EMERGENCY CLINIC of the Childrens Hospital of Los Angeles was the setting for the observations of doctor-patient communication. In these photographs from a taped recording of a case the mother tells the physician that the child has digestive trouble (*1*) and then calms the infant (*2*) so that the doctor can proceed with his examination (*3*). After examining the baby the doctor advises the mother (*4*) to put the child on a diet consisting mainly of liquids for a day or two. The mother dresses the baby (*5*) and, just before leaving, listens (*6*) as the doctor emphasizes the importance of liquids over calories to prevent dehydration. Later the experimenters asked each mother for her reaction to the interview. They also checked to see if she followed the doctor's advice.

FATHER: How does his heart sound?

DOCTOR: Sounds pretty good. He's got a little murmur there. I'm not sure what it is. It's ...it uh...could just be a little hole in his heart.

MOTHER: Is that very dangerous when you have a hole in your heart?

DOCTOR: No, because I think it's the upper chamber, and if it's the upper chamber then it means nothing.

MOTHER: Oh.

DOCTOR: Otherwise they just grow up and they repair them.

MOTHER: What would cause the hole in his heart?

DOCTOR: H'm?

MOTHER: What was it that caused the hole in his heart?

DOCTOR: It's 'cause...uh...just developmental, when their uh...

MOTHER: M-h'm.

DOCTOR: There's a little membrane that comes down, and if it's the upper chamber there's a membrane that comes down, one from each direction. And sometimes they don't quite meet, and so there's either a hole at the top or a hole at the bottom and then... it's really...uh...almost never causes any trouble.

MOTHER: Oh.

DOCTOR: It's uh...one thing that they never get SBE from ...it's the only heart lesion in which they don't.

MOTHER: Uh-huh.

DOCTOR: And uh...they grow up to be normal.

MOTHER: Oh, good.

DOCTOR: And uh...if anything happens, they can always catheterize them and make sure that's what it is, or do heart surgery.

MOTHER: Yeah.

DOCTOR: Really no problem with it. They almost never get into trouble so...

MOTHER: Do you think he might have developed the murmur being that my husband and I both have a murmur?

DOCTOR: No.

MOTHER: No. Oh, it's not hereditary, then?

DOCTOR: No.

MOTHER: Oh, I see.

(Someone whistling in the room)

DOCTOR: It is true that certain people... tendency to rheumatic fever, for instance.

MOTHER: M'mm.

DOCTOR: There is a tendency for the abnormal antigen-antibody reactions to be inherited, and therefore they can sometimes be more susceptible.

MOTHER: Oh, I see. That wouldn't mean anything if uh...I would...I'm Rh negative and he's positive. It wouldn't mean anything in that line, would it?

DOCTOR: Unh-unh.

MOTHER: So? Okay.

DOCTOR: So. The only thing you have to worry about is other babies.

MOTHER: M-h'm.

DOCTOR: Watch your Coombs and things.

MOTHER: Watch my what?

DOCTOR: Your titres...Coombs titres.

MOTHER: Oh, yeah.

PARTIAL TRANSCRIPT of an interview at the clinic shows a doctor failing to establish communication with a mother. First he raises the troubling specter of a hole in the child's heart and then does little to be sure that he has allayed the mother's concern. Without explanation he mentions SBE, which is subacute bacterial endocarditis. Later he advises the mother to "watch your Coombs" and evidently fails to understand that he has mystified her.

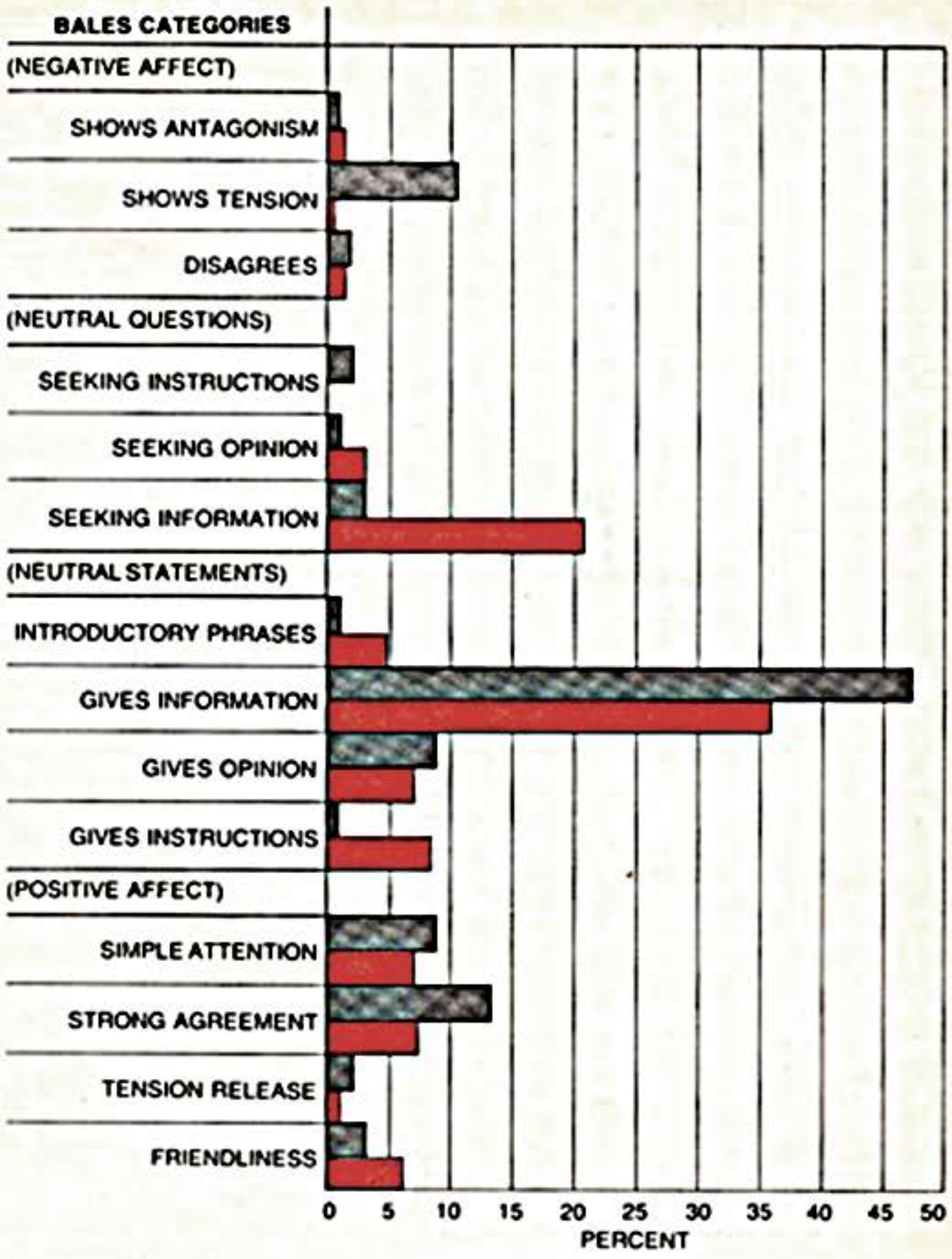
would visit a physician the patient had not met before and would present a case of acute illness (not previously diagnosed or treated) for which the physician could prescribe some definite treatment or course of action by the patient. The entire interview would be recorded, and afterward a member of our research team would follow up to learn how the patient responded to the interview and the doctor's instructions.

