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Role-taking in communication as a function of degree of conviction about one's role.

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ROLE-TAKING IN COMMUNICATION AS A
FUNCTION OF DEGREE OF CONVICTION
ABOUT ONE'S ROLE

A dissertation Presented

By

Margaret Hull

Submitted to the Graduate School of the
University of Massachusetts in
partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December

1972

Psychology

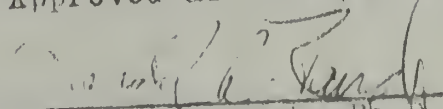
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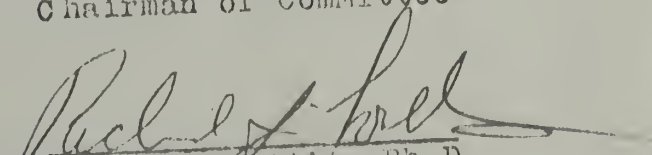
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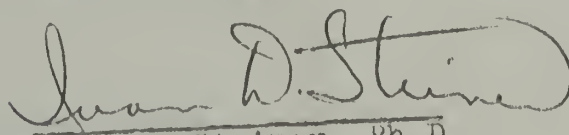
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ACKNOWLEDGEMENTS

I would like to express my thanks to Harold L. Raush, Ph.D., the chairman of my dissertation committee, for providing encouragement and support at all stages of this study. Our frequent conversations were appreciated not only because of their substance, but also because of the manner in which they seemed to illustrate the qualities of reciprocity which I came to see as characteristic of effective communication.

Jane Blankenship, Ph.D. and Richard Conville, Ph.D., members of the faculty of the Speech Department of the University of Massachusetts were also very helpful in discussing methods of treating the raw conversational data, drawing my attention to related research, and providing the services of their graduate students in the rating phase of the study. Marilyn Roth, Master's candidate, and Clark Irwin and Charles La Grave, Ph.D. candidates, made many valuable observations on the conversational data in their capacity as raters.

The contributions of many people, friends and relatives, who volunteered to spend an hour or more trying out questionnaire items and variations of experimental procedure in the early stages of planning were indispensable though too numerous to mention individually. Finally, the subjects must be thanked for their investment of themselves as well as their time and energy.

Margaret Hull

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C H A P T E R I

INTRODUCTION

The paramount fact about social interaction is that the participants stand on common ground, that they turn toward one another, that their acts interpenetrate and therefore regulate each other. (S. Asch, 1952, p.161)

The finding of such "common ground", the recognition and adjustment to "where the other person is at", hereafter referred to as role-taking, has been thought by many theorists to be an essential aspect of human communication (cf. Flavell, 1968, pp.12-23 for a discussion of the views of Mead, Piaget, Vygotsky, and others on this issue).

Flavell and his coworkers (1968) in their series of studies in this area have differentiated five aspects of role-taking. These aspects are required to different degrees in different communication problems and involve varying degrees and kinds of cognitive complexity. Knowledge of the very existence of perspective is a relatively early acquisition. In perceptual problems most children of about six are aware of differences of perspective, that what they see, for example, is not what someone looking in the other direction see. It would seem, however, that when dealing with certain abstract concepts, for example scientific theories, many adults do not recognize even that there are perspective differences, quite apart from being able to predict or define a perspective.

Another skill required in some role-taking situations, according to Flavell et al., is the recognition of the need

for determining perspective given a problem with embedded role-taking requirements. For example, in order to adequately give a listener in another place directions on how to reach a certain destination, a communicator must be aware of the need to find out where his listener is so he can tailor his communication with that place in mind.

A third skill, prediction of the listener's role, occurs when the speaker discriminates characteristics of the listener which make up his role and influence the way he might receive a message. Examples of such characteristics are his immediate situation, perceptions, beliefs, needs, abilities, and limitations. A fourth aspect of role-taking, required in some situations, involves being able to maintain one's own and the other's perspective without letting each encroach upon or distort the other. Finally, there is the ability to apply knowledge of the listener's role in order to meet his concerns directly and thus form a more effective communication.

In summary then role-taking can be viewed as having five aspects: awareness of the existence of perspective differences, ability to determine the need for adjustment to perspective differences, prediction of listener attributes, maintenance of one's own and the other's role distinct and undistorted, and application of role-taking information in forming a communication.

Studies by Flavell et al., (1968) and others (e.g., Lerner, 1937; Feffer & Gourevitch, 1960; Stuart, 1967; Sullivan & Hunt,

1967; Cohen & Klein, 1968; Alvy, 1968; Krauss & Glucksberg, 1969, a,b) show that role-taking abilities are acquired gradually as part of over-all cognitive and social development and that characteristics of the developmental process parallel those described by Piaget and others for other cognitive tasks. As with any cognitive task, individuals at any one stage of development can be expected to vary greatly in level of performance, and any one individual can be expected to vary in how well he performs in different situations under different conditions (cf. Hull, 1969). Studies of variables which might lead to such differences between different people and the same people at different times would have theoretical and practical significance. On the one hand such studies may help to specify further the processes of development of these abilities, and on the other they may have applications in teaching and improving role-taking abilities.

Most theoretical speculation has seen the processes of development of role-taking abilities occurring in the very arena where they are most often needed--- that of face-to-face communication. Piaget(1928, p.11) considered that conflict between people, the clashing of opposing wills, is the basis of the development of the concept of differences in perspective and the abilities to maintain and coordinate perspectives in thought. In describing the development in adolescence of "decentered thought", i.e., thought that is made objective by the awareness of different perspectives,

Inhelder & Piaget (1958) state:

From the standpoint of social relationships, the tendency of adolescents to congregate in peer groups has been well-documented-- discussion or action groups, political groups, youth movements, summer camps, etc....Certainly this type of social life is not merely the effect of pressures towards conformity but also a source of intellectual decentering. It is most often in discussion between friends, when the promoter of a theory has to test it against the theories of the others, that he discovers its fragility. (p.346)

Most studies in this area, however, except for Piaget's early observational study (1926), have either not involved face-to-face communication at all or have involved a very goal-oriented communication that is quite different from what Piaget and Inhelder describe. In the interest of experimental control, the "other" whose role is to be taken has frequently been an imaginary creation, either the subject's, as in Feffer's technique and variations on it (Feffer, 1959; Hull, 1969), or the experimenter's, as in most of Flavell et al's (1968) studies. In the former case, the subject has the major say in specifying the two (or more) roles he must discriminate and coordinate and presumably he thus has the control over many variables involved in the difficulty of the task. When the "other" is a prepackaged creation of the experimenter, represented by a silent listener, a picture, or a paragraph description, the potential is lost for the cycle of feedback and adjustment so important in theoretical discussions of role-taking.

Other research has involved a real "other" who responds to a communication and in some cases gives feedback on its

adequacy. However, in most of these studies the communication task has been a very simple one in which the speaker must describe a graphic design (the studies of Krauss, Glucksberg, et al.) a word (the studies of Cohen, Klein, et al.), or some other stimulus in a way that will enable a listener to choose it from an array of similar stimuli. Such tasks are very different from the significant segment of human communication which, like that described by Inhelder and Piaget (above, p.4), is directed not toward the solution of simple problems but at mutual persuasion and "arriving at an understanding".

Important information on some of the significant variables in role-taking and communication and their development has been gained from both the imaginary other and the simple communication studies. Information is needed as well on role-taking that occurs in conversations where values, ideas, and feelings are compared and contrasted. Such conversations occur daily in families, groups of friends, work groups, and citizen groups and seem to be essential for group functioning that achieves its purposes as well as furthers the well-being of the group's members.

The present study thus is one of role-taking as it is reflected in relatively free, face-to-face communication about value issues. It looks at how subjects at one stage of development differ in their performance under different conditions. An exploratory aspect of the study involves examining various formal characteristics of the communication

to determine which ones will reflect the adequacy of role-taking and its use in forming a communication. These characteristics will be related to ratings of the maintenance, prediction, and application aspects of role-taking.

Kaplan's (1953) work showed that when subjects are asked to give several persuasive speeches from the points of view of people with different role characteristics, what they say differs in various formal characteristics in the different roles. These characteristics were the total number of words used and the relative incidence of vocalized pauses (e.g., "uh"), considered to reflect the "ease in bringing a role to verbal expression"; the relative incidence of the words "I" and "we", considered to reflect the "verbal identification with a role"; and several measures of word choice and grammatical features, considered to reflect the "linguistic-cognitive organization of a role" (pp.39-40). "Relative incidence" means that the absolute frequency was taken as a ratio of the number of words used.

Studies of psychotherapy have also found it valuable to investigate formal characteristics of communication. In his review of content-analysis studies of psychotherapy, Marsden (1971) cites many examples of studies concerned with such measures as speech duration and related temporal variables (the work of Matarazzo, Saslow, and their associates, described in Marsden, 1971, pp. 351-352, 369); the Type-Token Ratio sentence length, utterance length, ratio of use of "I" to

"you", and specificity (use of "a" in contrast to "the") (the work of Jaffe and his associates, described in Marsden, (1971, p. 372-374).

These studies have indicated that formal characteristics of communication are by no means static for an individual, but change with the topic he is discussing, his view of his role, and many other variables. This being the case, it would seem likely that a conversation between two people who were very aware of each other and their differing viewpoints would be quite different in form as well as content from one where this was not true. In this study an attempt will be made to begin to determine what influence an awareness of the other's perspective would have on the formal features of a conversation.

In the second phase of the study the main variable to be investigated in relation to role-taking performance is degree of conviction¹ about one's role or position. The evidence will be examined for the intuitive notion that a

¹ The term "conviction" replaces "commitment", which was used in the earlier formulations of this study. The new term was employed because of the use in "cognitive dissonance" theory and research of the word commitment to refer to the state of affairs when a decision is made which "has clear implications for the subsequent unrolling of events as long as the person stays with that decision" (Festinger, 1964, p.156). Gerard (1969, p.458) says "commitment to an attitude (should be) called something like "depth of conviction" and calls for a distinction between "behavioral commitment" and "attitudinal conviction". All subjects in the current study were asked to make the same commitment, i.e., to state an opinion which they would later have to defend. The degree of commitment, defined in this way, did not vary, although it will be seen that the degree of conviction did vary.

person with very strong convictions about something has a harder time "seeing the other side" than a person with more moderate beliefs.

The concept of conviction as it occurs in popular usage seems to be contributed to by two factors or components, the amount of acceptance of the factual and logical evidence and the amount of accompanying feeling. Colby (1968), in his discussion of developing a theory of beliefs, makes a similar distinction between "credence" and "charge", two components acting as weights to determine the strength of a belief:

The credence of a belief represents its credibility to the individual system, a form of personal or subjective probability. Charge on a belief represents its degree of import or personal interest for the individual belief system. (p.522)

Before elaborating on how these two components of conviction might combine in actual cases, let us consider each individually with emphasis on possible ways to measure it and the expected effects on communication. The affective component, as Colby's (1968) "charge" will be called here, reflects the intensity of involvement in the role and its relevance to the needs of the person. Schachtel (1954) theorized that the most objective thought about an object, event, or idea---i.e., thought which has been corrected from distortion by the interplay of several different perspectives--is most likely to occur when needs are not intimately related to the object. Thus, for example, extending his line of

reasoning, thoughts about capital punishment are most apt to be objective, with pros and cons represented, when the thinker is not on trial for murder or when a loved one has not just been murdered.

The greater objectivity of thought when needs are not intimately involved should have the effect of facilitating the role-taking aspect of communication. With a relatively low level of the affective component of conviction, a person should be better able to exercise cognitive abilities to predict the other's role and maintain a portrayal of it without the encroachment of his own role. He should also be better able to apply his knowledge of the other's role in making a more effective communication in his own role.

The above reasoning suggests that beyond a certain point of intensity the affective component of conviction will reduce the effectiveness of role-taking and hence communication. It does not, however, suggest the converse, that is, that role-taking and communication will be optimized under minimal levels of conviction. In fact, findings in many areas of psychology suggest that, up to some point, "drive" has arousing, facilitating effects on performance. If the affective component of conviction as it is operationally defined in this study has motivational properties, it might be expected that at low levels performance would be impaired.

Varying the strength of the affective component of conviction could conceivably be done by inducing a particular

need in subjects and then varying the need-relevance of the topic or issue in regard to which roles are to be taken. There are serious methodological problems, however, both in inducing a need and in achieving differentiable amounts of need-relevance. A more feasible alternative is to construct the issues so that they appear to vary in need-relevance as a first step, but then to have each subject rate the issues himself in terms of how important they are to him or how much he cares about them.

The cognitive component of degree of conviction about the subject's role involves the amount and organization of beliefs and knowledge that back up the role. According to attitude research and theory (e. g., Scott, 1959 a,b), the more an attitude is part of an extended network of attitudes, the harder it is to change it. If this is true of changing attitudes, it might be predicted that the temporary shifting to another perspective involved in role-taking would also be more difficult when an attitude is firmly embedded in a network of belief. Again the most feasible way to measure the amount of the cognitive component of conviction seems to be to have the subject himself rate how sure he is of the position he has taken or how strongly he believes it.

The relationship between the affective and cognitive components of conviction and the way they combine is largely an open question. Colby (1968, p.524) hypothesizes that at the extremes there is an interaction such that when credence

(cognitive component of conviction) is above or below a certain level, the charge (affective component of conviction) tends to be raised or lowered as well. This would imply a correlation between the two components, which might be increased even more by a measurement that relies on self-report.² Because of the relative infrequency of cases where the reported intensity of the two components of conviction is markedly different and in order to avoid the resulting sampling problems, in this study only those cases will be considered in which the two components are of similar intensity. Also, as a first approximation, the two components will be assumed to combine in a simple additive fashion to determine the over-all degree of conviction.

In summary then, the current study is to consist of two phases:

1. An attempt will be made to relate various formal characteristics of communication to the quality of role-taking. Three of Flavell's five aspects will be emphasized: the ability to maintain perspective, the ability to predict perspective, and the ability to apply role-taking information in forming an effective communication.

²In a preliminary study of sixteen subjects (eleven of whom received all 21 of the current items and five of whom received eight), the correlations between ratings on a scale from one to seven of the two components ranged from .14 to 1.0 with a median of .66. For these Ss, 89% of the comparisons had a difference of two or less between the ratings of the two components. The percentage expected by chance is 64%.

2. In the second phase of the study, the following hypotheses will be tested:

- a. When conviction is of an intermediate degree, as jointly determined by the affective and cognitive components, there will be higher independent ratings of role-taking and a greater prevalence of communicative behaviors that reflect good role-taking than when conviction is of a high degree.
- b. The effect of the affective component may lead to fewer indicators of good role-taking when conviction is of low degree.

C H A P T E R II

METHOD

Subjects

The subjects were 58 male and 58 female students at the University of Massachusetts who were taking psychology courses during the summer and fall of 1971. Nineteen of the subjects were students in advanced courses; the rest were taking the introductory course. They were selected from a larger sample of 161 in a manner to be described below.

The sample of 161 volunteered for the experiment and thereby obtained extra credit in their courses. On the face of the folder in which they placed their names as volunteers was a written description of the experiment which read as follows:

A Study of Communication About Controversial Issues

This study has two parts, each taking about a half hour. The first is a questionnaire, administered in a group meeting, asking for your opinion on various controversial issues. In the second part you will be asked to talk about one of the issues with one of your classmates. Arrangements for the second part will be made at the first.

The Questionnaire

A paper and pencil attitude questionnaire was developed with items concerning controversial value issues relevant to this age group. A pool of items was presented to a group of people comparable to the subjects in the experiment in order to select items and wording that would result in a large amount of disagreement and varying degrees of conviction

about the stand taken. The items presented views on academic, political, and social and sexual matters. They were stated in the form of a debate proposition, i.e., as a particular stand in relation to the issue. The following were the instructions for the questionnaire:

The following is a list of statements regarding various issues. For each one, state whether you agree or disagree. Then rate on a scale from one to seven, by circling the appropriate number.

1. How important is this issue to you; how much do you care about it?
2. How sure are you of the stand you have taken; how strongly do you believe it?

Low numbers on the scale will represent caring little and not being very certain. Don't try necessarily to be consistent from one item to the next. Just answer each according to how you think and feel about that item.

The final form of the questionnaire appears in Appendix A.

Formation of Dyads

One hundred and thirty-five of the original sample of 161 filled out the questionnaire in six different large groups; the other 26 filled it out individually or in small groups. The E was present. Subjects were reminded of the second part of the study in which they would be asked to discuss one of the statements, and it was stressed that this was to be the more important part of the experiment. After filling out the questionnaire, Ss were asked to indicate times when they could take part in the second part of the experiment. The questionnaire scores for the entire sample appear in Appendix B.

On the basis of responses on the attitude questionnaire

Ss were selected and placed in dyads for the main part of the experiment. Dyads were formed to fulfill the following conditions:

1. The members were of the same sex.
2. They were able to schedule the experiment at the same time.
3. They disagreed on at least one statement.
4. Their conviction about the position they took on this statement was high, intermediate, or low for both members of the dyad.
5. There were to be six dyads for each of ten statements: a male and a female dyad of high, intermediate, and low conviction.

The ten statements chosen to be used in the experiment from the 21 on the questionnaire were those that showed the most even breakdown in number agreeing and disagreeing with high, intermediate, and low conviction on the first large group presentation of the questionnaire. On one statement a female dyad with high conviction could not be formed, and on another, a male dyad of low conviction was not possible. Therefore, the final sample consisted of 58 pairs: 29 male and 29 female dyads, nineteen of high, twenty of intermediate, and nineteen of low conviction.

Degree of conviction on a particular statement for a particular subject was relative to his conviction on all the other statements. Each S's ratings on the two scales for each statement were added. If there was more than two points difference between the ratings on the two scales for a statement, it was discarded for that S (i.e., that state-

ment could not be selected as the one S would discuss in the experiment). For each S the resulting distribution was divided into as nearly equal thirds as possible with the top third considered high, the middle intermediate, and the bottom low degree of conviction. Appendix C indicates the statement discussed by each dyad, each member's over-all degree of conviction about that statement, and the ratings made of each of the two components of conviction.

In forming dyads an attempt was made to use as many subjects from the questionnaire sample as possible. Those not used either did not fit the conditions, did not appear when scheduled for the second part, or were not needed. One final consideration was that, whenever possible, members of a dyad should either both be in the introductory or both in the advanced course, in order to minimize the effects of status differences on communication. This was possible in 55 of the 58 dyads. Fifty-seven dyads were unacquainted before the experiment. Appointments for the second half of the experiment were made by telephone contact.

Experimental Procedure

Each dyad was seen individually, and the role-taking performance was tape recorded. A stereo recorder was used for the first eighteen dyads seen in the summer so that the two voices could be more easily separated and identified. Since this was found to be unnecessary, a more convenient cassette recorder was used for the 40 dyads seen in the fall.

Subjects were introduced and E facilitated their getting to know each other with questions about where they were from, their year in school, their major, and the like. Subjects were then told:

This is a study of how people communicate when they're talking about controversial issues. I'll be taping your conversations, O.K.?

The first thing I'd like you to talk about you may or may not disagree on. Discuss what you like and don't like about U. Mass., just as you would in a discussion with a friend. Is that clear? Go ahead and I'll tell you when to stop.

The purpose of this part of the experiment was to help the Ss become comfortable in the situation and to give them a chance to learn something more about each other for possible use in the role-taking part of the experiment.

After the Ss talked for three minutes, the instructions continued as follows for half of the Ss in each combination of sex and conviction condition:

Fine. Now I want you to talk about one of the statements from the questionnaire you filled out, again just as you would in a discussion with a friend. I want you each to try to persuade the other of your point of view, but don't feel you have to agree with each other by the end of the conversation. I'll tell you when to stop. Any questions about the procedure?

This is the statement. (The statement was read aloud as it was presented to each S on a card.) (Name of the first S) agreed and (name of the second S) disagreed. I'll give you a moment to think about the statement and what you want to say. (pause of 15 seconds) O.K., go ahead.

After six minutes, E continued:

Fine. Now I want you to stop and change positions. As much as possible, try to act as if the preceding conversation didn't occur. Now you will be trying to persuade each other of the opposite point of view from your own. Try to think and feel just as a person with that point of view would. The statement again is ____ (The statement was reread.) I'll give you a moment. (pause of 15 seconds) Try to persuade each other of the opposite point of view from your own. O.K., go ahead.

After six minutes, E said:

O.K., stop.

For the other half of the Ss in each combination of sex and conviction condition, the instructions were as follows:

Fine. Now I want you to talk about one of the statements from the questionnaire you filled out, just as you would in a discussion with a friend. Only I want you each to try to persuade the other of the opposite point of view from that you actually hold. Try to think and feel just as a person with that point of view would. However, don't feel you have to agree with each other by the end of the conversation. I'll tell you when to stop. Any questions about the procedure?

This is the statement. (The statement was read aloud as it was presented to each S on a card.) (Name of the first S) will agree and (name of the second S) will disagree. I'll give you a moment to think about the statement and what you want to say. (pause of 15 seconds) Try to persuade each other of the opposite point of view from your own. O.K., go ahead.

After six minutes, E continued:

Fine. Now I want you to stop and change positions. As much as possible, try to act as if the preceding conversation didn't occur. Now you will be trying to

persuade each other of your own point of view. The statement again is____ (the statement was reread.) I'll give you a moment. (pause of fifteen seconds) Try to persuade each other of your own point of view. O.K., go ahead.

After six minutes, E said:

O.K., stop

Any questions about the procedure were answered by repeating or slightly rewording the instructions above. The tape recorder and stop watch were in plain view. Ss were allowed to keep and consult the cards on which the statement was printed throughout the conversations. E was present in the room during the conversations but attempted to avoid looking at or responding in any way to either S. The exceptions to this were that if the Ss (or either of them) indicated that they were through talking, E stated that they would be given the full time whether or not they used it; and if an S asked E a question during the conversations, a short answer was given discouraging further interchange. After the conversations, E discussed with the Ss their thoughts and feelings during the experiment and explained to them the purpose of it.

Transcription

The tape recordings were transcribed and the transcripts labelled only by the Ss' numbers, not by sex, degree of conviction on the statements, or whether the role taken was own or other. The utterances made by the first S in a dyad to speak in the warm-up conversation were all labelled 1,

and those made by the other S were labelled 2. An utterance is defined as one or more meaningful words said in succession by one person before the other speaks again. An attempt was made to record all words, parts of words, and other vocal expressions. Whenever one S spoke or began to speak when the other S was speaking, an interruption was noted in the margin.

The last two of the conversations by each dyad, i.e., the role-taking conversations, were typewritten. For each conversation, the statement discussed appeared at the beginning. The utterances made by the S speaking in support of the statement appeared in black ink, and the utterances made by the S speaking against the statement appeared in red ink. Two copies of the transcripts were made in which the black ink utterances were denoted by a black line in the margin and the red ink utterances by a red line.

Ratings of Communicative Effectiveness

Three advanced graduate students from the Speech Department of the University of Massachusetts rated the conversations on five scales assessing various aspects of communicative effectiveness relevant to role-taking. All three raters had had previous experience evaluating spoken communications: two as debate judges and two as teachers of introductory speech courses. They were paid by the hour for their part in the experiment.

The explanation and instructions they were given read as follows:

You will be presented with tape recordings and transcripts of college students taking part in conversations lasting six minutes each. In all cases the subjects disagree with one another's stand on the statement discussed. This statement appears at the top of the first page of the transcript.

There are a total of 116 conversations, two conversations by each of 58 pairs of students. These two conversations will not be presented consecutively. In one of them the subjects were instructed to try to persuade the other of their own point of view; in the other they were instructed to think and feel like someone with the opposite point of view from their own and try to persuade the other of this point of view. The order of these conditions is random. A black line in the margin means the subject is supposed to be agreeing with the statement; a red line means he is supposed to be disagreeing with it. The numbers 1 and 2 refer to the same subjects for both conversations.

Listen to the recordings of the conversations one at a time and then rate them on the following scales, referring to the transcripts as needed.

The three raters met with E for about 40 hours spread over eleven sessions. They made their ratings independently without previous discussion. After ratings were made, they were allowed to look at each other's ratings if they desired.

Of the two conversations by each dyad, the conversation which occurred first in time was presented first to the raters for all 58 dyads. Then the second was presented in the same order. The order of presentation of dyads was such that the ten statements appeared in a fixed order repeated five times (with minor variations to increase the efficiency of finding the conversations on the tapes). This was done to minimize the effect of confusion between conversations on the same statement.

The order of presentation of degree of conviction and

whether the role taken was own or other was random except for the one exception noted below. The degree of conviction and which role was being taken were unknown to the raters except through the occasional clues they could pick up from the conversations themselves.

The five rating scales were developed to have face validity for measuring aspects of role-taking. After having been tried out by two graduate students not in the Speech Department, changes in wording were made to make them easier to use and more precise. The final scales, which were to be rated on the basis of seven points, appear below:

1. How strongly does this person appear to believe what he is saying?
2. How well does he develop and elaborate his position?
3. How well does he seem to be listening to the other; how much of what is said by him does he appear to be taking in?
4. How directly does he respond to the statements of the other; how much do his statements meet the concerns of the other?
5. How closely does the pair "stick to the topic"; how related to the statement is their conversation?

