Analyzing doctor-patient communication: methodological issues

Sarah BIGI
Università Cattolica del Sacro Cuore di Milano, Dipartimento di Scienze Linguistiche e Letterature Straniere, Via Necchi 9, I-20123 Milano
sarah.bigi@unicatt.it

La qualità della comunicazione tra medici e pazienti è oggi considerata uno gli elementi decisivi nel percorso terapeutico. Vari studi hanno mostrato che un miglioramento nella comunicazione risulta in una miglior comprensione da parte dei pazienti e, alla fine, in una maggiore *compliance*. Molte ricerche hanno proposto diversi modelli per l'analisi e la valutazione degli stili comunicativi nel contesto medico. Tuttavia si sente ancora la mancanza di una cornice teorica sufficentemente ampia da permettere di prendere in considerazione i vari fattori emersi dalle diverse analisi e di spiegarli. Il presente contributo nasce da un progetto di ricerca in corso di svolgimento finalizzato all'identificazione degli aspetti più rilevanti del constesto istituzionale che condizionano le interazioni medico-paziente durante le consultazioni mediche. Anche basandosi su alcuni risultati parziali del progetto, si propone un'ipotesi relativa a una cornice teorica e metodologica per l'analisi e la valutazione delle interazioni tra medici e pazienti.

Parole chiave:
Interazioni medico-paziente, contest della communicazione, agency

1. Introduction

When in 1977 George Engel's article *The Need for a New Medical Model: A Challenge for Biomedicine* appeared in *Science*, a debate was initiated about the conception and the practice of medicine that has only gained momentum in the following years and is far from subsiding today. What Engel was calling for was not simply an improvement of the medical skills, but a change in the conceptual models around which medical knowledge and practice was organized.

In that same article he outlined the *biopsychosocial model*: a new way of conceiving medical practice, in which the patient would not be considered merely as a sum of its parts, and the illness not just a series of biochemical deviations from a given standard. Instead, Engel advocated an approach in which the patient would be considered as a person, viewed within a larger social and cultural system, whose feelings, personality, fears, etc. would be taken into account. In a later paper (Engel, 1980), he showed with an example from a clinical case the influence that psycho-social variables can have on physical conditions.

Engel's work sparked a lively discussion within the field of medical sciences. One of the aspects on which much of this debate focused was the style of communicative interactions between doctors and patients. The reason for this

is that it became more and more evident that the psycho-social variables to be accounted for could be 'observed' only if communicated by the patients themselves. Thus it became of paramount importance to train doctors to be able to elicit this relevant information. The educational preoccupation is very much present in both Engel's works (1977: 134-135; 1980: 535-536), again not only in the sense of training future doctors to master certain skills, but as a whole new way of educating the young generations in the medical practice.

Since Engel's time, many researches have proposed various models for the analysis and evaluation of communication styles in the medical setting. Nevertheless there is still want for a comprehensive framework that will allow taking into account all relevant factors and explaining them.

The present paper stems from the ongoing research project *Communication in institutional settings: the context of medical consultations* (from now on MedCon project)[1] aimed at identifying the most relevant features of the institutional context which constrain interactions between doctors and patients during medical consultations. Also drawing on partial results from this project, the paper puts forward a hypothesis on the form of an integrated framework for the analysis and evaluation of interactions between doctors and patients. The paper is structured as follows: the first paragraph outlines the most relevant acquisitions on doctor-patient communication within the medical sciences, pointing out some of the areas that remain problematic. The second paragraph proposes a way to combine in a unitary framework the methodological insights achieved in the medical sciences with those obtained in the communication sciences. The last paragraph is devoted to some concluding remarks.

2. Doctor-patient communication in the perspective of the medical sciences

Soon after Engel's first suggestion to move towards a broader model within the 'medical culture', psychologists and psychiatrists especially began observing the way interactions were conducted within the medical setting and pointing out what they felt were the revealing factors of the interactions' quality. All of these studies generally have one out of two main objectives:

1) to influence for the better health policies;

2) to influence for the better academic programs and training of medical personnel.

