

## 13 ● To Ask or Not to Ask: Is That a Question?

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**A**MONG the important determinants of the course that a given social interaction will follow are the knowledge structures that conversational participants bring with them to the interaction, the data that they gather during the interaction, and the ways in which incoming data interact with knowledge structures to produce social action. This view is compatible with recent calls for a more cognitive approach to the study of interpersonal communication (Berger & Roloff, 1980; Planalp & Hewes, 1981; Roloff & Berger, 1982). In general, these authors argue that the ways in which persons gather, encode, and retrieve social information during the course of interactions exert considerable impact upon the decisions that interactants make regarding the ways in which they will or will not communicate with each other.

Although there is a large body of literature in social psychology concerned with social cognition, much of that literature focuses upon internal processes that are responsible for various social judgments and decisions. For example, considerable research effort has been directed toward understanding the judgmental biases that appear to plague social decision makers (Kahneman, Slovic, & Tversky, 1982; Nisbett & Ross, 1980). In addition, other researchers have been concerned with a variety of problems associated with person memory (Hastie, Ostrom, Ebbesen, Wyer, Hamilton, & Carlston, 1980). However, there are two critical issues that social cognition researchers have avoided. First, little attempt has been made to ascertain the effects of biased social judgments on actual social interactions. Although the shortcomings of persons as intuitive scientists can be demonstrated in relatively controlled circumstances, there is no guarantee that the biased judg-

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ments of the social actor will have significant consequences within the live interaction context.

A second problem with social cognition research is the relative lack of concern with the process of social information gathering. Most of the shortcomings of the intuitive scientist cited by Nisbett and Ross (1980) are attributed to faulty implicit theories that persons use to make judgments about themselves and others. It is also possible that some of the problems that naive scientists have when they make inferences are the product of faulty data gathering techniques rather than erroneous theories about others. After all, when scientific theory is subjected to test, every effort is made to ensure that the conditions under which the theory is tested are free from various artifacts before the theory itself is evaluated.

A notable exception to the dearth of research on social information gathering is Snyder's work on hypothesis testing (Snyder, 1981; Snyder & Campbell, 1980; Snyder & Cantor, 1979; Snyder & Swann, 1978a, 1978b). In these studies, participants were given hypotheses to test about other persons. For example, some persons were asked to determine whether a target person was an extrovert while others were asked to find out whether a target person was an introvert. In a number of these studies, persons were given lists of questions they might ask in order to test their hypotheses. Unknown to the research participants, the question lists were constructed such that they contained some questions that were aimed at detecting extroversion, some that were concerned with introversion, and a number of neutral questions. Generally, these studies revealed a distinct tendency for persons to choose to ask confirmatory questions rather than questions that would disconfirm their hypotheses.

While Snyder's research program has yielded consistent support for the confirmatory information-seeking bias in testing hypotheses about others, a more recent study (Trope & Bassok, 1982) failed to find evidence for a confirmatory bias in social information seeking. Rather, their findings revealed that persons chose the most diagnostic information about others regardless of whether it confirmed or disconfirmed their hypotheses. Moreover, Hewes and Planalp (1982) have argued that if persons generally assume that the behavior of others is consistent across situations, it is reasonable for them to choose to ask confirmatory questions when they test hypotheses about others. There are at least two additional problems with Snyder's approach to social information gathering. First, in most of his studies, persons were provided lists of questions from which to make their choices. Such a procedure sacrifices experimental realism for experimental control. Second, the studies presuppose that a person has a hypothesis to test. Might not a person gather social information in order to generate hypotheses about another? The present study dealt with these two issues directly by studying social information gathering in the context of face-to-face interactions and by *not* giving research participants a specific hypothesis to test about their conversational partners.

Since the focus of prior social information-gathering research has been on question content, the present study examined the types of *question-asking strategies* that persons employ to gain information about others. We recognize that question-asking is only one of many ways in which social information can be gathered, but it appears to be one of the predominant methods of social information acquisition. Within the disciplines of linguistics, philosophy, psychology, and psycholinguistics, a few researchers have devoted their attention to question-asking and question-answering. Researchers in linguistics and psycholinguistics have studied developmental changes in the ways that children ask and answer questions and the ways in which parents ask questions of their children (Berninger & Garvey, 1981a, 1981b; Corsaro, 1977; Holzman, 1972; Malzone & Parker, 1979; Mishler, 1975a, 1975b; Mosher & Hornsby, 1966; Tamir, 1980). Robinson and Rackstraw (1972) reported the results of an extensive study of children's answers to questions as a way of testing a number of hypotheses drawn from Bernstein's (1971) theory of social class differences in language code usage. Several philosophers (Belnap & Steel, 1976; Harrah, 1961; Hintikka, 1974, 1978; Hiz, 1962, 1978; Wheatley, 1955) have explored the logic of questions (*erotetic logic*) and the relationship between questions and answers. These analysts have been concerned with such issues as what information is presupposed by the asking of particular types of questions, the kinds of answers demanded by different types of questions, and the criteria by which answers to questions can be judged to be adequate.

Questions can vary in their forms as well as in their functions. Questions can be closed- or open-ended. The class of open questions consists of the so-called Wh questions, such as "who," "what," "where," "when," "why," and "how." Closed-ended questions can be presented in a disjunctive or confirmation-denial (yes or no) form (Robinson & Rackstraw, 1972). Kearsley (1976) has pointed out several functions that questions might serve. *Echoic questions* ask for clarification and *epistemic questions* ask for referential or evaluative information. Questions can be *expressive*, depending upon their asker's intonation pattern, and questions can also serve a *social control* function. In research demonstrating some of these functions, Mishler (1975a) found that parents controlled conversations with their children by asking them successive questions. Ervin-Tripp (1976) documented how questions are used as directives. Merritt (1976) explicated the conditions under which questions are interpreted as requests for information versus requests for service in salesperson-customer transactions. She also demonstrated how coherent discourse can occur even when questions are *not* responded to by an answer but with a question. Numerous instances of questions being answered by questions were found in salesperson-customer interactions at a drug store counter.

While the body of research cited above provides us with useful taxonomies of questions and some interesting insights into various facets of ques-

tion-asking, it does not deal directly with the issue of the kinds of question-asking strategies that social actors use when they wish to gain information about others. Three studies (Berger, 1973; Calabrese, 1975; Frankfurt, 1965) have reported that persons interacting for the first time ask numerous questions during the first few minutes of their interactions. After the first few minutes, the rate of question-asking tends to decrease exponentially through time (Calabrese, 1975). Moreover, both Berger (1973) and Calabrese (1975) found that the content of questions changes through time. Initial questions are generally concerned with background or biographic information; later questions are concerned with opinions, preferences, and interests. The consistent patterns of question-asking and question-answering observed in initial interactions led Berger (1982) to suggest that persons may employ information-gaining scripts (Abelson, 1976, 1981; Bower, Black, & Turner, 1979; Schank & Abelson, 1977) when they wish to seek information about others. These "weak" scripts (Abelson, 1981) provide the human understander with procedural information about how to gain information from others. Such knowledge structures are important to study because of their powerful heuristic potential for persons.

In order to achieve our aims, we decided to study both the structure and content of questions asked during ongoing interactions with strangers. After these interactions, we asked participants to indicate in their own words the kinds of strategies they employed to achieve their interaction goals. From these postinteraction protocols we discovered that persons employed a number of different information-gaining strategies to find out things about their conversation partners. However, since the most frequently mentioned strategy involved asking questions, this strategy was examined in detail.

## METHOD

### Participants

Participants in this study were 122 undergraduate students drawn from various communication courses at Northwestern University. Of these 122 participants, 15 failed to understand fully their instructions and, because participants were run in dyads, these persons and their partners had to be deleted from the analysis. A total of 96 individuals in 48 dyads were employed in the final analysis.