The situation we sought was well fulfilled by the emergency clinic of the Childrens Hospital. Children are brought to this walk-in clinic with a great variety of acute (but seldom catastrophic) illnesses or accidental injuries, invariably accompanied by a parent. The visit is usually short and generally yields a specific recommendation from the doctor to the parent. The clinic has a large staff of pediatricians, mostly young, well-trained, full-time residents. In our basic study we observed 800 visits by 800 different patients. Since the interaction was mainly between the child's mother and the doctor, we designated the mother as the "patient." Our standard procedure was to make an audio tape recording of the entire interview, then question the mother immediately afterward concerning what she had expected from the visit and what her reactions to it were and finally follow up later (within 14 days) to learn whether or not she had complied with the physician's instructions.

The setting and procedure provided a number of controls that minimized complication of the findings by extraneous factors, that is, variables other than the ones we wished to investigate. Since the patient came to a new physician to consider an acute illness not yet diagnosed or treated, the doctor-patient communication about the situation consisted only of the interchange between the two parties during this visit, uncomplicated by previous transactions or by any prior briefing of the parent about the illness. The large size of the samples (both of patients and of physicians) tended to correct for the bias of extraneous personal factors such as social or educational background when the responses of the group as a whole were considered. (Actually we found on analyzing the results that most patients, regardless of their personal background, responded to a given communication style in much the same way.) Another factor we had to consider was the possibility that the tape-recording of the visit might cause the doctor to depart from his usual style

and put his best foot forward, so to speak. It turned out, however, that in most cases the physician disregarded the presence of the tape recorder and behaved naturally. As a control, we omitted the use of the tape recorder in 300 of the 800 visits, and we found this apparently made no difference in the physicians' performance or the patients' reactions to the interview.

The findings from the 800 cases have since been supplemented with hundreds of other observations of doctor-patient communication, many of them involving routine checkups of well children, many not in clinics but in the private practice of pediatricians. In general these observations confirmed the validity of the conclusions from the basic study. It must still be borne in mind that the setting for that study was after all rather special: an emergency visit in a clinic on an acute but usually minor illness, generally with a young doctor of only brief pediatric experience (one to three years). The patient's response in a case of severe chronic illness or to a physician of long acquaintance might well have been very different. Our concern, however, was to look into the effects of particular modes of communication (or noncommunication) irrespective of other factors. The barriers to communication that were spotlighted in our study may occur in any setting, although they are not as common or as severe in private practice as they are in a single emergency visit to a clinic.