The first four questions were to be answered for each S separately, the last one for the dyad as a whole. The raters were asked in addition:

6. Do you think the pair was arguing their own point of view or the other's?

The rating scale form filled out by each rater for each conversation appears in Appendix D.

The first two scales were designed to measure identification with the role and conceptual clarity in regard to the role. When Ss are taking the role of the other, the quality of the

development and elaboration of that position (as measured by the second scale) would seem to reflect the degree of ability to predict how a person who held that position would think and feel.

The third scale was designed to assess the degree to which the Ss engaged in the receptive, listening behaviors that would seem to make up the input stage of predicting the role of another. The fourth scale was designed to measure the Ss' tendency to apply their knowledge of the other's role gained by listening to him in forming an argument that is directly fitted to that role. These two scales were expected to be most informative about role-taking skills when the Ss were presenting their own role.

The final scale was designed to assess the Ss' ability to maintain the role of trying to persuade the other of one side of a particular issue. However, it is intended to measure only part of maintenance: the extent to which the dyad stays focussed on the issue rather than discussing some more or less related issue which might involve a different, more easily held role.³

The first ten dyads presented to the raters, rather

3

The fifth scale does not measure the momentary, unintentional role reversals or repudiation of the role taken which are also part of maintenance of a role. It is more difficult to compare dyads on this aspect of maintenance of role since merely counting such occurrences masks the vastly varying importance of the "slip".

than being randomly selected with regard to degree of conviction, were selected so that degree of conviction would be approximately equally represented (i.e., there were three, four, and three dyads with high, intermediate, and low conviction respectively). This was done so that changes could be made in the scales if necessary while keeping equal numbers of dyads in each conviction condition, and so that discussion among the raters would not disproportionately bias any conviction condition. Thus after ten dyads were rated, E and the raters discussed the scales and how they were being used. The raters agreed that they could make the ratings without a great deal of difficulty, but that there was some confusion between the third and fourth questions, partly because one of the ways to judge listening was by how direct the answer was. Some of the possible combinations of these two aspects were discussed. It was decided not to make any changes in the scales.

Formal Measures

Of the large number of possible measures of formal characteristics and content analysis, many of which have been used in previous studies of communication, several were chosen for use in this study. The ones chosen seemed most to reflect the degree of articulation, the "back-and-forthness" and reciprocity of what is said. Four have to do with the way the allotted time in each conversation is

used and shared: the total number of words, the number of utterances, the average number of words per utterance,⁴ and the absolute difference between the number of words said by the two members of each dyad.

The total number of words and the total number of utterances were taken for the dyad as a unit since the scores of the two members were not independent of each other. For example, a member of one dyad might have spoken less than a member of another dyad simply because the first's partner spoke more than the second's partner. The average number of words per utterance was taken for the S as a unit since, while each member could lessen his partner's score somewhat by interrupting him, there was not a direct relationship between their scores. The absolute difference between the number of words said by the two members of each dyad was of necessity taken for the dyad as a unit.

A fifth formal measure is the proportion of changes in speaker in each conversation that took place by means of one member of a dyad breaking in on another, or by the per cent of utterances which each S began by interrupting the other. It was originally planned to also consider the proportion of interruptions that showed no cognizance of the statement they interrupted, but it was found to be too difficult to determine this reliably.

⁴ The total number of words measure did not include repetitions of words or phrases. One word utterances like "oh", "yes", and "mhm" were not considered in the computation of the average number of words per utterance, but were counted in the total number of words and the number of utterances.

The final two measures involve specific word counts. One is the number of occurrences of the word "you" or any of its derivatives when used in a personal rather than an impersonal sense, taken as a proportion of the total number of words.⁵ The instances of a single word of affirmation such as "mm", "yeh", "oh", and the like were also counted and taken as a proportion of the total number of words.

In summary then, the following seven descriptive measures were obtained:

1. the total number of words said by each dyad in each conversation
2. the total number of utterances made by each dyad in each conversation
3. the absolute difference between the number of words said by the two members of a dyad in each conversation
4. the average number of words per utterance for each S in each conversation
5. the proportion of utterances by each S in each conversation begun with an interruption
6. the number of times each S in each conversation used the word "you" and its derivatives in a personal sense, taken as a proportion of the total number of words he spoke
7. the number of times each S in each conversation used a single word of affirmation or agreement, taken as a proportion of the total number of words he spoke

⁵ Thus instances of "you" in the interjected phrase "you know" and instances of "you" that could be replaced by "one" without changing the meaning were not counted.

C H A P T E R I I I

RESULTS

Ratings of Communicative Effectiveness

The results of the ratings of communicative effectiveness will be presented first since they serve as the validating measures of role-taking to which the formal characteristics of communication will be compared. The ratings are presented separately by rater in the order made in Appendix E. The Horst reliability index (Horst, 1949) was computed for the mean ratings on the five scales of one-fourth of the entire sample.⁶ This index provides an estimate of the proportion of variance accounted for by the mean ratings and hence is a measure of their reliability. The Horst index was .74 for the first scale, .87 for the second, .51 for the third, .60 for the fourth, and .70 for the fifth.

The mean ratings for the dyads in each condition are presented in Appendix F. The statistical tests done on them were distribution-free since the shape of the distribution of these ratings is unknown. In order to investigate the interactions between variables as well as main effects, Friedman's test for identical treatment effects was conducted as described by Bradley (1969, pp. 138-141).

⁶ The sub-sample was selected simply by taking, in the order rated, every fourth subject beginning with the first in the first conversation and beginning with the fourth in the second conversation. The sample then contained the ratings for one subject from each of the 58 dyads in one conversation.

In tests of the first four scales there were considered to be twenty replications of the experiment, i.e., twenty sets of twelve scores in all possible combinations of the experimental treatments of degree of conviction, role-taking condition, sex, and order of the conversation (first or second). (Four of the replications were not complete but contained only ten scores.) The replications consisted of the first and second subjects in the dyads discussing each of the ten statements. For the fifth scale and the final question asked of the raters, there were ten replications, consisting of the dyads discussing each of the ten statements. (Two of these replications were not complete but contained only ten of the twelve possible scores.) In this manner comparisons could be considered matched since they were made between scores obtained by either the same subject or subjects responding to the same statement. Thus the effect of differences in performance due to the statement discussed, not a variable of interest in this experiment, was minimized. A further result of this approach is that a variable can only have a significant effect if it operates in a similar manner for all the statements used in the experiment.

Using either Friedman's test or the Sign test, which Friedman's test reduces to in the two treatment case, a series of analyses were made summing over all the counter-balanced variables except the one under consideration. For example, an analysis of the over-all effect of conviction

was made by summing over male and female subjects and subjects performing in their own and the other's role for each degree of conviction for each replication. (Summing over male and female also sums over the order of the conversation since these two variables are partially confounded.) To test an interaction, the difference between scores at two levels of one variable is compared at different levels of another variable. For example, the interaction between role-taking condition and degree of conviction is tested by comparing the difference between scores in the own and other condition summing over sex at each level of degree of conviction.

Although the characteristics measured by the rating scales are assumed to be continuously distributed in the population, the raters were asked to make their judgements to the nearest integer. This practice resulted in a certain number of ties which had to be resolved in some way in order to apply the test statistic. The method chosen (Bradley, 1968, pp.49-50) was to compute the test statistic in two ways, one with ties resolved in the ways which are most conducive to rejecting the null hypothesis and one with ties resolved in the ways which are least conducive to rejecting the null hypothesis. Then it is assumed that the true test statistic is somewhere between those two values and probability bounds can be determined for it in the form of an inequality.

The first rating scale reads "How strongly does this

person appear to believe what he is saying"? The results of the statistical analyses of the data are shown in Table 1. Ratings on this scale vary significantly depending on the degree of conviction of the subject ($S=158$; $R=20$, $C=3$; $p<.05$) and which role they are taking ($pr = 18/19$; $p<.001$).⁷ The means of the ratings are presented in Table 2 as a function of these two variables. It can be seen that, contrary to the prediction, subjects with an intermediate degree of conviction were judged to appear to believe what they were saying less strongly than subjects with either a high or a low degree of conviction, even when they were taking the role of the other. As would be expected, when subjects were taking their own role, they appeared to believe what they were saying more than when they were taking the role of the other. The trend for this difference to be greater for subjects of an intermediate degree of conviction was not significant ($54 \leq S \leq 62$; $R=20$, $C=3$, $p>.10$).

The second rating scale reads, "How well does this person develop and elaborate his position"? The results of the statistical analyses are presented in Table 3. The ratings vary significantly depending on the subjects' degree of conviction ($S=182$; $R=20$, $C=3$; $p<.01$). The means of the ratings on the second scale as a function of the levels of the two

⁷ The results of the sign tests will be presented with the abbreviation *pr* signifying the proportion of replications with untied scores in which the score on the first level of the variable is higher than the score on the second level.

Table 1

Results of Analyses of Mean Ratings on Scale 1:

How Strongly Does This Person Appear to
Believe What He Is Saying

Variable	Test Statistic*	Probability
1. Degree of conviction (high, intermediate, low)	158	<.05
2. Role-taking Condition (own, other)	18/19	<.001
3. Order of the conversation (first, second)	14/20	n.s.
4. Sex (male, female)	14/20	n.s.
Interaction of Variables		
1. and 2.	54 \leq S \leq 62**	n.s.
1. and 3.	32 \leq S \leq 54	n.s.
2. and 3.	6/20	n.s.
1, 2, and 3.	56 \leq S \leq 62***	n.s.

*When there are three levels of a variable, the test statistic is Friedman's S ; when there are two levels, it is the proportion of replications with untied scores in which the score on the first level of the variable is higher than the score on the second (for use in the Sign test).

**When there are ties in the ratings, the test statistic is computed in two ways, with the ties resolved in a manner most and least conducive to rejection of the null hypothesis.

***based on the sixteen complete replications

Table 2

Means of Mean Ratings* on Scale 1: How Strongly Does This
 Person Appear to Believe What He Is Saying? As a
 Function of Degree of Conviction
 and Role-taking Condition

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	4.25	3.92	4.19	4.11
Other	3.45	3.05	3.85	3.44
Over-all Mean for Degree of Conviction	3.85	3.48	4.02	

* on a scale from one to seven

Table 3

Results of Analyses of Mean Ratings on Scale 2:

How Well Does This Person Develop And

Elaborate His Position?

Variable	Test Statistic*	Probability
1. Degree of Conviction (high, intermediate, low)	182	4.01
2. Role-taking Condition (own, other)	13/19	n.s.
3. Order of the Conversation (first, second)	10/19	n.s.
4. Sex (male, female)	13/20	n.s.
Interaction of Variables		
1. and 2.	$26 \leq S \leq 54^{**}$	n.s.
1. and 3.	$24 \leq S \leq 38$	n.s.
2. and 3.	7/20	n.s.
1., 2., and 3.	56***	n.s.

* When there are three levels of a variable, the test statistic is Friedman's S ; when there are two levels, it is the proportion of replications with untied scores in which the score on the first level of the variable is higher than the score on the second (for use in the Sign test).

** When there are ties in the ratings, the test statistic is computed in two ways, with the ties resolved in a manner most and least conducive to the rejection of the null hypothesis.

*** based on the sixteen complete replications

main variables, degree of conviction and role-taking condition, are presented in Table 4. Again subjects with an intermediate degree of conviction perform most poorly, this time in terms of how well they develop and elaborate their position. The trends for role development to be poorer in taking the other's role than the subjects' own role ($pr=13/19$; $p>.10$) and for this difference to be least among subjects of high conviction ($26 \leq S \leq 54$; $R=20$, $C=3$ $p>.10$) are not significant.

The third rating scale reads, "How well does this person seem to be listening to the other; how much of what is said by him does he appear to be taking in?" Table 5 presents the findings from the statistical analyses of the ratings on the scale. As with the second scale, only degree of conviction significantly differentiates the subjects' performance ($S=218$; $R=20$, $C=3$, $p<.01$). The means of the ratings as a function of the two main variables, degree of conviction and role-taking condition, appear in Table 6. The same pattern occurs for listening to the other as for role development; subjects with intermediate conviction are judged to listen less well to the other person than subjects with high or low conviction. There are again statistically insignificant trends for listening to be judged poorer in the other role than in the subjects' own role ($pr=14/20$; $p>.10$) and for this difference to be less for subjects of high and low than intermediate conviction ($14 \leq S \leq 38$; $R=20$, $C=3$; $p>.10$).

The fourth rating scale reads, "How directly does this person

Table 4
Means of Mean Ratings* on Scale 2: How Well Does This
Person Develop and Elaborate His Position?
As a Function of Degree of Conviction
and Role-taking Condition

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	4.27	3.86	4.01	4.04
Other	3.78	3.29	3.86	3.63
Over-all Mean for Degree of Conviction	4.02	3.58	3.93	

* on a scale from one to seven

Table 5

Results of Analyses of Mean Ratings on Scale 3:

How Well Does This Person Seem To Be Listening

To the Other; How Much of What is Said By

Him Does He Appear To Be Taking In?

Variable	Test Statistic*	Probability
1. Degree of Conviction (high, intermediate, low)	218	<.01
2. Role-taking Condition (own, other)	14/20	n.s.
3. Order of the Conversation (first, second)	9/20	n.s.
4. Sex (male, female)	12/19	n.s.
Interaction of Variables		
1. and 2.	14≤S≤38**	n.s.
1. and 3.	2≤S≤18	n.s.
2. and 3.	8/20	n.s.
1., 2., and 3.	6≤S≤26***	n.s.

* When there are three levels of a variable, the test statistic is Friedman's S ; when there are two levels, it is the proportion of replications with untied scores in which the score on the first level of the variable is higher than the score on the second (for use of the Sign test).

** When there are ties in the ratings, the test statistic is computed in two ways, with the ties resolved in a manner most and least conducive to the rejection of the null hypothesis.

*** based on the sixteen complete replications

Table 6

Mean of Mean Ratings* on Scale 3: How Well Does This
 Person Seem To Be Listening To the Other; How Much
 Of What Is Said By Him Does He Appear To Be Taking In?
 As a Function of Degree of Conviction and
 Role-taking Condition

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	4.52	4.25	4.51	4.42
Other	4.28	3.68	4.24	4.06
Over-all Mean for Degree of Conviction	4.40	3.96	4.38	

* on a scale from one to seven

respond to the statements of the other; how much do his statements meet the concern of the other?" The findings for the statistical analyses of the ratings on the scale, presented in Table 7, again show degree of conviction having a significant effect ($158 \leq S \leq 256$; $R=20$, $C=3$; $p_l < .05$, $p_u < .01$)⁸ as well as the interaction between degree of conviction and the order of the conversation (first or second) ($182 \leq S \leq 186$; $R=20$, $C=3$; $p < .01$). Table 8 presents the means for the levels of the variables of degree of conviction and role-taking condition. Subjects of intermediate conviction are judged to answer less directly than subjects of high or low conviction. Again there are statistically insignificant trends for less direct answering in the role of the other than in the subjects' own role ($p_r = 14/20$; $p > .10$ and for effect of degree of conviction to be greater in the other role than in the subjects' own role ($14 \leq S \leq 43$; $R=20$, $C=3$; $p > .10$).

The significant interaction between conviction and order of conversation results from the fact that the tendency for subjects of intermediate conviction to answer less directly was greater in the first of the two conversations in which they took part. This effect is shown in Table 9.

The fifth rating scale reads, "How closely does the pair 'stick to the topic'; how related to the statement is their conversation?" Table 10 presents the results of the analyses of the data from this scale, showing the one

⁸ P_u is the probability for the upper limit of the true value of S ; p_l is the probability for the lower limit.

Table 7

Results of Analyses of Mean Ratings on Scale 4:

How Directly Does This Person Respond to
the Statements of the Other; How Much
Do His Statements Meet the Concerns
of the Other?

Variable	Test Statistic*	Probability
1. Degree of Conviction (high, intermediate, low)	$158 \leq S \leq 256^{**}$	$<.05, .01$
2. Role-taking Condition (own, other)	14/20	n.s.
3. Order of Conviction (first, second)	8/20	n.s.
4. Sex (male, female)	9/19	n.s.
Interaction of Variables		
1. and 2.	$14 \leq S \leq 43$	n.s.
1. and 3.	$182 \leq S \leq 186$	$<.01$
2. and 3.	9/20	n.s.
1., 2., and 3.	$56 \leq S \leq 93$	n.s.

* When there are three levels of a variable, the test statistic is Friedman's S ; when there are two levels, it is the proportion of replications with untied scores in which the score on the first level of the variable is higher than the score on the second (for use of the Sign test).

** When there are ties in the ratings, the test statistic is computed in two ways, with the ties resolved in a manner most and least conducive to the rejection of the null hypothesis.

*** based on the sixteen replications

Table 8

Means of Mean Ratings* on Scale 4: How Directly
Does This Person Respond to the Statements of
the Other; How Much Do His Statements Meet the
Concerns of the Other? As a Function of
Degree of Conviction and Role-taking
Condition

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	4.42	4.11	4.34	4.29
Other	4.15	3.54	4.08	3.92
Over-all Mean for Degree of Conviction	4.29	3.82	4.21	

* on a scale from one to seven

Table 9

Means of Mean Ratings* On Scale 4: How Directly
Does This Person Respond to the Statements of
the Other; How Much Do His Statements Meet the
Concerns of the Other? As a Function of
Degree of Conviction and Order
of the Conversation

Order of the Conversation	Degree of Conviction			Over-all Mean for Order of the Conversation
	Low	Intermediate	High	
First	4.35	3.53	4.28	4.04
Second	4.22	4.12	4.14	4.16
Over-all Mean for Order of the Conversation	4.29	3.82	4.21	

* on a scale from one to seven

Table 10

Results of Analyses of Mean Ratings on Scale 5:

How Closely Does the Pair 'Stick to the

Topic'; How Related to the Statement

Is Their Conversation?

Variable	Test Statistic*	Probability
1. Degree of Conviction (high, intermediate, low)	32	n.s.
2. Role-taking Condition (own, other)	4/10	n.s.
3. Order of the Conversation (first, second)	4/10	n.s.
4. Sex (male, female)	6/10	n.s.
Interaction of Variables		
1. and 2.	128	<.001
1. and 3.	$8 \leq S \leq 14^{**}$	n.s.
2. and 3.	3/10	n.s.
1., 2., and 3.	24***	n.s.

* When there are three levels of a variable, the test statistic is Friedman's S ; when there are two levels, it is the proportion of replications with untied scores in which the score on the first level of the variable is higher than the score on the second (for use of the Sign test).

** When there are ties in the ratings, the test statistic is computed in two ways, with the ties resolved in a manner most and least conducive to the rejection of the null hypothesis.

*** based on the sixteen replications

significant effect to be the interaction of degree of conviction and role-taking condition ($S=128$; $R=10$, $C=3$; $p<.001$). The means for the levels of these two variables are presented in Table 11. The degree of the subjects' conviction has an effect on how directly their conversation relates to the statement only when they are taking the role of the other. In that case the tendency is for the conversation of subjects with intermediate conviction to be less closely related to the statement than the conversation of subjects with high or low conviction. Furthermore, while the conversation of subjects with intermediate conviction tends to be less directly related to the statement in the other's role than in their own role, the reverse relationship holds for subjects of high conviction.

The final question asked of the raters was, "Do you think the pair was arguing from their own point of view or the other's?" The number of raters who accepted the conversation as representing what the subjects actually believed was analyzed as a function of the variables of the experiment, as seen in Table 12. The means for levels of the variables of degree of conviction and role-taking condition are presented in Table 13. The mean number of raters accepting the role as the subjects' own did not differ significantly with degree of conviction ($14 \leq S \leq 56$; $R=10$, $C=3$; $p>.10$), but the raters did accept the role as being the subjects' own when it actually was more often than when it was the other's ($pr=9/10$; $p<.05$). The raters were also able to guess significantly more accurately

Table 11

Means of Mean Ratings* on Scale 5: How Closely
Does the Pair 'Stick to the Topic'; How
Related to the Statement Is Their
Conversation? As a Function of
Degree of Conviction and
Role-taking Condition

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	4.71	4.89	4.69	4.78
Other	4.74	3.94	5.14	4.59
Over-all Mean for Degree of Conviction	4.73	4.41	4.92	

* on a scale from one to seven

Table 12
Results of Analyses of the Numbers of
Raters Who Accepted the Conversations
As the Subjects' Own Role

Variable	Test Statistic*	Probability
1. Degree of Conviction (high, intermediate, low)	$14 \leq S \leq 56^{**}$	n.s.
2. Role-taking Condition (own, other)	9/10	$<.05$
3. Order of the Conversation (first, second)	8/9	$<.05$
4. Sex (male, female)	6/9	n.s.
Interaction of Variables		
1. and 2.	$2 \leq S \leq 8$	n.s.
1. and 3.	$2 \leq S \leq 18$	n.s.
2. and 3.	2/9	n.s.
1., 2., and 3.	$6 \leq S \leq 26$	n.s.

* When there are three levels of a variable, the test statistic is Friedman's S ; when there are two levels, it is the proportion of replications with untied scores in which the score on the first level of the variable is higher than the score on the second (for use of the Sign test).

** When there are ties in the ratings, the test statistic is computed in two ways, with the ties resolved in a manner most and least conducive to the rejection of the null hypothesis.

*** based on the sixteen complete replications

Table 13
Means of the Number of Raters* Who Accepted
the Conversations As the Subjects' Own
Role As a Function of Degree of
Conviction and Role-taking
Condition

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low, Intermediate	High		
Role-taking Condition				
Own	2.00	1.80	2.37	2.05
Other	1.26	.95	1.16	1.12
Over-all Mean for Degree of Conviction	1.63	1.38	1.76	

* possible scores from zero to three

on the second conversation by a dyad than the first ($p=8/10$; $p<.05$). The second conversation was rated as well as spoken second so whether the demonstrated effect results from characteristics of the second conversation itself or the fact that the raters then have more information to use in their judgements cannot be determined.

Measures of Formal Characteristics

The scores for the formal characteristics of the conversations are presented in Appendices G (the first three measures) and H (the last four measures). They were analyzed in two steps. The first step was to examine their relationship to the variables in the experiment. The measures which showed a pattern similar to the ratings of communicative effectiveness were then correlated with the ratings to determine the extent to which these characteristics occur in conversations judged to exhibit good role-taking.

Two computerized analyses of variance were made of the seven measures of formal characteristics: one with conviction and sex (between subjects variables) and role-taking condition (a within subject variable) and their interactions as the sources of variance; and one with conviction and order of role-taking instructions (own first or other first) (between subjects variables) and role-taking condition (a within subject variable) and their interactions as the sources of variance. Two separate analyses were required because of the partial

confounding of sex and order of role-taking instructions. The statement the subjects discussed was not considered an independent variable, although subjects were matched by statement. Because of the difficulty of finding a reliable program which would perform the above analysis with unequal number of subjects in each cell, it was necessary to further reduce the N to 36 matched dyads for the first three measures, six dyads discussing six different statements, and 72 matched subjects for the last four measures, twelve subjects discussing six different statements.

Table 14 presents the results of the analyses of the three measures for the dyad taken as the unit with sex as one of the variables; Table 15 presents the same analyses with the sex variable replaced by order of role-taking instructions. It can be seen that two of the measures differ significantly depending on the role taken: the total number of words ($F_1=7.11$, $F_2=6.52$; d.f.=1,30, $p<.05$)⁹ and total number of utterances ($F_1=8.54$, $F_2=8.91$; d.f.=1,30, $p<.01$)⁹. The differences are such that subjects use more words and the person speaking changes more often when subjects are taking their own role than when they are taking the role of the other. (See Tables 23 and 24, p.62-63 for the means of these groups based on the entire sample.)

The results of the analyses of the four measures for

⁹ F_1 is the F obtained in the analysis of variance with sex a variable, and F_2 is the F obtained in the analysis of variance with order of role-taking instructions one of the variables.