### Procedure

Participants were randomly assigned to one of four conditions. The four conditions were created by differing instructional sets given the participants before they entered the interaction situation. After participants individually read their instructions, the experimenter asked if there were any questions

and made sure that the dyad members had never met. Dyads conversed for a period of five minutes, during which their conversations were videotaped from behind a one-way mirror. After finishing their conversation, participants were ushered to separate rooms. In these rooms there were tape recorders and a set of instructions. Participants were asked to turn on the tape recorder and explain what their *goals* were in the conversation and the ways they tried to achieve their conversational goals. After completing the tape recordings, participants were debriefed and asked not to talk to other persons about the study. The answers to the first question provided a manipulation check, while the second question aimed to assess the strategies that persons could verbally report they employed during their conversations.

### Manipulations

Three different sets of instructions were employed to create the four interaction conditions. The first part of all of the instructions was identical. These instructions asked the participant to imagine that he or she was at a party meeting a person for the first time. After this initial paragraph, the instructions diverged. *High Seekers* were told to find out as *much* as they could about their conversational partners during the conversations. This goal was stated at three different points in the instructions. *Low Seekers* were told to find out as *little* as possible about their conversational partners during the course of their interactions. The wording of the High and Low Seeker inductions was virtually identical with the exception of the critical differences. *Normal* instructions said nothing about how much or how little the participant should find out about his or her partner. *None* of the instructions contained any directions about how much or how little the participant could *tell* about himself or herself to his or her conversational partner. All instructions stressed that the participant should *not* discuss the instructions during the conversation. The instructions did not indicate how long the conversations would last. Also, the instructions contained no information about how the participants were to achieve their conversational goals. Four types of dyads were created by pairing persons with the same or different instructions. *High-High* dyads consisted of two persons with High Seeker instructions; *Low-Low* dyads were formed by pairing two persons with Low Seeker instructions; *High-Low* dyads paired a High Seeker with a Low Seeker; and *Normal* dyads consisted of two persons conversing under the Normal instructions.

### Interaction Indices

The videotaped conversations were analyzed in two main ways. First, judges made independent ratings of each individual in each of the conversations on the following three dimensions: (1) amount of information seeking,

(2) degree of social appropriateness of the person's behavior, and (3) the efficiency with which the person met his or her interaction goal. Judges were blind to both the hypotheses of the study and the conditions of the participants when they made the first two ratings; however, by necessity the judges had to be made aware of the interaction goal given each individual in order to assess the efficiency with which they met their goals. Also, since no specific interaction goal was given to those persons in the Normal condition, efficiency ratings were not made for these persons. Judges made only one rating at a time for each person in order to avoid the possibility of encouraging spurious correlations among ratings. Also, one set of judges performed the information-seeking ratings while a second set of judges did the social appropriateness and efficiency ratings. The correlations between judges for the three ratings across all participants were  $r = .92$  for information-seeking,  $r = .57$  for social appropriateness, and  $r = .67$  for efficiency.

In addition to the above ratings, a third set of two coders counted the number of questions asked by each conversational participant during each of the ten 30-second intervals that constituted each 5-minute conversation. Correlations between these two coders across forty 30-second segments of four persons produced a correlation of .88 between coders. Finally, these coders classified the utterances of each of the 96 conversational participants into questions, answers, and statements and noted the sequencing of these three conversational units within each conversation. Comparison of the coders' sequencing decisions from one question to the next question revealed 43 disagreements out of 1128 sequencing decisions, for an agreement rate of 96 percent. When questions were encountered in the conversations, they were classified in two ways. First, a decision was made as to whether the question was closed- or open-ended. Of the 1096 questions encountered in the 48 conversations, the coders agreed 97 percent of the time as to the classification of the question as open or closed. Finally, each question was placed into one of 23 content categories shown in Table 13.1. This coding scheme was developed for this study and has three main divisions: (1) Questions asking about attributes of the *self* of the other person (for example, Where are you from? How do you feel about classical music?); (2) questions about third parties (Does your friend like disco? Has your friend ever been to Europe?); and (3) general information requests (How does one go about smelt fishing? How does one go about registering?). Under each of these three main categories are a number of subcategories, shown in Table 13.1.

Table 13.1 also contains a category we called "verbal prompts." These are such statements as "Oh, really?" which are worded as questions, but which serve to encourage the other person to continue to talk. These can be distinguished from "clarification requests," which are genuine requests for additional information or clarification of previous utterances, such as "What did you mean by that?" Two independent coders agreed 93 percent of the time in

Table 13.1  
Distribution of Questions Asked Across Question Categories

	<i>Individual Category %</i>	<i>Main Category %</i>
Questions About Partner's Self		62.04
Partner's experiences		
Locale	11.67	
Witness event/activity	.54	
Participate in event/activity	6.93	
Social Relations	4.92	
Educational Experience	14.59	
Ownership	.54	
Partner's attitudes/opinions		
Attitudes toward activities	.91	
Attitudes toward objects	6.38	
Attitudes toward abilities of self	.72	
Physical/mental well-being	2.55	
Explanations for behavior/attitudes	5.74	
Goals/future intentions/past intentions	6.11	
Enabling conditions for goal achievement	.36	
Questions About Third Parties		3.46
Experiences	2.82	
Attitudes/opinions	.27	
Explanations for behavior/attitudes	.18	
Goals/future intentions/past intentions	.18	
Enabling conditions for goal achievement	.00	
General Information Requests		24.17
Objects/procedures	9.03	
Identification of others	3.74	
Identification of self	3.37	
Identification of activities	.54	
Identification of meaning/clarification	6.56	
Verbal Prompts	11.22	11.22
Total questions asked	n = 1096	

classifying the 1096 questions into the categories shown in Table 13.1. In general, raters' judgments, sequence judgments, and question number, form, and content judgments were quite reliable. When disagreements occurred, the disagreements were reviewed on the tapes until agreement was reached.

#### Postinteraction Protocols

The postinteraction tape recordings made by participants were transcribed and analyzed in two different ways. First, two judges, blind to the con-

Table 13.2  
Distribution of Question-Asking Strategies Across Content and  
Structure Categories of Postinteraction Protocol Responses

<i>Strategies</i>	%
Concerned with Question Content	
Asked biographic/demographic questions	41
Asked attitude/opinion questions	14
Asked interesting/unique questions	6
Asked noninteresting questions	2
Concerned with Question Structure	
Went from general to specific questions	12
Reciprocated question-asking	6
Asked new question right after previous answer	2
Asked closed questions	3
Asked open questions	2
Asked Questions—No Content or Structure Specified	12
Total strategies mentioned	n = 51

dition of the participants, read the answers to the question concerning the participants' goals in the study. From these responses, the judges estimated whether the participant had received High Seeker, Low Seeker, or Normal instructions, or whether the participant had misunderstood his or her instructions. The two judges agreed 100 percent of the time on these judgments.

The postinteraction protocols were also coded by two judges with reference to the strategies that participants said they used to achieve their goals. Persons who indicated that they utilized question-asking in some way were coded into one of the categories shown in Table 13.2.

Strategy coding was done in two steps. First, judges independently read each protocol and decided whether or not the participant indicated that he or she had used question asking to achieve his or her objective. Across all individual participants' protocols, the two judges agreed 96 percent of the time on this judgment. Once it was established that the participant had used question asking as a strategy, the specific strategy or strategies mentioned by the participant were coded into the categories shown in Table 13.2. Since a participant could mention more than one strategy, some individuals contributed multiple responses to the categories shown in Table 13.2. Of the 51 strategies mentioned, 2 judges agreed on the placement of these strategies into the categories shown in Table 13.2 87 percent of the time. Disagreements were discussed until they could be placed into a category. These data suggest that judges could identify reliably the condition of the participants from their goal statements and could reliably code question-asking strategies participants said they employed in their conversations.