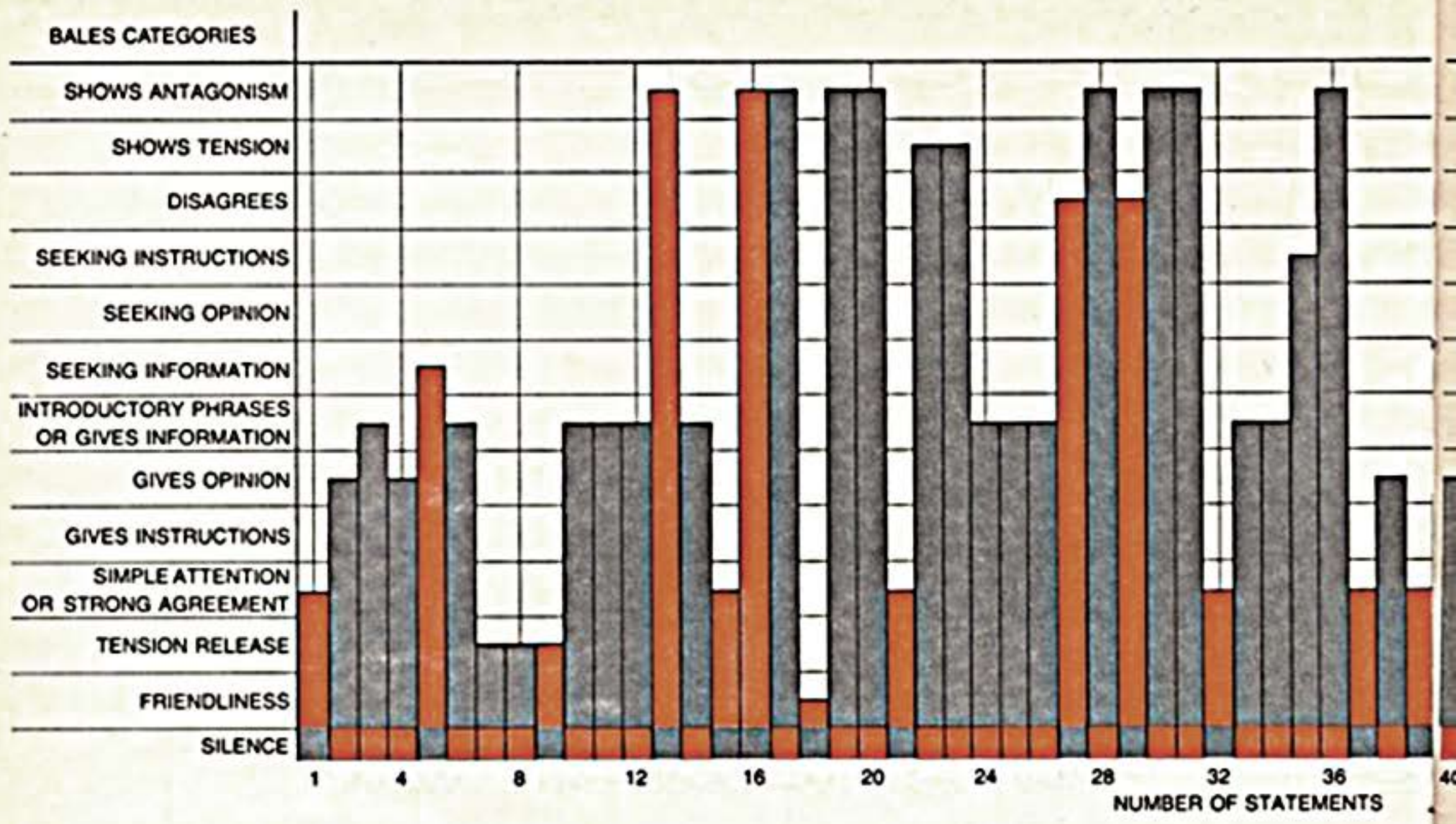


MEAN PROFILE of exchanges between physicians (*color*) and mothers (*gray*) is portrayed according to categories devised by the psychologist Robert F. Bales. For example, 2.9 percent of mothers' statements and 5.6 percent of doctors' were in the "friendliness" category.

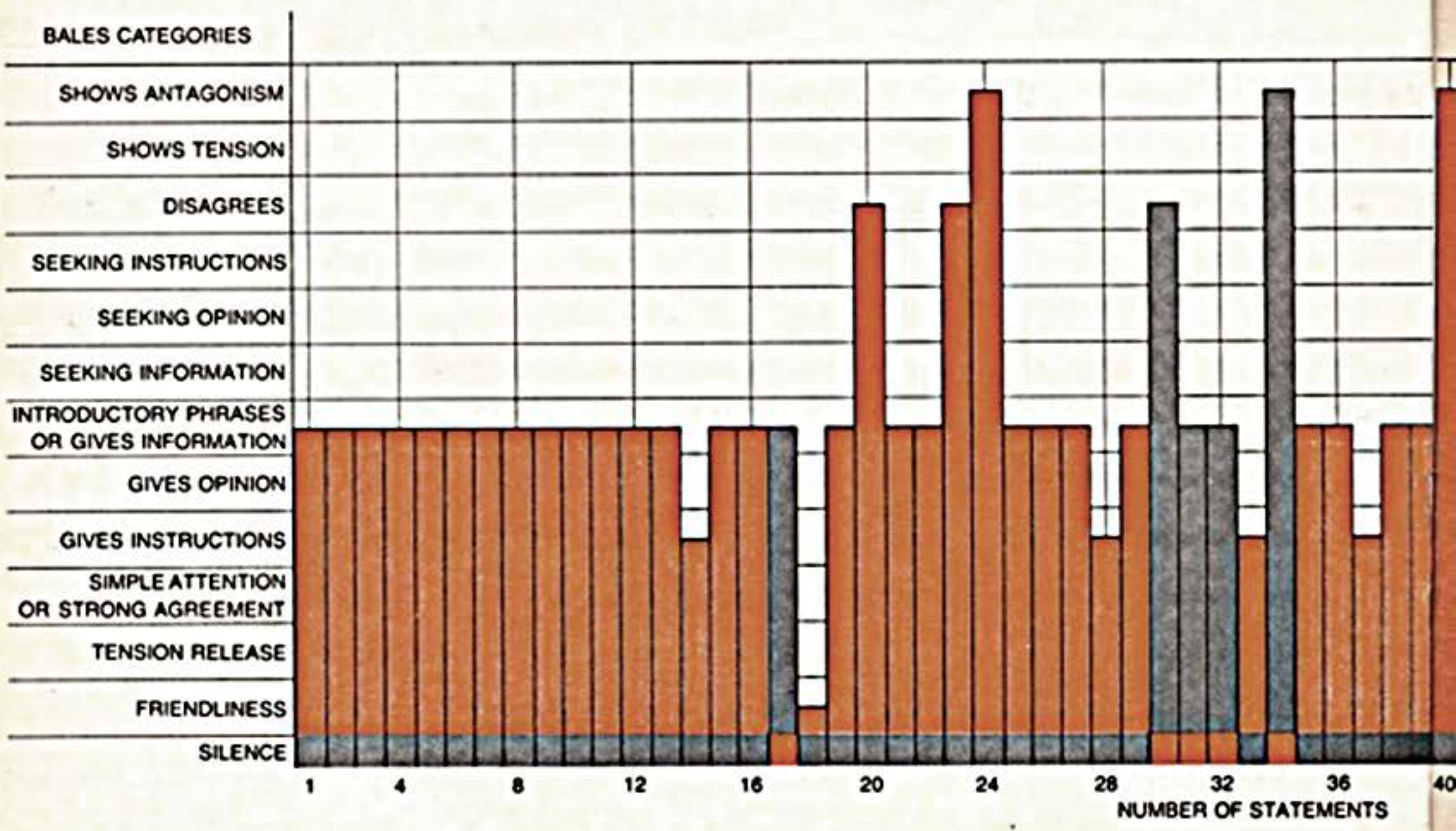
What, then, were the findings in detailed analysis of the 800 clinic visits? We consider first the mothers' evaluation of the conference with the physician. Immediately after the visit a member of our research team interviewed each parent to ascertain how she had felt about the child's illness, what she had expected of the doctor and how well satisfied she was with what he had said and done. Of the entire group, 40 percent were highly satisfied, 36 percent moderately satisfied, 11 percent moderately dissatisfied and 13 percent highly dissatisfied. That 76 percent of these anxious mothers were more or less satisfied with the doctor's performance in their brief encounter in the clinic is of course a reassuring finding. Their specific reactions, however, were less favorable. Nearly a fifth (149) of the 800 mothers felt they had not received a clear statement of what was wrong with their baby, and almost half of the entire group were still wondering when they left the physician what had caused their child's illness. The absence of an explanation of the cause is unnerving in such a situation, because the mother of a sick baby generally has a tendency to blame herself for the occurrence and needs specific reassurance.

