

## A Preliminary Model for the Examination of Doctor-Patient Communication

Eric J. Cassell, Lucienne Skopek, Bruce Fraser

Because of the widely recognized importance of communication between patients and doctors, the medical interview has recently drawn the attention of linguists. While a number of articles have been written on the use of language between patients and doctors, no framework has been offered that covers the wide range of phenomena which are basic to successful verbal interaction, or provides a basis for analysis of these. It is our intent to examine here the various ways in which communication between patient and doctor can fail, and to suggest a framework that will enable us to distinguish and analyze the factors involved in the success or failure of verbal communication.<sup>1</sup>

Most articles which focus on the reasons underlying communication problems between patients and doctors come from the social disciplines. Zborowski (1952), Zola (1963), Mechanic (1972), Waitzkin and Stoeckel (1972), among others, discuss aspects of linguistic and cultural differences which need to be considered to improve communication in the medical interview.<sup>2</sup> In medicine, Korsch and her associates (Korsch, Gozzi, and Francis 1968; Korsch and Negrete 1972; Korsch and Aley 1973) have used audio and video taped interviews to study the linguistic factors which influence patient compliance in a pediatric clinic. Only recently have linguists interested in the use of language in social settings begun to investigate empirically the verbal interaction between patients and doctors to discover their conversational patterns. Shuy (1974) has emphasized the need for empirical data to analyze cross-cultural medical interviews. Candlin, Leather, and Bruton (1974) are presently investigating verbal behavior of medical personnel in a clinic in Great Britain by observing patient-doctor interactions, while Coulthard and Abby (1975) describe specific patterns of language use between doctors and patients based on 24 tape-recorded patient-doctor verbal interaction by tape-recording 99 medical interviews in an urban clinic setting. Although these attempts represent a positive step towards a better understanding of the content and form of patient-doctor verbal behavior, the samples are limited in number and restricted to clinic outpatients, usually focusing on interviews between patients and doctors from different social

and cultural backgrounds. Furthermore, most studies are descriptive and offer no theoretical framework.

We feel that problems of cross-cultural communication are basically not different from those encountered between speakers of the same cultural background. Cross-cultural misunderstandings are merely one aspect of the wider and more pervasive problems which may arise when patient and doctor of any background interact. Since speech is the primary medium by which patients inform doctors of their symptoms and concerns, and by which doctors elicit and respond to their needs, we strongly believe that the spoken language is one of the most important tools in medicine. As a result, physicians must recognize language as a basic tool whose proper use improves their performance as doctors, or whose misuse leads to misunderstandings and decreases their professional effectiveness.

A study on the use of language between patients and doctors is presently being carried out at Cornell University Medical College based on 900 hours of conversations involving 2,000 patient interviews and 800 patients. Recordings were made in a natural medical setting, including private practice and hospital patients.<sup>3</sup> One of the project's immediate goals is to examine the use of language by doctors and patients to determine the various levels at which communication problems can arise. It is on the basis of this work that we propose the following.

When any two speakers interact, many reasons may cause them to misunderstand each other. One may not hear what the other says, when he hears it, he may not understand some words, or even when he does understand every word, he may still not know whether the words have the same meaning for the speaker and the hearer. That is, the thoughts, ideas, feelings which underlie the meaning each speaker brings to the conversation may be different, and he may not be aware of these differences. Furthermore, messages may not be understood in certain social situations because participants are afraid or embarrassed to acknowledge that they did not understand what was said, or because certain speech forms are used which may not be understood by the hearer (e.g., jargon, complicated sentence structures). We feel that it is of vital importance to distinguish these different factors if we want to understand the processes which lead to successful communication between patient and doctor.

We shall examine the dimensions which we feel must be taken into account to cover the wide range of problems that may occur when doctors and patients speak to each other. Our analysis is based on the work of Miller (1974),

who suggested that knowledge for the effective use of language is organized on a number of levels. While Miller's model served as a basic guideline, however, we found it necessary to adapt and expand on his framework for the purpose of this research. We shall discuss the following levels: acoustics, phonology, syntax, lexicon, conceptions, intent, credence.