## RESULTS

### Manipulation Checks

In the previous section we described how two coders examined the protocols of the participants and judged which set of instructions the participants received from their answers to the question concerning interaction goals. The two coders identified fifteen participants who apparently misunderstood their instructions. Of these fifteen persons, fourteen had received the Low Seeker instructions and one had received the High Seeker instructions. While these results suggest that the instructions for the Low Seekers were somehow ambiguous, the reader will recall that the Low and High Seeker instructions were virtually identical. Moreover, all fourteen of the Low Seekers misunderstood their instructions to say that they should *reveal as little about themselves* as possible to their conversational partner. *Nowhere* in any of the instructional sets was *any mention* made about how much the participant should reveal to his or her conversational partner. We believe that the *systematic distortion* of the Low Seeker instructions by this group of participants does not bespeak a methodological problem (ambiguous instructions) but is an indicator of a theoretically relevant process. Additional Low Seeker participants were run to compensate for the loss of the fourteen participants who misunderstood their instructions.

A second manipulation check was performed by comparing the judges' ratings of the extent to which each participant sought information from his or her partner across the three groups (High Seekers, Low Seekers, and Normals), using averaged judges' scores for the participants. A one-way analysis of variance of the five-point information-seeking index employing the individual as the unit of analysis compared High Seekers, Low Seekers, and Normals. This analysis yielded a significant main effect ( $F = 31.24$ ,  $d.f. = 2/93$ ,  $p < .001$ ) with the mean for the Normals at 3.15, which is very close to the theoretic midpoint of the information-seeking scale (3.00). The mean for the High Seekers was 3.88 and the mean for the Low Seekers was 2.11. Newman-Keuls tests of pairs of the three means revealed that not only did the High and Low Seekers differ significantly ( $p < .05$ ) from each other, but both Highs and Lows were significantly different from the Normal group. These results support the assertion that judges were able to detect differences in information-seeking behavior that were consistent with participants' instructions.

### Analysis of Question Content

Before performing analyses of the content categories of Table 13.1, we analyzed utterance frequency and utterance length of the dyads to determine whether dyads in the various conditions differed from each other. These analyses revealed no significant main effects or differences over time

or interactions in terms of average utterance frequencies or durations. Since these variables have been shown to be highly correlated with actual number of words uttered (Harper, Wiens, & Matarazzo, 1978; Matarazzo, Holman, & Wiens, 1967), it is reasonable to conclude that the actual number of words uttered between the experimental conditions did not differ. Also, in order to determine whether we would have to control for the *number* of questions asked in our analyses of the content categories, we performed a repeated measures ANOVA of the number of questions asked by participants in the three groups (High Seekers, Low Seekers, and Normals) across the ten 30-second time segments of the interactions. For purposes of this analysis and all subsequent analyses of the content codes, one participant of each dyad was randomly deleted from the analysis to assure independence of observations in the various conditions. This procedure was deemed necessary because between-dyad correlations within conditions revealed a number of significant correlations on several of the content measures. The ANOVA of the number of questions revealed a significant main effect for condition of participant ( $F = 7.45$ ,  $d.f. = 2/45$ ,  $p < .002$ ) and a significant main effect for time ( $F = 8.43$ ,  $d.f. = 9/405$ ,  $p < .001$ ) and no significant interaction between the two. The mean numbers of questions asked by participants in these conditions across the ten time periods are plotted in Figure 13.1.

A Newman-Keuls test of the three condition means showed that across the entire conversation the Low Seekers asked significantly fewer questions ( $M = 5.65$ ) than did either the High Seekers ( $M = 13.78$ ) or the Normals ( $M = 12.92$ ). A trend analysis of the significant main effect for time revealed a significant linear component ( $F = 47.38$ ,  $d.f. = 1/45$ ,  $p < .001$ ) and a significant cubic component ( $F = 20.51$ ,  $d.f. = 1/45$ ,  $p < .001$ ).

Another ANOVA of number of questions was computed employing condition of participant (High or Low) and condition of conversational partner (High or Low) as between-subjects factors and time as a repeated measure. This analysis excluded persons in the Normal condition by necessity and conversational partners were randomly deleted to assure independence of observations. The same main effects for condition of participant and time reported above were found in this analysis and no other main effects or interactions were significant. This result indicates that when High Seekers were paired with other Highs or with Lows, and when Low Seekers were paired with other Lows or Highs, there were no differential tendencies to ask more or fewer questions over the course of the interaction. High Seekers simply asked more questions than Low Seekers.

Because significant differences in the number of questions were found between conditions and through time, all of the subsequent analyses of question content and sequencing controlled for the differential distribution of questions by using the number of questions within each condition and time period as the basis for computing the use of the various content codes shown in Table 13.1. Furthermore, since a number of the specific content

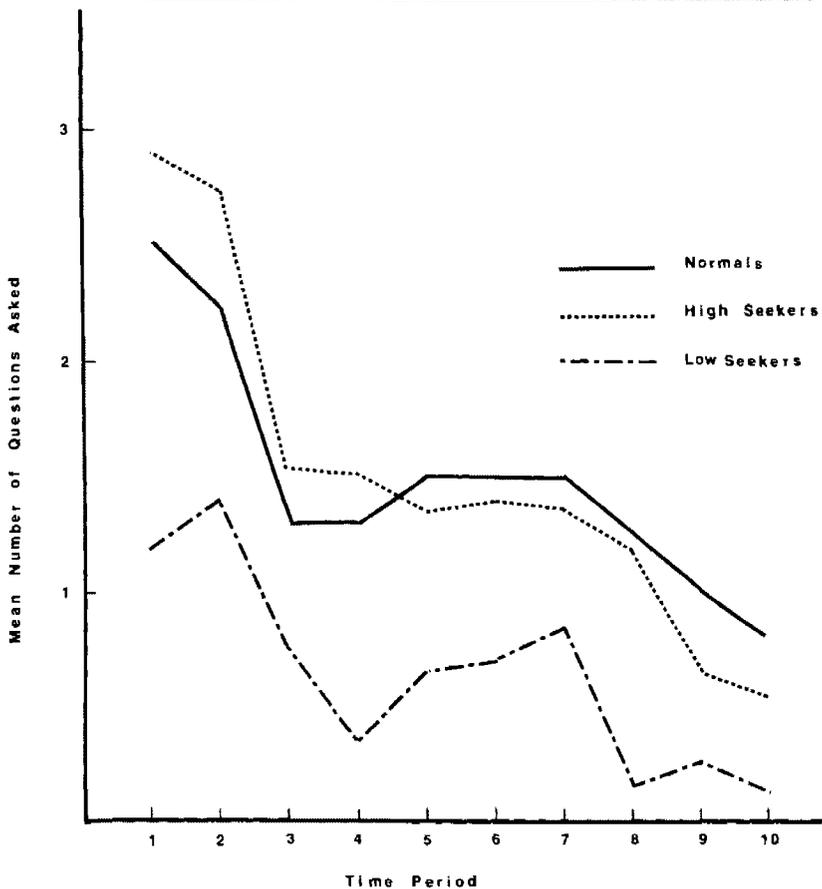


Figure 13.1. Number of questions.

categories shown in Table 13.1 were utilized very infrequently, the following four main content variables were analyzed by condition over time: (1) Questions About Partner's Self, (2) Questions About Third Parties, (3) General Information Questions, and (4) Verbal Prompts. The first three variables were formed by collapsing the subcategories of questions subsumed under them. In computing these indices, verbal prompts were *not* included in the denominator of the proportions.