The subsequent follow-up on how the mothers complied with the physician's instructions told a disquieting story. We took pains to obtain a true account by asking the mother searching but tactful questions (such as "When were you able to discontinue the treatment?") and by checking medicine bottles or the pharmacy when feasible. It turned out that 42 percent of the mothers had carried out all of the doctor's medical advice, 38 percent had complied only in part and 11 percent not at all. (In the remaining 8 percent of the cases the physician had not felt it necessary to give any prescription or advice.)

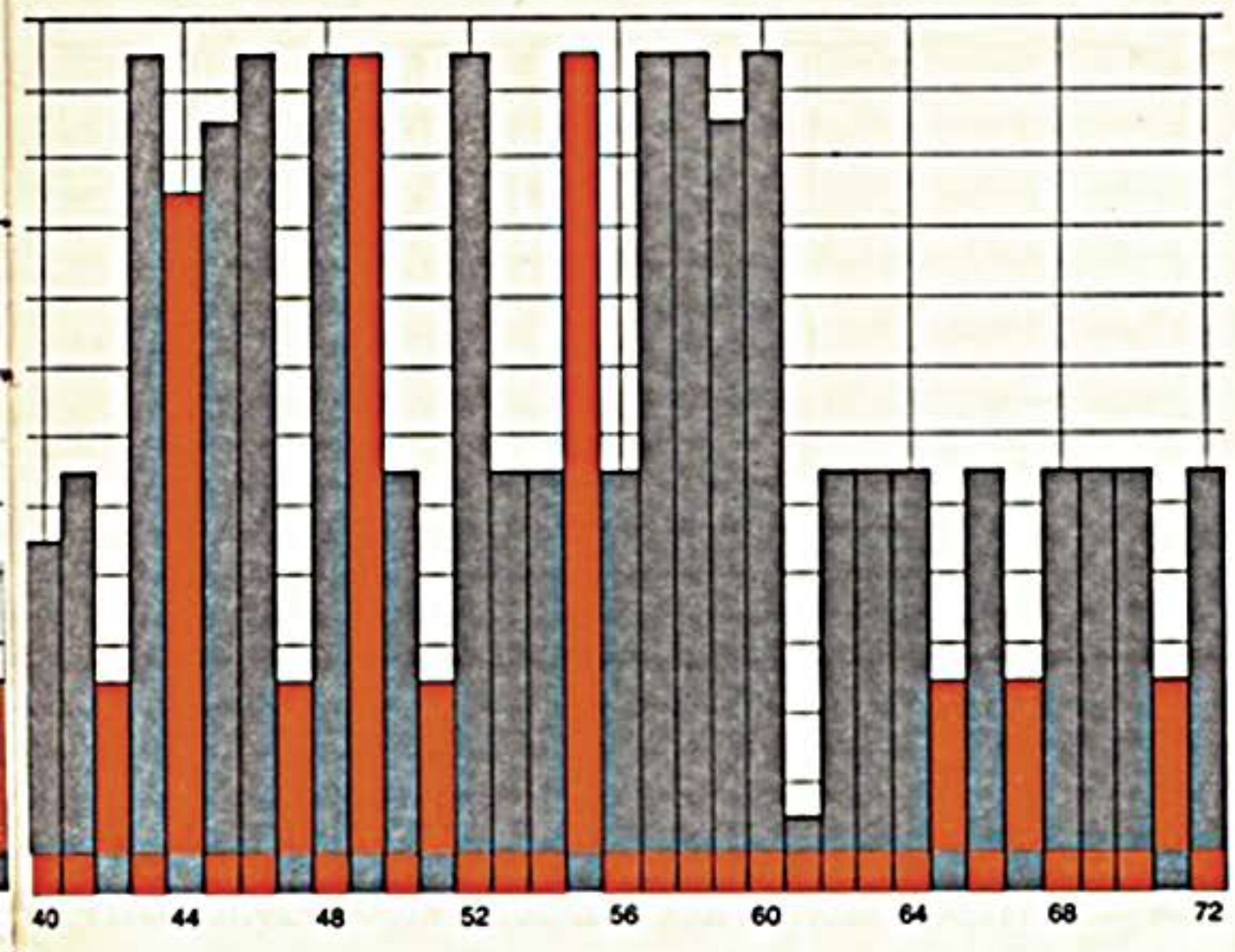
As was to be expected, we found a substantial correlation between the mothers' expressed satisfaction with the doctor's behavior in the visit and their compliance with his instructions. Of the highly satisfied mothers 53.4 percent cooperated completely with his advice, whereas only 16.7 percent of the highly dissatisfied patients did so. The fact that the correlation between compliance and satisfaction with the doctor was not consistently observed can be attributed to complicating factors such as the mother's view of the seriousness of the illness, the complexity of the physician's instructions, the difficulty of the prescribed