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Attention grew in particular around the way communicative interactions between physicians and patients were managed, the typical case being the medical consultation with the general practitioner. Two major frameworks were identified according to which the different styles of interaction can be described: the *disease-centered* framework and the *patient-centered* one (Moja & Vegni, 2000).

In the case of a disease-centered interaction, the communicative style of the physician would be described as paternalistic and exerting power, and would be referred to as the 'traditional' model for interacting with patients. Physicians' main preoccupation would be with the details of the disease, regardless of patients' feelings about it, of their preoccupations, doubts, and perceptions of the disease itself. This style of interaction is acknowledged as being characterized by a clear predominance of the physician in the dialogue: it is physicians who speak most of the time, usually posing close-ended questions to patients and interrupting them once they have obtained the desired information. Patients are typically hesitant to ask for clarifications and prone to show agreement with the physician even when they do not understand what the physician is saying. From a qualitative point of view, physicians' discourse within the disease-centered model is characterized by the frequent use of specialized terminology, few or brief explanations of both the diagnosis and the therapy, and a tendency to justify any decision by calling on the physicians' knowledge and expertise.

A patient-centered interaction, on the other hand, will be shaped by physicians' efforts to consider patients as whole human beings, instead of focusing only on their disease. Therefore, physicians' communicative style will be characterized by more open-ended questions regarding not only the symptoms but also the way these symptoms are perceived. Physicians will try to elicit as much information as possible on how patients are feeling about their physical condition, what their expectations, beliefs, or fears are. This should not only help physicians make better diagnosis and choose the most adequate treatments; it should also help build a better relationship with patients, based on trust and understanding (Associazione Italiana della Comunicazione Pubblica Istituzionale, 2006; Forum per la Ricerca Biomedica, 2007). This is supposed to improve patients' outcomes and compliance (this point though has also been challenged, as appears in Mead & Bower, 2000). Qualitatively, "patient-centered" interactions are characterized by the use of a simpler terminology that can be understood by the non-expert. Patients are also considered on an equal level by physicians and are therefore involved in the process of decision-making regarding the treatment (on the process of decision making in medical encounters, see: Segal, 2005b: 144-152; Wirtz *et al.*, 2006).

Therefore, some of the main elements assessed to define the quality of interactions between physicians and patients are the following: style of questions (on both sides), style of answers (on both sides), time spent on patient education and counseling, clarity of the terminology used by physicians, if and how to disclose bad news to patients[2].

Researches have also described other aspects that are relevant for the realization of the advocated change in the medical practice. One of these is the typical structure of the medical consultation, which also depends on the kind of illness the patient needs to discuss: the most common are studies on consultations with the general practitioner, but there is also a considerable amount of work on interactions in the oncological setting, or regarding genetic counseling, just to cite examples of the most common types (Baile *et al.*, 2000; CIPOMO-Censis, 2006; Lehtinen, 2007). The description of the consultation's structure is functional to the description of the communicative moves in each phase, both from a quantitative and qualitative perspective. Moreover, consultations are not the only kind of interaction that has been taken into consideration, as the interview in the doctor's office is not the only occasion patients have to interact with health care providers. Therefore studies have been conducted also on the style of communication in the hospital, between nurses and patients, among health care providers themselves (doctors – nurses, doctors – doctors, etc.), between doctors and the families of dying patients or patients needing to make end-of-life decisions.

The methods and categories of rhetoric and persuasive discourse analysis have also been used to analyze certain aspects of discourse in the medical setting. From this point of view, studies have been carried out on the most common metaphors used within medical discourse, which show how much the biomedical model still structures much of Western society's understanding of medicine, its methods and the roles of those who 'act' within this field (Segal, 1994, 1997, 2000, 2005a, 2005b, 2007).