A  $3 \times 10$  ANOVA of the Questions About Partner's Self category revealed a significant main effect for condition ( $F = 14.21$ ,  $d.f. = 2/45$ ,  $p < .001$ ) and a main effect for time ( $F = 6.52$ ,  $d.f. = 9/405$ ,  $p < .001$ ). The interaction between these two variables fell just short ( $p < .07$ ) of conventional levels of significance. The mean proportions of asking questions about partner's self are plotted in Figure 13.2.

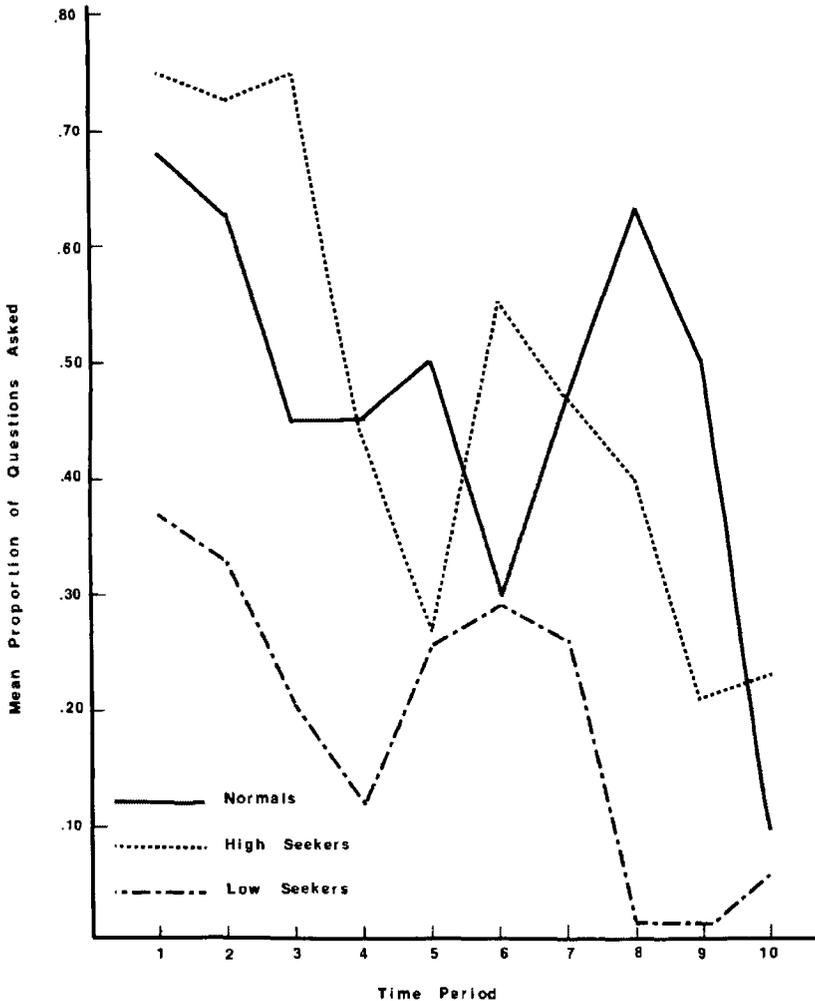


Figure 13.2. Questions about partner's self.

A Newman-Keuls follow-up test of the main effect for condition showed that the High Seekers ( $M = .48$ ) and the Normals ( $M = .47$ ) had significantly ( $p < .05$ ) higher levels of asking their partners about themselves than did the Low Seekers ( $M = .19$ ). A trend analysis of the significant main effect for time showed a significant linear component ( $F = 40.36$ ,  $d.f. = 1/45$ ,  $p < .001$ ), a significant cubic component ( $F = 4.21$ ,  $d.f. = 1/45$ ,  $p < .05$ ), and a significant quintic component ( $F = 4.70$ ,  $d.f. = 1/45$ ,  $p < .04$ ). The data plotted in Figure 13.2 suggest that the frequency of asking these kinds of questions may be cyclical in conversations; that is, there appear to be bursts

of asking such questions among both Normals and Highs followed by periods of low question-asking in this category. In addition to these analyses, another ANOVA comparing condition of participant (High or Low) with condition of partner (High or Low) over time was computed. This analysis revealed the same main effects as the analysis reported above and there were no additional main effects or interactions. Thus asking questions about the partner's self was *not* influenced by the condition of the partner for the High and Low Seekers.

We also attempted to compute a series of ANOVAs for the Questions About Third Parties category of Table 13.1. However, because there were too few instances of questions in this general category, there were many cells with zero entries; thus it was impossible to compute ANOVAs for this measure. ANOVAs of the third main content category of Table 13.1, General Information Questions, were computed in the same way as those reported above. No significant main effects for condition or time or significant interactions were observed in these analyses. Thus it appears that persons operating under the different instructions did not employ differing numbers of general information questions across conversations.

Finally, we analyzed the Verbal Prompts category by itself. This analysis yielded a significant main effect for time ( $F = 2.35$ ,  $d.f. = 9/405$ ,  $p < .03$ ). No significant main effect for condition was observed and no interaction occurred between time and condition. The mean proportions of verbal prompts in each time interval are plotted in Figure 13.3. A trend analysis of the significant time main effect revealed only a significant linear trend ( $F = 11.03$ ,  $d.f. = 1/45$ ,  $p < .002$ ).

Since several of the categories of Table 13.1 individually had enough observations to be analyzed separately, a series of ANOVAs, like those computed for the main categories, were calculated. These ANOVAs were for the Locale, Participate in Event, Social Relations, Educational Experience, Attitudes Toward Objects, Explanations for Behavior, and Goals/Future Intentions categories of the Questions About Partner's Self category. Of these seven ANOVAs, four produced significant ( $p < .05$ ) main effects for condition of participant and five produced significant main effects for time. Only the Locale analysis produced a significant condition by time interaction. In general, follow-up tests of the main effects for condition revealed that the High Seekers and the Normals asked more questions concerned with both Locale and Educational Experiences than did the Low Seekers; however, the main effect for Locale is tempered by the interaction with time. Additionally, the High Seekers asked their partners to explain their attitudes and behavior more frequently and asked them more questions concerned with Goals/Future Intentions than did either the Normals or the Lows. These results suggest that even though the High Seekers and Normals asked about equal numbers of questions, the High Seekers asked qualitatively different questions in order to achieve their interaction goals. ANOVAs of the Objects/