Table 14

Analyses of Variance for Three Measures of Formal
 Characteristics of Communication Taken With the
 Dyad As the Unit:

A. Sex Being One of the Variables

Source	d.f.	Measures		
		Total Words	Number of Utterances	Dominance
		F	F	F
Between Subjects				
Degree of Conviction (A)	2	1.99	1.51	2.61
Sex (B)	1	.989	.89	1.49
AB Interaction	2	.91	2.34	.19
S/AB	30			
Within Subjects				
Role-taking Condition (C)	1	7.11 *	8.54 **	.16
AC interaction	2	.75	.50	.88
BC interaction	1	.007	.036	2.00
ABC interaction	2	2.92	.89	.75
S/ABC	30			

* $p < .05$

** $p < .01$

Table 15

Analyses of Variance for Three Measures of Formal
 Characteristics of Communication Taken With the
 Dyad As the Unit:

B. Order of Role-taking Instructions Being One of the Variables

Source	d.f.	Measures		
		Total Words	Number of Utterances	Dominance
		F	F	F
Between Subjects				
Degree of Conviction (A) 2		2.02	1.45	2.50
Order of Role-taking Instructions(B) 1		.12	3.47	.16
AB interaction 2		1.57	.35	.17
S/AB	30			
Within Subjects				
Role-taking Condition (C) 1		6.52*	8.91**	.16
AC interaction 2		.688	.52	.85
BC interaction 1		1.78	2.26	.18
ABC interaction 2		.55	.48	1.04
S/ABC	30			

* $p < .05$

** $p < .01$

each subject taken as the unit with sex one of the variables are shown in Table 16. Subjects made significantly more use of one word affirmations proportionate to the total number of words in their own role than in the role of the other ($F=7.00$, d.f.=1, 66; $p<.05$). (See Table 29, p. 68 for these means based on the entire sample). They also used the word "you" in a personal sense proportionately more often in their own role than in the role of the other ($F=5.59$, d.f.=1, 66; $p<.05$). (Table 27, p. 66 shows these means for the entire sample.) Finally, a complicated three way interaction occurred for the proportion of affirmation measure between sex, conviction, and role-taking condition, just reaching statistical significance ($F=3.17$, d.f.=1, 66; $p<.05$). The means for the groups in this interaction are presented in Table 17. The most conservative description of this interaction is that the patterns of interaction of conviction and role-taking condition on this measure are different for males and females.

The results of the analyses of the four measures for each subject taken as the unit with order of role-taking instructions as one of the variables are presented in Table 18. The significant interaction between role-taking condition and order of role-taking instructions for the proportion of affirmations measure ($F=5.98$, d.f.=1, 66; $p<.05$) results from the fact that the over-all significant tendency for a larger proportion of affirmations in the subjects' own role ($F=7.01$;

Table 16

Analyses of Variance for Four Measures of Formal

Characteristics Of Communication Taken

With the Subject As the Unit

A. Sex Being One of the Variables

Source	d.f.	Average Words Per Utterance F	# of Affir- mations Total Words F	# of Inter- rptions Utterances F	# of "you"s Total Words F
Between Subjects					
Degree of Conviction (A)	2	1.97	.68	.66	2.13
Sex (B)	1	2.45	1.13	.297	1.98
AB interaction	2	2.19	.22	2.18	.98
S/AB	66				
Within Subjects					
Role-taking Condition (C)	1	.41	7.00*	.16	5.59
AC interaction	2	.63	1.22	.003	.38
BC interaction	1	.34	.81	.19	.31
ABC interaction	2	1.10	3.17	1.70	.90
S/ABC	66				

* p<.05

Table 17
 Mean Proportion of One Word Affirmations As
 a Function of Degree of Conviction,
 Role-taking Condition, and Sex
 (Based on a Sample of 36 Dyads)

Role-taking Condition	Degree of Conviction						Over-all Mean for Role-taking Condition
	Low		Intermediate		High		
	M*	F**	M	F	M	F	
Own	26	77	65	75	85	62	65
Other	61	47	26	35	40	89	43
Over-all Mean for Degree of Conviction	43		50		69		
Over-all Mean for Sex	Males				Females		
	44				64		

* males

** females

*** The entries in the table are the number of one word affirmations per ten thousand words.

Table 18

Analyses of Variance for Four Measures of Formal
Characteristics of Communication Taken

With the Subject As the Unit:

B. Order of Role-taking Instructions Being One of the Variables

Source	d.f.	F	Average Words Per Utterance	# of Affir- mations <u>Total Words</u>	# of Inter- rptions <u>Utterances</u>	# of "you"s <u>Total Words</u>
Between Subjects						
Degree of Conviction (A)	2	1.92		.69	.63	2.11
Order of Role-taking Instructions(B)	1	3.36		2.26	.70	.18
AB interaction	2	.78		.22	.66	.56
S/AB	66					
Within Subjects						
Role-taking Condition (C)	1	.43		7.01 *	.18	6.10 *
AC interaction	2	.65		1.21	.003	.42
BC interaction	1	3.24		5.98 *	3.14	.71
ABC interaction	2	1.10		.61	4.92 *	3.65 *
S/ABC	66					

* p4.05

d.f.=1,66; $p < .05$) is contributed to almost exclusively by subjects who took their own role first; subjects who took the other's role first tended not to show a difference in proportion of affirmations in the two roles. This effect is illustrated in Table 19.

The over-all significant tendency for subjects to use "you" in a personal sense proportionately more often in their own role than in the other's role ($F=6.10$; d.f.=1,66 $p < .05$) is also complicated by interacting effects, this time of both order of role-taking instructions and degree of conviction ($F=3.65$; d.f.=2,66; $p < .05$). The resulting pattern, as illustrated in Table 20, is too complex to account for simply, although the large proportionate use of the word "you" by subjects of low conviction in the first conversation in which they took part when that conversation occurred in their own role contributes most heavily to the differences.

Finally for the proportion of interruptions measure there was a significant interaction between conviction, role-taking condition, and order of role-taking instructions ($F=4.92$; d.f.=1,66 $p < .05$). As seen in Table 21, this interaction resulted from the fact that for subjects of high conviction, those who took their own role first interrupted more in the role of the other than in their own role; while those who took the role of the other first, interrupted more in their own role than in the role of the other. In other words, subjects of high conviction interrupted more in the

Table 19
 Mean Proportion of One Word Affirmations Per
 Conversation As a Function of Role-taking
 Condition and Order of Role-taking
 Instructions
 (Based on a Sample of 36 Dyads)

Order of Role-taking Instructions	Role-taking Condition		Over-all mean for Order of Role-taking Instructions
	Own	Other	
Own first	89*	48	68
Other first	41	39	40
Over-all Mean for Role-taking Condition	65	43	

* The entries in the table are the number of one word affirmations per ten thousand words.

Table 20

Mean Proportion Per Conversation of the Word "You"
 Used in a Personal Sense As a Function of Degree
 of Conviction, Role-taking Condition
 and Order of Role-taking Instructions
 (Based on a Sample of 36 Dyads)

Degree of Conviction							Over-all Mean for Role-taking Condition
Low		Intermediate		High			
1 *	2 **	1	2	1	2		
Role-taking Condition							
Own	148 ***	56	51	80	71	76	80
Other	37	83	13	18	72	38	44
Over-all Mean for Degree of Conviction							
	81		41		64		
	Own first				Other first		
Over-all Mean for Order of Role-taking Instructions							
	65				59		

* Own first order of role-taking instructions

** Other first order of role-taking instructions

*** The entries in the table are the number of times the word "you" was used in a personal sense per ten thousand words.

Table 21

Mean Proportion of Utterances Begun with an Interruption
Per Conversation As a Function of Degree of
Conviction, Role-taking Condition, and
Order of Role-taking Instructions
(Based on a Sample of 36 Dyads)

	Degree of Conviction						Over-all Mean for Role-taking Condition
	Low		Inter- mediate		High		
	1*	2**	1	2	1	2	
Role-taking Condition							
Own	.255	.279	.225	.243	.202	.362	.261
Other	.275	.279	.209	.281	.342	.236	.270
Over-all Mean for Degree of Conviction	.272		.240		.286		
	Own first		Other first				
Over-all Mean for Order of Role-taking Instructions			.251		.280		

* Own first order of role-taking instructions

** Other first order of role-taking instructions

second conversation in which they took part then in the first, while subjects of low and intermediate conviction did not show this tendency.

Because of the reduced powers of the analyses of variance resulting from the need to exclude some subjects in order to obtain equal number of subjects in all cells and because the distributions of some of the formal characteristics are probably not normal, distribution-free tests (Friedman's test and the Sign test) were also conducted on these measures of formal characteristics. In this case, only degree of conviction, role-taking condition, and their interactions were considered. The results of these analyses are presented in Table 22. Only the results for the total number of words measure proved to be statistically significant. When subjects took their own role, they tended to use more words than when they took the role of the other ($p=1/10$; $p<.05$). This result also occurred in the analysis of variance tests. In addition subjects of high conviction tended to use more words than subjects of intermediate conviction; while subjects of low conviction used slightly less words than those of high, but more than those of intermediate conviction ($S=78$; $R=10$, $C=3$; $p<.05$). See Table 23 for the means of these groups.

Correlations of Formal Characteristics with Ratings

Although only the total word measure proved to differentiate subjects by degree of conviction, the means of all the measures were examined to see whether the v-shaped

Table 22
Distribution-free Analyses of Seven Measures
of Formal Characteristic of
Communication

Measure	Variable		
	Degree of Conviction(A)	Role-taking Condition (B)	Interaction of AB
	T.S.*	T.S.	T.S.
1. Total Words	78**	1/10**	0
2. Number of Utterances	26	2/10	6≤S≤8
3. Dominance	8	4/10	14
4. Average Words Per Utterance	96	8/20	32
5. Number of "you"s			
Total Words	56	8/20	2
6. Number of Interruptions Utterances	98	10/20	36
7. Number of Affirmations			
Total Words	38≤S≤50	8/20	8≤S≤24

* When there are three levels of a variable, the test statistic is Friedman's S; when there are two levels, it is the proportion of replications with untied scores in which the score on the first level of the variable is higher than the score on the second (for use of the Sign test).

**
p<.05

*** When there are ties in the ratings, the test statistic is computed in two ways, with ties resolved in a manner most and least conducive to rejection of the null hypothesis.

Table 23
 Mean Total Number of Words Per Conversation
 As a Function of Degree of Conviction
 And Role-taking Condition
 (Based on 58 Dyads)

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	945	921	1044	969
Other	862	814	975	883
Over-all Mean for Degree of Conviction	903	868	1009	

pattern of the ratings (with intermediate scores less than high or low) was repeated. These means appear in Tables 23 through 29. In those cases where this pattern or its reverse occurred, correlations with the ratings of communicative effectiveness were calculated using Pearson's r measure of correlation. The measures correlated were total number of words, proportion of utterances begun with an interruption, the number of times the word "you" was used in a personal sense as a proportion of the total number of words, and the number of one word affirmations as a proportion of the total number of words. When there were scores for both members of a dyad, as was the case for all measures correlated except total number of words, the two scores were added to obtain one pooled score for each dyad under each condition. The ratings for the members of each dyad were also pooled in this manner. This procedure made it easier to compute the correlations and seemed to be defensible due to the highly interactive quality of dyadic behavior.

The correlations between the ratings and formal measures are presented in Table 30. All five rating scales correlated significantly with the total number of words at beyond the .001 level of confidence. The strongest associations occurred with ratings of how much the subjects appeared to believe what they were saying ($r=.87$) and how well they developed and elaborated their positions ($r=.72$). How well subjects listened ($r=.69$) and how directly they responded to the other

Table 24
 Mean Number of Utterances Per Conversation
 As a Function of Degree of Conviction
 and Role-taking Condition
 (Based on 58 Dyads)

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	39.2	37.6	35.1	37.3
Other	32.4	31.2	33.2	32.3
Over-all Mean for Degree of Conviction	35.8	34.4	34.1	

Table 25
 Mean Absolute Difference in Number of Words
 By Members of a Dyad Per Conversation
 As a Function of Degree of Conviction
 and Role-taking Condition
 (Based on 58 Dyads)

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	145	227	213	195
Other	169	202	247	206
Over-all Mean for Degree of Conviction	157	215	230	

Table 26

Mean Per Conversation of the Average Number
of Words Per Utterance As a Function
of Degree of Conviction and
Role-taking Condition
(Based on 116 Subjects)

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	43	44	59	49
Other	38	40	50	43
Over-all Mean for Degree of Conviction	41	42	54	

Table 27

Mean Proportion Per Conversation of the Word "You"
 Used in a Personal Sense As a Function
 of Degree of Conviction and
 Role-taking Condition
 (Based on 116 Subjects)

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	86*	66	79	77
Other	67	43	64	58
Over-all Mean for Degree of Conviction	77	55	72	

* The entries in the table are the number of times the word "you" was used in a personal sense per ten thousand words.

Table 28
 Mean Proportion of Utterances Begun With an
 Interruption Per Conversation As a
 Function of Degree of Conviction
 and Role-taking Condition
 (Based on 116 Subjects)

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	.274	.237	.272	.261
Other	.251	.244	.278	.257
Over-all Mean for Degree of Conviction	.262	.240	.275	

Table 29
 Mean Proportion of One Word Affirmations Per
 Conversation As A Function of
 Degree of Conviction and
 Role-taking Condition
 (Based on 116 Subjects)

	Degree of Conviction			Over-all Mean for Role-taking Condition
	Low	Intermediate	High	
Role-taking Condition				
Own	39*	67	51	53
Other	28	35	46	36
Over-all Mean for Degree of Conviction	33	51	48	

* The entries in the table are the number of one word affirmations per ten thousand words.

Table 30

Correlations Between Selected Measures of Formal
Characteristics of Communication and Ratings
of Communicative Effectiveness

Formal Characteristics of Communication

Ratings of Communicative Effectiveness	Total Words	Number of "you"s Total Words	Number of Interruptions Utterances	Number of Affirmations Total Words
Scale 1	.87*	.12	.52*	-.21***
Scale 2	.72*	-.01	.37*	-.13
Scale 3	.69*	.09	.36*	-.02
Scale 4	.65*	.08	.32**	-.02
Scale 5	.49*	-.22***	.26**	-.02
Males only				
Scale 1		.24	.59*	-.25****
Scale 2		.14	.49*	-.15
Scale 3		.30***	.43**	-.03
Scale 4		.30***	.39**	-.01
Scale 5		-.14	.37**	.04
Females only				
Scale 1		-.09	.37**	-.14
Scale 2		-.25****	.22	-.08
Scale 3		-.23	.26****	.05
Scale 4		-.21	.25****	-.06
Scale 5		-.40**	.09	-.02

*p<.001

**p<.01

***p<.05

****p<.10

($r=.65$) were also highly correlated with total number of words. The final scale, measuring how closely the dyad's conversation related to the statement, achieved a correlation of .49 with the total number of words. All these correlations were in the positive direction.

The measure of proportion of interruptions was also positively correlated with ratings of communicative effectiveness. How much subjects appeared to believe what they were saying ($r=.52$), how well they developed and elaborated their position ($r=.37$), and how well they listened ($r=.36$) all tended to covary with the proportion of interruptions at beyond the .001 level of confidence. The correlations between the proportion of interruptions and ratings of how directly the subjects responded to their partners ($r=.32$) and how directly their conversation related to the statements ($r=.26$) were smaller, but significant at the .01 level. The correlations were also computed for males and females separately and those for males were higher in all cases ($r=.59$, $p<.001$ for males vs. $r=.37$, $p<.01$ for females on scale 1; $r=.49$, $p<.001$ for males vs. $r=.22$, $p>.10$ for females on scale 2; $r=.43$, $p<.01$ for males vs. $r=.26$, $p<.10$ for females on scale 3; $r=.39$, $p<.01$ for males vs. $r=.25$, $p>.10$ for females on scale 4; and $r=.37$, $p<.01$ for males vs. $r=.09$, $p>.10$ for females on scale 5). All the correlations were significant for males at the .01 level or beyond, while for females only ratings of how much they appeared to believe what they were saying correlated

with the proportions of interruptions at beyond the .05 level, with ratings of listening and responding directly approaching this level.

In the case of the proportionate use of the word "you" in a personal sense, the only correlation that was significant when computed for the entire sample was a small but significantly negative one between use of "you" and how directly the dyads' conversation related to the statement ($r = -.22$, $p < .05$). Greater use of "you" was associated with conversation less directly related to the statement.

When the sample was separated into males and females, this correlation remained negative, but insignificantly so for the males ($r = -.14$, $p > .10$), while it became stronger for the females ($r = -.40$, $p < .01$). For females, ratings on the other scales were negatively correlated with use of "you", but none of these correlations were significant ($r = -.09$ for scale 1, $r = -.25$ for scale 2, $r = -.23$ for scale 3, $r = -.21$ for scale 4, all with $p > .10$). For males on the other hand, use of "you" tended to be positively correlated with the other scales of communicative effectiveness, with two significantly so. Greater use of "you" by males was associated with ratings of better listening ($r = .30$, $p < .05$) and more direct answering of the other ($r = .30$, $p < .05$). The correlations for scale 1 ($r = .24$, $p > .10$) and scale 2 ($r = .14$, $p > .10$) were not significant.

The correlations between the number of one word affirmations taken as a proportion of the total number of words

and the ratings of communicative effectiveness were small and generally in a negative direction. The correlation with scale 1 was the only one to reach statistical significance ($r = -.21$, $p < .05$); greater use of one word affirmations was associated with subjects' appearing to believe less strongly what they said. Separate analyses for males and females indicated that this effect is stronger for males ($r = -.25$, $p > .10$) than for females ($r = -.14$, $p > .10$), although in neither case is the correlation significant at the .05 level of confidence with the smaller number of subjects involved in the separate analyses.

C H A P T E R IV

DISCUSSION

Ratings of Communicative Effectiveness

Interpretation of the results from the ratings of communicative effectiveness must be made with considerable caution. The reliability of the ratings on the scale measuring development of the argument was very good, while agreement on amount of sincerity and relevance to the issues were also quite high. This is consistent with the fact that the raters were accustomed to making such judgements in speech classes and debates. However, the agreement on the scales of listening and responding directly was lower; these are scales of the more interactive features that are unique to two-way communication. Listening would have probably been a great deal easier to judge if the raters could have seen as well as heard the subjects.

Another consideration in regard to reliability and validity is that the raters were asked to make five different subjective judgements about a conversation within a few minutes. Under the circumstances, one might expect some "halo effect" (Cronbach, 1960, p. 508). In particular, the raters might have found it difficult to keep their over-all impression of the person or the conversation from influencing their ratings on specific scales. It seems most likely that with the raters' background and in light of the reliability

findings the most salient over-all impression would be the adequacy of the individual's argument in terms of content and presentation.

This effect would act to minimize any differences in the manner in which the different rated attributes relate to degree of conviction and role-taking condition. Similarly, it would exaggerate the apparent tendency for all scales to tap an underlying common dimension.

With this caveat in mind, it can be stated that subjects discussing a statement about which they had intermediate conviction were rated as presenting their roles less adequately and apprehending and responding to the other's role less well than subjects of either high or low conviction. They were less convincing both in terms of their sincerity and in the arguments they used. They were judged to listen to the other person less well and to respond to his arguments less directly.

It should be stressed that while there is a tendency for the inferiority of the intermediate conviction subjects to be greater in the conversation in which they took the role of the other, such inferiority was confined to the role of the other in the case of only one of the five scales. This was the scale considered to measure the maintenance aspects of role-taking. When intermediate conviction subjects took their own role, their conversation tended to relate to the statement as closely as the conversations of high or low conviction subjects; they tended to wander more from the

statement than high or low subjects only when they were required to take the role of the other. However, the other ratings of their effectiveness tended to be lower whether they took their own role or the role of the other. They were rated poorer than the high or low subjects in developing their own point of view as well as that of the other; they sounded less sincere in arguing their own side as well as the opposite side; they listened less well and answered less directly even when it was their own side that was being argued by the other.

Thus the poorer performance of intermediate conviction subjects cannot be attributed solely to an inability to take the role of the other. Rather the relative difficulty they had seems to be a result of being less able to differentiate, contrast, and coordinate both points of view.

The intermediate conviction subjects' lower level of performance is directly opposite to what was predicted from considerations of need involvement and belief characteristics. From Schachtel's theory the hypothesis was made that subjects of high conviction would have a harder time being objective and seeing both sides of a question because of the stated high importance of the issue to them. Furthermore, it was hypothesized that the strength of the belief itself would also work against the quick, back-and-forth shifting between beliefs involved in role-taking. However, the ratings of characteristics of communication that reflect good role-taking indicate that

high conviction subjects do better than intermediate conviction subjects and about the same as low conviction subjects, with some scales being higher and some lower.

One possible explanation for the unexpected findings is that the "high conviction" subjects are better described as of intermediate conviction and that their needs are not greatly enough involved to interfere with their objectivity. While needs could doubtless be more strongly involved, many of the subjects in this condition assigned the highest possible score to how important the issue was to them. Furthermore, the issues discussed were likely to be highly relevant and immediate to their lives as students and young adults, touching as they did currently controversial questions about academic practices, sex roles, child-rearing, political activism, and the like.

Even if there were stronger support for the idea that high conviction subjects actually held intermediate conviction, the hypothesis would still be in serious trouble because of the good performance shown by subjects of low conviction. Since the low subjects do better than the intermediate subjects, the relatively low level of performance of intermediate subjects cannot be attributed to lack of motivation resulting from the issue discussed not being important enough to them. The good performance of low conviction subjects indicates that the task itself was sufficiently motivating for convincing role-taking even when the issue discussed was unimportant and the stand taken was doubtful to the subject.

The Schachtel hypothesis is obviously inadequate to account for the findings of this experiment. The theory may be incorrect. It is also possible, however, that some other factor counteracted or combined with the effects of need involvement to produce the lowered role-taking performance of subjects discussing a statement about which they had intermediate conviction. The most likely candidate for such a factor would seem to be the cognitive component of conviction. Perhaps stronger belief does not lead to greater rigidity but rather to greater flexibility in cognitive operations with the belief. In this case, the cognitive and affective components would not combine additively to determine quality of role-taking but in some more complex fashion.

An alternate account of the way the affective and cognitive components combine to influence role-taking can be derived from Festinger's theory of cognitive dissonance. In his early formulation of the theory (1957), Festinger theorized that two of the important factors influencing the amount of cognitive dissonance a person experiences after making a decision are the importance of the decision and the relative attractiveness of the two alternatives.

Placing the present study into this framework, it can be seen that the subjects in filling out the questionnaire were required to make a decision about each statement whether to agree or disagree, knowing that there was a chance that

they would have to defend their decision in the second part of the experiment. In fact, it is generally the case when people discuss value issues that they take a stand on one side of the issue. The decision about which side to choose can be expected to result in dissonance when the person has some cognitions that are unfavorable to the side chosen or some cognitions that are favorable to the side not chosen.

The two factors described by Festinger as determining the degree of dissonance, importance of the decision and relative attractiveness of the chosen and unchosen alternatives, seem to be identical to what have been called in this study the affective and cognitive components of conviction respectively. When the subjects were asked "How important is this issue to you; how much do you care about it?", a measure was obtained of how important their decision to agree or disagree was to them. When the subjects were asked "How sure are you of the stand you have taken; how strongly do you believe it?", a measure was obtained of the "relative attractiveness of the unchosen alternative", in other words, of how much difference there was between their tendency to choose their final answer and the alternative.

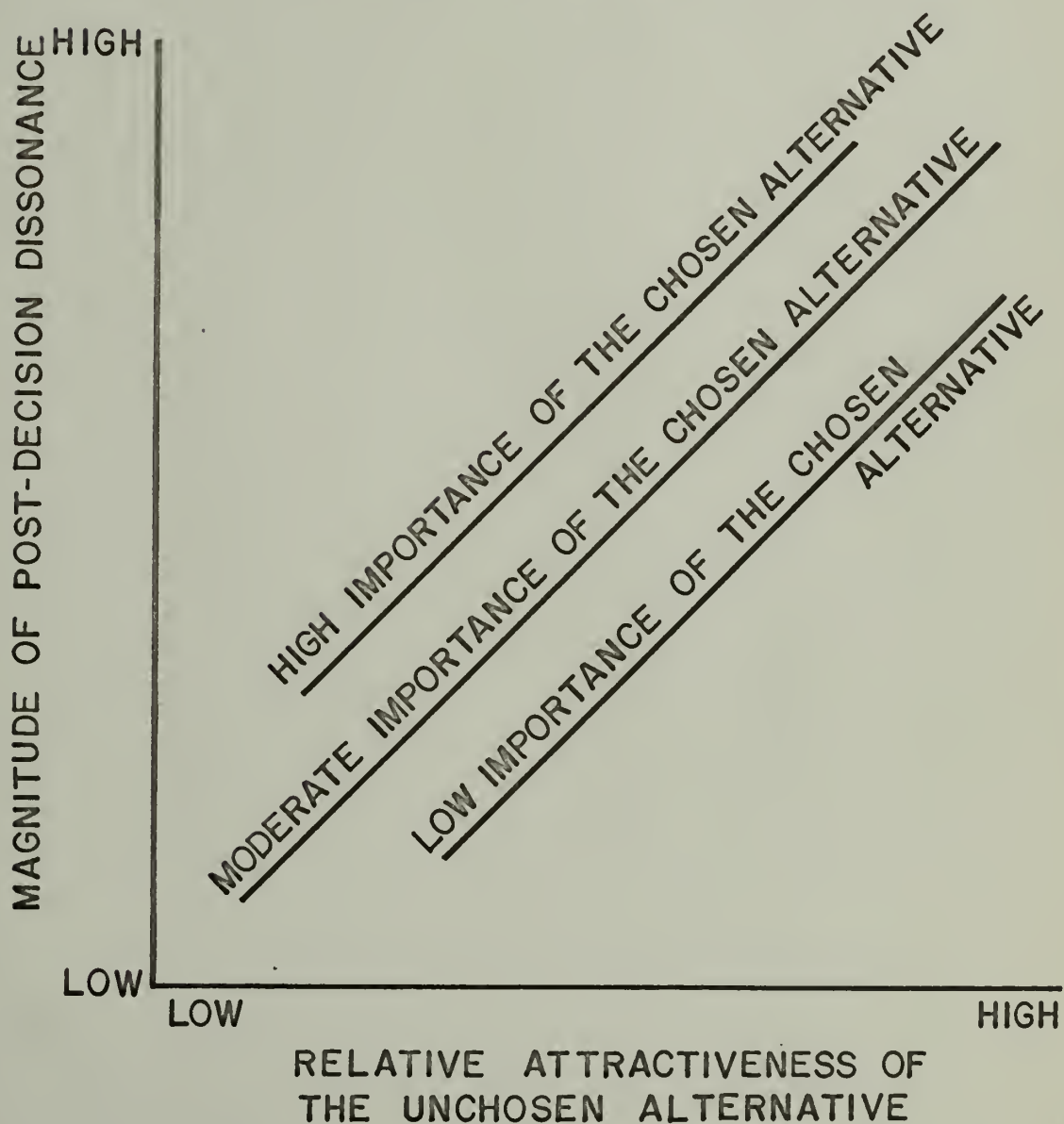
For the subjects showing high conviction, the importance of the decision was great and the attractiveness of the unchosen alternative was small relative to that of the chosen alternative. For subjects of intermediate conviction, these two factors were of moderate degree; and for subjects of low conviction,

the decision was very important and since they were not very sure of their stand, the attractiveness of the unchosen alternative was great relative to the attractiveness of the chosen alternative.