Another perspective still on interactions in the medical setting is the one that takes into account the management of power in the physician-patient relationship[3]. This is actually one of the most problematic points, as it crosses

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[2] Among the best known methods for the assessment of the quality of doctor-patient interactions are Bales' (1950) Interaction Process Analysis (IPA), Stiles' (1978) Verbal Response Modes (VRM), and Roter's (2006) Interaction Analysis System (RIAS) (see also Roter & Larson, 2002). A comparison of these three methods is provided in Inui *et al.* (1982); reviews of the methods used in assessing doctor-patient interactions can be found in: Inui & Carter (1985), Ong *et al.*, (1995), Boon & Stewart (1998), Rimal (2001), Beck *et al.* (2002). On the patient-centered model as opposed to the disease-centered one, see: Levenstein *et al.* (1986), Mead & Bower (2000), Irwin & Richardson (2006), Lewith (2007).

[3] Regarding the issue of power asymmetry in the medical consultation, see among others: Todd (1989); Beisecker (1990); Beisecker & Beisecker (1993); Ainsworth-Vaugh (1998); Thesen (2005); Irwin & Richardson (2006) and the references therein cited.

with political, economic and social issues that are not always easy to keep distinct. The problem with the exertion of power in the relationship between doctors and patients became a strongly debated issue starting in the late '60s and down into the '70s, partly because of the new values that were changing the face of Western society, partly because of an actual uneasiness with the traditional way of enacting the relationship between doctors and their patients. The *knowledge is power* equation became one of the main arguments to dismantle the paternalistic model and substitute it with a new one, in which doctors and patients would stand on the same level. If it is true that the paternalistic model had many drawbacks, it is also quite clear that a truly new model is difficult to actualize in the clinical practice. Indeed the relationship between doctors and patients is caused to exist not in spite of doctors' alleged greater power derived by their knowledge, but because of it. Patients seek the advice of an expert because they know they cannot make a decision on their own, given the fact that they cannot even understand the cause of the problem. Therefore the asymmetry in the relation deriving from scientific knowledge cannot be eliminated, not even pretending it does not exist[4]. The most widely adopted solution to the problem is to say that the patient too is an expert, the 'expert of himself'. This is the perspective of patient-centered medicine, where patients are considered to be the only sources of reliable information regarding their own perceptions, preconceptions, fears, expectations, etc. This constructs the relationship between doctors and patients in terms of an encounter between peers: the doctor, an expert of certain biochemical processes, causal relations, physical phenomena; the patient, an expert of the subjective instantiation of the general laws and phenomena the former knows (Moja & Vegni, 2000)[5].

In the course of the thirty years following Engel's famous 1977 paper, and also very recently, assessments have been attempted of what was being and has been done in the direction Engel was pointing to. Two seem to be the main conclusions these studies arrive at:

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4 With regard to this point, see Segal (2005b: 142): "The truth is, doctors and patients may *not* have "equally valid" health beliefs – just as, for example, professors and students may not have equally valid things to say on matters about which the professors have been thinking for thirty years and the students for thirty minutes. We may all be equally entitled to our opinions, but our opinions are not necessarily of "equal value".

5 This reading of the situation solves the problem only partially, as the challenges posed by asymmetry are set momentarily aside. The idea of an encounter between peers though conceals a risk as well, i.e. to overlook the fact that the asymmetry derives not only from doctors' competences, but also from the social role 'designed' for them by the institutional structure in which the encounter is set. From this point of view, the patient can hardly be considered the doctor's peer, and in order to level this asymmetry the creation of a whole new institutional framework should be considered. An alternative, easier, way might be to reconsider the assumption that interpersonal or social asymmetry is intrinsically negative.

1) the methods devised to evaluate the quality of doctor-patient interactions are not consistent enough to give usable results. The methods differ too much from one another, they are very seldom validated by users other than the author of the method itself, they yield results that cannot be compared and that are sometimes contradictory;

2) there is the lack of a consistent, coherent, and sufficiently complete overarching theoretical framework for the description, analysis and evaluation of communicative interactions in the medical setting.

(Wasserman & Inui, 1983; Ong *et al.*, 1995; Boon & Steward, 1998; Mead & Bower, 2000; Rimal, 2001; Beck *et al.*, 2002; Borrell-Carrio *et al.*, 2004; Hornberger & Robertus, 2005; Roter & Hall, 2006; Wirtz *et al.*, 2006).