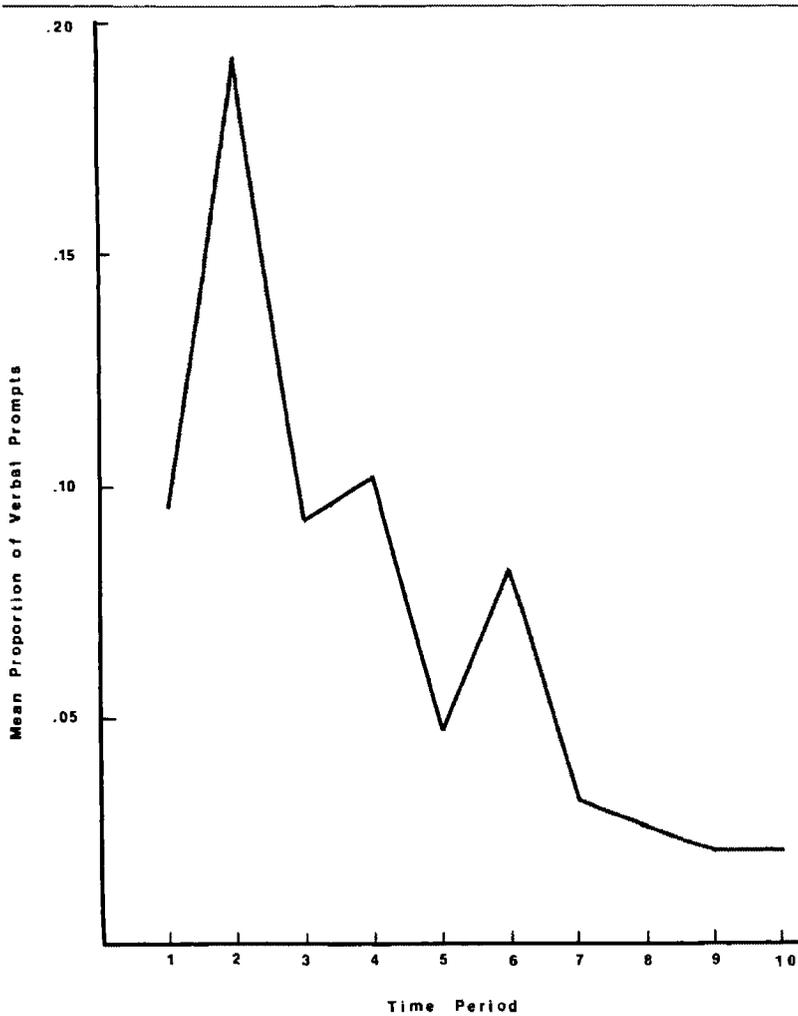


Figure 13.3. Verbal prompts.

Procedures and Identification of Meaning/Clarification Requests categories of the General Information Requests main category revealed no significant main effects or interactions.

### Question Structure

Of the 873 questions that were not verbal prompts, 37 percent were open-ended and the remainder were of the closed form. Since the results for one question form would be simply the reciprocal of the other form, an anal-

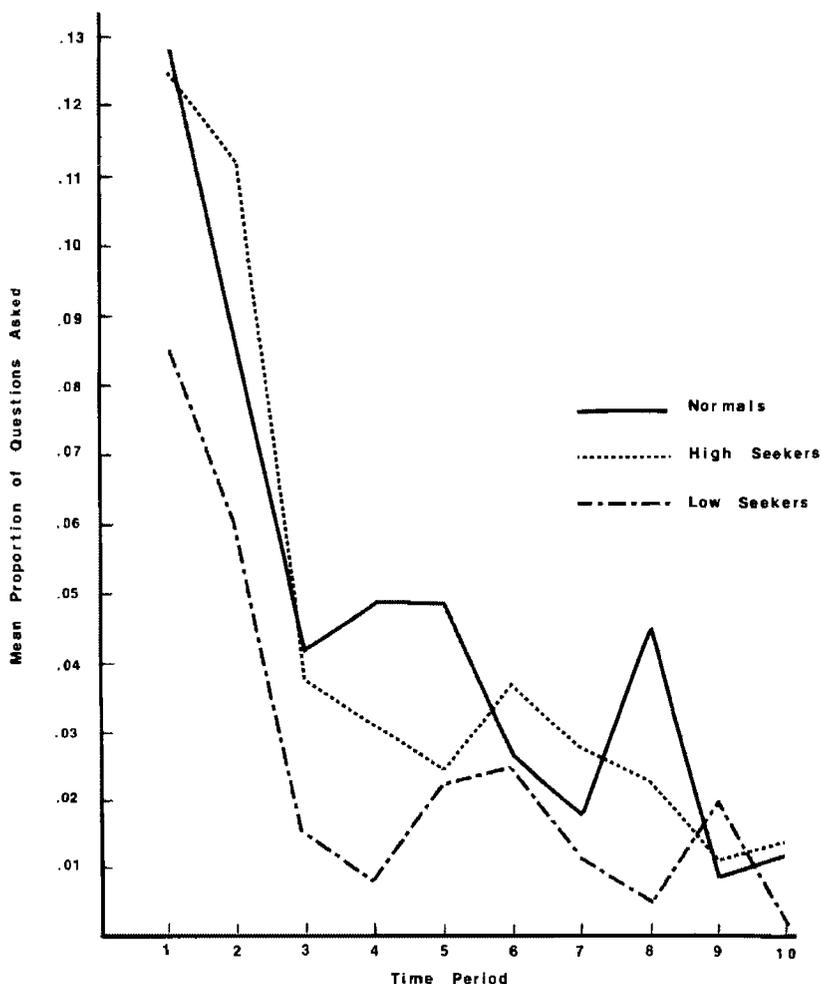


Figure 13.4. Open-ended questions.

ysis was done only for open-ended questions. A  $3 \times 10$  ANOVA was computed using the number of open-ended questions within each condition and time interval as a base for computing the proportion of open-ended questions in each cell of the design. This ANOVA produced a significant main effect for both participant condition and time and no significant interaction between the two. The mean proportions for open-ended questions are plotted in Figure 13.4.

A Newman-Keuls follow-up test revealed that the High Seekers and the Normals asked significantly ( $p < .05$ ) more open-ended questions than did

the Low Seekers; however, the Highs and Normals did not differ from each other. A trend analysis of the time main effect showed only a significant linear trend ( $F = 11.45$ ,  $d.f. = 1/45$ ,  $p < .005$ ).

### Interaction Structure

As mentioned previously, each conversation was coded into mutually exclusive and exhaustive acts of questions, answers, and statements. Given a two-person conversation, there are a total of six possible acts: (1) Q1, Person 1 asks a question; (2) A1, Person 1 answers a question; (3) S1, Person 1 makes a statement; (4) Q2, Person 2 asks a question; (5) A2, Person 2 answers a question; and (6) S2, Person 2 makes a statement. Two sets of analyses were performed on the structural indices obtained from this sequence coding. First, a Markov model was fit to the data. Second, specific structural parameters were computed and examined for their effects across instructional sets.

To fit the Markov model, a first-order transition matrix was constructed for each dyad based on transitions between events (ignoring clock time), yielding a  $6 \times 6$  matrix for each dyad containing the probabilities of moving from each possible act to every other act. These first-order matrices (that is, each matrix provides probabilities for immediate *adjacent* acts, that is, first order assumes the future is conditionally independent of the past given the present) were then pooled into one of four matrices by condition of the participants. The four pooled matrices were for participants in the Normal, High-High, High-Low, and Low-Low conditions as dyads. In Table 13.3 the stochastic transition matrices, the transition vector, and the total number of acts are provided for each of these conditions. The tests for a Markovian structure—homogeneity, stationarity, and order—indicate that the transition probabilities in these matrices describe the structure of the interactions in each condition.