Figure 1 is Festinger's (1957, p.38) portrayal of the relationship he expects to hold between the amount of dissonance after a decision and the attractiveness of the unchosen alternative relative to the chosen alternative for different degrees of importance of the decision. Unfortunately, the relative amounts of dissonance to be expected for each of the groups in the current study cannot be unambiguously predicted from these theoretical curves. While it is assumed that the relative attractiveness of the unchosen alternative increases as cognitive dissonance decreases, there is no information on how much each of the groups differs from the others in the amount of this characteristic. The amount of dissonance as it appears in each of the groups could increase, decrease, remain the same, increase then decrease, or decrease then increase depending on how much they vary in relative attractiveness of the unchosen alternative.¹⁰ The only solution, of course, would be to remove the confounding of importance of the decision and relative attractiveness of the unchosen alternative by the inclusion of groups with one factor held constant as the other is allowed to vary.

¹⁰ Potential variations in slope, y-intercept, and shape of Festinger's theoretical curves for different degrees of importance of the decision further complicate the picture.

FIGURE 1: THEORETICAL MAGNITUDE OF POST-
-DECISION DISSONANCE AS A FUNCTION
OF RELATIVE ATTRACTIVENESS OF THE
UNCHOSEN ALTERNATIVE AND IMPORT-
-ANCE OF THE CHOSEN ALTERNATIVE
(AFTER FESTINGER, 1957, P. 38)



For the heuristic value, however, let us pursue the possibility that the relationship between degree of importance of the decision and relative attractiveness of the unchosen alternative are such that the subjects of intermediate conviction would experience the greatest amount of cognitive dissonance. Then the lowered ability to differentiate, contrast, and coordinate roles in their communication could be considered a result of this greater amount of dissonance.

Theoretically, dissonance could interfere with effective role-taking and communication in one of the two ways: by creating a state of arousal which would disrupt complex cognitive operations or by leading to competing responses which have the goal of reducing dissonance. The hypothesis that dissonance has motivational properties including a general arousal component in the terms used by Hull and Spence has not received a great deal of support. For example, Suedfeld and Epstein (1971) were not able to demonstrate that dissonant subjects had the lower level of performance on complex tasks and higher level of performance on simple tasks predicted by a general arousal view of dissonance.

The hypothesis that dissonance interferes with communication by leading to competing responses to reduce dissonance seems somewhat more likely. Of the fairly large number of types of responses cited as reducing dissonance (e.g., Steiner, 1968; Hardyck & Kardush, 1968), several appear apt to occur in the conversation setting of this study.

One is the response of avoidance, simply not thinking about the dissonance-producing cognition. This would be shown by a reduced amount of interaction, as indeed occurred in the intermediate conviction group. Another method of avoidance of the dissonance-producing cognition is to attend only minimally to the other's persuasive attempts.

The evidence for the "selective exposure hypothesis", i.e., that dissonant subjects prefer supportive to non-supportive information, has been very contradictory (Sears, 1968). However, Brock & Balloun (1967) do find that during the time of exposure to information subjects for whom the information is dissonant are less attentive, as shown by their making less effort to clear up static interfering with auditory reception of the information. In the present study, such lowered attention may be reflected in lower ratings of listening, which again occurred more often in the intermediate group.

Another mode of dissonance reduction which would interfere with effective communication is the distortion of the content of the cognitions which are dissonant (Hardyck & Kardush, 1968, p. 685). Such distortion might lead to the wandering from the subject which occurred more frequently in intermediate subjects taking the role of the other. A related mechanism is to minimize the importance of the dissonance, as illustrated in the following example taken from a conversation by subjects of intermediate conviction:

It's one of these things that's rather hard to answer either way. I think we're both sort of in the middle of it.

The modes of dissonance reduction described thus far appear to all interfere with taking the role of the other by decreasing the even, reciprocal flow of interaction. Another category described by Hardyck & Kardush, (1968) involves "restructuring" including,

increasing the complexity of cognitions concerning the two cognitions in the dissonant relationship and..... adding more consonant cognitions or making salient consonant cognitions already present in the cognitive structure, and... reshuffling the connections between cognitions so that dissonant relationships are seen as irrelevant relationships and consonant cognitions are brought together (p. 685).

Restructuring would appear to increase the behaviors of active interchange that go with good role-taking. However, Hardyck & Kardush (1968) theorize that restructuring is the least likely mode of dissonance reduction because it is the most difficult and it diminishes, but does not eliminate dissonance.

One of the findings of the study may have implications for the concept of dissonance reduction through restructuring. Intermediate subjects were judged to answer the other less directly than high or low subjects in the first conversation in which they took part. However, their inferiority had decreased markedly by the second conversation. The same pattern occurred with the other scales though not significantly. Perhaps subjects were somewhat successful in reducing dissonance

by restructuring their ideas as they spoke with one another so that by the second conversation they had less dissonance to reduce by means which interfere with effective communication.

To summarize, it is hypothesized that the mediating link between intermediate conviction and relatively low levels of communicative effectiveness in this study is cognitive dissonance and the resulting behaviors designed to reduce it.

Formal Characteristics of Communication

Before looking more closely at some of the formal characteristics of the communication, a word should be said about the relationship between them and the ratings. The safest terms in which to think of the correlations is that they measure the extent to which variations in these characteristics accompany variations in the judged effectiveness of the conversations. These two sets of measures cannot be considered completely independent since each of the formal characteristics was part of the total experience from which the raters made their judgements.

It cannot therefore be stated with certainty whether any observed correlation between the two sets of measures results because there is a common underlying dimension or because the raters deduce effective communication from the existence of the characteristics in question. However, it appears very unlikely that the decision of the raters would be made solely on the basis of formal characteristics. People

generally are more attentive to the content than the form of communication, as can be seen from the typical lack of awareness of speech disturbances unless they are severe. Furthermore, the second and fifth scales in particular focus attention on content.

The findings on the measure of total number of words were fairly straightforward. Subjects said more in their own role than in the role of the other. Furthermore, subjects of high and low conviction said more than subjects of intermediate conviction. Judgements of the communicative effectiveness of the dyad, particularly in regard to sincerity and development of position, were very highly correlated with amount said. Since this measure was of the amount said during the allotted time, it is better considered as rate or "free-flowingness" of conversation rather than as a measure of how much subjects would have said if they talked until they had no more to say. Without a time limit, a few subjects would probably have said more and a majority of them would probably have said less than they actually did (since the silence was usually uncomfortable). With the time limit and all it meant to them, however, dyads which spoke more during the time were judged to sound more sincere, to use better arguments, and generally to communicate more effectively.

These results are reminiscent of the high correlations that have often been found between the amount said by a member of a leaderless discussion group and ratings of such

characteristics as quality of ideas and guidance of the group (Bales, 1953; Norfleet, 1948; Bass, 1949). While these studies were of larger groups than dyads, Strodbeck (1951) found that in husband-wife dyads the more a spouse spoke in a decision-making task, the more likely was his opinion to be accepted as the dyad's decision. It should be noted that the current study differs from those described above in that the variable of interest is the amount of interaction in the dyad as a whole, not the amount produced by one member relative to the other(s). Taken together, however, they suggest that the quantity of interaction in a group does provide a good estimate of the quality of that interaction.

The measure of the number of utterances is another measure of amount of interaction, but it was somewhat more equivocal in its implications in regard to communicative effectiveness. There were significantly more utterances in the own than in the other role, but the differences depending on degree of conviction were not significant and did not follow the pattern of the other measures with intermediate conviction being the lowest. The number of utterances measure is probably too multiply-determined by the number of one word affirmations, the number of interruptions, and the interaction of their effects to predict effectiveness in a simple direct relationship as total number of words does.

An important factor in the relationship between amount

of interaction and effectiveness may be the contribution of interruptions. Although the main effects of role-taking and degree of conviction were not significant for the interruptions measure, there is a strong tendency for conversations rated more sincere and having better arguments to contain more interruptions. In fact, more interruptions were even associated with ratings of better listening. This finding is less surprising when one realizes that many of the interruptions were of the "yes, but..." variety in which the interrupter's utterance is directly related to what is interrupted and uses it as a springboard for an objection or counterpoint. This type of interruption seems likely to have the effect of juxtaposing the two roles, heightening the contrast, and providing the opportunity for each to come to terms with the other. It thus may be the means of turning quantity into quality.

The measure of the number of times the word "you" was used in a personal sense yielded some confusing findings. Behind the over-all greater use of "you" in the own than other role was the interacting effect of degree of conviction and which role was taken first. Furthermore, this was the only measure of the four tested which did not show the same pattern of relationship for men and women on all five scales. The ratings of listening and answering directly in men were associated with greater use of "you"; for women, however, all the scales tended to show lower ratings with greater use

of "you". The one scale where men and women showed the same pattern was the one measuring how directly the conversation related to the statement discussed: greater use of "you" was associated with the conversation's being less closely related to the statement, markedly so for women.

This confusing picture may result from the fact that the "you" measure contains at least three different kinds of responses, only one of which would intuitively seem to reflect high level role-taking. In some cases, "you" was used after a long uncomfortable silence as a way to reactivate the conversation. For example, two subjects discussing the statement, "Every family should have a definite system of rules", could find little to say. After a long pause, one asked, "Did your family have rules?" In other situations such a question might have been for the purpose of determining more about the other's role; here it seemed to serve more to end the silence since the answer was not then used to form a response.

A second kind of use of "you" occurred when the conversation was in trouble, when one member was confused or when one did not understand the other. Such a use took place as follows in one conversation with a high score for use of "you":

1. Am I saying there are rules or aren't rules?
2. Yeh, at the moment you're disagreeing with the question.
1. Oh, okay.
2. What you're doing, no.....
1. (interrupting) Well, it's
2. You're agreeing with the way it's written here. You're saying....

This type of use of "you" may be the type that is associated with lack of direct relationship to the statement discussed. In these cases, the role-taking is of the most elementary form concerned with determining what the roles are rather than with subtleties of role characteristics.

The third type of use of "you" occurs when one person is getting and using information about the other person that will make an argument convincing to him personally. This seems to be the epitome of good role-taking. A good example occurred when one young man tried to convince his partner that the relationship between parents and adolescents is not good today (which happened not to be his own role). His partner wore a moustache and longish hair and had already mentioned that he lived with his mother who was divorced. The first subject argued:

Like, you probably had all kinds of hassles with your mother about your long hair or growing a moustache or-- if she's seen it yet, you know--or like the way you dress or the kids you hang around with or if you smoke dope, you know....

It may be that this is the type of use of "you" which was associated with ratings of good listening and direct responding in men. A complicating factor here is that there may be social taboos, especially among women, against asking and speaking directly about another's personal affairs the first time one meets him. In this case, this information can still be obtained and used, but more subtly without direct use of the word "you".

These considerations are, of course, highly speculative. To test them, the conversations would have to be examined again with the distinctions made between the types of "you". One criterion would be to count only "you"'s which have reference to the other's life outside the conversation. This would eliminate the uses reflecting confusion over role.

The number of one word affirmations proved to be a complex, multiply determined measure that varied with different combinations of sex, role-taking condition, degree of conviction, and which role was taken first. The very slight correlations with the ratings suggest that, for the most part, it reflects other factors than adequacy of role-taking. One interesting finding with this measure was that the greatest number of one word affirmations occurred in the conversations in which subjects were taking their own role and the conversation was the first. Because of the nature of the instructions, this was the only conversation condition in which subjects had not yet had their attention drawn to the fact that seeing the other person's point of view was an important part of the experiment. Another finding was that there was a small but significant tendency for conversations with a large number of one word affirmations to be judged as sounding less sincere.

As with the number of "you"'s measure, more complete understanding of the role of the one word affirmation in communication awaits finer discriminations, in this case, contrast with affirmations of more than one word (e.g., the

"yes, but..." variety). It may be that the affirmation which is not expanded upon is a sign of polite boredom, a minimal investment in keeping the conversation going.

The two final measures of formal characteristics, dominance and average number of words per utterance, did not prove useful in differentiating conditions or in predicting communicative effectiveness. Qualitative impressions of the conversations suggest that the average number of words per utterance taken over the six minute conversation is too gross a measure. Breaking the six minutes into smaller intervals and looking at the average number of words in each interval might be more productive. A frequent pattern in conversations with high ratings of communicative effectiveness, especially in the high conviction condition, was for an exchange of several relatively long utterances followed by shorter ones. This pattern parallels the usual debate procedure. It might be contrasted with that of utterances of intermediate length throughout the conversation.

The absolute difference in number of words by each member of the dyad did not differ significantly under different conditions and there was no indication that it was predictive of communicative effectiveness within the dyad.

In summary then, the picture of an effective conversation that developed from analyses of the formal characteristics considered in this study was one in which there was a great deal of interaction and frequent interruption. When men were

conversing, a larger proportion of personal references to the other tended to go with better listening and more direct answering; while for both men and women, a smaller proportion of personal references tended to occur in conversations that were more closely related to the statement discussed. Finally, there was a tendency for there to be fewer short interjections of assent (e.g., "mhm") in conversations judged to sound more sincere.

Implications for Further Research

This study had made a beginning at investigating how taking the role of the other is reflected in free communication about value issues, and in turn how taking the role of the other is influenced by the degree of conviction of the conversants. While the method itself shows promise, there are several improvements that should be made in future studies. Refinements in the formal measures have been suggested above. Further work also needs to be done on the method of rating itself. It might be helpful to have video as well as audio reproduction of the conversations. This would bring a whole new collection of attentional responses into the purview of the raters and would be especially valuable for consideration of the listening and generally receptive part of determining the role of the other.

Evidence also needs to be obtained on whether reliability of ratings is improved with a transcript as well as the tape or whether one is sufficient. Finally, the validity of the ratings should be examined. External criteria for such studies

could be found in independent measures of the subjects' recall and understanding of what the other said.

C H A P T E R V

SUMMARY

Fifty-eight dyads of college students were asked to discuss a controversial issue about which they disagreed, each trying to persuade the other of one side of the issue on one conversation and the opposite side in a second conversation. Half of the dyads took their own point of view first and half took the other's point of view first. Ratings of their communicative effectiveness indicated that those dyads who had previously indicated that they had an intermediate degree of conviction about their opinion were less effective than dyads professing high or low conviction. These findings were interpreted as a result of the relatively high level of cognitive dissonance on the part of intermediate conviction subjects.

Correlations between the ratings of communicative effectiveness and formal characteristics of communication indicated that the conversations that were judged most effective had more words, more interruptions, and fewer one word interjections of assent. Among men, conversations showing good listening contained more personal references to the other; but among both men and women, conversations more relevant to the issue contained fewer personal references to the other.

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APPENDIX A

Attitude Questionnaire

The following is a list of statements in regard to various issues. For each one, state whether you agree or disagree. Then rate on a scale from 1 to 7 by circling the appropriate number:

1. How important is this issue to you; how much do you care about it?
2. How sure are you of the stand you have taken; how strongly do you believe it?

Low numbers on the scale will represent caring little and not being very certain. Don't try necessarily to be consistent from one item to the next. Just answer each according to how you think and feel about that item.

1. If the lecturer is good, classes are better when there is a lecture than a discussion.

agree___ disagree___ How important is the issue, how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

How sure are you of your stand;
how strongly do you believe it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

2. You get a better education at a large university than at a small liberal arts school.

agree___ disagree___ How important is the issue; how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

How sure are you of your stand;
how strongly do you believe it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

APPENDIX A, Continued

3. There should be no required courses.

agree___ disagree___ How important is this issue; how much do you care about it?

1 2 3 4 5 6 7
very very
unimportant important

How sure are you of your stand;
how strongly do you believe it?

1 2 3 4 5 6 7
very very
unsure sure

4. There should be no entrance requirements to colleges.

agree___ disagree___ How important is the issue; how much do you care about it?

1 2 3 4 5 6 7
very very
unimportant important

How sure are you of your stand;
how strongly do you believe it?

1 2 3 4 5 6 7
very very
unsure sure

5. Exams are worthless.

agree___ disagree___ How important is the issue; how much do you care about it?

1 2 3 4 5 6 7
very very
unimportant important

How sure are you of your stand;
how strongly do you believe it?

1 2 3 4 5 6 7
very very
unsure sure

APPENDIX A, Continued

6. In college courses, it's more important to prepare for a career than to develop attitudes about life.

agree___ disagree___ How important is the issue; how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

7. A man should be the major bread winner in a family.

agree___ disagree___ How important is the issue; how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

8. Most teenagers have little respect for adults.

agree___ disagree___ How important is the issue; how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

APPENDIX A, Continued

9. A mother shouldn't work at least until her children are in school.

agree___ disagree___ How important is the issue; how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

10. Every family should have a definite system of rules.

agree___ disagree___ How important is the issue; how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

11. Most people over thirty aren't really aware of the social problems of today.

agree___ disagree___ How important is the issue; how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

APPENDIX A, Continued

12. A child without brothers and sisters is at a distinct disadvantage in learning to get along with others.

agree___ disagree___ How important is the issue; how much do you care about it?

1	2	3	4	5	6	7
very						very
unimportant						important

How sure are you of your stand;
how strongly do you believe it?

1	2	3	4	5	6	7
very						very
unsure						sure

13. People should try very hard to make a marriage work before resorting to divorce.

agree___ disagree___ How important is the issue; how much do you care about it?

1	2	3	4	5	6	7
very						very
unimportant						important

How sure are you of your stand;
how strongly do you believe it?

1	2	3	4	5	6	7
very						very
unsure						sure

14. The way family life is set up in most American homes is outmoded.

agree___ disagree___ How important is the issue; how much do you care about it?

1	2	3	4	5	6	7
very						very
unimportant						important

How sure are you of your stand;
how strongly do you believe it?

1	2	3	4	5	6	7
very						very
unsure						sure

APPENDIX A, Continued

15. Living with a person before marrying him (or her) is a good idea.

agree___ disagree___ How important is the issue; how much do you care about it?

1	2	3	4	5	6	7
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

1	2	3	4	5	6	7
very						very
unsure						sure

16. In view of the population explosion, no family should have more than two children.

agree___ disagree___ How important is the issue; how much do you care about it?

1	2	3	4	5	6	7
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

1	2	3	4	5	6	7
very						very
unsure						sure

17. The women's liberation movement is a temporary fad.

agree___ disagree___ How important is the issue; how much do you care about it?

1	2	3	4	5	6	7
very						very
unimportant						important

How sure are you of your stand; how strongly do you believe it?

1	2	3	4	5	6	7
very						very
unsure						sure

APPENDIX A, Continued

18. Student demonstrations have the effect of leading people to be more sympathetic to the cause of the demonstration.

agree___ disagree___ How important is the issue; how much do you care about it?

1 2 3 4 5 6 7
very very
unimportant important

How sure are you of your stand;
how strongly do you believe it?

1 2 3 4 5 6 7
very very
unsure sure

19. Students have a better understanding than older people of the social and political problems in the United States today.

agree___ disagree___ How important is the issue; how much do you care about it?

1 2 3 4 5 6 7
very very
unimportant important

How sure are you of your stand;
how strongly do you believe it?

1 2 3 4 5 6 7
very very
unsure sure

20. In a political demonstration, such acts as refusing to move when asked by the police do more harm than good to the cause of the demonstration.

agree___ disagree___ How important is the issue; how much do you care about it?

1 2 3 4 5 6 7
very very
unimportant important

How sure are you of your stand;
how strongly do you believe it?

1 2 3 4 5 6 7
very very
unsure sure

APPENDIX A, Continued

21. In order to improve our society at all we must make major changes in our political institutions.

agree___ disagree___ How important is the issue; how much do you care about it?

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unimportant						important

<u>1</u>	2	3	4	5	6	<u>7</u>
very						very
unsure						sure

APPENDIX B

Questionnaire Scores For Each Subject On Each Item:

Whether He Agrees or Disagrees, Sum of Ratings of

Affective and Cognitive Components of

Conviction, and Whether Combined

Conviction IS High, Intermediate

or Low: 1 Males

Questionnaire Item

S#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	D 11 I	D 10 I	D 13 H	D 10 I	D 9 L	D 10 I	A 10 I	D 12 H	A 13 H	D 9 L	D 12 H	D 9 L	A 12 H	D 10 I	A 12 H	D 10 I	D 12 H	A 10 I	D 12 H	A 12 H	D 11 I
2	A 10 L	A 13 I	D 8 L	D 14 H	D 14 H	D 14 H	A 10 L	A 11 I	A 8 L	A 10 L	D 13 I	A 13 I	A 14 H	D 12 I	A 8* L	D 8 L	A 8 L	D 14 H	A 13 I	A 13 I	D 14 H
3	D 8 L	A 10 I	D 14 H	D 14 H	D 13 I	A 14 H	A 8 L	D 8 L	D 14 H	A 14 H	D 14 H	D 10 I	A 14 H	D 14 H	A 8 L	D 14 H	A 8 L	D 14 H	D 14 H	A 14 H	D 14 H
5	D 6 L	A 12 I	A 14 H	D 14 H	A 12 I	D 11 I	A 11 I	D 12 I	A 14 H	D 14 H	A 14 L	D 14 L	D 14 L	A 14 H	A 14 H	D 14 L	A 8 L	D 11 I	D 12 I	A 11 I	A 13 H
7	A 11 H	D 9 I	D 4 L	D 7 I	A 8 I	D 8 L	A 8 L	D 10 H	A 11 H	D 11 H	D 11 H	A 11 H	D 6 L	D 4 L	A 11 H	D 8 L	D 5 L	D 10 H	A 8 I	D 8 I	A 8 L
10	D 9 I	D 14 H	D 11 H	D 11 H	D 10 I	D 9 I	A 11 H	D 11 H	A 14 H	A 14 H	D 12 H	A 9 I	A 14 H	A 14 L	D 5 L	D 14 L	A 5 L	D 14 L	D 14 L	A 14 L	A 14 I
13	A 10 I	D 13 H	D 11 I	A 13 H	A 12 H	D 12 H	A 10 I	D 10 I	A 12 H	A 10 I	A 9 L	D 11 I	A 13 H	A 7 L	A 11 I	A 14 H	A 8 L	D 10 I	A 10 I	A 9 L	A 10 I
14	A 10 L	A 8 L	A 12 I	D 12 I	D 9 L	D 8 L	A 10 L	D 13 H	A 14 H	A 12 I	D 11 I	A 12 I	A 14 H	A 13 H	D 12 I	D 10 L	D 12 I	D 11 I	A 12 I	A 9 L	A 14 H

*The numbers which are crossed out are those for which the ratings of the two components of conviction were more than two integers different.

APPENDIX B, continued.