The following paragraph puts forward a hypothesis on how such a theoretical framework could be composed, drawing on studies coming both from the domain of medical and communication sciences, and on partial results from the MedCon project.

3. A composite framework

Within the field of verbal communication, relevant researches have been conducted on the structure and the dynamics of communicative interactions seen as particular types of human actions (Halliday & Hasan, 1985; Clark, 1996; Rigotti, 2003; Rigotti & Rocci, 2006; Fillmore, 1982, 2006). In these approaches, communicative interactions are looked at as instances of discourse situated within a specific context. They are 'verbal actions' that make it possible for human beings to construct more complex chains of actions, building up to joint activities and eventually reaching non-communicative goals. The interplay between verbal and non-verbal interactions can be more or less institutionalised and may lead to more or less fixed 'scripts'. Descriptions of the relevant factors for communicative contexts (Halliday & Hasan, 1985; Clark, 1996; Sarangi & Roberts, 1999; Rigotti & Rocci, 2006) highlight the importance of the roles subjects play in the interaction, along with their commitments. They also point out the great influence institutional settings have on the communicative flows between the subjects involved in the interaction[6].

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[6] It is interesting to observe that also Engel's work contained a description of the medical encounter's communicative context, with a description of the roles of physician and patient, the shared goal of the encounter, and the commitments and expectations of the two parties: "[…] the most obvious fact of medicine is that it is a human discipline, one involving role- and task-defined activities of two or more people. Such roles and tasks are defined in a complementary fashion. Roles are based on the linking of the need of one party, the patient, with an expected set of responses (services) from the other party, the physician. […] The patient's tasks and

It is in this line of research that the MedCon project is being developed. Some partial results of this project[7] suggest that the broader perspective advocated by the recent literature on doctor-patient interactions could actually be achieved by combining the accomplishments of communication sciences with the ones obtained by the medical sciences. Also, these results show that this could be done by devising a coherent framework for the analysis of medical consultations made up of three main components: a descriptive, an analytic and an evaluative one.

At present there is abundance of analytical methods and frameworks in both fields of research which allow to point out various features that seem to be typical of interactions in the medical context, but, as has been pointed out in the previous paragraph, they fail to refer back to an adequate, let alone common, description of the context of the interaction. Consequently they can afford only partial evaluations, since the criteria to define the relevance of the identified features are set by the context of communication. It is therefore crucial that the analysts have at their disposal an adequate model for the description of such context. Given the specificity of the research domain of communication sciences, it is perhaps reasonable to look for such a model within this field. The one that has been used in the MedCon project is the model of the communication context described in Rigotti & Rocci (2006) (Fig. 1).

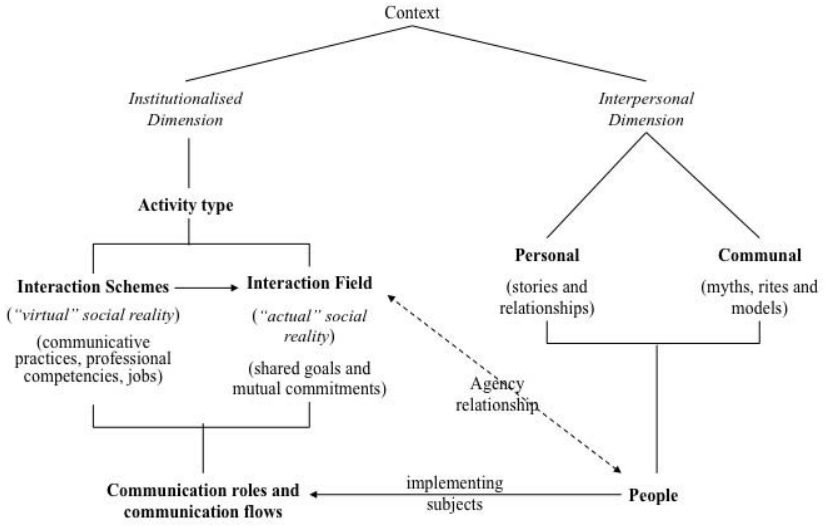

Fig. 1: The model of communication context (Rigotti & Rocci, 2006).

responsibilities complement those of the physician. […] The term "patient" characterizes an individual in terms of a larger social system". Engel (1980: 535-537)

7 For reasons of space it is impossible to describe these results in detail here, but the following papers are based on them: Bigi (2008a, 2008b, 2009).