The homogeneity test determines whether the pooled matrix for a given condition accurately summarizes the sequencing of acts in the interaction for each dyad in that condition. Approximately efficient chi square tests were computed comparing each dyad to the pooled matrix of the dyad's condition. Only 3 of 48 chi square tests were significant, indicating that the transition structure was homogeneous across dyads within a condition. These pooled matrices were then collapsed for the total sample to determine whether the dyads in each condition exhibited different sequential structures. Approximately efficient chi square tests indicate that the Normals have a significantly different structure than the other conditions ( $\chi^2 = 33.34$ ,  $d.f. = 25$ ,  $p < .05$ ), though the exact nature of this difference could not be isolated in individual comparisons of the pooled matrices. However, examination of the matrices in Table 13.3 suggests a number of potential differences, some of which are explored in more detail in the structural param-

Table 13.3  
Pooled Stochastic Matrices by Condition of Dyad

	Q1	A1	S1	Q2	A2	S2	V
<b>Normals</b>							
n = 975							
Q1	.0069	.0000	.0207	.0414	.9103	.0207	.1487
A1	.1130	.0000	.2700	.1913	.0783	.3478	.1179
S1	.1142	.0046	.0046	.1918	.0959	.5891	.2246
Q2	.0345	.9052	.0086	.0086	.0000	.0431	.1180
A2	.2788	.0485	.3273	.0849	.0000	.2606	.1692
S2	.2465	.0047	.5907	.1349	.0186	.0047	.2205
<b>High-Lows*</b>							
n = 944							
Q1	.0143	.0000	.0048	.0381	.9286	.0143	.2225
A1	.2469	.0000	.3333	.0864	.0864	.2469	.0858
S1	.2240	.0000	.0164	.1475	.0874	.5246	.1939
Q2	.0548	.9315	.0137	.0000	.0000	.0000	.0773
A2	.3349	.0605	.2093	.0837	.0000	.3166	.2278
S2	.3516	.0000	.5659	.0714	.0055	.0055	.1928
<b>High-Highs</b>							
n = 1028							
Q1	.0216	.0216	.0144	.0000	.9281	.0144	.1352
A1	.0898	.0000	.3054	.3413	.0480	.2156	.1625
S1	.1346	.0000	.0240	.2981	.0721	.4712	.2023
Q2	.0279	.9106	.0168	.0223	.0000	.0223	.1741
A2	.3158	.0329	.2303	.1250	.0000	.2961	.1479
S2	.2131	.0000	.6011	.1749	.0109	.0000	.1780
<b>Low-Lows</b>							
n = 631							
Q1	.0208	.0208	.0000	.0000	.9375	.0200	.0761
A1	.0952	.0000	.3492	.2222	.0635	.2698	.0998
S1	.0439	.0000	.0585	.1610	.0293	.7073	.3249
Q2	.0159	.9206	.0317	.0159	.0000	.0159	.0998
A2	.1786	.0536	.2143	.0893	.0000	.4643	.0887
S2	.0918	.0102	.8214	.0408	.0051	.0306	.3106

Note: n refers to the number of acts generated by dyads in the respective condition; V refers to the probability vector for engaging in the respective acts.

\*Q1, A1, and S1 are parameters for High Seekers; Q2, A2, and S2 are parameters for Low Seekers.

ters analysis. For example, Normals exhibit higher transition probabilities between one person answering a question and the person's partner initiating a statement than individuals in the other conditions. High Seekers, when paired with Lows, seem better able to convert a floor possession obtained through an answer or a statement to a question than subjects in other conditions. While Low Seekers who are paired together exhibit the highest probability for making statements, both as an internal act and in comparison to other conditions, Normals also exhibit a higher probability for making state-

ments than questions or answers. In contrast, High-Low dyads appear to adopt a question-answer sequence with an exchange of statements being secondary in importance.

Perhaps most informative in these transition matrices are the apparent conversational disfluencies exhibited for the most part by the non-Normal dyads. For example, the probability of a person asking two questions in a row is lowest in the Normal condition. In a like manner, the Normals appear not to have conversations with “pregnant pauses,” requiring the last person that made a statement to restart the conversation with another statement. Low Seekers exhibit the highest probability for such renewals of conversation by the same person making two statements in a row. The Normals also do not tend to trail their answers to questions off into extended statements as much as participants in other conditions. In essence, the structure of the Normals’ sequencing shows much less evidence of disfluency in conversation than do the other groups.

A transition matrix is said to be stationary if the transition probabilities exhibited in subintervals of the total time are equivalent to each other. In this case, to retain a sufficient number of acts to make up the subinterval matrices, tests of stationarity were conducted on transition matrices constructed from the first 2.5 minutes and from the last 2.5 minutes of each dyadic 5-minute conversation. Approximately efficient chi square tests, computed for each dyad, indicated that all dyads had stationary transition structures through time. The finding of stationarity implies that the transition structures did not change over the course of the interaction.

The test for order determined whether only knowing the immediately preceding act was sufficient for predicting the next act or whether multiple previous acts were required for adequate prediction. In all but 1 of the 48 conversations (a Low-Low dyad), the transition matrices were of the first order; in the exceptional case, the matrix was of the second order. As a result, structural sequencing of conversations according to questions, answers, and statements can be viewed as a stationary, first-order Markov process.

The second approach to analyzing the structure of interaction was undertaken by deriving a number of structural parameters and examining their effects across instructional sets. As before, to prevent contamination of the results due to interactional influence with one’s partner, half of each dyad was randomly deleted from these analyses. Three basic structural parameters can be extracted from the transition matrices—the probability of asking a question, the probability of answering a question, and the probability of making a statement. In a one-way ANOVA, a significant main effect was found for the participant’s condition on the probability of asking a question ( $F = 6.70$ ,  $d.f. = 2/45$ ,  $p < .003$ ). A Newman-Keuls test indicated that High Seekers ( $M = .16$ ) and Normals ( $M = .15$ ) have significantly ( $p < .05$ ) higher probabilities of asking questions than do Low Seekers ( $M = .09$ ). No interaction effect was isolated in the two-way ANOVA for the participants’

and their partners' conditions, though the main effect for participant's condition was reaffirmed. While there was no main effect in the one-way ANOVA for the participant's condition on the probability of answering a question, the two-way ANOVA located a significant main effect for the condition of the partner ( $F = 32.89$ ,  $d.f. = 2/45$ ,  $p < .001$ ). The probability of answering a question was much higher when a subject's partner was a High Seeker than when his or her partner was a Low Seeker.

The probability of making a statement also varied by condition, though the effect was somewhat difficult to pin down. In the one-way ANOVA, a significant main effect was found for the subject's condition ( $F = 3.50$ ,  $d.f. = 2/45$ ,  $p < .039$ ), apparently indicating that Low Seekers ( $M = .28$ ) had a higher probability of making statements than either Normals ( $M = .24$ ) or High Seekers ( $M = .21$ ). However, a Newman-Keuls test failed to locate any differences in contrasts between the groups. Furthermore, the two-way ANOVA suggested an interaction between High and Low Seekers when they were paired together ( $F = 7.11$ ,  $d.f. = 2/45$ ,  $p < .001$ ). Analysis of the simple effects revealed that Low Seekers paired with other Lows ( $M = .33$ ) had a significantly ( $p < .05$ ) higher probability of making a statement than Low Seekers paired with Highs ( $M = .18$ ,  $F = 14.39$ ,  $d.f. = 1/32$ ,  $p < .05$ ) or High Seekers paired with Lows ( $M = .22$ ,  $F = 7.40$ ,  $d.f. = 1/32$ ,  $p < .05$ ). No other significant simple effects were found. Thus Low Seekers when paired together utilized a strategy of making significantly more statements than when they were paired with Highs.

Beyond these basic structural parameters, it is also possible to derive parameters representing conditional probabilities. Conditional probability parameters are all in some way related to possession of the floor. The probability of converting a floor possession to a question—that is, moving from an answer or statement into a question—is an example of a conditional probability parameter. In a one-way ANOVA, the participant's condition was found to have a significant main effect on floor conversion ( $F = 3.71$ ,  $d.f. = 2/45$ ,  $p < .032$ ). A Newman-Keuls test revealed that High Seekers ( $M = .33$ ) were found to convert floor possessions to questions more often than either Normals ( $M = .27$ ) or Lows ( $M = .13$ ). This effect was replicated in the two-way ANOVA.