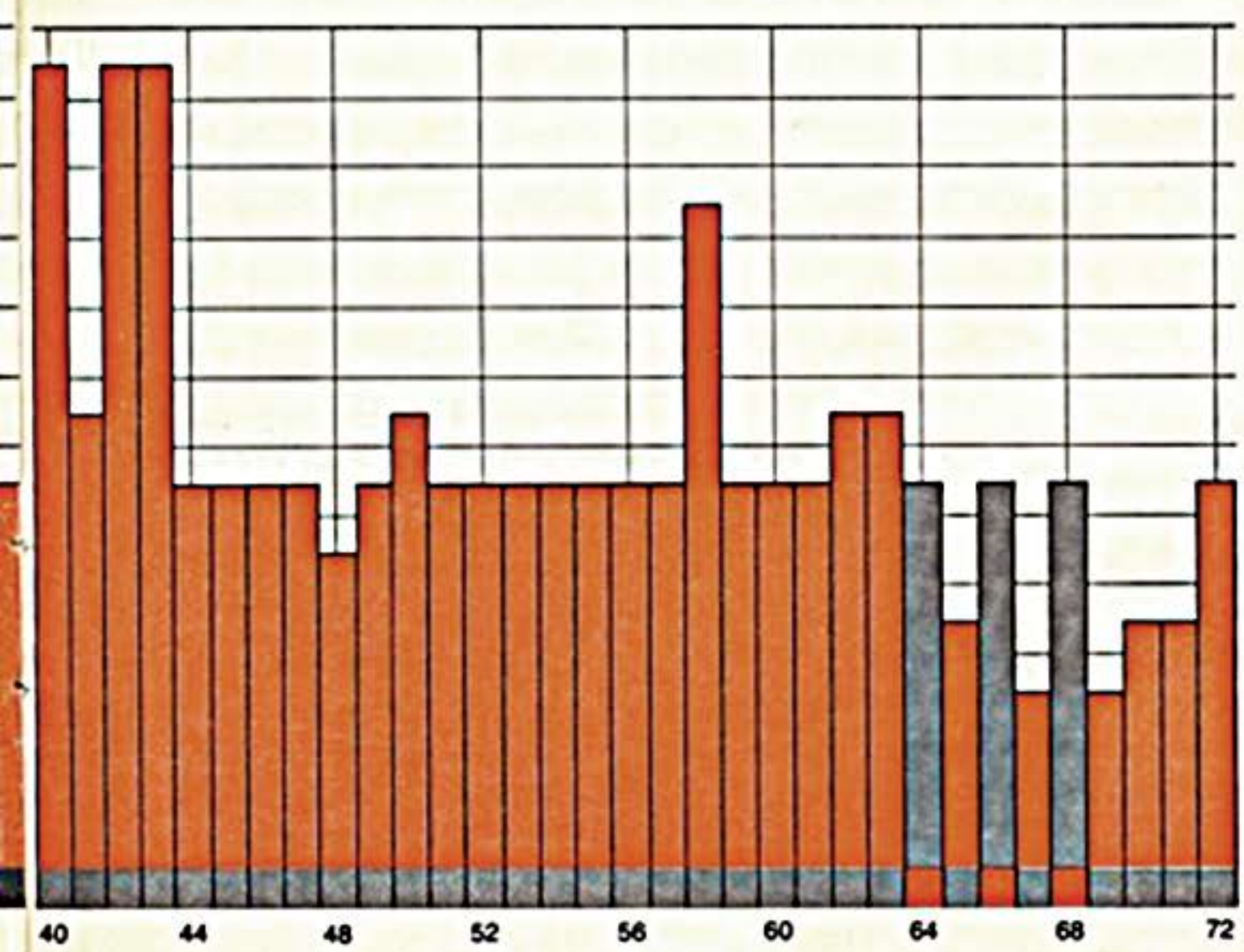
SEQUENCE OF INTERACTIONS between a physician (*color*) and a mother (*gray*) is traced, with the statements of each participant grouped according to Bales categories. In this segment of a longer interchange the mother made 50 statements, the doctor



SECOND SEQUENCE portrays a mother who appeared to be passive, remaining silent for long periods while the doctor talked. In a segment of 100 statements, most of which are shown here and grouped according to Bales categories as in the sequence depicted



22. The arrangement of Bales categories is such that the top three come under the heading of negative affect, bottom four, exclusive of "silence," are positive and others are neutral.



in the illustration at the top of these two pages, the doctor made 90, the mother 10. At only 14 times during the segment did the two have what could be regarded as an exchange.

treatment and various practical problems.

For light on the specific problems of communication between doctor and patient we now turn to detailed analysis of the content of their interchanges as recorded verbatim in the tapes. We coded the various features or elements characterizing their conversations and the patients' reactions and then submitted the data to analysis by computer. One of the tools we used was an adaptation of the "interaction process analysis" technique of the psychologist Robert F. Bales, which describes the content and tone of verbal interaction in terms of affect—positive and negative.

A question that immediately comes to mind with regard to a doctor-patient interview is the influence of the length of the session. It is commonly supposed that the more time the doctor can spend with the patient, the more satisfactory the results will be. No doubt part of the dissatisfaction with present medical care is attributable to the limited time harried physicians can give their patients. Surprisingly, however, the results of our study indicated that time was not necessarily of the essence. The 800 visits we examined varied in length from two minutes to 45 minutes, and we could find no significant correlation between the length of the session and (1) the patient's satisfaction or (2) the clarity of the diagnosis of the child's illness. Indeed, on examining some of the longest sessions we noted that the time was consumed largely by failures in communication: the doctor and patient were spending the time trying to get on the same wavelength!

