio-cultural contexts of interactions and that it is in those practices that artefacts play an instrumental role, we can appreciate the limit of an analysis of artefacts use in terms of the pure user/artefact interaction. Consider, for example, new technologies for communication such as e-mail, virtual environments, chat, videoconferences and others. For understanding if and how they afford interesting possibilities, research has to be grounded in theoretical models and methods of analysis able to capture the complex and wide social processes in which artefact mediate collective action.

6. Interpersonal relationship

Few researchers would disagree with the statement that interpersonal relationship is a central dimension of human life. Yet not many would agree about a precise definition of the concept, since it is an umbrella concept that is presently used to cover a fuzzy set of features of social interaction. Many types of interpersonal relationships have been identified in applied research, with the aim to intervene in concrete, problematic situations. A doctor/patient relationship has been informally described as "paternalistic", or "authoritarian" in order to capture how the professional conceives of its role towards the patient; a parental style as "authoritative", "indulgent" or "uninvolved" in order to describe how the parent takes care of the child. These kinds of definitions are rarely theoretically grounded: basic research has been mostly focused on other aspects of human sociality such as the cognitive ones studied in the field of social cognition and intersubjectivity.

In the field of clinical psychology on the other hand, the most interesting models have been developed. In fact, it is an essential component of psychotherapists' expertise to be competent in reading and interpreting relational aspects of interaction. In addition, since the birth of psy-

chodynamic (especially psychoanalytical) approaches, and with particular importance for modern cognitivist-constructivist approaches, psychotherapists conceive of their own relationships with clients as the most fundamental tool to promote change.

Considering that communication is one of the most sophisticated ways to establish and refine interpersonal relationships, we can ask ourselves if communication studies could benefit from research on interpersonal relationship and in which contexts this topic could result as especially relevant.

An answer could be given in viewing communication as an integral part of joint activities: these collaborative activities show themselves to be among the most significant contexts for doing research on interpersonal relationships. Indeed, when participating in joint activities people always move along two complementary directions. On one side, participants engage in reaching common goals through coordinated courses of actions. To do that, special cognitive abilities, expertise, and shared learning are required. On the other side, to reach the domain goal (such as writing a paper or designing an architectural product) is not the sole intended result. People act together and communicate also to give a more or less explicit definition of themselves and of the relationship with others as well.

As extensively shown in literature, for a team to assume a genuine and stable cooperative asset, a lot of relational problems have often to be overcome. This is a necessary step as dysfunctional interpersonal relationships can be a heavy obstacle in reaching common goals and a source of intense psychological disease.

To study scientifically interpersonal relationships we have to go beyond a purely descriptive approach: we need theories able to *explain* social interactions accounting for both the personal characteristics and specific roles of each participant activated during an unfolding interaction. This requires us to take a perspective on the person- in- interaction as an individual who brings into the relationship personal characteristics such as emotions, expectations, thoughts, relational styles which are in continuity with personal experiences of interacting with others. As an example, in studying a doctor/patient consultation, we have to assume that individual needs and differences due to the personal history (experiences of asking or giving help, cooperating with others, taking care) of both doctor and patient play a prominent role during the interaction. Outcomes of consultations such as patient's satisfaction or compliance

depend on how the subjective perspectives meet in a given situation and on how the interpersonal relationship develops in time.

The most promising theories of interpersonal relationship in clinical psychology are Gilbert's cognitivist approach to evolutionary psychology, (1995, 1997), Bowlby's Attachment Theory (1969, 1973, 1980) and the more recent Theory of Interpersonal Motivational Systems (IMS) developed in particular by Liotti (1991, 1993). According to the latest theory an innate predisposition to sociality exists in all human beings , IMS such as attachment, care giving, cooperation, agonism, etc. Even if the IMS are innate, their characteristics are developed within the early relationship with others and are specific for each individual. Through our IMS and our interaction with others all individuals develop a specific relational style, which characterises their relationships during their lives. When IMS are activated in the interaction it is possible to observe them through three components: emotions, behaviour, thoughts. The qualitative analysis of communication processes among people enables us to observe the integration of these three components to outline not only the contents of communication but also the nature of the relationship among individuals (Bisanti, Carassa & Rezzonico 2007). Given that the relationship plays an important role in the success or failure to reach an objective, this field of research is particularly relevant to the study of interpersonal difficulties in different contexts such as collaborative working, communication between service providers and clients, particularly that of health care.

7. Concluding remarks

In this paper I have presented a conceptual framework on communication and three research areas that explore crucial and complementary aspects of it: social cognition, situated joint activities and interpersonal relationship. The framework suggests that research on communication could be fruitfully conducted by integrating both, perspectives centred on individuals and perspectives centred on social phenomena. Traditionally, these two perspectives have been separately taken within single disciplinary fields. New research developments show instead a more variegated panorama with a large number of studies on human interaction lying at the boundary between different disciplines with a great effort to create cross fertilization between complementary approaches.

The specific contribution of Psychology is to introduce the subject in the analysis of interaction, with the aim to understand how individuals

bring their personal history, organization of meaning and experience in the interaction itself. When Psychology of Communication takes the approach here presented fruitful connections with other areas of the Communication Sciences become apparent: the study of organizations, the design of computer-based artefacts for human interaction, and the analysis of talk-in-interaction, for example, offer a wealth of significant testbeds for psychological models of communication and, in return, may exploit such models to gain a deeper comprehension of real-life situations.

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