The probability of retaining possession of the floor subsequent to having asked a question can be viewed as an indicator of conversational disfluency. A significant interaction was found in the two-way ANOVA ( $F = 19.79$ ,  $d.f. = 2/45$ ,  $p < .001$ ). High Seekers paired with Highs ( $M = .03$ ) or Low Seekers paired with Lows ( $M = .02$ ) had far less probability of retaining the floor subsequent to a question than Lows paired with Highs ( $M = .57$ ,  $F = 12.70$ ,  $d.f. = 1/32$ ,  $p < .05$ ;  $F = 13.43$ ,  $d.f. = 1/32$ ,  $p < .05$ , respectively) or Highs paired with Lows ( $M = .43$ ,  $F = 6.83$ ,  $d.f. = 1/32$ ,  $p < .05$ ;  $F = 7.37$ ,  $d.f. = 1/32$ ,  $p < .05$ ). These results indicate that High-Low dyads had some difficulty in floor possession changes following a question.

The probability of retaining possession of the floor after answering a question did not vary significantly by condition, though the probability of retaining the floor after making a statement exhibited a significant interaction of participant's condition and partner's condition ( $F = 11.48$ ,  $d.f. = 2/45$ ,  $p < .002$ ). Analysis of the simple effects revealed that High Seekers paired with Lows ( $M = .52$ ) have a significantly greater probability of retaining the floor after making a statement than either High Seekers paired with Highs ( $M = .21$ ,  $F = 4.64$ ,  $d.f. = 1/32$ ,  $p < .05$ ) or Low Seekers paired with other Lows ( $M = .12$ ,  $F = 7.57$ ,  $d.f. = 1/32$ ,  $p < .05$ ). Furthermore, Low Seekers paired with Highs did not exhibit a significantly different probability of retaining the floor after a statement than High Seekers paired with Highs, though Lows paired with Highs did exhibit a higher probability for doing so in comparison to Lows paired with other Lows ( $F = 6.29$ ,  $d.f. = 1/32$ ,  $p < .05$ ).

The probability of acquiring the floor after one's conversational partner asked a question also demonstrated a significant interaction effect in the two-way ANOVA ( $F = 5.70$ ,  $d.f. = 2/45$ ,  $p < .023$ ). The analysis of the simple effects revealed that the acquisition of the floor subsequent to being asked a question varied significantly only when a Low was paired with a High ( $M = .40$ ) versus when a High was paired with a High ( $M = .87$ ,  $F = 5.22$ ,  $d.f. = 1/32$ ,  $p < .05$ ).

The probability of acquiring the floor subsequent to a conversational partner's answering a question showed a significant main effect for the participant's condition ( $F = 3.57$ ,  $d.f. = 2/45$ ,  $p < .05$ ). A Newman-Keuls test indicated that Normals ( $M = .64$ ) had a significantly higher probability of gaining the floor after receiving an answer to their question than did either High Seekers ( $M = .56$ ) or Low Seekers ( $M = .41$ ).

### Verbal Reports of Question-Asking Strategies

Not surprisingly, of the 96 participants in the study, the overwhelming percentage of persons who mentioned that they employed question-asking were found in the High Seeker condition ( $\chi^2 = 34.28$ ,  $d.f. = 2$ ,  $p < .001$ ). Of the High Seekers, 72 percent mentioned that they used this strategy, while 16 percent of the Normals and 11 percent of the Low Seekers mentioned this strategy. The Low Seekers who mentioned that they asked questions to achieve their goal also indicated that their questions were very general or "uninteresting." These questions were asked as a way of *avoiding* finding out information about their partners.

The data contained in Table 13.2 show that 63 percent of the strategies mentioned involved the *content* of questions asked. Only 25 percent of the strategies given by the participants had to do with the *structure* of the questions asked or the *sequencing* of questions over time. An additional 12 percent of the strategies were too vague to classify as either content or structurally oriented. These data suggest that participants tend to think

predominantly in terms of the content of the questions they asked to reach their goals, rather than the structure or sequencing of the questions.

### Judges' Assessments of Interactions

An ANOVA of the averaged judges' ratings of *social appropriateness* of the participants across the three conditions was significant ( $F = 7.13$ ,  $d.f. = 2/93$ ,  $p < .001$ ). A Newman-Keuls test of the three means revealed that Low Seekers ( $M = 3.93$ ) were judged to be significantly ( $p < .05$ ) less socially appropriate than both High Seekers ( $M = 5.03$ ) and Normals ( $M = 4.92$ ). Since the theoretic midpoint of this scale was 4.00, the Low Seekers were on the socially inappropriate side of the continuum. High and Low Seekers were also rated in terms of how *efficiently* they achieved their assigned goal. An ANOVA of the averaged judges' ratings on this measure yielded a significant difference between these two groups ( $F = 17.51$ ,  $d.f. = 1/70$ ,  $p < .001$ ). The Low Seekers ( $M = 5.79$ ) were rated as more efficient than the Highs ( $M = 4.13$ ); however, both groups were on the efficient side of the theoretic midpoint of the scale (4.00). These findings indicate that the behavior of the High Seekers was seen as more socially appropriate than that of the Low Seekers, but the Low Seekers were seen as achieving their goals more efficiently.

Within the High Seeker group, the efficiency ratings were highly correlated with both the number of questions asked ( $r = .74$ ,  $p < .001$ ) and judges' ratings of the extent to which the participants sought information ( $r = .67$ ,  $p < .001$ ). The same two correlations were significant in a *negative* direction in the Low Seeker group ( $r = -.39$ ,  $p < .03$ ;  $r = -.70$ ,  $p < .001$ ). These correlations indicate that High Seekers who asked more questions were judged to be higher in information seeking and more efficient than High Seekers who asked fewer questions. By contrast, Low Seekers who asked numerous questions were judged to be relatively low on information seeking and low on efficiency.

## DISCUSSION

The findings of the present study suggest a number of tactical variations that persons employ to achieve the goals of seeking information about another or avoiding the seeking of such information. At the individual level of analysis we found that both High Seekers and Normals asked significantly more questions than Low Seekers, but the High Seekers did not exceed the Normals. It is interesting to note that in spite of their instructions, Low Seekers' question-asking frequency followed a trajectory similar to that of the other two groups, albeit at a lower level. A similar pattern of findings was observed for questions that were directed at ascertaining information about the partner's self. However, here we observed a tendency for questions

about the partner's self not only to be quite frequent at the beginning of the conversation, but also to show peaks later in the conversation. The data plotted in Figure 13.2 suggest that the High Seeker and Low Seeker instructions may have produced the effect of making these two groups out of phase with the Normals; that is, there seems to be a tendency for High and Low Seekers to wax when Normals wane and vice versa. Perhaps all three groups were going through the same "process" but the instructions had the effect of producing a phase shift between the groups. The pattern of trends displayed in Figure 13.2 also suggests that questions about the partner's self may be used to stimulate dialogue when the conversation begins to slow down. A plausible conversational model underlying these trends might consist of a "power up-glide" pattern in which question periods are used to "power up" the conversation, followed by "glide" periods in which statements are exchanged and fewer questions are asked. Obviously, observations from many more time periods would be necessary to be confident of such trends.

Like Normals, High Seekers asked more open-ended questions than did Low Seekers. This seems to be a reasonable tactic to employ since open-ended questions encourage more lengthy responses, while closed questions tend to demand relatively short answers. High Seekers exceeded both Normals and Low Seekers in asking questions about future plans and intentions and questions that asked for explanations of attitudes and actions. These types of questions are more likely to provide a deeper understanding of one's conversational partner. When such questions are asked, the information seeker obtains potentially *explanatory* information about his or her partner.