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
15	A 10 I	A 8 L	A 9 I	A 12 H	D 11 H	D 10 I	D 11 H	A 9 I	A 6 L	A 6 L	D 3 L	A 14 H	A 11 H	A 8 L	A 14 H	A 7 L	D 3 L	D 3 L	D 3 L	A 8 L	A 8 L
16	A 9 L	A 12 I	A 11 L	A 12 I	D 9 L	D 11 L	D 14 H	D 10 L	D 12 I	D 12 I	D 12 I	D 9 L	A 12 I	D 8 L	A 13 H	A 11 L	D 13 H	D 11 L	A 11 L	D 14 H	D 13 H
17	A 14 H	A 8 L	D 12 I	D 12 I	D 12 I	D 14 H	A 14 H	D 14 H	A 14 H	A 14 H	D 14 I	A 14 H	A 14 H	D 14 H	D 14 H	D 14 H	D 8 L	D 14 H	D 9 L	A 14 H	A 9 L
18	A 6 L	D 10 I	D 10 I	A 10 I	D 11 I	D 12 H	A 12 H	D 11 I	A 12 H	D 12 H	D 12 H	A 12 H	A 12 H	D 6 L	A 8 L	A 14 I	A 10 I	D 12 H	D 9 L	A 12 H	D 12 H
20	D 12 H	A 12 H	D 12 H	D 12 H	D 10 I	D 12 H	A 4 L	D 12 H	A 6 L	D 7 L	A 12 H	D 9 I	A 8 L	D 8 L	A 12 H	D 11 I	A 10 I	D 9 I	D 13 H	A 13 H	D 13 I
21	A 11 I	D 8 L	D 10 I	A 12 H	D 13 H	A 8 L	A 10 I	D 14 H	A 14 H	D 12 H	D 11 I	A 10 I	A 12 H	D 14 H	A 14 I	D 14 I	D 7 L	D 9 I	D 9 I	D 7 L	A 14 I
22	A 11 I	A 12 H	D 12 H	D 12 H	A 14 I	A 7 L	A 8 I	A 10 I	D 2 L	A 14 H	A 13 H	A 14 I	A 12 H	D 4 L	D 14 H	D 12 H	A 2 L	A 7 L	D 14 I	A 14 I	D 8 I
31	A 14 L	A 12 H	A 14 H	D 12 H	D 8 L	D 12 H	A 10 L	D 6 L	D 11 I	A 11 I	A 14 I	A 12 H	A 12 H	A 12 H	A 14 H	D 12 H	D 11 I	A 10 L	D 14 I	D 9 L	A 14 H
35	A 12 H	A 11 I	D 10 I	D 14 H	D 11 I	A 8 L	D 14 H	A 10 I	D 10 I	A 8 L	A 10 I	D 12 H	A 14 H	D 8 L	A 12 H	A 12 H	D 10 I	D 8 L	D 10 I	A 12 H	A 12 H
36	D 6 L	D 11 I	D 10 L	D 12 I	D 10 L	D 12 I	A 11 I	D 11 I	D 10 L	D 7 L	D 12 I	A 11 I	A 13 H	D 12 I	D 14 H	- -	A 8 L	D 10 L	D 12 I	A 14 H	D 13 H
38	A 10 I	A 13 H	A 14 L	A 14 H	D 8 I	D 14 H	D 14 L	D 14 L	A 8 I	D 8 I	D 14 H	D 12 H	A 14 L	D 6 L	A 7 I	D 6 L	D 12 H	A 14 L	D 6 L	D 6 L	A 14 H

APPENDIX B, continued,

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
39	A 13 I	D 8 L	A 14 H	A 14 H	A 14 H	A 12 I	D 14 H	D 14 L	D 14 H	D 12 I	A 12 I	D 8 L	A 11 L	A 14 H	A 14 H	A 14 H	D 14 H	D 12 I	A 13 I	D 13 I	A 14 H
41	A 6 L	D 10 L	D 11 I	D 12 I	A 11 I	D 13 H	D 14 H	D 12 I	D 14 H	A 14 H	D 11 I	D 8 L	D 12 I	D 12 I	A 14 H	D 14 H	D 10 L	A 10 L	A 11 I	D 3 L	A 11 I
43	D 10 I	D 12 H	A 7 I	A 13 H	A 12 H	A 5 L	D 5 L	D 6 L	D 6 L	A 11 H	A 2 L	A 10 I	A 11 H	D 10 I	A 5 L	A 11 H	A 11 H	A 11 H	A 7 I	D 13 H	A 12 H
45	D 14 H	D 14 H	D 12 I	D 12 I	D 11 I	D 12 I	A 14 H	D 11 I	A 8 L	D 11 I	D 14 H	A 14 H	A 9 L	A 10 L	A 13 H	A 14 H	A 9 L	A 6 L	D 11 I	A 11 I	D 10 L
47	A 11 I	D 10 I	A 12 H	D 9 I	D 11 I	D 8 L	A 9 I	D 12 H	A 5 L	D 11 I	A 5 L	D 14 H	A 13 H	D 7 L	A 11 I	D 12 H	A 10 I	D 6 L	D 9 I	D 11 I	D 7 L
50	D 10 L	A 7 L	D 11 I	A 14 H	D 10 L	D 12 I	D 7 L	D 11 I	A 14 H	D 7 L	A 11 I	A 12 I	A 13 H	D 9 L	A 14 H	D 14 H	D 11 I	D 14 H	A 10 L	A 14 H	A 12 I
52	A 12 H	A 10 I	D 11 H	D 12 H	D 12 H	D 12 H	D 12 H	D 10 I	A 12 H	D 12 H	D 12 H	A 10 I	A 4 L	D 10 I	A 12 H	D 12 H	D 12 H	A 12 H	A 10 I	D 12 H	A 12 H
53	A 11 L	A 14 H	D 12 I	D 14 H	D 13 H	D 12 I	A 13 H	D 14 H	A 12 I	A 14 H	A 12 I	A 12 I	A 12 I	D 12 I	D 12 I	A 13 H	D 6 L	D 12 I	D 12 I	A 14 H	-
54	A 8 L	A 10 I	A 11 L	D 14 H	A 10 L	D 14 H	A 8 L	D 12 H	A 12 H	D 8 L	D 8 L	D 7 L	A 11 I	D 11 I	A 14 H	A 14 H	D 9 I	D 11 I	D 10 I	D 11 I	A 14 H
55	A 7 I	D 7 I	D 6 L	A 6 L	D 8 I	D 11 H	A 7 I	D 7 I	A 8 I	D 9 H	D 9 H	D 6 L	A 5 L	A 10 H	A 4 L	A 10 H	D 7 I	A 7 I	A 6 L	D 8 I	A 14 H
56	D 6 L	A 11 I	A 13 H	D 10 L	A 14 H	D 14 H	A 3 L	A 12 H	A 8 L	D 10 L	A 11 I	D 5 L	A 11 I	A 12 H	A 4 L	A 14 H	A 11 I	D 12 H	A 11 I	D 12 H	D 11 I

APPENDIX 8, continued.

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
64	D 7 L	D 10 I	D 6 L	A 7 L	A 12 H	D 12 H	D 6 L	D 8 L	A 12 H	D 7 L	D 9 I	A Ø I	A 10 I	A 9 I	A 10 I	A 12 H	D 9 I	A 10 I	D 7 L	D 7 L	A 11 H
65	D 3 L	A 13 H	A 12 H	D 14 H	D 14 H	D 11 I	A 5 L	D 12 H	A 11 I	D 10 I	D Ø I	A 7 L	D 10 L	A Ø I	A 10 H	A 12 H	D 9 I	D 6 L	A 12 H	A 3 L	A Ø I
67	A 11 I	A 6 L	A 12 H	D 12 H	A 13 H	D 9 I	A 12 H	D 14 H	A 7 L	D 11 I	D 7 L	D 2 L	A 3 L	A 14 H	A 12 H	A 9 I	A 7 L	A 10 I	A 11 I	A 13 H	- - -
69	D 11 I	A Ø I	D 14 H	D 14 H	D 14 H	D 12 I	D 14 H	D 14 H	A Ø I	A 14 H	D 12 I	A 8 L	- 14 H	D 14 H	A 10 L	D 13 I	D 10 L	D 12 I	D 14 H	D 8 L	D 14 H
70	A 11 I	A 8 L	D 9 L	D 13 H	D 11 I	A Ø I	A 14 H	D 12 H	A 14 H	D 10 I	D 8 L	A Ø L	A 14 H	D 8 L	A 12 H	D Ø I	D 4 L	D 11 I	A 8 L	A 9 L	A 13 H
76	D 10 H	D 9 I	D 13 H	D 9 I	D 8 L	D 11 H	A 9 I	D 12 H	D 9 I	A 6 L	A 8½ I	D 7 L	A 9 I	D 6 L	- -	D 11 H	D 13 L	A 5 L	A 10 H	A Ø L	A 8 L
73	D 12 H	D 12 H	A 12 H	D 10 I	D 9 L	A Ø L	D Ø I	D 14 H	D 10 I	D 13 H	D Ø L	D 11 I	A 14 H	D Ø I	A 13 H	D Ø L	D 10 M	D 7 L	A Ø L	A 7 L	A 14 H
79	D 14 H	D 11 I	A 13 H	D 12 I	A Ø I	D 14 H	D 8 L	D 8 L	A 7 L	D 10 I	A Ø L	A 5 L	A 13 H	A 10 I	A Ø L	A Ø L	D 13 H	D Ø L	A 12 I	A Ø I	A 14 H
80	D 7 L	A 9 L	A 14 H	D 12 I	A 8 L	A Ø L	A 13 I	D 12 I	A 14 H	D 14 H	D 14 H	A 14 H	A Ø L	A 14 H	A 14 H	D 12 I	D 7 L	D 12 I	A 12 I	A 14 H	A 14 H
81	D 9 L	D 13 H	A 8 L	A 6 L	D 12 H	D Ø I	A 4 L	D 12 H	A 10 I	A 8 L	D Ø I	D Ø L	A Ø L	D 11 I	A Ø L	D Ø I	D 6 L	D 13 H	A 12 H	A Ø I	A Ø I
84	D 12 I	A 5 L	A 14 H	A 14 H	D 9 L	D 14 H	D 14 H	D 8 L	A Ø L	D 14 H	D 14 H	A 4 L	D 13 I	A 12 I	A 14 H	D 9 L	D Ø I	A 12 I	A Ø I	A 9 L	D 14 H

APPENDIX B, continued.

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
85	A 8 L	A 12 H	A 12 H	D 12 H	D 12 H	D 10 I	A 8 L	A 7 L	D 2 L	D 3 L	D 10 I	A 10 I	A 8 I	D 8 I	A 10 I	A 8 I	D 4 L	D 11 H	A 11 H	A 10 I	A 12 H
86	D 8 L	A 14 H	D 13 I	D 14 H	D 14 H	D 12 I	A 8 L	D 13 I	D 12 I	D 14 H	D 12 I	A 8 L	A 12 I	D 10 L	A 10 L	D 8 L	A 11 L	A 14 H	D 14 H	A 12 I	D 14 H
88	D 8 L	A 9 I	A 13 H	A 10 I	A 7 L	D 14 H	D 10 I	D 8 L	A 11 I	D 11 I	A 12 H	D 11 I	A 12 H	A 9 I	A 12 H	A 4 L	D 8 L	A 4 L	A 7 L	D 7 L	A 14 H
89	A 7 L	A 10 I	A 12 H	D 12 H	D 8 L	A 12 H	A 11 I	D 10 I	A 14 H	A 6 L	A 8 L	A 12 H	A 8 L	A 8 L	A 10 I	A 12 H	A 12 H	D 10 I	A 5 L	A 12 H	A 10 I
92	A 14 H	A 9 L	D 13 I	D 10 L	D 9 L	D 14 H	A 12 I	D 10 L	A 14 H	A 12 I	D 10 L	A 9 L	A 10 L	D 13 I	A 14 H	A 14 H	D 10 L	A 8 L	D 11 I	A 14 H	A 14 H
94	A 11 I	A 14 H	A 12 H	D 9 I	- 8 L	D 14 H	D 8 I	D 10 I	A 8 L	D 8 L	D 8 L	D 12 H	A 14 H	D 9 I	A 14 H	A 14 H	D 6 L	- - L	A 10 I	D 7 L	A 11 I
95	D 14 H	D 13 I	D 13 I	D 14 H	D 12 L	A 13 I	A 13 I	A 13 I	A 14 H	A 12 L	D 14 H	D 13 I	D 13 I	A 13 I	D 14 H	D 12 L	A 12 L	D 14 H	D 14 H	A 14 H	A 13 I
96	A 12 H	A 12 H	A 8 L	D 10 I	A 12 H	D 10 I	D 8 L	D 10 I	A 13 H	A 8 L	A 6 L	A 10 I	A 13 H	D 8 L	A 13 H	A 12 H	D 9 L	D 13 H	A 11 I	A 12 H	D 8 L
99	D 6 L	D 9 I	D 13 H	D 11 H	A 8 I	A 8 I	A 10 I	A 11 H	A 13 H	D 6 L	D 11 H	D 7 L	A 9 I	D 12 H	A 12 H	A 11 H	D 4 L	D 8 I	A 9 I	A 7 L	D 8 L
100	A 3 L	A 9 L	A 11 I	D 7 L	A 11 I	A 9 L	A 9 L	A 11 I	A 9 L	D 12 H	D 11 I	A 11 I	D 11 I	A 12 H	A 12 H	D 11 I	D 11 I	D 11 I	A 12 H	D 11 I	A 13 H
101	A 8 I	D 8 I	A 10 I	D 10 I	A 13 H	D 8 I	D 7 L	D 13 H	A 12 H	D 8 L	D 10 I	D 10 I	D 11 H	D 5 L	A 11 H	A 14 H	D 8 L	D 8 I	D 7 L	A 14 H	A 11 H

APPENDIX B, continued,

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
106	D 11 I	D 11 I	A 12 I	D 12 L	A 13 I	D 14 H	D 14 H	D 7 L	D 10 L	A 13 I	D 12 I	D 9 L	A 14 H	A 13 I	A 14 H	A 14 H	D 14 H	D 10 L	A 11 I	D 10 L	A 14 H
109	D 8 L	A 9 I	D 10 H	D 13 H	D 9 I	D 10 H	D 3 L	D 8 I	A 10 H	D 7 L	D 11 H	A 12 H	D 7 L	A 8 I	A 9 I	A 6 L	A 4 L	A 8 I	A 7 L	D 7 L	A 13 H
111	D 9 L	D 13 H	A 7 L	D 12 I	D 13 H	D 11 I	D 12 I	D 14 H	A 13 H	D 8 L	D 11 I	A 13 H	A 5 L	D 13 H	A 13 H	A 8 L	D 8 L	A 10 I	A 10 I	A 10 I	D 11 I
113	D 10 L	A 10 L	D 12 H	D 12 H	D 13 H	D 14 H	A 10 L	D 11 I	A 12 H	D 12 H	D 14 H	A 11 I	A 6 L	D 10 L	A 8 L	A 14 H	D 11 I	D 11 I	A 11 I	D 12 H	A 11 I
114	A 11 L	A 10 L	A 12 I	D 13 I	A 13 I	A 14 H	D 12 I	A 10 L	A 13 I	A 14 H	D 11 L	A 13 I	A 14 H	A 14 H	A 12 I	A 14 H	A 8 L	A 12 I	A 13 I	A 10 L	A 7 L
115	A 6 L	D 7 L	D 8 L	D 8 L	D 9 I	D 10 H	D 8 L	D 11 H	D 7 L	D 10 H	D 8 I	D 8 L	A 8 L	D 8 L	A 8 L	D 12 H	D 11 H	D 7 L	D 8 L	A 8 L	D 8 I
116	A 14 H	A 12 I	D 14 H	D 14 H	D 11 L	D 12 I	A 14 H	D 13 I	A 14 H	A 14 H	A 14 H	A 14 H	A 14 H	A 14 H	A 14 H	A 14 H	D 8 L	D 11 L	A 14 H	A 14 H	A 14 H
118	A 13 H	A 2 L	D 12 H	D 14 H	D 12 H	D 10 I	D 7 L	D 11 I	D 11 I	D 11 I	D 9 L	A 10 I	A 14 H	D 11 I	D 8 L	D 13 H	D 14 H	A 8 L	D 10 I	A 8 L	D 10 I
119	A 11 I	D 11 I	D 11 I	D 11 I	D 14 H	D 11 I	A 11 I	D 13 H	A 14 H	A 11 I	D 13 H	A 7 L	A 10 L	D 7 L	A 12 H	D 14 H	D 8 L	D 6 L	D 12 H	A 12 H	A 7 L
121	A 4 L	D 8 L	D 7 L	D 9 I	D 9 I	D 8 L	D 9 I	A 10 I	D 9 I	A 11 H	D 10 I	A 11 H	A 11 H	D 11 H	D 11 H	D 8 L	A 11 H	D 11 H	D 11 H	A 12 H	D 10 I
122	D 5 L	D 9 I	A 5 L	D 12 H	D 13 H	D 14 H	A 8 L	D 7 L	A 13 H	D 11 I	D 13 H	A 9 I	A 8 L	D 8 L	A 11 I	A 13 H	D 5 L	D 11 I	A 12 H	D 8 I	A 12 H

APPENDIX B, continued,

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
123	A 8 L	A 12 I	A 12 I	A 11 L	D 8 L	D 13 H	D 13 H	D 12 I	A 11 L	D 12 I	A 11 L	D 8 L	A 12 I	A 10 L	A 13 H	A 11 L	D 13 H	D 12 I	A 11 L	D 13 H	A 14 H
125	A 10 L	A 12 I	D 12 I	D 6 L	D 13 H	A 12 I	A 13 H	D 14 H	D 13 H	A 13 H	A 7 L	A 8 L	A 10 L	D 11 I	A 14 H	D 14 H	D 12 I	A 10 L	D 11 I	D 12 I	A 13 H
131	D 6 L	D 8 L	A 11 H	A 8 I	D 9 I	D 10 I	A 7 L	D 13 H	A 14 H	D 9 I	D 6 L	D 4 L	A 8 L	D 8 L	A 8 L	A 12 H	D 10 I	A 8 L	D 9 I	D 12 H	A 14 H
137	A 8 L	A 8 L	D 12 I	D 14 H	A 13 I	D 14 H	D 8 L	D 10 L	A 14 H	A 14 H	D 12 I	A 9 L	A 14 H	A 13 I	A 12 I	A 11 L	D 13 I	- 11 L	A 14 H	A 9 L	A 14 H
138	D 9 L	A 11 I	A 10 I	D 12 H	D 10 I	D 12 H	D 13 H	D 9 L	A 14 H	A 9 L	A 14 H	A 12 H	A 6 L	A 8 L	A 12 H	A 11 I	D 5 L	D 8 L	A 13 H	D 11 H	A 11 I
139	D 11 I	D 6 L	A 14 H	A 11 I	D 14 H	D 12 H	D 8 L	D 11 I	A 8 L	D 7 L	D 8 L	A 6 L	D 11 I	A 6 L	A 9 I	A 8 I	D 12 H	D 10 I	A 14 H	D 12 H	A 13 H
141	A 8 L	D 14 H	D 13 H	D 13 H	D 10 I	A 9 L	D 12 I	D 10 I	A 14 H	A 11 I	D 8 L	A 10 I	A 14 H	D 10 I	A 14 H	A 14 H	D 4 L	D 5 L	D 10 I	D 5 L	A 8 L
142	A 10 I	A 14 H	A 14 H	D 14 H	D 6 L	D 8 L	A 10 I	A 11 I	A 7 L	A 8 L	D 14 H	A 11 I	D 7 L	D 5 L	D 14 H	D 14 H	D 8 L	A 9 L	D 14 H	A 10 I	D 13 I
143	A 8 I	A 9 L	D 8 I	A 4 L	A 9 I	A 7 L	A 6 L	D 10 H	A 8 I	A 4 L	D 8 I	A 13 H	A 11 H	A 5 L	A 8 I	A 13 H	D 6 L	D 7 L	A 9 I	A 7 L	A 11 H
144	A 4 L	A 13 H	D 14 H	A 9 I	A 3 L	A 14 H	A 8 L	D 10 I	A 14 H	A 8 I	D 11 I	A 14 H	A 7 L	A 8 L	A 8 I	A 14 H	D 14 H	D 7 L	A 11 I	A 10 I	A 12 I
147	A 8 L	D 10 I	D 13 H	D 14 H	D 13 H	D 11 I	D 11 I	D 13 H	A 11 I	D 10 I	D 13 H	A 8 L	D 8 L	D 8 L	A 13 H	D 11 I	D 9 L	D 12 I	D 12 I	A 8 L	D 8 L

APPENDIX B, continued.

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
151	D 5 L	A 14 H	D 10 I	D 13 H	D 7 L	D 12 H	D 9 I	D Ø I	D 7 L	A 12 H	D Ø I	D 14 H	A 3 L	A 7 L	A Ø I	A 14 H	D 7 L	D 13 H	D Ø I	A 10 I	D 14 H
152	A Ø I	A Ø I	A 14 H	D 4 L	A 9 I	- - -	A 14 H	D Ø I	A 12 H	A 12 H	D Ø L	A Ø L	A 14 H	D 6 L	A 14 H	A 8 I	A Ø L	D Ø L	D Ø I	A Ø I	D 12 H
153	D 10 L	A 12 I	A 13 I	D 7 L	A 11 I	D 14 H	D 14 H	D 10 L	D 14 H	D 13 I	D 11 I	D Ø L	D 10 L	D 10 L	A 14 H	A 14 H	D 13 I	D 8 L	A 13 I	A 7 L	A 14 H
156	D 13 H	A 9 L	A 11 I	D Ø I	A 12 H	D 13 H	D 9 L	D 14 H	D 11 I	D 9 L	D 7 L	D 10 I	D 9 L	D 9 L	A 10 I	A 11 I	D 8 L	D 10 I	A 12 H	A 10 I	A 12 H
157	A 2 L	A 9 I	D 8 I	D 11 H	D Ø H	D Ø H	A 11 H	D Ø I	A 14 H	D Ø I	D 11 H	A Ø L	A 13 H	D 14 H	D 7 L	D Ø I	D Ø I	A 7 L	A Ø H	A Ø L	D 14 H
161	A 10 L	D 14 H	D 14 H	D 14 H	D 14 H	D 14 H	D Ø I	D 13 I	A 14 H	A 14 H	A 14 H	A Ø L	D 14 H	D 10 L	A 12 I	D Ø I	A 6 L	A 14 H	A 11 I	A 9 L	D 14 H
162	A 9 I	A 10 I	A 12 H	D 7 L	A 6 L	D 9 I	A 12 H	D 8 L	A 14 H	A 14 H	D 10 I	A 9 I	A 12 H	D 8 L	D 7 L	A 12 H	D 9 I	A 7 L	D 10 I	A 7 L	D 13 H
87	A 7 L	A 10 L	A 13 I	D 12 I	A 14 H	D 14 H	D 10 L	D 14 H	A 13 I	D 11 L	D 14 H	A 14 H	A 14 H	D 11 L	A 13 I	D 14 H	D 12 I	D 12 I	A 11 L	A 13 I	D Ø L

APPENDIX B, continued.

2. Females

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
23	A 12 H	D 6 L	D 14 H	D 10 I	D 6 L	D 11 H	A 8 I	D 10 I	A 14 H	A 6 L	D 12 H	A 8 I	A 8 I	D 10 I	A 6 L	A 14 H	D 4 L	D 9 I	D 10 I	A 11 H	A 8 I
24	A 8 I	D 6 L	A 8 I	A 8 I	D 8 I	D 10 H	A 8 I	D 8 I	A 10 H	D 10 H	D 10 H	D 10 H	D 8 I	D 6 L	D 10 H	D 12 H	D 8 I	D 8 I	D 8 I	A 8 I	A 8 I
25	A 6 L	D 10 I	A 11 I	D 10 I	A 12 H	D 12 H	D 14 H	D 10 I	D 14 H	D 10 I	D 11 I	D 8 L	D 9 L	A 10 I	A 10 I	A 12 H	A 12 H	D 11 I	D 7 L	A 8 L	A 12 H
26	D 12 H	D 5 L	D 8 I	D 2 L	D 12 H	A 9 I	A 8 I	D 8 I	A 14 H	A 14 H	D 8 I	D 10 L	A 8 L	D 11 I	D 14 H	D 12 H	A 2 L	D 8 I	D 6 L	A 8 I	-- -- --
27	D 10 L	A 12 I	A 13 H	A 10 L	A 13 H	D 14 H	A 7 L	D 14 H	D 12 I	D 10 L	D 12 I	D 10 L	A 14 H	D 10 L	A 12 I	A 14 H	D 8 L	A 12 I	A 13 H	DD 9 L	D 13 H
28	D 11 I	A 10 L	A 10 L	D 11 I	D 12 I	D 14 H	A 12 I	D 14 H	A 13 H	D 13 H	D 13 H	D 9 L	A 13 H	D 14 H	D 6 L	D 10 L	D 7 L	D 10 I	A 12 I	A 10 L	A 11 I
29	A 10 I	A 10 I	A 11 I	D 13 H	D 8 I	D 12 H	D 14 H	D 12 H	D 14 H	D 9 I	D 7 L	D 6 L	A 7 L	A 9 I	A 14 H	A 12 H	D 2 L	A 5 L	D 4 L	A 10 I	A 8 I
30	A 14 H	-- 12 H	D 9 I	D 13 H	D 9 I	D 10 H	D 4 L	D 9 I	D 9 I	A 6 L	D 8 I	A 4 L	A 11 H	D 8 I	D 8 I	A 8 I	D 8 I	D 7 L	A 10 H	A 8 I	A 8 I
32	A 14 H	A 11 I	D 13 I	A 8 L	D 10 I	D 14 H	D 12 I	D 8 L	A 14 H	A 10 I	A 8 I	A 8 L	A 14 H	A 13 I	A 4 L	A 14 H	D 6 L	D 8 L	A 8 I	A 6 L	A 14 H
33	D 6 L	D 9 I	D 11 H	D 8 I	A 12 H	D 9 I	D 10 I	D 11 H	D 10 I	A 7 L	D 6 L	D 7 L	D 6 L	A 6 L	A 13 H	A 13 H	D 8 I	D 10 I	A 7 L	D 8 L	A 12 H

APPENDIX B, continued.