The general impression that physicians tend to be too technical in language for their patients is strongly confirmed by our study. Terms such as nares, peristalsis and Coombs titre were Greek to the patients. A "lumbar puncture" was interpreted as meaning an operation to drain the lungs, and a reference to "incubation period" was taken to signify the length of time the sick child was to be kept in bed. A mother who was told that her child would be "admitted for a work-up" did not realize that he was to be hospitalized; when another mother was told by the physician that he would have to "explore," she had no idea he was talking about surgery. In more than half of the cases we recorded the physicians resorted to medical jargon. This did not necessarily leave the patient dissatisfied; some patients were impressed and even flattered by such language. It did, however, leave most of the mothers unenlightened about the nature of the

child's illness. One of the interesting findings was that satisfaction with the doctor's communication was not significantly higher among college-educated mothers than it was among those with less education.

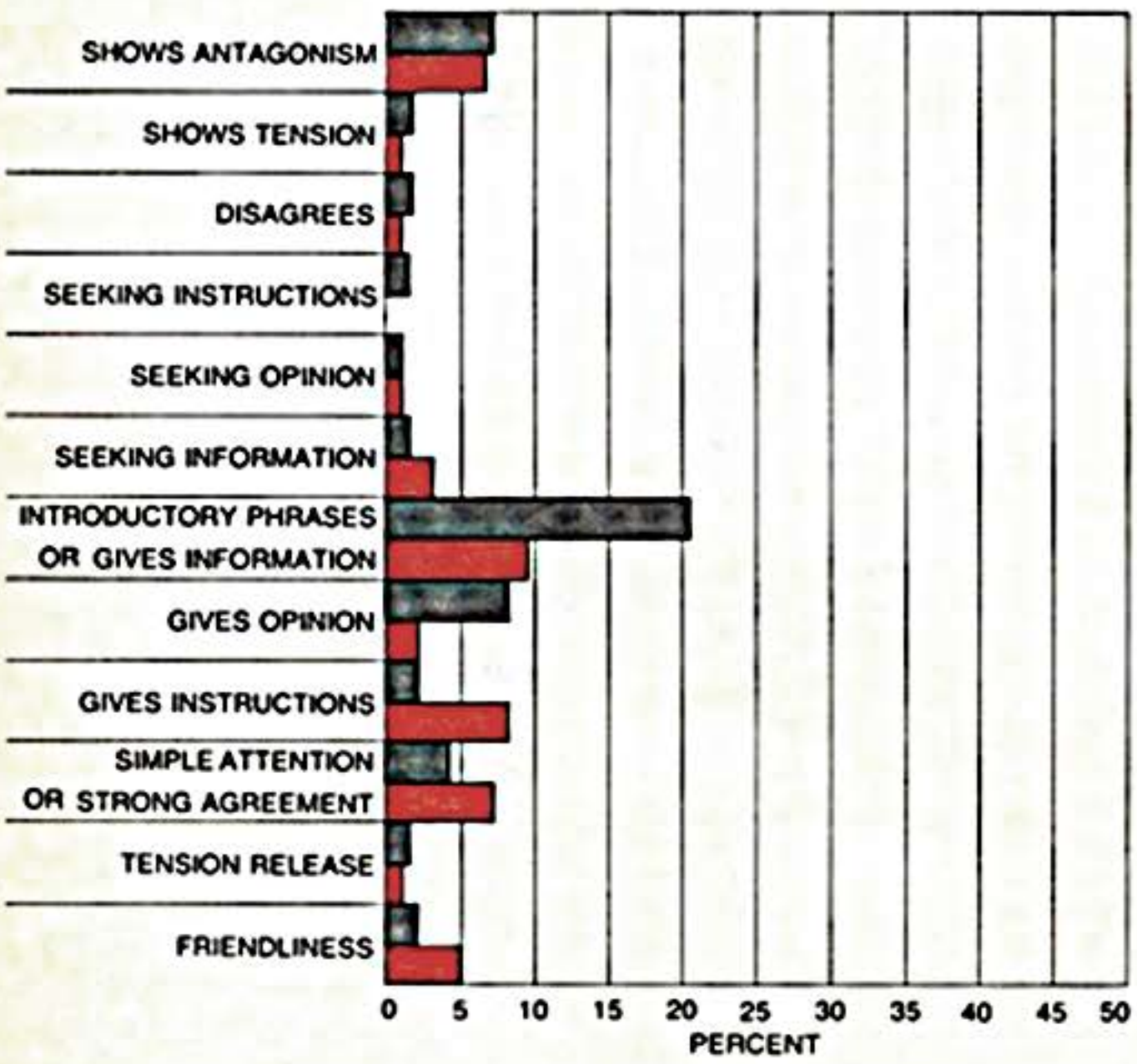
The language barrier was by no means the most serious bar to effective communication. The severest and most common complaint of the dissatisfied mothers was that the physician had shown too little interest in their great concern about their child. High among the expectations of mothers in coming to the clinic was that the doctor would be friendly and sympathetic not only to the child but also to the worried parent. The recordings show, however, that less than 5 percent of the physician's conversation was personal or friendly in nature. In most of the visits the physician gave no attention to the mother's own feelings and devoted himself solely to technical discussion of the child's condition. The disregard of the mother's concern must be considered an important hindrance to communication in the light of the fact that, as we found in the postvisit interviews, 300 of the 800 mothers held themselves in some way responsible for their child's illness. In a few instances the physician even expressly blamed, or appeared to blame, the mother. In one case a physician remarked to the child, perhaps in jest, "Stevie, it's your mother's fault that you have this high fever." The mother later voiced great distress over this to our interviewer.