While these individual-level analyses are useful in differentiating among the three groups, the sequential analyses revealed additional tactical differences. Though the sequential structure of information seeking in initial interactions is defined by a first-order Markov model, the transition matrix defining the structure varies by the condition of the dyad. Inspection of the matrices for each dyadic condition reveals that Normal dyads combine interaction elements of the High-Highs, Low-Lows, and High-Lows. The structural analyses revealed that High Seekers were more likely to convert floor possessions into question-asking opportunities. Low Seekers avoided seeking information from their partners by making more statements. This was especially prevalent in dyads consisting of two Lows. In several instances, the behaviors of High and Low Seekers were conditioned by the type of conversational partner with whom they interacted. In High-High and Low-Low dyads, Highs and Lows who asked questions tended to give up the floor after asking their questions. By contrast, in High-Low dyads both High Seekers and Low Seekers who asked questions tended to retain the floor after asking their questions; that is, they might follow a question with another question or with a statement before relinquishing control of the floor. In the case of the High Seekers, these problems of turning over the floor might be

traced to their potentially nonresponsive Low Seeker partners. High Seekers might have tagged statements onto their questions to make their Low Seeker partners more likely to respond. The Low Seekers may have also tagged their questions in order to avoid asking too many, although this explanation would not account for the relative ease with which the Low-Low dyads exchanged floor possessions.

When High Seekers were paired with Lows, they were able to retain the floor much more frequently after making a statement than when they were paired with other Highs. This result is probably due to the intensive level of competition for the floor that developed in some of the High-High dyads. Normals were better than Low Seekers at gaining the floor after receiving answers to their questions; however, the High Seekers' performances in this respect were no better or worse than the Normals, but the High Seekers were almost significantly better than the Low Seekers. This finding is somewhat surprising since one might have expected the High Seekers to be most successful at regaining the floor after receiving answers to their questions. Obtaining control of the floor in this way would enable the High Seekers to ask additional questions. However, it should be kept in mind that, unlike the Normals, half of the High Seekers were faced with other High Seekers, who were also vying for floor control in order to ask their questions.

Although the analyses of question content revealed that Low Seekers did ask questions of each other during their conversations, very few Low Seekers indicated that they employed this strategy in their postinteraction explanations of their strategies. Those few Low Seekers who did mention this strategy indicated that the kinds of questions they asked were generally "uninformative" with reference to their partners' selves. Questions like, "What do you think of the weather?" were used as examples of this category; although it should be noted that a response to this question may tell the asker something about his or her conversational partner. Several of the conversations between Low Seekers dwelled on the weather topic for some period of time. The judges' ratings of social appropriateness and efficiency revealed that the Low Seekers behaved in the least socially appropriate manner as a group but achieved their conversation goal in the most efficient manner. This finding is understandable in light of the fact that some Low Seekers indicated that they achieved their goal of not finding out about their conversational partners by showing indifference during their conversations. While such a strategy might make persons appear to lack social grace, the strategy was an *efficient* one for Low Seekers. High Seekers, who were judged to be more socially appropriate in their conversational behavior, were also judged to be less efficient. These findings suggest that there is probably a trade-off between achieving information-seeking goals and doing so in a socially appropriate manner. For the High Seeker the problem was one of finding out as much as possible without turning the conversation into an interview. For the Low Seeker, the issue was how to prevent the

partner from revealing information about himself or herself without offending the partner. The Low Seekers had the choice of ignoring their partners or preventing disclosures from their partners by talking incessantly about themselves. Both approaches were observed on the tapes, but both are potentially offensive socially. We suggest that, in general, social information-seeking efficiency comes at the expense of social appropriateness. The problem for the socially inquisitive individual is to strike a balance between these two competing objectives.

There are several findings that bear upon the issue of the social knowledge structures employed in both initial interaction situations in general and those that drive social information gathering. First, in terms of initial interaction scripts, we found that the Low Seekers apparently found their conversational task to be the most difficult to carry out. The postinteraction protocols and informal comments made to the experimenters indicated that the Low Seekers found it difficult *not* to ask questions of their conversational partners during their initial encounters. This “urge” was so strong that the Low Seekers as a group did show elevated question-asking rates during the first minute of the conversations. In general, Low Seekers tended to comment on things that they did *not* do in their conversations rather than on things they *did* do. High Seekers, who were assigned a somewhat unusual conversational task, seemed to be much more comfortable in their role and in many respects were similar to the Normals, including the social appropriateness of their actions. These findings suggest that the “initial interaction script” contains expectations of elevated question asking that are difficult to eliminate even with Low Seeker instructions. We also found that a substantial number of Low Seekers misunderstood their instructions to read that they should *reveal* as little about themselves as possible to their conversational partners. These comprehension errors may indicate that *not revealing* information about oneself in a conversation is a more common goal than not seeking information from one’s conversational partner. Even those Low Seekers who understood their instructions may have found themselves trying to achieve a conversational goal for which they had only a very impoverished knowledge structure to guide their conduct. Apparently, if one is *not* going to do something in the context of a normal initial interaction, it is going to be to reveal information about oneself rather than to avoid seeking information about one’s partner.

The content and structural differences in question-asking begin to give us an understanding of the knowledge structures that drive social information seeking. One of the important findings of this study is that such knowledge structures act to affect social action at several levels. For example, High Seekers not only ask numerous questions, they also ask different types of questions; that is, questions aimed at generating explanations for their partners’ actions and beliefs. At the level of interaction, the High Seekers employ conversational tactics, such as converting floor possessions into question-

asking opportunities, to achieve their goals. However, we should caution that not all High Seekers chose to employ tactics related to question-asking to achieve their goals. The postinteraction protocols suggest at least two additional strategies used by High Seekers. One involved simply putting the partner at ease in order to encourage the partner to talk about himself or herself. Another was to disclose information about oneself and hope that the partner would reciprocate. These two strategies are probably *less efficient* than question-asking, but they are considerably less intrusive and perhaps more socially appropriate. Regardless of their relative efficiency and social appropriateness, these strategies must be considered in any future discussion of information-seeking knowledge structures.

It appears that when persons tried to recall how they achieved their objectives in their conversations, their recollections were highly loaded with material related to the number and content of the questions asked. Very few persons mentioned attributes related to the types of questions they asked (open or closed), the ways in which they sequenced questions, or the strategies they used to obtain floor control. Our general impression of these findings is that the High Seekers were much more sophisticated in achieving their goals than their verbal reports indicated. In addition, we found that Normals had great difficulty answering the question that asked them to describe their goal in the interaction. These findings suggest that not only may persons be partially unaware of how they achieve their conversational goals even when they are aware of those goals, but under ordinary conversational conditions they may not have very well-articulated conversational goals (see Turk, 1974). These possibilities cast considerable doubt upon the validity of self-report data about interactions in the study of interaction strategies of various kinds.

Several of the findings discussed above support the notion that question-asking not only serves an epistemic function but also a social control function (Kearsley, 1976; Mishler, 1975a, 1975b). High Seekers tended to sustain their dialogues through successive question-asking, as Mishler (1975a) found in his studies of interactions between adults and children. Also, even some of the Low Seekers employed question-asking as a tool for ensuring that they would *not* find out things about their partners. Asking such "uninformative" questions aided the Low Seekers in defining their conversations on their own terms. Finally, we noted that in several of the High-High dyads, competition developed for floor control. It is clear that floor control was achieved in part through the asking of questions.

Our future research efforts in this area will examine two issues. First, it may be that when persons have social interaction goals, the *goals* they strive toward influence their strategies for obtaining social information about their partners. For example, finding out information about a person in order to decide whether the person will be one's friend should activate different social information-gathering strategies than trying to find out whether a person

might be a suitable work partner on a task. Second, the study of social information-gathering techniques would be incomplete without considering the strategies that persons use to avoid being known by others. Bringing together High Seekers and Low Information Providers should produce some interesting insights into this process.

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