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
34	D 13 I	A 11 L	D 11 L	A 14 H	D 14 H	D 9 L	D 13 I	D 14 H	A 13 I	A 14 H	D 12 I	A 14 H	A 14 H	D 14 L	A 14 H	D 14 H	D 14 H	D 13 I	D 11 L	D 12 I	A 13 I
37	D 13 I	D 10 L	A 13 I	A 14 H	D 12 I	D 14 H	A 14 H	D 8 L	D 14 H	A 12 I	D 11 L	A 13 I	A 14 H	D 14 H	D 14 H	A 14 H	D 7 L	D 11 L	A 7 L	A 10 L	D 13 I
4	D 14 H	D 11 I	A 10 I	D 13 H	A 11 I	D 14 H	D 13 H	D 14 H	D 12 I	D 14 H	D 10 I	D 6 L	A 14 H	D 9 L	D 3 L	D 8 L	A 7 L	D 12 I	D 8 L	A 12 I	A 8 L
6	D 8 L	D 13 I	D 12 H	D 9 L	D 10 L	D 13 H	D 12 I	D 10 L	D 14 H	D 12 I	A 14 H	D 11 I	A 11 I	A 11 I	A 14 H	A 14 H	D 11 I	A 12 I	A 11 I	A 10 L	D 12 I
8	A 13 H	D 7 L	D 9 H	D 7 L	D 12 H	D 7 L	A 12 H	A 8 I	A 11 H	A 11 I	D 11 I	D 7 L	A 12 H	D 7 L	A 10 H	D 11 I	A 11 L	D 11 I	D 11 I	A 11 I	D 11 L
11	A 7 L	A 4 L	D 12 H	D 9 I	D 11 H	A 12 H	A 9 I	D 9 I	D 12 H	A 10 I	A 11 H	D 11 I	A 11 L	D 11 I	A 9 I	A 14 H	D 13 H	D 6 L	A 7 L	A 4 L	A 11 H
12	D 11 I	A 10 I	D 11 L	D 12 H	D 9 L	D 14 H	D 12 H	D 8 L	A 11 I	A 10 I	D 8 L	A 11 I	A 9 L	A 12 H	A 13 H	A 14 H	D 12 H	A 8 L	D 10 I	D 8 L	A 10 I
19	A 7 L	D 12 I	D 11 I	A 14 H	D 13 H	D 12 I	D 14 H	D 11 I	D 8 L	A 7 L	D 8 L	A 7 L	A 14 H	D 12 I	A 11 I	A 14 H	D 12 I	D 12 I	D 9 L	A 12 I	A 13 H
40	D 8 L	D 11 L	A 11 I	D 11 L	A 12 I	D 13 H	D 13 H	D 8 L	D 12 I	D 12 I	D 12 I	A 11 L	A 14 H	D 12 I	A 14 H	A 10 I	D 13 H	D 11 L	A 14 H	D 7 L	A 14 H
42	D 8 L	A 12 I	D 8 L	D 9 L	A 14 H	D 12 I	D 12 I	A 8 L	A 14 H	A 10 I	D 12 I	A 14 H	A 14 H	A 10 I	A 14 H	D 13 H	A 4 L	D 8 L	A 10 I	A 10 I	A 8 L
44	A 4 L	D 11 L	D 6 L	D 5 L	D 11 L	D 14 H	A 8 L	D 9 I	A 8 L	A 11 I	A 12 H	A 11 L	A 11 I	A 12 H	A 14 H	A 14 H	A 11 I	D 10 I	A 13 H	A 11 I	A 13 H

APPENDIX B, continued.

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
46	-	D	A	D	D	D	D	D	A	D	D	D	A	A	A	A	A	D	A	A	A
	-	12	8	6	7	10	10	9	9	9	10	10	10	13	14	14	2	11	8	10	9
	-	H	L	L	L	I	I	L	L	L	I	I	I	H	H	H	L	H	L	I	L
48	A	D	A	A	A	D	D	D	A	D	A	D	A	A	A	A	D	A	A	D	A
	5	10	12	11	10	11	11	8	9	11	13	8	9	11	14	11	14	11	13	14	14
	L	L	H	I	L	I	I	L	L	I	H	L	L	I	H	I	H	I	H	H	H
49	A	D	A	A	D	D	D	A	A	D	D	A	A	A	A	A	D	D	A	D	A
	10	9	9	9	9	14	10	8	12	12	10	12	9	10	12	12	11	9	9	8	8
	I	I	I	I	I	H	I	L	H	H	I	H	I	I	H	H	H	I	L	L	L
51	A	A	D	A	A	D	A	D	D	A	D	D	A	D	A	D	A	D	D	D	A
	14	11	13	14	14	14	2	14	2	2	7	14	14	14	7	7	7	9	8	8	13
	H	I	I	H	H	H	L	H	L	L	L	H	H	H	L	L	L	I	I	I	I
57	D	A	D	D	D	D	A	D	A	D	D	A	A	D	A	A	D	D	A	A	D
	13	6	4	4	6	11	13	7	13	10	8	6	12	6	9	14	8	9	8	10	5
	H	L	L	L	L	H	H	I	H	I	I	L	H	L	I	H	I	I	I	I	L
58	D	A	A	D	D	D	D	D	A	A	A	A	A	D	D	D	A	D	A	A	A
	11	12	9	10	10	11	12	9	14	12	10	12	13	8	9	12	11	11	10	9	9
	I	H	L	I	I	I	H	L	H	H	I	H	H	L	L	H	I	I	I	L	L
59	A	A	A	D	A	D	A	A	A	D	D	A	A	A	D	D	D	D	D	D	A
	4	5	5	4	10	8	14	9	14	12	8	13	12	14	12	8	8	11	9	9	14
	L	L	L	L	I	L	H	I	H	I	L	H	I	H	I	L	L	I	I	I	H
60	A	D	D	D	D	D	D	D	A	D	D	A	A	D	A	D	D	A	A	A	A
	10	8	11	12	12	14	8	9	14	12	5	10	14	9	14	14	6	10	12	12	6
	I	L	I	I	I	H	L	L	H	I	L	I	H	L	H	H	L	I	I	I	L
61	A	A	D	D	D	D	D	D	D	D	D	A	A	D	D	A	D	D	D	A	A
	11	8	11	14	9	12	9	9	4	7	9	9	12	8	7	14	7	8	11	10	10
	H	L	H	H	I	H	I	I	L	L	L	I	H	L	L	H	L	L	L	I	I
62	A	A	A	D	D	D	A	D	D	D	D	D	D	A	A	D	D	A	A	D	A
	9	12	8	13	10	14	4	14	8	14	7	14	9	12	14	10	8	14	12	14	14
	L	I	L	I	I	H	L	H	L	H	L	H	L	I	H	I	L	H	I	H	H
63	A	D	D	A	D	D	D	D	D	D	D	D	A	D	A	D	D	D	D	D	A
	10	9	11	10	13	14	13	12	10	9	11	9	7	8	12	10	13	8	13	7	9
	I	L	I	I	H	H	H	H	I	L	I	L	L	L	H	I	H	L	H	L	L

APPENDIX B, continued

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
66	A 10 I	D 8 I	A 11 H	D 12 H	A 11 H	D 14 H	D 9 I	D 8 I	D 8 I	D 6 L	D 6 L	A 6 L	A 10 I	D 10 I	A 8 I	D 11 H	D 14 H	A 4 L	A 5 L	D 6 L	A 14 H
68	D 12 I	D 8 I	D 12 I	D 14 H	A 12 I	D 12 I	D 9 L	D 14 H	A 14 H	A 11 I	D 11 I	D 11 I	A 12 I	D 12 I	A 8 L	A 14 H	D 6 L	D 4 L	D 4 L	A 10 L	A 7 L
71	A 11 H	D 11 H	A 12 H	D 9 I	D 11 H	D 12 H	D 9 I	D 11 H	A 7 L	D 5 L	D 8 I	A 8 I	A 6 L	D 7 L	D 14 H	A 12 H	A 8 L	D 7 L	D 8 I	A 3 L	A 9 I
72	D 11 I	D 9 I	A 14 H	D 6 L	A 12 I	D 12 I	D 7 L	A 8 L	A 5 L	D 10 I	D 8 L	A 5 L	A 9 I	A 14 H	A 14 H	A 14 H	D 13 H	D 10 I	A 8 L	A 14 H	
74	A 7 L	D 9 I	D 12 H	D 10 I	D 10 I	A 10 I	D 9 I	D 12 H	A 8 L	D 5 L	D 9 I	D 7 L	A 12 H	D 7 L	A 14 H	A 12 H	D 8 L	D 7 L	D 9 I	A 8 L	A 12 H
75	D 11 I	D 8 L	D 9 L	A 13 H	A 8 L	D 11 H	D 13 H	D 11 I	D 14 H	D 12 I	D 10 I	D 8 L	A 13 H	A 8 L	A 14 H	D 8 L	D 14 H	D 8 L	A 9 L	D 12 I	A 13 H
82	A 8 L	A 13 H	D 7 L	D 12 H	D 9 L	D 11 I	D 9 L	A 11 I	A 11 I	A 14 H	D 11 I	A 11 I	A 13 H	A 11 I	A 14 H	D 11 I	A 7 L	D 14 H	A 10 L	A 14 H	D 6 L
83	D 5 L	A 11 H	D 14 H	D 9 H	D 6 I	D 12 H	A 11 H	D 14 H	A 13 H	A 8 I	D 13 I	A 9 H	D 9 H	D 6 I	D 8 I	D 7 I	D 8 I	D 2 L	D 4 L	D 4 L	A 5 L
90	- 10 L	A 12 I	D 10 L	D 11 L	A 12 I	D 12 I	D 12 I	D 14 H	A 14 H	D 13 I	D 13 I	D 8 L	A 14 H	D 11 L	A 13 I	A 14 H	D 8 L	- 12 =	A 12 I	A 14 H	A 13 I
91	A 10 L	D 10 L	A 12 H	D 9 L	D 9 L	D 13 H	A 12 H	D 11 I	A 12 H	D 6 L	A 11 I	D 7 L	A 14 H	A 11 I	A 14 H	D 11 I	D 9 L	D 11 I	A 12 H	D 11 I	A 12 H
77	D 10 L	A 10 L	A 13 I	D 10 L	D 9 L	D 14 H	D 12 I	D 12 I	A 12 I	D 12 I	D 14 H	D 10 L	A 12 I	D 12 I	A 14 H	A 14 H	D 14 H	A 14 H	A 12 I	A 14 H	A 14 H

APPENDIX B, continued.

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
93	D 9 L	A 5 L	A 13 H	A 12 H	D 12 H	D 14 H	D 14 H	D 9 L	D 9 L	D 10 I	D 10 I	A 10 I	A 10 I	A 10 I	A 13 H	A 11 I	D 12 H	D 10 I	A 11 I	A 8 L	A 11 I
97	D 9 I	A 6 L	A 9 I	D 9 I	D 8 L	D 11 H	A 10 I	D 12 H	A 10 I	A 10 I	D 12 H	A 12 H	A 12 H	D 6 L	D 10 I	A 12 H	A 7 L	D 10 I	D 7 L	A 7 L	D 6 L
98	A 8 L	A 9 I	A 12 H	D 12 H	D 11 I	D 12 H	D 12 H	D 9 I	D 11 I	D 12 H	D 11 I	D 9 I	A 8 L	D 8 L	A 14 H	A 14 H	D 12 H	D 9 I	D 9 I	D 8 L	A 14 H
102	A 14 H	A 11 I	D 6 L	A 12 I	D 10 I	D 14 H	A 11 I	A 9 L	A 14 H	D 6 L	D 14 H	A 14 H	A 14 H	D 14 H	D 14 H	D 12 I	D 11 I	A 8 L	D 8 L	A 14 H	A 14 H
103	D 10 L	D 7 L	A 14 H	D 10 L	A 14 H	D 14 H	D 13 I	D 11 L	A 13 I	A 11 L	D 12 I	A 13 I	D 7 L	A 13 I	A 14 H	A 14 H	D 10 L	D 12 I	A 14 H	A 10 L	A 13 I
104	A 9 L	D 10 L	A 14 H	D 11 I	A 9 L	D 13 H	A 12 I	A 11 I	A 12 I	D 10 L	D 12 I	D 12 I	A 14 H	D 11 I	A 14 H	A 14 H	D 10 L	D 12 I	D 10 L	A 9 L	A 14 H
105	D 10 L	D 6 L	D 11 I	D 11 I	D 9 I	D 14 H	D 13 H	A 8 I	A 13 H	D 13 H	D 6 L	D 4 L	A 11 I	A 7 L	A 14 H	A 14 H	D 13 H	D 9 I	A 6 L	A 5 L	A 5 L
107	A 7 L	A 11 I	A 6 L	D 9 I	A 12 H	D 11 I	D 11 I	D 12 H	A 14 H	D 7 L	D 12 H	A 12 H	A 14 H	D 8 L	D 9 I	D 14 H	D 13 H	A 6 L	A 6 L	A 9 L	D 6 L
108	A 12 I	D 12 I	D 14 H	A 11 L	D 11 L	D 12 I	A 14 H	D 14 H	A 14 H	A 12 I	A 12 I	D 13 I	A 14 H	D 14 H	A 11 L	A ^x 13 I	D 10 L	D 10 L	A 13 I	D 10 L	A 12 I
110	A 12 H	A 13 H	A 12 H	D 6 L	D 10 I	D 8 I	D 10 I	D 10 I	A 10 I	D 10 I	D 7 L	D 6 L	D 10 I	A 7 L	D 8 I	D 10 I	D 10 I	D 7 L	A 14 H	A 12 H	A 12 H
112	A 12 I	D 10 I	A 7 L	D 12 I	D 14 H	D 14 H	A 13 H	A 10 I	A 7 L	A 14 H	A 8 L	A 9 I	A 10 I	D 14 H	A 7 L	D 12 I	D 12 I	A 7 L	A 9 I	D 7 L	A 11 I

APPENDIX B, continued

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
117	A 7 L	A 14 H	D 10 L	D 10 L	D 11 I	D 11 I	A 14 H	D 13 I	D 11 I	A 14 H	D 12 I	A 14 H	A 10 L	D 8 L	A 14 H	A 13 I	A 11 I	D 6 L	A 11 I	A 14 H	A 14 H
120	A - =	A 10 L	A 10 L	A 11 I	D 8 L	D 14 H	A 11 I	D 13 H	A 14 H	D 13 H	D 11 I	A 11 I	A 14 H	D 10 L	A 12 I	A 14 H	D 11 I	D 11 I	A 10 L	A 12 I	A 13 H
124	A 10 L	A 13 I	D 6 L	D 14 H	D 9 L	D 12 I	D 14 H	D 13 I	D 14 H	A 8 L	D 9 L	A 12 I	A 14 H	A 12 I	D 8 L	A 14 H	D 14 H	D 9 L	D 10 L	A 13 I	D 12 I
126	A 12 H	A 8 L	A 12 H	D 12 H	D 10 I	D 13 H	A 8 L	D 11 I	A 12 H	D 5 L	A 5 L	A 12 H	A 12 H	A 12 H	A 14 H	D 10 I	D 7 L	D 10 I	D 8 L	A 7 L	D 10 I
127	A 11 I	D 11 I	D 14 H	D 14 H	D 9 I	D 11 I	A 7 L	D 12 H	A 9 I	A 12 H	D 8 L	A 8 L	A 14 H	D 12 H	D 10 I	D 12 H	D 8 L	D 9 I	D 8 L	A 9 I	A 11 I
128	A 10 I	A 13 H	A 8 L	A 10 I	A 14 H	D 13 H	A 13 H	D 6 L	A 14 H	D 6 L	D 8 L	A 11 I	A 14 H	D 8 L	D 14 H	D 8 L	A 9 I	D 7 L	A 10 I	A 14 H	A 12 I
129	A 10 I	A 9 L	A 13 H	D 12 H	D 11 I	D 14 H	A 9 L	D 11 I	A 10 I	D 8 L	A 11 I	A 9 L	A 10 H	D 8 L	A 12 H	A 13 H	D 10 I	A 8 L	D 9 L	D 10 I	A 14 H
130	A 12 I	A 10 I	D 11 I	D 14 H	A 9 L	D 14 H	A 13 H	D 10 I	A 14 H	D 14 H	A 8 L	A 12 I	A 13 H	A 9 L	A 14 H	A 14 H	D 4 L	D 10 I	D 7 L	A 13 H	A 7 L
132	D 13 H	D 13 H	A 13 H	D 9 L	D 9 L	D 12 I	A 13 H	D 12 I	D 9 L	A 10 I	D 8 L	A 6 L	A 10 I	D 14 H	A 13 H	A 14 H	D 8 L	D 11 I	D 12 I	A 9 L	D 13 H
134	A 7 L	A 12 I	D 13 H	D 14 H	D 7 L	D 9 I	A 3 L	D 9 I	A 13 H	D 7 L	D 8 L	A 13 H	A 14 H	D 6 L	A 9 I	A 14 H	D 10 I	D 8 L	A 6 L	D 8 L	A 12 I
135	A 10 I	A 13 H	D 7 L	D 5 L	D 12 H	D 7 L	A 14 H	D 11 I	A 13 H	A 14 H	D 9 I	D 4 L	A 12 H	D 6 L	D 10 I	D 8 I	A 8 I	D 9 I	D 6 L	A 12 H	D 12 H

APPENDIX B, continued.

S#	Questionnaire Item																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
140	A 12 I	D 12 I	A 14 H	D 10 L	A 12 I	D 14 H	D 14 H	D 11 L	A 8 L	A 11 L	D 11 L	A 14 H	A 14 H	D 11 L	A 11 L	A 12 I	D 14 H	A 11 L	D 11 L	A 10 L	A 14 H
145	A 10 I	A 14 H	A 13 H	D 12 H	D 9 L	D 12 H	A 13 H	D 14 H	A 14 H	D 8 L	A 8 L	A 12 H	A 8 L	D 12 H	D 11 I	D 8 L	A 8 L	D 9 L	D 10 I	A 11 I	A 11 I
146	A 14 H	A 11 I	D 6 L	D 10 L	D 8 L	D 14 H	D 12 I	D 11 I	A 10 L	D 14 H	D 12 I	A 11 L	D 8 L	A 12 I	A 14 H	A 9 L	D 12 I	A 14 H	A 14 H	D 11 I	A 14 H
154	D 10 L	A 11 L	A 14 H	D 11 L	D 13 I	D 13 I	D 14 H	D 10 L	D 14 H	A 12 I	D 11 L	D 9 L	A 10 L	A 14 H	A 14 H	A 13 I	D 14 H	D 12 I	D 13 I	D 14 H	A 14 H
155	D 10 I	D 13 H	A 12 I	D 9 L	D 12 I	D 14 H	D 12 I	D 10 I	D 13 H	A 10 I	D 8 L	A 13 H	D 8 L	D 9 L	A 14 H	A 14 H	D 10 I	D 11 I	A 8 L	D 14 H	D 8 L
158	A 11 I	A 14 H	D 12 I	D 14 H	D 8 L	D 14 H	A 11 I	D 14 H	A 14 H	D 14 H	A 9 L	A 14 H	A 14 H	A 11 I	D 9 L	D 14 H	D 11 I	A 11 I	A 14 H	A 13 I	A 10 L
159	D 11 H	D 13 H	D 9 I	D 14 H	D 14 H	D 8 I	A 3 L	D 11 H	D 4 L	D 8 L	D 7 I	A 6 L	A 4 L	D 3 L	D 7 I	A 4 L	A 6 L	D 8 I	D 14 H	A 11 H	A 8 I
163	A 12 I	D 10 L	A 14 H	D 12 I	D 11 I	D 12 I	D 11 I	D 14 H	A 14 H	A 8 L	D 8 L	A 14 H	A 8 L	D 11 I	A 11 I	D 14 H	D 8 L	A 11 I	D 10 L	A 13 H	A 14 H
164	D 14 H	A 10 I	A 14 H	D 13 I	D 8 L	D 14 H	D 11 I	D 10 I	A 14 H	D 14 H	D 10 I	D 14 H	D 6 L	A 11 I	A 8 L	A 14 H	D 9 L	D 11 I	D 14 H	A 2 L	A 14 H
165	D 13 I	D 11 I	D 6 L	D 10 I	A 14 H	D 14 H	A 14 H	A 8 L	D 14 H	A 7 L	D 11 I	A 10 I	A 14 H	A 7 L	A 12 I	D 14 H	D 8 L	D 8 L	D 10 I	A 14 H	A 14 H
166	D 9 L	D 9 L	A 14 H	D 14 H	D 14 H	D 14 H	D 14 H	D 12 I	A 11 I	D 8 L	D 11 I	A 12 I	A 11 I	D 7 L	A 14 H	A 14 H	D 10 L	D 11 I	D 8 L	A 10 L	D 8 L

APPENDIX C

Statement Discussed, Over-All Degree of Conviction About the
 Statement Discussed, and Order of Role-taking Instructions
 For Each Dyad; and Rating Made by Each Member of the
 Dyad of His Degree of Affective and
 Cognitive Conviction About
 the Statement Discussed

1. Males

Dyad	Statement Discussed	Over-all Degree of Conviction	Order of Role-taking Instructions	Rating of Degree of Affective Conviction	Rating of Degree of Cognitive Conviction
7-20	1	H	1*	5 6	6 6
67-84	1	I	2**	6 5	5 7
2-3	1	L	1	5 4	5 4
56-99	3	H	2	7 6	6 7
106-86	3	I	1	6 6	6 7
81-115	3	L	2	3 5	5 3
70-52	7	H	1	7 (6)***	7 (6)
142-88	7	I	2	5 5	5 5

* own first

** other first

*** Since only the sum of the components was available, each component is estimated.

APPENDIX C, continued

Dyad	Statement Discussed	Over-all Degree of Conviction	Order of Role-taking Instructions	Rating of Degree of Affective Conviction	Rating of Degree of Cognitive Conviction
54- 79	7	L	1	5 4	3 4
151- 73	10	H	2	6 7	6 6
13- 16	10	I	1	4 7	6 5
143- 109	10	L	2	2 4	2 3
45- 47	12	H	1	7 7	7 7
113- 101	12	I	2	5 4	6 6
92- 131	12	L	1	4 1	5 3
80- 69	14	H	1	7 7	7 7
64- 125	14	I	2	5 5	4 6
15- 38	14	L	1	4 2	4 4
1- 17	15	H	1	6 7	6 7
122- 53	15	I	2	5 (6)	6 (6)
55- 118	15	L	1	2 4	2 4
65- 119	19	H	2	7 6	5 6
21- 39	19	I	1	4 7	5 6

APPENDIX C, continued

Dyad	Statement Discussed	Over-all Degree of Conviction	Order of Role-taking Instructions	Rating of Degree of Affective Conviction	Rating of Degree of Cognitive Conviction
87-139	20	H	2	(6) 6	(7) 6
85-100	20	I	1	5 6	5 5
137-94	20	L	2	4 3	5 4
31-18	21	H	2	7 6	7 6
89-111	21	I	1	5 6	5 5
114-147	21	L	2	4 4	3 4

APPENDIX C, continued

2. Females

Dyad	Statement Discussed	Over-all Degree of Conviction	Order of Role-taking Instructions	Rating of Degree of Affective Conviction	Rating of Degree of Cognitive Conviction
30-4	1	H	2	6.5 7	7 7
29-34	1	I	1	4 7	6 6
98-77	1	L	2	4 5	4 5
27-23	3	H	1	6 7	7 7
49-32	3	I	2	5 7	4 6
112-117	3	L	1	4 5	3 5
8-9	7	H	2	6 7	6 7
97-66	7	I	1	5 4	5 5
104-60	7	L	2	5 4	4 4
26-28	10	H	1	7 6	7 7
44-48	10	I	2	5 5	6 6
103-71	10	L	1	6 2	5 3
58-62	12	H	2	6 7	6 7

APPENDIX C, continued

Dyad	Statement Discussed	Over-all Degree of Conviction	Order of Role-taking Instructions	Rating of Degree of Affective Conviction	Rating of Degree of Cognitive Conviction
130- 68	12	I	1	7 5	5 6
127- 110	12	L	2	4 4	4 2
126- 102	14	H	2	6 7	6 7
6- 40	14	I	1	6 7	5 5
75- 90	14	L	2	4 5	4 6
12- 24	15	H	2	7 5	6 5
120- 59	15	I	1	6 6	6 6
108- 158	15	L	2	5 5	6 4
91- 63	19	H	1	6 6	6 7
128- 74	19	I	2	6 5	4 4
11- 19	19	L	1	3 5	4 4
57- 129	20	I	2	5 5	5 5
93- 83	20	L	1	4 2	4 2
72- 135	21	H	1	7 6	7 6

APPENDIX C, continued

Dyad	Statement Discussed	Over-all Degree of Conviction	Order of Role-taking Instructions	Rating of Degree of Affective Conviction	Rating of Degree of Cognitive Conviction
61-124	21	I	2	6 7	6 5
105-107	21	L	1	3 3	2 3

APPENDIX D

Rating Scale Form

Pair number _____

Conversation number _____

Rater _____

1. How strongly does this person appear to believe what he is saying?

S1 not at all strongly 1 2 3 4 5 6 7 very strongly

S2 not at all strongly 1 2 3 4 5 6 7 very strongly

2. How well does he develop and elaborate his position?

S1 not at all well 1 2 3 4 5 6 7 very well

S2 not at all well 1 2 3 4 5 6 7 very well

3. How well does he seem to be listening to the other; how much of what is said by him does he appear to be taking in?

S1 not at all well 1 2 3 4 5 6 7 very well

S2 not at all well 1 2 3 4 5 6 7 very well

4. How directly does he respond to the statements of the other; how much do his statements meet the concerns of the others?