The authors of this model suggest that all verbal interactions should be analyzed by taking into consideration the characteristics of the institutional setting they occur in, and also those of the subjects playing a role in them. In order to do this, they outline a two-sided model, comprising an institutionalised and an interpersonal dimension (Rigotti & Rocci, 2006: 171).

What seems to be particularly useful of this model is the way the two dimensions are represented.

The institutionalised dimension is characterized by the notion of *activity type*, understood as the combination of interaction schemes (e.g., negotiation, decision making, problem solving, etc.) and interaction fields (e.g. the hospital, the court room, the school, etc). A certain activity type engenders certain communication roles and flows. This kind of representation of the institutionalised dimension of communication contexts is helpful as it allows to directly derive the 'styles' of communication from the institutional structure of the field in which the interaction takes place. This presupposes the idea that individuals find themselves in preexisting social roles, the 'shape' of which is determined by the goal the institutional field was born to achieve. For example: upon entering a hospital as patients, our social role within that field is defined by the hospital's reason of existence, i.e. to cure patients. From this general goal also derive the rights granted to us and the duties expected from us as patients. In a system like the Italian one, for instance, these constraints are listed in the legislation that led to the creation of the National Health Service and in the local organization of health care structures. The general goal of the medical context also affects the communication flows, for example forbidding patients to ask doctors how they are feeling, if they have a pain somewhere, how much or what they have been eating or drinking lately, and so on (unless of course as an instance of small talk because patient and doctor know each other). If a patient did this, it would disrupt the normal flow of communication, as the patient's questions would be a hindrance to the attainment of the goals of the specific field of interaction.

This however does not imply that individuals are 'trapped' in their social and communication roles. On the contrary, the uniqueness of each individual and the way it allows each person to 'implement' their role in ever differing ways is what turns one into the best of doctors and another into the fussiest of patients.

Turning now to the interpersonal dimension of the model, this also can be found to be useful in the characterization of interactions occurring in an institutionalized setting. In the model, what lies at the heart of the interpersonal dimension is the notion of *common ground*, represented in its two sides: the personal and communal common ground. The former coincides with the level of shared knowledge and experience between individuals; the latter, with the shared knowledge and experience within a community, e.g. a football team, a

chess club, a literary circle, a family, a linguistic community, a cultural community, a whole nation. These two kinds of common ground are both present in each individual and always affect the individual's interactions with others.

The focus on common ground turned out to be particularly relevant for the analysis of doctor-patient interactions, as it allows describing and analyzing more clearly the factors that play a role in the strengthening of the relationship between doctors and their patients, also considering the problem of the asymmetry of knowledge and of social roles. Moreover the model points out the *agency relationship* that is originated when individuals interact in institutionalised contexts. In institutional settings certain roles have more power than others; this can be explained by the fact that these settings generally are constructed around a field of expertise acknowledged as relevant for the public good. So, the provision of scientific knowledge will give birth to hospitals and scientific faculties in universities; expertise in the juridical system will generate the professions of lawyer, magistrate, judge and the creation of court rooms to debate criminal cases; and so on. This implies that the social roles 'designed' for the experts who provide their knowledge and know-how within an institutional setting are granted more power to act than the ones of those who seek their advice. Nevertheless, this does not mean that the experts can do anything they want with this power, because what lies at the heart of all institutional settings is a mandate from the non-experts to the experts to provide the necessary knowledge and know-how for the common good. This is the core mechanism of what has been defined an *agency relationship*.

The fact that this very basic but substantial mechanism is highlighted in the model is very helpful for the discussion of the problem of social and knowledge asymmetry, one of the most difficult to manage in interactions between doctors and patients.