A frequent cause of dismay for the mother was the physician's total disregard of her account of what chiefly worried her about the child's illness. When, for instance, a mother repeatedly tried to interest the doctor in the fact that her child had been vomiting, he ignored her remarks and persisted in asking her about other symptoms, which, as she did not realize, related to the same basic problem—dehydration of the child. Another mother feared that her child's febrile convulsions might cause permanent damage to the brain, but she did not succeed in engaging the doctor's attention to this concern. Among the 800 mothers, 26 percent told interviewers after the session with the doctor that they had not mentioned their greatest concern to the physician because they did not have an opportunity or were not encouraged to do so.

Under such circumstances there was frequently a complete breakdown of communication. Some patients were so preoccupied with their dominant concerns that they were unable to listen to the physician. Some even reported that the physician had failed to examine the child adequately or to give a prescription, although the tape-recorded account of the visit attests that he did in fact do so. Among mothers who felt that the physician had not understood their concerns 68 percent were dissatisfied with the visit, whereas of the 625 mothers who reported the physician *had* understood, 83 percent were satisfied.

We have mentioned that 149 patients reported they had not been told what was the matter with their sick child. The recordings of the visits show that in many cases the physician did indeed fail to provide a clear diagnostic statement, and often he offered no prognosis. Diagnosis was of course one of the main expectations that had brought each mother to the clinic. Many of the mothers complied with the doctor's medical advice even when no diagnosis was given. Understandably, however, omission of such important information did not tend to inspire confidence in his prescriptions. Only 54 of the 800 patients seriously questioned the physician's technical competence (in their postvisit interviews with us), but failure to show a friendly interest or to fulfill their other expectations was a significant deterrent to compliance with his instructions. Of the patients who felt that the physician had not met any of their expectations, 56 percent were grossly noncompliant.

On the positive side, the recordings of the hundreds of doctor-patient conversations clearly identified specific forms of discourse that made for good communication and patient satisfaction. One of these, of course, was expression by the doctor of friendly interest in the "patient" with whom he was conducting the conversation (that is, the mother). Most of the physicians believed they had been friendly, but fewer than half of the patients had this impression, and 193 of them reported that the doctor had been strictly businesslike. Attention to the mother's worried concerns had a high correlation with success in satisfying her and obtaining her compliance with advice. This suggests that a physician can quickly establish fruitful communication with the patient by opening the conversation with questions such as: "Why did you bring Johnny to the clinic?... What worried you the most about him?... Why did that worry you?" A brief but friendly discussion of the patient's con-



ENTIRE INTERVIEW between the doctor (*color*) and the mother (*gray*) involved in the case charted at the top of the preceding two pages is summarized according to Bales categories. In the interchange the number of statements by mother was 244 and by doctor 198.

cerns, however irrelevant or irrational they may seem, can perform wonders in reassuring her and winning her cooperation. Even when the physician was not able to fulfill all the mother's expectations, a demonstration of warm concern and individualization of his advice achieved satisfying results. The patients reacted poorly to impersonal or institutional expressions such as "We don't hospitalize children with impetigo" or "We keep most cases of pneumonia under observation in the clinic." On the other hand, patient rapport and cooperation thrived on specific instructions, expressions of trust in the mother's caretaking ability and offers of continued interest such as "Call me anytime" or "We'll check Johnny again tomorrow."

Detailed study of the recordings with the aid of Bales's method of interaction process analysis brought forth a number of significant findings, some of them unexpected. The verbatim records showed that on the average the doctor did more talking than the mother, which proved to be a surprise to these physicians and probably comes as news to the medical fraternity generally. The session tended to have a more successful outcome when the patient had an active interchange with the doctor than it did when she remained passive and asked few questions. In general the patients were disappointingly reticent about asking questions or opening up lines of inquiry, in view of the anxiety and desire for more information that they expressed to interviewers afterward.

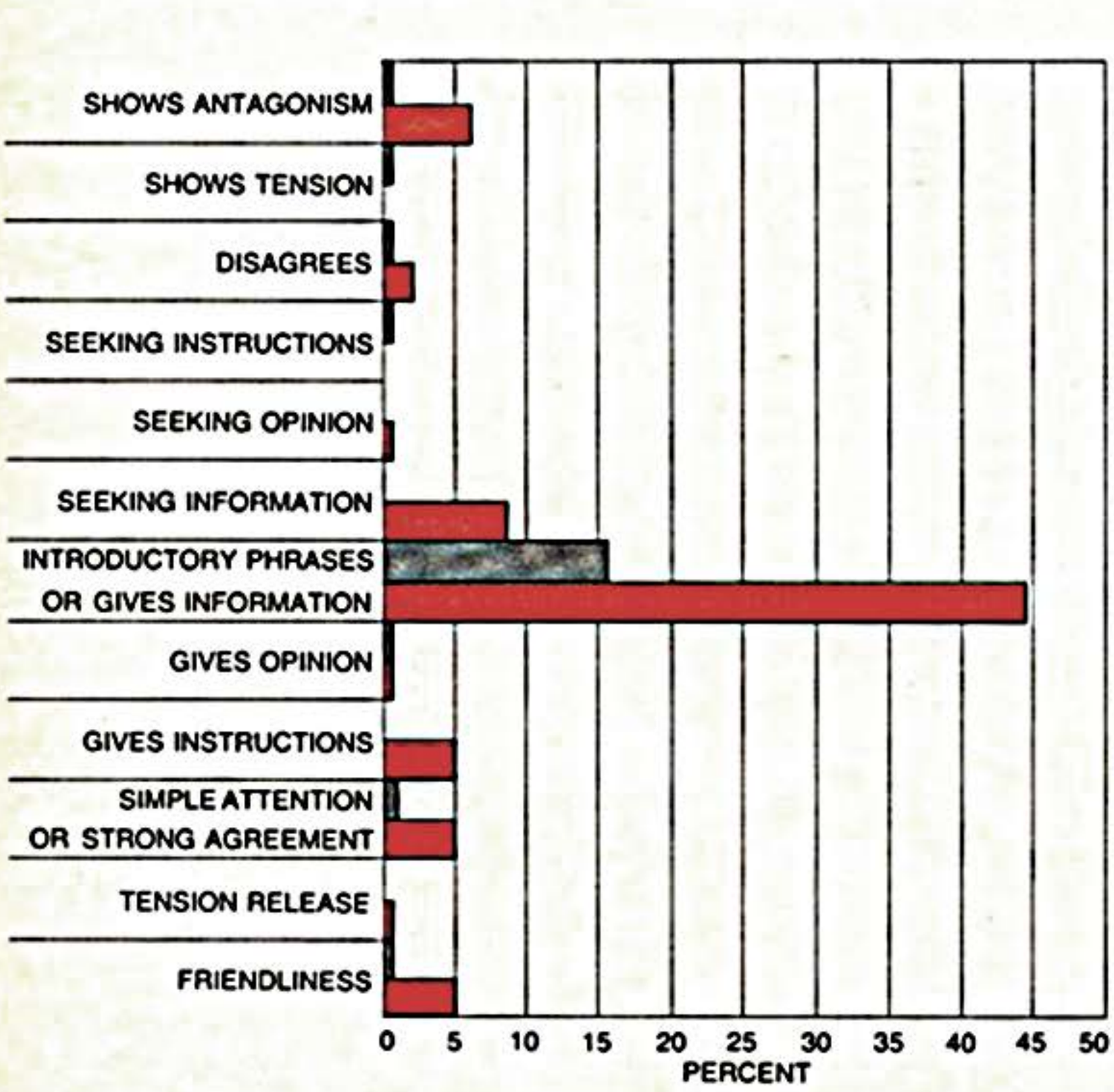
It may be significant in this connection that in some recordings the doctor-patient conversation comes to a distinct breaking point, after which no real communication takes place and one or the other participant is reduced to mechanical uh-huhs or yeses. In other cases the physician is found to fall into repeating statements several times and showing increasing impatience and irritation. These two types of situation probably reflect great tension on the part of the patient as well as the collapse of communication.