S1 not at all directly 1 2 3 4 5 6 7 very directly

S2 not at all directly 1 2 3 4 5 6 7 very directly

5. How closely does the pair "stick to the topic"; how related to the statement is their conversation?

very unrelated for a 1 2 3 4 5 6 7 closely related
long time all the time

6. Do you think the pair was arguing their own point of view or the other's?

own _____ other _____

APPENDIX E

Ratings on Six Scales of Communicative Effectiveness

Presented Separately By Rater in

the Order Made

1. First Conversation

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
158	3 2 5	3 5 4	3 5 6	5 4 6	7 6 4	1 1 1
108	5 5 4	5 3 4	5 4 3	6 4 4		
100	2 4 3	3 3 4	3 3 3	3 3 3	3 6 6	2 1 1
85	4 6 4	1 4 5	2 5 6	2 5 6		
151	5 7 4	6 7 3	7 4 4	5 7 4	7 7 6	1 1 1
73	4 1 5	5 2 3	6 5 3	5 4 3		
60	4 1 4	3 3 4	5 3 5	3 5 5	6 6 5	1 1 1
104	5 6 6	5 6 6	6 6 5	5 5 6		
69	2 6 6	4 6 7	5 6 6	3 5 7	3 6 6	2 2 1
80	3 4 6	3 4 5	5 4 5	4 4 4		
124	2 4 3	1 3 2	1 3 2	2 3 2	2 1 2	1 2 2
61	2 3 3	1 2 3	2 3 5	3 3 5		
63	5 5 4	5 4 4	4 3 5	4 4 5	3 1 2	1 1 1
91	6 3 4	4 3 3	3 3 5	3 4 5		
86	2 3 2	2 3 2	4 4 3	3 3 3	6 7 3	2 1 2
106	3 6 4	2 6 4	2 5 4	3 5 4		
84	6 6 6	7 6 6	6 5 6	6 5 5	6 7 6	1 1 1
67	5 6 4	5 6 5	4 4 4	2 4 4		
92	6 5 6	6 5 6	7 5 5	7 5 6	7 7 6	1 1 1
131	3 4 5	5 4 5	6 4 5	6 5 6		

APPENDIX E, Continued

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
53	1 1 2	1 1 2	2 1 5	1 1 4		
122	1 3 2	2 2 3	2 2 5	2 2 4	4 3 2	2 2 2
137	5 4 6	6 2 5	6 3 5	6 4 4		
94	2 2 3	5 1 5	6 4 5	6 3 4	5 3 4	1 2 1
143	2 2 2	3 2 2	3 3 4	5 2 6		
109	2 5 4	2 5 5	4 4 4	6 5 4	6 5 3	2 1 2
125	2 4 4	2 4 3	3 3 4	3 4 3		
64	3 2 3	4 2 2	5 5 4	4 2 3	2 4 2	1 2 2
88	1 3 2	1 2 2	2 2 2	1 2 3		
142	1 1 2	2 1 4	2 1 2	2 1 3	3 2 2	2 2 2
107	1 4 4	2 5 2	2 5 5	2 5 5		
105	3 2 3	4 2 2	5 3 5	4 3 5	4 4 2	1 1 2
81	5 3 6	4 4 7	4 3 5	4 4 5		
115	5 6 5	5 6 6	6 5 6	5 6 6	7 6 6	1 1 1
119	2 5 3	2 5 5	3 5 5	3 5 5		
65	5 6 6	4 5 6	5 5 5	5 6 4	5 6 6	1 1 1
58	3 2 5	3 4 6	3 3 6	3 3 6		
62	4 6 6	3 5 7	3 4 6	4 5 6	3 6 6	1 1 1
130	3 4 5	3 3 5	6 4 5	3 5 5		
68	3 5 5	4 5 6	6 6 4	4 5 4	6 6 5	1 1 1
55	4 4 4	6 3 6	5 3 6	6 3 5		
118	3 5 3	3 6 -	4 6 4	4 5 5	5 6 6	1 1 2
90	3 3 3	4 4 4	3 4 5	4 5 3		
75	2 5 4	2 4 4	3 5 3	3 5 3	6 5 5	1 2 2
120	5 5 5	6 4 5	6 4 6	4 5 5		
59	6 5 7	7 4 5	6 5 6	6 5 5	6 5 4	1 1 1
139	6 5 7	5 6 5	4 6 6	5 6 5		
87	6 6 7	3 5 6	3 6 6	3 6 5	6 7 6	1 1 1

APPENDIX E, Continued

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
97 66	2 5 5 4 6 6	2 5 4 4 5 6	3 5 6 4 6 6	4 5 5 6 5 6	5 6 6	1 1 1
114 147	5 4 6 5 6 6	5 4 5 4 5 5	6 6 6 6 5 4	6 5 6 4 5 3	5 6 4	1 1 1
99 56	5 4 5 4 6 5	4 3 4 4 4 6	4 4 4 5 3 5	3 5 4 5 5 5	6 6 6	2 1 1
128 74	4 3 4 4 3 3	5 4 5 2 3 5	4 3 4 3 4 3	4 4 4 2 4 4	4 4 5	1 2 2
30 4	5 6 4 5 5 4	4 6 6 5 4 5	5 5 6 5 4 6	6 6 6 5 5 6	7 7 6	2 1 2
57 129	4 5 4 6 6 5	4 4 3 6 5 6	5 4 5 5 4 5	4 4 3 5 5 3	6 6 6	1 1 2
48 44	1 2 3 2 3 2	1 1 4 2 2 2	3 1 3 4 3 4	4 2 2 4 3 2	5 2 4	2 2 2
126 102	5 5 4 6 6 4	5 5 6 5 6 5	5 6 5 5 5 4	6 6 5 5 6 4	6 6 6	1 1 2
54 79	4 2 4 6 4 3	2 2 5 6 3 4	3 1 4 6 3 3	2 1 4 7 2 3	4 3 3	1 2 2
89 111	1 2 2 3 3 2	1 2 2 2 3 3	2 3 3 2 4 3	2 2 4 4 3 3	3 4 2	2 2 2
113 101	2 4 3 2 2 3	2 5 3 1 3 5	2 4 3 2 4 4	3 3 2 2 3 2	3 4 3	2 1 2
27 23	4 6 3 3 2 2	3 6 5 3 3 3	2 5 6 2 4 6	2 4 6 2 6 7	5 6 3	1 1 1
19 11	3 5 5 3 5 6	5 5 7 4 5 7	5 6 5 5 5 6	4 6 5 5 6 5	5 5 5	1 1 1
20 7	1 2 2 2 3 4	2 2 4 4 2 5	5 2 4 5 4 5	3 4 3 5 4 3	3 4 3	1 2 2

APPENDIX E, Continued

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
1	4 5 2	5 5 4	5 4 5	3 5 4		
17	3 4 3	3 3 3	4 3 6	3 3 5	5 5 3	2 1 2
15	6 6 5	5 6 4	5 6 2	6 6 2		
38	4 3 4	4 3 3	6 5 4	4 4 4	4 6 3	1 1 2
9	1 4 4	1 4 4	2 4 6	1 4 4		
8	2 7 5	4 7 6	3 7 5	3 7 4	4 7 5	2 1 1
127	1 1 2	1 1 2	2 1 2	2 1 2		
110	1 3 4	2 3 4	2 3 4	2 3 3	4 4 3	2 2 2
93	2 5 5	3 6 4	3 5 5	3 5 4		
83	2 1 2	2 2 2	4 2 3	4 2 4	6 5 5	2 2 1
71	4 4 4	4 5 -	4 5 6	4 4 5		
103	2 4 6	2 4 -	4 5 5	4 4 6	4 5 4	1 1 1
18	1 4 5	1 4 4	1 4 3	1 4 3		
31	1 3 3	1 3 2	1 4 4	1 5 3	3 4 5	2 2 2
112	6 5 6	5 4 5	5 5 6	6 5 4		
117	6 4 6	6 4 6	5 4 6	5 4 4	5 2 5	1 1 1
3	6 6 6	5 5 5	6 5 5	5 6 5		
2	6 6 5	6 7 4	6 6 3	6 6 3	7 7 3	1 1 2
21	5 6 4	3 5 4	4 5 4	5 5 3		
39	4 5 5	5 6 4	5 5 4	5 4 3	5 6 5	1 1 2
13	5 3 3	4 3 5	5 4 6	6 5 5		
16	6 5 4	5 6 6	4 5 6	4 6 5	6 7 5	1 1 1
40	5 2 2	3 2 4	4 4 3	3 1 2		
6	4 3 2	4 3 3	4 3 3	4 3 2	5 5 2	1 2 2
34	3 1 4	2 1 3	3 3 4	2 1 3		
29	3 2 4	3 2 4	4 2 4	4 2 3	5 3 5	2 2 1
47	5 6 3	6 5 5	6 6 5	5 5 5		
45	4 5 6	5 5 6	6 5 4	5 5 4	6 6 6	1 1 1

APPENDIX E, Continued

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
12	3 3 3	2 2 4	3 4 5	3 4 4		
24	5 4 6	3 4 5	5 3 3	4 4 3	5 5 3	2 2 2
52	6 6 6	6 6 6	6 5 5	6 6 2		
70	2 1 2	1 1 1	4 5 5	3 2 5	5 6 5	1 1 1
72	5 1 5	1 1 2	4 2 3	3 1 3		
135	3 4 5	4 4 4	4 5 5	5 4 5	5 4 3	2 2 1
49	3 2 5	2 2 4	4 3 5	4 3 4		
32	5 4 5	5 5 6	4 5 3	5 5 2	6 6 6	1 1 1
77	3 2 3	4 3 2	3 4 2	3 2 2		
98	2 3 4	4 3 3	5 3 2	4 4 2	3 4 3	2 2 2
26	3 2 2	3 2 1	3 3 4	5 3 2		
28	2 5 3	3 2 3	4 2 5	4 2 6	6 3 4	1 1 1

APPENDIX E, Continued

2. Second Conversation

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
158	5 3 5	4 4 6	4 4 6	4 4 5		
108	3 5 6	3 5 4	4 6 4	5 5 4	5 6 6	1 2 1
100	2 1 2	2 4 5	6 4 1	3 5 1		
85	3 4 5	4 3 3	7 4 4	6 5 4	2 5 1	2 2 2
151	6 5 5	5 6 5	5 6 5	6 6 4		
73	4 3 6	4 5 5	5 5 6	5 5 4	7 6 5	1 1 1
69	4 3 5	5 4 6	4 4 5	4 3 4		
80	5 4 6	3 3 6	4 4 6	3 4 5	5 4 4	1 2 2
124	2 3 5	2 3 3	4 1 2	3 2 2		
61	2 2 5	2 2 5	4 1 6	4 1 6	5 3 -	2 2 2
60	6 5 5	7 5 4	5 4 5	5 5 5		
104	6 6 4	6 5 3	5 5 4	5 4 5	4 4 2	1 1 1
63	4 5 6	3 5 6	4 5 3	3 4 4		
91	3 4 4	2 4 6	4 5 6	2 4 5	4 4 5	2 2 2
86	4 3 2	5 3 2	4 4 2	4 4 3		
106	6 5 5	7 6 6	5 6 6	6 6 6	6 6 5	1 1 1
84	6 5 5	6 5 6	6 5 5	6 6 4		
67	6 6 5	6 4 6	6 4 5	5 6 5	7 7 6	1 1 1
92	5 3 4	4 4 4	4 4 5	3 4 4		
131	6 4 6	6 5 5	6 4 5	6 5 5	6 6 5	1 2 1
53	2 5 2	3 5 3	3 5 4	3 5 3		
122	3 5 4	5 4 4	4 5 5	5 6 3	5 6 4	2 1 2
137	6 6 6	6 5 5	4 3 6	5 6 4		
94	7 4 6	5 5 4	3 4 6	5 6 4	6 3 3	1 1 1
143	1 1 2	1 1 2	2 1 2	2 1 2		
109	1 2 3	2 2 4	2 2 2	3 2 2	6 3 4	2 2 2

APPENDIX E, Continued

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
125	2 3 2	2 2 5	3 3 4	3 3 4		
64	2 1 2	2 1 3	4 1 4	4 1 5	5 3 3	2 2 2
88	6 3 5	6 5 6	6 5 4	6 5 5		
142	5 4 5	4 4 4	6 4 3	5 5 4	6 4 5	1 2 2
107	2 4 3	3 3 3	3 4 5	3 4 5		
105	1 3 2	2 3 2	3 3 5	3 4 5	3 3 2	2 2 2
81	4 3 5	3 3 5	5 3 6	5 3 5		
115	3 5 5	5 6 6	3 5 6	4 5 5	6 6 6	2 1 1
119	3 4 4	3 3 3	4 5 4	4 4 4		
65	4 5 5	2 5 6	4 5 5	3 6 5	5 5 5	1 1 2
58	6 5 5	5 5 6	5 5 6	5 5 6		
62	5 5 5	6 4 7	5 4 6	6 5 6	6 6 6	1 1 1
130	1 2 2	1 3 3	3 4 6	3 5 6		
68	2 4 5	2 4 4	5 3 6	4 5 6	3 4 5	2 2 2
55	5 4 5	6 6 7	6 6 6	6 6 7		
118	4 5 3	3 5 5	5 6 6	3 5 5	6 6 6	1 1 1
90	3 3 2	2 3 3	3 3 5	3 3 4		
75	5 4 3	4 4 3	4 3 5	4 4 4	4 5 5	1 2 2
120	3 4 4	2 5 5	3 5 5	3 4 5		
59	4 2 4	4 2 4	3 2 5	5 2 5	4 4 5	2 2 2
139	6 4 6	2 3 5	3 4 6	3 4 4		
87	5 5 6	5 6 6	4 6 6	6 6 4	5 5 6	1 1 1
97	6 1 2	5 1 3	4 2 6	6 2 5		
66	3 3 3	2 3 4	4 2 6	4 3 5	5 4 4	2 2 2
30	5 2 3	6 3 5	4 5 6	5 5 7		
4	4 4 3	4 5 3	4 5 6	4 6 7	6 5 4	1 1 1
114	6 3 3	4 2 3	5 4 5	5 2 3		
147	5 5 4	6 4 5	5 5 5	6 4 5	6 5 4	1 2 2

APPENDIX E, Continued

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
99	6 5 6	5 6 5	5 5 5	6 5 4		
56	6 5 6	3 5 3	4 5 4	4 4 4	5 6 4	1 1 1
128	5 1 2	5 1 2	5 2 6	5 2 5		
74	3 3 4	3 3 5	4 2 5	5 4 4	5 4 4	1 2 1
57	6 4 4	5 4 3	5 5 5	3 5 4		
129	6 5 5	3 5 3	4 3 3	2 4 4	5 2 -	1 1 1
48	5 1 3	4 1 3	4 2 3	5 1 4		
44	6 2 4	5 1 5	4 2 5	4 2 5	4 3 5	1 2 2
126	5 4 4	4 3 3	4 3 3	3 3 3		
102	5 2 4	4 2 4	4 3 5	5 2 4	3 4 3	1 2 2
54	2 4 2	4 4 3	6 5 4	4 4 4		
79	3 3 2	5 4 2	6 5 3	5 4 2	5 6 4	2 2 2
89	1 1 1	2 1 2	3 3 5	4 1 5		
111	2 2 1	3 2 3	2 2 5	3 2 5	4 3 2	2 2 2
113	5 6 5	6 6 5	7 6 6	7 6 6		
101	2 - 4	3 4 4	7 4 6	7 5 6	7 6 6	1 1 1
27	5 3 4	5 3 5	5 4 5	6 2 4		
23	2 3 3	3 2 4	4 4 5	4 3 4	5 4 6	1 2 2
19	2 2 3	4 2 5	5 3 6	5 2 5		
11	4 3 2	5 4 4	5 3 6	5 4 5	6 4 6	2 2 2
20	3 2 2	4 2 4	4 2 5	5 3 5		
7	2 2 2	3 2 5	4 3 5	4 3 5	5 4 4	2 2 2
1	2 2 2	2 3 4	4 4 6	3 3 6		
17	2 2 3	3 2 5	4 3 5	4 3 5	3 5 4	2 2 2
15	2 3 4	6 3 3	5 2 3	5 3 2		
38	1 1 1	3 1 2	3 1 3	3 1 4	5 3 -	2 2 2
9	4 2 3	3 1 3	4 4 6	3 2 6		
8	5 4 5	4 4 6	4 3 4	4 4 4	2 6 5	1 1 1

APPENDIX E, Continued

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
127	5 5 5	5 5 5	6 5 6	5 6 6		
110	6 4 3	6 4 5	6 5 6	6 5 5	5 6 4	1 1 1
93	2 3 2	2 2 4	4 2 4	5 2 4		
83	3 1 3	3 1 2	4 3 3	5 4 4	5 4 5	2 2 2
71	2 2 2	2 2 1	5 3 3	3 2 3		
103	2 3 4	2 2 5	5 3 5	5 3 4	3 3 3	2 2 2
18	5 4 5	5 4 5	4 4 5	4 4 5		
31	3 2 3	1 2 4	3 2 4	2 3 4	4 5 3	1 2 1
112	4 5 3	5 4 4	5 5 6	5 4 5		
117	4 4 2	5 3 4	5 3 6	5 4 5	5 3 4	2 2 2
3	6 6 4	6 5 5	5 5 5	6 5 4		
2	4 5 4	5 3 6	5 4 5	4 3 4	6 6 6	1 1 1
21	6 2 2	6 3 2	6 4 4	5 3 4		
39	5 3 4	4 3 4	5 3 4	4 3 4	3 4 4	2 2 2
13	1 1 2	4 1 3	2 2 4	3 1 3		
16	2 3 3	3 3 4	2 4 4	2 3 4	3 2 3	2 2 2
40	5 5 3	4 5 5	3 5 5	3 5 4		
6	3 3 3	4 3 3	3 4 5	4 4 5	3 6 5	1 1 1
34	1 2 2	3 2 2	3 3 4	4 2 4		
29	1 4 2	2 4 4	3 3 2	3 4 3	5 5 3	2 1 2
47	3 4 4	2 4 5	4 2 6	5 3 5		
45	4 2 4	4 1 5	6 2 6	6 2 4	6 4 6	2 2 2
12	7 5 6	6 5 4	6 5 5	7 5 5		
24	5 6 6	5 5 5	5 6 4	6 5 4	7 6 6	1 1 1
52	5 5 6	6 3 5	6 3 4	5 3 3		
70	2 2 3	2 2 5	4 4 5	4 4 5	7 6 -	2 2 1
72	3 2 2	5 2 2	2 3 3	2 3 3		
135	1 4 4	1 1 2	2 5 3	2 1 3	4 3 4	2 2 2

APPENDIX E, Continued

S #	Scale					
	1	2	3	4	5	6
	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3	Rater 1 2 3
49	5 4 4	3 3 6	5 4 5	5 5 4	7 6 5	1 1 1
32	7 6 5	6 6 7	6 5 5	6 6 4		
77	5 4 3	5 5 3	4 5 5	4 5 4		
98	5 5 3	5 5 4	5 4 6	5 5 5	5 5 3	1 2 2
26	1 1 2	1 1 1	4 2 3	2 1 4		
28	2 3 3	3 2 2	4 2 3	3 3 3	3 5 5	2 2 2

APPENDIX F

Mean Ratings on Fix Scales of Communicative
Effectiveness for Each Subject in Each
Degree of Conviction and
Role-taking Condition:

Scale 1

a. Males

Degree of Conviction

High			Intermediate			Low		
S#	Role-taking Condition		S#	Role-taking Condition		S#	Role-taking Condition	
	Own	Other		Own	Other		Own	Other
20	1.7	2.3	84	5.3	6.0	3	6.0	5.3
7	3.0	2.0	67	5.7	5.0	2	5.7	4.3
99	5.7	4.7	86	2.3	3.3	81	4.0	4.7
56	5.7	5.0	106	4.3	5.3	115	4.3	5.3
52	6.0	5.3	88	4.7	2.0	54	3.3	2.7
70	1.7	2.3	142	4.7	1.3	79	4.3	2.7
151	5.3	5.3	13	3.7	1.3	143	1.3	2.0
73	4.3	3.3	16	5.0	2.7	109	2.0	3.7
47	4.7	3.7	113	5.3	3.0	92	5.7	4.0
45	5.0	3.3	101	3.0	2.3	131	4.0	5.3
69	4.7	4.0	125	2.3	3.3	15	5.7	3.0
80	4.3	5.0	64	1.7	2.7	38	3.7	1.0
1	3.7	2.0	53	3.0	1.3	55	4.0	4.7
17	3.3	2.3	122	4.0	2.0	118	3.7	4.0
119	3.7	3.3	21	5.0	3.3			
65	4.7	5.7	39	4.7	4.0			
139	5.3	6.0	100	3.0	1.7	137	6.0	5.0
87	5.3	6.3	85	4.7	4.0	94	5.7	2.3

APPENDIX F, Continued

Scale 1

b. Females

Degree of Conviction

High			Intermediate			Low		
S#	Role-taking Condition		S#	Role-taking Condition		S#	Role-taking Condition	
	Own	Other		Own	Other		Own	Other
30	3.3	5.0	34	2.7	1.7	77	4.0	2.7
4	3.7	4.7	29	3.0	2.3	98	4.3	3.0
27	4.3	4.0	49	4.3	3.3	112	5.7	4.0
23	2.3	2.7	32	6.0	4.7	117	5.3	3.3
9	3.0	3.0	97	4.0	3.0	60	5.3	3.0
8	4.7	4.7	66	5.3	3.0	104	5.3	5.7
26	2.3	1.3	48	3.0	2.0	71	4.0	2.0
28	3.3	2.7	44	4.0	2.3	103	4.0	3.0
58	5.3	3.3	130	4.0	1.7	127	5.0	1.3
62	5.0	5.3	68	4.3	3.7	110	4.3	2.7
126	4.3	4.7	40	3.0	4.3	90	2.7	3.0
102	3.7	5.3	6	3.0	3.0	75	4.0	3.7
12	6.0	3.0	120	5.0	3.7	158	4.3	3.3
24	5.7	5.0	59	6.0	3.3	108	4.7	4.7
63	4.7	5.0	128	2.7	3.7	19	4.3	2.3
91	4.3	3.7	74	3.3	3.3	11	4.7	3.0
			57	4.7	4.3	93	4.0	2.3
			129	5.3	5.7	83	1.7	2.3
72	3.7	2.3	124	3.3	3.0	107	3.0	3.0
135	4.0	3.0	61	3.0	2.7	105	2.7	2.0

APPENDIX F, Continued

Scale 2

a. Males

Degree of Conviction

High			Intermediate			Low		
S#	Role-taking Condition		S#	Role-taking Condition		S#	Role-taking Condition	
	Own	Other		Own	Other		Own	Other
20	2.7	3.3	84	5.7	6.3	3	5.0	5.3
7	3.7	3.3	67	5.3	5.3	2	5.7	4.7
99	5.3	3.7	86	2.3	3.3	81	3.7	5.0
56	3.7	4.7	106	4.0	6.3	115	5.7	5.7
52	6.0	4.7	88	5.7	1.7	54	3.0	3.7
70	1.0	3.0	142	4.0	2.3	79	4.3	3.7
151	5.3	5.3	13	4.0	2.7	143	1.3	2.3
73	4.7	3.3	16	4.7	3.3	109	2.7	4.0
47	5.3	3.7	113	5.7	3.3	92	5.7	4.0
45	5.3	3.3	101	3.7	3.0	131	4.7	5.3
69	5.7	5.0	125	3.0	3.0	15	5.0	4.0
80	4.0	4.0	64	2.0	2.7	38	3.3	2.0
1	4.7	3.0	53	3.7	1.3	55	5.0	6.3
17	3.0	3.3	122	4.3	2.3	118	4.5	4.3
119	3.0	4.0	21	4.0	3.7			
65	4.3	5.0	39	5.0	3.7			
139	3.3	5.3	100	3.3	3.7	137	5.3	4.3
87	5.7	4.7	85	3.3	3.3	94	4.7	3.7
18	4.7	3.0	89	1.7	1.7	114	3.0	4.7
31	2.3	2.0	111	2.7	2.7	147	5.0	4.7