**1. Acoustics.** A breakdown at this level occurs when messages do not reach the hearer for reasons such as noise interference, voice level, hearing impairments, and so on. Although it is obvious that such problems may interfere with communication, it is not always clear exactly how they play a role in communication.

The following illustrates difficulties in communicating with a patient with hearing problems:

Doctor: How many bottles of insulin? Two?

Patient: What'd you say? The needle?

Doctor: No, it's the insulin. Insulin.

Patient: Huh?

Doctor: Insulin.

Patient: Oh.

**2. Phonology and Syntax.** We have grouped these levels together because we take them to reflect the degree to which a breakdown in communication rests with the knowledge of the language itself, or, in some cases, how it is being used. We include within this category problems arising from non-native speakers of the language, dialects not familiar to the hearer, and problems of neurological or physiological origin.

The following are examples of utterances which, because of their length or complexity, caused confusion in the hearer:

Patient: I have been taking Daimane at your recommendation, and, being fearful of taking too much or becoming addicted to it not knowing anything about drugs and never before taking even aspirin unless I absolutely had to, I take a good portion of it out.

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Doctor: Considering the fact that you are an older person, I want you to understand that in some cases, although it seldom happens to my knowledge, a symptom like the one you're telling me about may last for several weeks or even longer though medication is prescribed and, it goes without saying, taken regularly.

Other sentences may lead to ambiguous instructions:

Doctor: I want you to take one pill and one capsule twice a day every other day.

Double-barreled questions are likely to elicit biased responses, since only one answer can be given to two or more questions, e.g.:

Doctor: Do you have rheumatic fever? Break out in a rash?

Patient: No.

**3. Lexicon.** This level represents the recognition of words and some meaning associated with them (the discussion at this level does not include connotative and denotative variations; these will be examined under the level of conceptions). A breakdown of communication at the lexical level occurs when participants do not share the same vocabulary. While this includes situations where either doctor or patient is a foreign speaker, more commonly the problems arise from the use of jargon by physicians or the use of nonstandard English by patient.

The following exchange illustrates lexical breakdown:

Doctor: I'll order an EKG on you just to have one, because I don't see one on the chart.

Patient: Is that for my knee?

Doctor: No, an EKG.

Patient: Oh, I see.

But a Southern Black patient may also come to a doctor and say the following:

Patient: I have a drawing in the leader.

which the physician must clarify if he does not know this expression for a pain in the tendon area.

Many experienced physicians seem to use less jargon, and this points to the fact that jargon serves more functions than merely being a special label used by a special discipline. For the new physician, technical terminology may represent 'professionalism' and 'objectivity', or even group identification with the medical profession, but its use can obscure the doctor's messages to his patients. Thus, exploration at this level includes an understanding of the social meanings of the words apart from their label functions (this is also true for the use of elaborate sentences in level 2). Certain psychiatric manifestations such as word creations (neologisms) of schizophrenics may result in a breakdown at this level.

**4. Conceptions.** This level combines what is normally referred to as semantic information and a speaker-hearer's beliefs about the world around him. A conception is the individual content a person has in his mind about a particular thing. Conceptions are important because they represent more than the dictionary definition of a particular word, since they may include ideas, symbols, beliefs, associations, and feelings about a particular thing (Cassell 1975). Conceptions grow and acquire their individual meaning through a person's experience to form a system of beliefs. Some conceptions are shared by many individuals, while others may be unique to an individual. Miscommunication on this level often occurs because a speaker uses a word that is shared by the hearer, but that differs in conceptual content for each individual. Different lexical items, such as *high blood* used by a patient and *hypertension* used by a physician, are warning signs that there is a potential mismatch in the meaning attributed to a patient's symptoms. But when doctor and patient use the same word, say, *pneumonia*, one is more likely to assume that they both mean the same thing. However, the doctor's conception of disease may be built on different presuppositions and experiences than the patient's. Obviously,