The verbal records give relatively few obvious signs of affect. Civilities between the parties, such as introducing themselves or addressing each other by name, are uncommon. The interchanges consist mainly of neutral, informational statements [*see illustrations on pages 70 and 71*]. Nevertheless, the tone and emotional content of the encounters is amply evidenced. One noteworthy finding is that, whereas less than 6 percent of the doctor's communication to the

mother carries positive affect (in the form of friendly remarks, joking, agreement, support), 46 percent of his conversation with the child is of this nature. Plainly the physician not only identifies with the child rather than with the mother as the patient but also feels a need to give more reassurance to the child than he would to an adult. The results in this study, however, indicated that the physician's friendliness to the child had only a slight influence in heightening the mother's satisfaction with the visit or getting her to follow his medical advice. It was his attitude toward her that counted most.

If the physicians rarely show positive affect to the mother in these records, by the same token they seldom show negative affect in the form of disapproval, criticism or hostility. When the doctor does express negative feelings, the mother is likely to be dissatisfied with the visit and fail to comply with his advice. Conversely, a substantial showing of positive affect by the doctor to the mother enhances her satisfaction and compliance. This finding has a bearing on a controversial issue in medical practice. There is a widely held belief that the doctor should maintain a certain social distance from the patient to strengthen his image as a figure of authority, and some physicians go so far as to use scare techniques to obtain compliance with their advice, threatening dire consequences if it is not followed. Some patients seek out this type of doctor; they may in fact need such treatment. In our investigation, however, we came across few such individuals. Friendly treatment of the patient generally had favorable results; harsh treatment tended to yield poor results. And there was a direct statistical relation between the amount of nonmedical (that is, sociable) conversation between doctor and patient and the patient's satisfaction with the encounter with the doctor.

The patients exhibited considerably more negative affect than the physicians did. Very few of the mothers openly expressed hostility or resentment to the doctor; expressions of negative feelings usually took the form of statements indicating nervousness or tension. Such statements ran as high as 45 percent of all the utterances by the mother in some cases, and in the total sample they amounted to 10 percent of all the patients' statements. In a large number of these instances the physician did not offer any reassuring response to the mother's indication of anxiety.



NATURE OF REMARKS by doctor (*color*) and mother (*gray*) involved in the case charted at the bottom of pages 70 and 71 is summarized. Doctor made 184 statements, mother 46.

Our exploration of the communication aspect of health care in some depth has opened up encouraging prospects for relatively simple ways to improve the delivery of this care. It is certainly not our intention to undermine public confidence in the medical profession; on the contrary, the lessons learned from analysis of the communication problem can go far to help the profession gain support and strengthen its performance. Whereas other problems that stand in the way of delivering health care satisfactorily to the entire population seem to call for reorganization of the entire social structure and basic personality changes in the people, the communication problem can be solved more easily.

The shortcomings in communication that we have examined in the clinic situation after all reflect a pattern that is common in medical practice generally. Furthermore, the need for understanding the problem of communication and coping with it is increasing as the delivery of medical care is taken over more and more by specialized professionals and technicians, so that the patient must relate to a galaxy of different health workers. Unquestionably attention to effective communication, a skill that should not be too difficult for any trained person to master, could make a valuable contribution to the quality of health care and its availability to the general population.

With the technique of detailed analysis that our research team has used in examining verbal communication we are looking into certain other aspects of medical practice. We have begun to make video tapes of medical visits, which enable us to study nonverbal communication and to document the "instrumental" (as distinguished from "expressive") performance of doctors, including examinations of the patient. When a body of data on all these matters, expressive and instrumental, has been developed and units of behavior in the process of health care have been clearly defined, there will be a more solid basis for establishing optimal standards and comparing actual performance with these standards. It will then be possible to measure the quality of health care, to relate the elements of the process to results in patient health and to evaluate the contribution of the social and emotional aspects of patient care. These aspects may well be found to have a far weightier influence in preserving health and well-being than they are credited with now.