APPENDIX F, Continued

Scale 2

b. Females

Degree of Conviction

High			Intermediate			Low		
S#	Role-taking Condition		S#	Role-taking Condition		S#	Role-taking Condition	
	Own	Other		Own	Other		Own	Other
30	4.7	5.3	34	2.0	2.3	77	4.3	3.0
4	4.0	4.7	29	3.0	3.3	98	4.7	3.3
27	4.7	4.3	49	4.0	2.7	112	4.7	4.3
23	3.0	3.0	32	6.3	5.3	117	5.3	4.0
9	2.3	3.0	97	3.7	3.0	60	5.3	3.3
8	4.7	5.7	66	5.0	3.0	104	4.7	5.7
26	2.0	1.0	48	2.7	2.0	71	4.5	1.7
28	2.7	2.3	44	3.7	2.0	103	3.0	3.0
58	5.3	4.3	130	3.7	2.3	127	5.0	1.3
62	5.7	5.0	68	5.0	3.3	110	5.0	3.0
126	3.3	5.3	40	3.0	4.7	90	2.7	4.0
102	3.3	5.3	6	3.3	3.3	75	3.7	3.3
12	5.0	2.7	120	5.0	4.0	158	4.7	4.0
24	5.0	4.0	59	5.3	3.3	108	4.0	4.0
63	4.3	4.7	128	2.7	4.7	19	5.7	3.7
91	3.3	4.0	74	3.7	3.3	11	5.3	4.3
			57	4.0	3.7	93	4.3	2.7
			129	3.7	5.7	83	2.0	2.0
72	1.3	3.0	124	2.7	2.0	107	3.0	3.0
135	4.0	1.3	61	3.0	2.0	105	2.7	2.3

APPENDIX F, Continued

Scale 3

a. Males

Degree of Conviction

High			Intermediate			Low		
S#	Role-taking Condition		S#	Role-taking Condition		S#	Role-taking Condition	
	Own	Other		Own	Other		Own	Other
20	3.7	3.7	84	5.3	5.7	3	5.3	5.0
7	4.7	4.0	67	5.0	4.0	2	5.0	4.7
99	5.0	4.0	86	3.7	3.3	81	4.7	4.0
56	4.3	4.3	106	3.7	5.7	115	4.7	5.7
52	5.3	4.3	88	5.0	2.0	54	2.7	5.0
70	4.7	4.3	142	4.3	1.7	79	4.0	4.7
151	5.3	5.0	13	5.0	2.7	143	1.7	3.3
73	5.3	4.7	16	5.0	3.3	109	2.0	4.0
47	5.7	4.0	113	6.3	3.0	92	5.7	4.3
45	5.0	4.7	101	5.7	3.3	131	5.0	5.0
69	5.7	4.3	125	3.3	3.3	15	4.3	3.3
80	4.7	4.7	64	3.0	4.7	38	5.0	2.3
1	4.7	4.7	53	4.0	2.7	55	4.7	6.0
17	4.3	4.0	122	4.7	3.0	118	4.7	5.7
119	4.3	4.3	21	4.3	4.7			
65	4.7	5.0	39	4.7	4.0			
139	4.3	5.3	100	3.0	3.7	137	4.3	4.7
87	5.3	5.0	85	4.3	5.0	94	4.3	5.0
18	4.3	2.7	89	2.7	3.7	114	4.7	6.0
31	3.0	3.0	111	3.0	3.0	147	5.0	5.0

APPENDIX F, Continued

Scale 3

b. Females

Degree of Conviction

High			Intermediate			Low		
S#	Role-taking Condition		S#	Role-taking Condition		S#	Role-taking Condition	
	Own	Other		Own	Other		Own	Other
30	5.0	5.3	34	3.3	3.3	77	4.7	3.0
4	5.0	5.0	29	3.3	2.7	98	5.0	3.3
27	4.3	4.7	49	4.7	4.0	112	5.3	5.3
23	4.0	4.3	32	5.3	4.0	117	5.0	4.7
9	4.7	4.0	97	4.7	4.0	60	4.7	4.3
8	3.7	5.0	66	5.3	4.0	104	4.7	5.7
26	3.3	3.0	48	3.0	2.3	71	5.0	3.7
28	3.7	3.0	44	3.7	3.7	103	4.7	4.3
58	5.3	4.0	130	5.0	4.3	127	5.7	1.7
62	5.0	4.3	68	5.3	4.7	110	5.7	3.0
126	3.3	5.3	40	3.7	4.3	90	3.7	4.0
102	4.0	4.7	6	3.3	4.0	75	4.0	3.7
12	5.3	4.0	120	5.3	4.3	158	4.7	4.7
24	5.0	3.7	59	5.7	3.3	108	4.0	4.0
63	4.0	4.0	128	4.3	3.7	19	5.3	4.7
91	3.7	5.0	74	3.7	3.3	11	5.3	4.7
			57	5.0	4.7	93	4.3	3.3
			129	3.3	4.7	83	3.0	3.3
72	3.0	2.7	124	2.3	2.0	107	4.0	4.0
135	4.7	3.3	61	3.7	3.3	105	4.3	3.7

APPENDIX F, Continued

Scale 4

a. Males

Degree of Conviction

High			Intermediate			Low		
S#	Role-taking Condition		S#	Role-taking Condition		S#	Role-taking Condition	
	Own	Other		Own	Other		Own	Other
20	3.3	4.3	84	5.3	5.3	3	5.3	5.0
7	4.0	4.0	67	5.3	3.3	2	5.0	3.7
99	5.0	4.0	86	3.0	3.7	81	4.3	4.3
56	4.0	5.0	106	4.0	6.0	115	4.7	5.7
52	4.7	3.7	88	5.3	2.0	54	2.3	4.0
70	3.3	4.3	142	4.7	2.0	79	4.0	3.7
151	5.3	5.3	13	5.3	2.3	143	1.7	4.3
73	4.7	4.0	16	5.0	3.0	109	2.3	5.0
47	5.0	4.3	113	6.3	2.7	92	6.0	3.7
45	4.7	4.0	101	6.0	2.3	131	5.7	5.3
69	5.0	3.7	125	3.3	3.3	15	4.7	3.3
80	4.0	4.0	64	3.3	3.0	38	4.0	2.7
1	4.0	4.0	53	3.7	2.0	55	4.7	6.3
17	3.7	4.3	122	4.7	2.7	118	4.7	4.3
119	4.0	4.3	21	4.3	4.0			
65	4.7	5.0	39	4.0	3.7			
139	3.7	5.3	100	3.0	3.0	137	5.0	4.7
87	5.3	4.7	85	4.3	5.0	94	5.0	4.3
18	4.3	2.7	89	2.7	3.3	114	3.3	5.7
31	3.0	3.0	111	3.3	3.3	147	5.0	4.0

APPENDIX F, Continued

Scale 4

b. Females

Degree of Conviction

High			Intermediate			Low		
S#	Role-taking Condition		S#	Role-taking Condition		S#	Role-taking Condition	
	Own	Other		Own	Other		Own	Other
30	5.7	6.0	34	2.0	3.3	77	4.3	2.3
4	5.7	5.3	29	3.0	3.3	98	5.0	3.3
27	4.0	4.0	49	4.7	3.7	112	5.0	4.7
23	5.0	3.7	32	5.3	4.0	117	4.3	4.7
9	3.7	3.0	97	4.7	4.3	60	5.0	4.3
8	4.0	4.7	66	5.7	4.0	104	4.7	5.3
26	3.3	2.3	48	3.3	2.7	71	4.3	2.7
28	4.0	3.0	44	3.7	3.0	103	4.7	4.0
58	5.3	4.0	130	4.3	4.7	127	5.7	1.7
62	5.7	5.0	68	4.3	5.0	110	5.3	2.7
126	3.0	5.7	40	2.0	4.0	90	3.3	4.0
102	3.7	5.0	6	3.0	4.3	75	4.0	3.7
12	5.7	3.7	120	4.7	4.0	158	4.3	5.0
24	5.0	3.7	59	5.3	4.0	108	4.7	4.7
63	4.3	3.7	128	4.0	4.0	19	5.0	4.0
91	4.0	3.7	74	4.3	3.3	11	5.3	4.7
			57	4.0	3.7	93	4.0	3.7
			129	3.3	4.3	83	3.3	4.3
72	2.3	2.7	124	2.3	2.3	107	4.0	4.0
135	4.7	2.0	61	3.7	3.7	105	4.0	4.0

APPENDIX F, Continued

Scale 5

a. Males

Degree of Conviction

Dyad	High		Dyad	Intermediate		Dyad	Low	
	Role-taking Condition			Role-taking Condition			Role-taking Condition	
	Own	Other		Own	Other		Own	Other
7-20	3.3	4.3	67-84	6.7	6.3	2-3	5.3	6.0
56-99	5.0	6.0	106-86	5.3	5.7	81-115	6.0	6.3
70-52	5.3	6.5	142-88	5.0	2.3	54-79	3.3	5.0
151-73	6.0	6.7	13-16	6.0	2.7	143-109	4.3	4.7
45-47	6.0	5.3	113-101	6.3	3.3	92-131	6.7	5.7
80-69	5.0	4.3	64-125	3.7	2.7	15-38	4.3	4.0
1-17	4.3	4.0	122-53	5.0	3.0	55-118	5.7	6.0
65-119	5.0	5.7	39-21	5.3	3.7			
87-139	5.3	6.3	85-100	5.0	2.7	137-94	4.0	4.0
31-18	4.0	4.0	89-111	3.0	3.0	114-147	5.0	5.0

APPENDIX F, Continued

Scale 5

b. Females

Degree of Conviction

Dyad	High		Dyad	Intermediate		Dyad	Low	
	Role-taking Condition			Role-taking Condition			Role-taking Condition	
	Own	Other		Own	Other		Own	Other
30-4	5.0	6.7	29-34	4.3	4.3	98-77	4.3	3.3
27-23	4.7	5.0	49-32	6.0	6.0	112-117	4.0	4.0
8-9	4.3	5.3	97-66	5.7	4.3	104-60	3.3	5.7
26-28	4.3	4.3	44-48	4.0	3.7	103-71	4.3	3.0
58-62	6.0	5.0	130-68	5.7	4.0	127-110	5.0	3.7
126-102	3.3	6.0	6-40	4.0	4.7	75-90	4.7	5.3
12-24	6.3	4.3	120-59	5.0	4.3	108-158	5.7	5.7
91-63	2.0	4.3	128-74	4.3	4.3	11-19	5.0	5.3
			57-129	3.5	6.0	93-83	5.3	4.7
72-135	4.0	3.7	61-124	4.0	1.7	105-107	3.3	2.7

APPENDIX F, Continued

Scale 6:

Number of Raters Accepting Role
as the Subject's Own

a. Males

Degree of Conviction

Dyad	High		Dyad	Intermediate		Dyad	Low	
	Role-taking Condition			Role-taking Condition			Role-taking Condition	
	Own	Other		Own	Other		Own	Other
7-20	1	0	67-84	3	3	2-3	2	3
56-99	3	2	106-86	1	3	81-115	2	3
70-52	3	1	142-88	1	0	54-79	1	0
151-73	3	3	13-16	3	0	143-109	0	1
45-47	3	0	113-101	3	1	92-131	3	2
1-17	1	0	122-53	1	0	55-118	2	3
65-119	2	3	39-21	2	0			
31-18	2	0	89-111	0	0	114-147	1	3

APPENDIX F, Continued

Scale 6:

b. Females

Degree of Conviction

Dyad	High		Dyad	Intermediate		Dyad	Low	
	Role-taking Condition			Role-taking Condition			Role-taking Condition	
	Own	Other		Own	Other		Own	Other
30-4	3	1	29-34	1	1	98-77	1	0
27-23	3	1	49-32	3	3	112-117	3	0
8-9	3	2	97-66	3	0	104-60	3	3
26-28	3	0	44-48	1	0	103-71	3	0
58-62	3	3	130-68	3	0	127-110	3	0
126-102	1	2	6-40	1	3	75-90	1	1
12-24	3	0	120-59	3	0	108-158	2	3
91-63	3	0	128-74	2	1	11-19	3	0
			57-129	3	2	93-83	1	0
72-135	1	0	61-124	0	1	105-107	2	0

APPENDIX G

Total Number of Words, Number of Utterances, And
 Absolute Difference Between Number of Words
 Said by Each Member of The Dyad (Dominance)
 In Each Conversation of Each Dyad

Dyad	Role-taking Condition	Total Words	Number of Utterances	Dominance
7-20	own	874	83	14
	other	862	56	104
67-84	own	1145	31	267
	other	1111	35	253
2-3	own	1070	17	10
	other	1035	18	315
30-4	own	1124	30	76
	other	1221	27	49
29-34	own	557	35	85
	other	667	21	323
98-77	own	867	50	59
	other	733	46	29
56-99	own	1372	68	88
	other	1047	60	13
106-86	own	888	36	294
	other	755	16	347
81-115	own	1156	44	284
	other	1149	35	457
27-23	own	1056	30	302
	other	974	21	58
49-32	own	981	25	363
	other	871	12	419
112-117	own	1285	96	193
	other	1206	84	272

APPENDIX G, Continued

Dyad	Role-taking Condition	Total Words	Number of Utterances	Dominance
70-52	own	1146	40	736
	other	1053	42	507
142-88	own	1158	64	450
	other	350	15	110
54-79	own	796	57	174
	other	893	72	3
8-9	own	825	32	261
	other	824	33	358
97-66	own	1030	51	338
	other	753	21	295
104-60	own	1008	12	142
	other	931	18	227
151-73	own	1407	20	365
	other	1264	30	538
13-16	own	1164	37	452
	other	1096	27	304
143-109	own	434	17	176
	other	642	34	90
26-28	own	640	33	138
	other	435	13	277
44-48	own	837	13	143
	other	659	21	269
103-71	own	958	56	154
	other	781	33	101
45-47	own	1026	55	146
	other	1035	38	237
113-101	own	1119	37	681
	other	747	22	243

APPENDIX G, Continued

Dyad	Role-taking Condition	Total Words	Number of Utterances	Dominance
92-131	own	940	43	4
	other	1036	18	22
58-62	own	992	16	162
	other	883	18	327
130-68	own	1007	49	233
	other	891	34	245
127-110	own	1100	59	60
	other	419	21	63
80-69	own	1004	28	60
	other	1134	23	138
64-125	own	669	6	203
	other	706	18	344
15-38	own	895	42	443
	other	773	38	321
126-102	own	1103	15	207
	other	1241	25	515
6-40	own	772	22	160
	other	952	29	50
75-90	own	1044	19	72
	other	1066	20	172
1-17	own	860	6	528
	other	737	19	271
122-53	own	799	51	223
	other	452	30	26
55-118	own	876	17	136
	other	910	14	244
12-24	own	1147	20	73
	other	913	16	387
120-59	own	827	26	69
	other	946	35	308

APPENDIX G, Continued

Dyad	Role-taking Condition	Total Words	Number of Utterances	Dominance
108-158	own	891	36	347
	other	794	38	14
65-119	own	1058	33	172
	other	1012	36	372
39-21	own	1069	43	87
	other	966	31	72
91-63	own	1009	35	187
	other	909	43	241
128-74	own	849	55	219
	other	875	43	5
11-19	own	929	49	41
	other	770	25	104
87-139	own	1422	87	208
	other	1476	93	28
85-100	own	975	67	137
	other	991	81	27
137-94	own	1177	62	173
	other	787	24	67
57-129	own	992	45	418
	other	1022	56	118
93-83	own	643	23	165
	other	551	19	169
31-18	own	935	12	99
	other	817	12	133
89-111	own	612	24	126
	other	573	27	163
114-147	own	1061	13	63
	other	1189	20	475
72-135	own	828	23	226
	other	684	26	132

APPENDIX G, Continued

Dyad	Role-taking Condition	Total Words	Number of Utterances	Dominance
61-124	own	992	34	4
	other	905	51	403
105-107	own	831	32	53
	other	775	39	57

APPENDIX H

Average Number of Words Per Utterances, Number of One Word
Affirmations Proportionate to Total Words, Proportion of
Utterances Begun with an Interruption, And Number
of Times "You" Used in a Personal Sense
Proportionate to Total Words in
Each Conversation For
Each Subject

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- rptions <u>Utterances</u>	#of "You"s <u>Total</u> Words
20	own	29.6	349*	95**	47***
	other	43.3	166	143	41
7	own	30.8	338	97	0
	other	32.0	211	143	0
84	own	39.4	0	438	0
	other	33.3	0	412	2
67	own	63.8	6	267	0
	other	42.6	7	444	1
3	own	88.3	0	111	19
	other	75.0	0	333	15
2	own	109.4	56	125	93
	other	38.6	0	444	0
30	own	52.6	33	667	33
	other	79.4	0	462	79

* Number per ten thousand words

** Number per thousand utterances

*** Number per ten thousand words

APPENDIX H, Continued

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- rptions <u>Utterances</u>	# of "You"s <u>Total</u> Words
4	own	52.2	19	333	76
	other	66.0	34	357	34
34	own	19.4	212	318	178
	other	18.8	116	273	0
29	own	24.1	0	222	31
	other	60.8	0	100	0
77	own	23.4	124	160	50
	other	17.5	57	304	0
98	own	24.0	43	80	194
	other	19.9	26	348	236
99	own	24.3	0	588	288
	other	21.0	18	433	106
56	own	20.1	15	382	140
	other	23.0	34	400	0
86	own	32.7	68	56	34
	other	40.8	0	125	49
106	own	73.0	135	166	34
	other	121.5	54	0	0
81	own	21.8	0	500	115
	other	23.0	29	471	87
115	own	32.7	0	318	97
	other	48.1	12	278	50
27	own	74.4	0	67	103
	other	60.0	44	400	66
23	own	46.2	186	0	0
	other	64.4	20	364	20
49	own	25.8	32	583	32
	other	35.2	44	500	0

APPENDIX H, Continued

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- ruptions <u>Utterances</u>	# of "You"s <u>Total</u> Words
32	own	55.8	0	538	15
	other	107.5	0	333	31
112	own	15.0	128	313	128
	other	15.3	128	333	43
117	own	19.8	68	500	338
	other	24.4	54	476	135
52	own	49.5	0	333	138
	other	41.0	13	571	141
70	own	12.1	49	211	0
	other	14.9	0	95	0
88	own	37.9	12	187	37
	other	17.1	0	0	0
142	own	15.2	141	187	254
	other	38.2	87	143	0
54	own	21.0	0	143	21
	other	13.5	22	306	67
79	own	13.4	32	276	64
	other	12.7	0	389	21
9	own	36.4	355	0	142
	other	65.3	558	0	43
8	own	90.6	0	187	18
	other	197.0	0	59	0
97	own	30.6	173	160	87
	other	17.9	0	273	0
66	own	46.5	44	308	146
	other	58.2	0	300	19
60	own	72.2	0	500	92
	other	50.3	0	333	0

APPENDIX H, Continued

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- rptions <u>Utterances</u>	# of "You"s <u>Total</u> Words
104	own	114.0	0	500	52
	other	82.4	17	222	17
151	own	106.1	0	500	34
	other	80.1	0	333	0
73	own	57.8	0	300	0
	other	30.0	28	67	110
13	own	29.9	140	444	56
	other	39.6	0	154	51
16	own	60.8	0	632	50
	other	68.9	0	357	14
143	own	21.3	0	143	0
	other	22.9	36	214	217
109	own	33.8	0	300	0
	other	21.4	82	100	82
26	own	23.8	80	313	80
	other	38.0	380	0	0
28	own	35.2	51	118	231
	other	71.2	0	0	0
48	own	86.2	58	0	29
	other	45.7	0	91	24
44	own	98.0	0	286	0
	other	19.5	0	600	51
71	own	34.4	108	286	53
	other	33.8	59	235	0
103	own	24.7	124	179	75
	other	43.6	91	125	0
47	own	30.6	102	296	17
	other	35.3	16	421	173

APPENDIX H, Continued

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- ruptions <u>Utterances</u>	# of "You"s <u>Total</u> Words
45	own	22.5	68	250	91
	other	22.2	0	737	125
113	own	64.1	0	263	44
	other	85.4	0	91	20
101	own	19.4	274	167	548
	other	49.2	158	91	79
92	own	30.4	21	318	212
	other	56.3	0	222	20
131	own	31.1	21	381	21
	other	61.1	0	222	20
58	own	59.1	24	735	0
	other	38.4	36	222	0
62	own	93.2	0	750	0
	other	75.6	0	333	0
130	own	25.3	233	80	0
	other	53.4	155	118	0
68	own	51.4	32	42	0
	other	93.8	70	118	0
127	own	34.6	207	333	34
	other	22.1	112	300	169
110	own	32.4	38	207	38
	other	24.0	0	182	124
69	own	66.9	42	286	85
	other	56.6	0	500	142
80	own	74.8	56	357	56
	other	45.3	0	727	161
125	own	145.3	0	0	0
	other	58.3	0	556	4
64	own	77.7	0	0	0
	other	20.4	11	111	6

APPENDIX H, Continued

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- rptions <u>Utterances</u>	# of "You"s <u>Total</u> Words
15	own	47.3	45	238	45
	other	38.7	73	53	128
38	own	15.9	133	190	708
	other	16.1	0	158	0
126	own	93.0	0	125	0
	other	30.3	0	167	83
102	own	64.0	0	143	179
	other	66.7	0	0	0
6	own	62.3	86	167	0
	other	41.0	0	400	22
40	own	61.0	33	100	0
	other	45.4	40	286	0
75	own	83.6	82	200	0
	other	65.3	17	400	17
90	own	111.6	0	111	0
	other	41.7	0	200	0
1	own	346.0	29	0	0
	other	71.9	20	222	59
17	own	78.5	0	0	120
	other	32.3	43	200	43
122	own	14.7	139	77	104
	other	17.4	188	0	47
53	own	25.5	0	40	20
	other	17.6	0	0	42
55	own	84.2	0	375	59
	other	75.8	0	0	17
118	own	49.4	0	333	108
	other	55.3	30	0	30

APPENDIX H, Continued

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- rptions <u>Utterances</u>	# of "You"s <u>Total</u> Words
12	own	53.7	0	200	0
	other	33.4	0	0	228
24	own	63.3	0	300	16
	other	81.2	0	125	46
120	own	55.8	4	77	0
	other	41.7	2	118	0
59	own	47.0	8	231	0
	other	19.9	3	278	3
108	own	17.0	0	235	0
	other	21.6	0	105	256
158	own	34.9	0	211	0
	other	21.3	0	158	25
65	own	40.9	16	235	81
	other	41.9	29	158	72
119	own	31.6	23	437	113
	other	22.7	0	529	0
39	own	30.6	20	429	204
	other	37.0	0	187	19
21	own	33.9	69	500	87
	other	31.9	22	333	44
91	own	42.6	33	294	67
	other	30.2	35	429	0
63	own	27.1	24	389	122
	other	17.3	0	136	60
128	own	30.9	540	71	63
	other	30.7	115	318	69
74	own	59.1	37	37	0
	other	28.8	68	286	0

APPENDIX H, Continued

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- rptions <u>Utterances</u>	# of "You"s <u>Total</u> Words
11	own	29.3	45	360	90
	other	36.9	60	154	90
19	own	30.1	21	542	41
	other	54.1	46	250	0
87	own	20.3	0	455	147
	other	18.7	0	426	53
139	own	16.3	33	488	296
	other	18.0	28	609	83
85	own	20.3	54	294	90
	other	14.1	0	463	157
100	own	15.4	23	273	23
	other	13.7	21	150	249
137	own	25.9	30	516	207
	other	34.8	23	308	0
94	own	14.3	20	581	40
	other	32.7	0	455	0
57	own	15.8	105	455	0
	other	14.2	44	536	22
129	own	30.3	0	478	0
	other	22.0	18	500	53
93	own	40.3	25	0	0
	other	40.0	0	0	28
83	own	26.4	84	0	42
	other	23.7	52	0	105
31	own	96.8	0	167	0
	other	68.4	0	167	29
18	own	103.2	20	167	39
	other	105.2	21	167	0

APPENDIX H, Continued

S#	Role-taking Condition	Average Words Per Utterance	# of Affirm- ations <u>Total</u> Words	# of Inter- rptions <u>Utterances</u>	# of "You"s <u>Total</u> Words
89	own	24.2	41	83	123
	other	21.4	49	71	146
111	own	36.8	27	167	27
	other	36.7	27	154	27
114	own	112.4	0	167	18
	other	38.5	0	300	336
147	own	79.6	0	429	160
	other	92.3	0	800	24
72	own	58.4	0	182	95
	other	25.5	0	143	343
135	own	30.0	0	250	166
	other	27.5	0	333	109
61	own	35.4	0	176	100
	other	34.8	61	240	46
124	own	37.3	20	647	81
	other	14.4	40	308	319
105	own	24.3	0	125	231
	other	19.8	0	238	48
107	own	27.6	23	125	45
	other	19.9	28	111	139