These are the main reasons that have led to the adoption of the Rigotti-Rocci model in the project. The same reasons suggest that perhaps a customized version of this model, tailored on the specific characteristics of the medical context, could be considered as a candidate to fill the descriptive component of the advocated framework referred to at the beginning of this paragraph.

We now turn to the evaluative component: this is where the results obtained through the analysis are evaluated in order to yield insights that could be developed into concrete recommendations, suggestions for the training of health care providers, policies, etc.

This is also where the analysis and perspectives of the two fields in which research on medical interactions is conducted – the communication and medical sciences – can be compared and evaluated against a common and

objective ground, i.e. the context of the interaction (which could also spark a lively interdisciplinary discussion, as already happens in some, yet still few, places[8]).

An example of the importance of an evaluative component is offered by the analysis of the phenomenon of *mitigation*[9]. Research studies coming from the area of discourse and conversation analysis highlight the fact that mitigation is a pervasive and indispensable strategy, both in everyday and in institutional discourse (e.g. Caffi, 1999, 2001). In the clinical practice, on the other hand, it is common to find that mitigation is considered as an instantiation of the old paternalistic attitude towards the patient. It would be interesting to reconcile these views in order to reach a common and agreed upon understanding of this phenomenon, as different assessments may determine potentially contradictory indications for health care providers.

4. Final considerations

The aim of the paper has been to approach the issue of communication in the medical setting by putting forward a hypothesis on the structure of an overarching theoretical framework for the description, analysis and evaluation of interactions between doctors and patients. Such framework has long been advocated, especially by scholars working within the domain of the medical sciences.

During the last thirty years, studies on interactions between doctors and patients have been conducted following a variety of different methods, often not validated by other than the inventors of the methods themselves, which makes it difficult to compare results. Also, these studies often fail to refer back to a comprehensive or shared description of the context of interactions, thus complicating the task of identifying the features which play actually relevant roles within the interactions. As a consequence, also the evaluation of the quality of the interactions on the basis of the results becomes at times rather

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8 One of the best known efforts to bring together scholars from these two fields of research is the Health Communication Research Centre at the University of Cardiff, directed by Srikant Sarangi, also Editor of the scientific journal *Communication and Medicine. An Interdisciplinary Journal of Healthcare, Ethics and Society.* Efforts such as this also bring to the fore the question of when interdisciplinary studies are really effective: is it just a question of allowing scholars to exchange ideas, or should there be the aim to arrive at a common understanding of certain fundamental issues by drawing on the variety of perspectives and insights?

9 In Caffi (1999), mitigation is described as "one of the two directions of modulation, namely the rhetorical stylistic encoding of an utterance, its expressivity, opposed and complementary to the direction 'reinforcement'. […] Globally, it reduces participants' obligations, to which the felicity conditions of a speech act belong, thereby furthering the achievement of interactional goals. Thus, mitigation is functional to smooth interactional management in that it reduces risks for participants at various levels, e.g. risks of self-contradiction, refusal, losing face, conflict, and so forth" (1999: 882).

subjective. This happens because the criteria for evaluation should derive from a thorough comprehension of the contextual factors that affect the interactions, including shared goals and cultural biases.

The first suggestion put forward in the paper has been to define a framework composed of a descriptive, an analytic and an evaluative component. The analytic component would contain all the various approaches to the analysis of verbal interactions which have been developed both in the communication and medical sciences, e.g. the methods of conversation and discourse analysis, those of rhetorical analysis and of pragmatics, the RIAS method (Roter, 2006), etc. Plenty of researches testify to the effectiveness of such methods in highlighting interesting and challenging features of doctor-patient interactions. Nevertheless, an appropriate description of the context of interaction is crucial to distinguish in a more objective way between features that are more or less relevant to the interactions, and also to evaluate the results of the analysis. The paper describes the model adopted in the MedCon project for the description of the communication context, i.e. the model proposed in Rigotti & Rocci (2006). The advantages of this model are discussed and it is argued that a customized version of the model, adapted to the medical context of interaction, could provide the basis on which to devise a shared descriptive component, which is still lacking. The workability of the framework sketched in this paper is being verified, and the results obtained so far have been promising.

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