Anticipation of Future Interaction and Information Exchange in Initial Interaction

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Information exchange in initial interactions was examined across varying expectations for future contact with the conversational partner. Thirteen dimensions of information were employed to track conversational content over time, tap individuals' desires, and obtain overall impressions of the information exchanged. The anticipation of future interaction had minimal effects on the actuality of and desire for information exchange, with its strongest effects concerning perceptual variables of conversational coordination. The importance of anticipation of future interaction to uncertainty reduction theory was found to be misplaced and the theory itself was brought into question by the findings. The importance of the construct of anticipation of future interaction was questioned in terms of the relationship of its operationalization to its conceptualization.

INITIAL interaction can be modeled as an information exchange process (Chang, 1982; Kellermann, 1985) with components of information seeking and information provision (Berger & Kellermann, 1983; Chang, 1982; Douglas, 1983, 1984; Kellermann, in press; Kellermann & Berger, 1984). "The core of the conversational dyad consists of the mutual transfer of information between partners. . . . Information is the universal element of all conversational contacts and it constitutes the only substantive base for face-to-face conversation" (Allen & Guy, 1974, pp. 27-28, 251). In typical initial encounters, information seeking is quite high (Berger & Kellermann, 1983; Kellermann & Berger, 1984); it is an activity that characterizes the behaviors and goals of social actors faced with meeting others for the first time. Consequently, information provision (though perhaps not intimate self-disclosure) tends to occur to meet information-seeking attempts (Berger & Kellermann, 1985; Kellermann, 1984).

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An important influence on this information exchange process in initial interactions is the extent to which encounters with present partners are expected in the future. As the anticipation of future interaction with others increases, our attention to and recall of information about them increases (Berscheid, Graziano, Monson, & Dermer, 1976; Harvey, Yarkin, Lightner, & Town, 1980). Furthermore, we are more attracted to and more willing to make inferences about persons we expect to meet again (Kiesler, Kiesler, & Pallak, 1967; Knight & Vallacher, 1981; Miller, Norman, & Wright, 1978; Tyler & Sears, 1977). Indeed, such changes in attention, recall, attraction, and inference are likely to stem from alterations in the information exchange process in initial encounters.

Anticipation of future interaction affects the information exchange process by altering both the seeking and provision of information. Berger (1979) has argued that anticipation of future interaction increases cognitive uncertainty about conversational partners that is subsequently reduced by acquiring information about them for purposes of making proactive and retroactive attributions (Berger, 1975, 1979). In other words, anticipation of future interaction elevates individuals' desire to seek information from others because their cognitive uncertainty about others is heightened. Consequently, individuals anticipating future interaction desire to seek information about others in order to reduce uncertainty. Persons who strongly desire to acquire information about others tend to ask others for explanations and statements of goals or intentions more often than persons whose desire is not so elevated (Berger & Kellermann, 1983). Furthermore, when persons anticipate future interaction with others, they exchange more biographic and demographic information than they would if they did not expect to meet again (Calabrese, 1975). This emphasis on biographic and demographic information permits more extensive use of subsequent attitude/value information (such as explanations and goals) in the formation of proactive and retroactive attributions (Berger, 1975). Thus uncertainty reduction theory suggests that anticipation of future interaction increases the initial level of cognitive uncertainty about others that is reduced by changes in the information exchanged in initial interactions. This article explores one of the implications of this theoretic approach by focusing on the impact of varying expectations about future interaction on information exchanged in initial encounters.

Three issues must be addressed to understand the role that anticipation of future interaction plays in the information exchange

process. First, information in conversational encounters must be *defined* in a manner that is both comprehensive and valid. Second, the *process* by which one's expectation of future interaction ultimately results in information production must be explored. Finally, specific predictions of influence must be identified.

Definition of Information

Information in conversational encounters can, and has been, conceptualized and analyzed in many ways. However, content schemes have generally been categorical in nature, focusing on such features as topics (for example, see Crow, 1983; Haas & Sherman, 1982; Planalp & Tracy, 1980) or facts/opinions/values (Berger, 1973; Calabrese, 1975). Relatively little research has approached information analytically, specifying a priori the dimensions over which any topic or utterance may be characterized. Though work on such dimensions as intimacy (for example, see Archer, 1980; Chelune & Associates, 1979) and dominance (for example, see Folger & Sillars, 1980; Rogers-Millar & Millar, 1979) has been undertaken, a conceptual framework for integrating these dimensions is often lacking. Kellermann (1983) has developed a dimensional approach to the study of information in conversational encounters. The thirteen information dimensions isolated in this work are listed and defined in Table 1. The dimensions characterize the information in conversational acts and represent aspects of information found to be important to the generation of conversational behavior. Because the dimensions tap cognitive representations of information, any act might be characterized differently by each participant as well as observers. For example, a representative act from the "stranger on the train" phenomenon might be described *for the stranger* as very clear, very particular, very personal, very important, somewhat dissimilar, high on knowledge, high in interest, very accurate, mostly descriptive, somewhat opinionated, very atypical, affectively neutral to positive, and highly informative. The *recipient* in such situations might see the information in a somewhat similar manner, although substituting perceptions of totally unimportant, very dissimilar, low on knowledge, low in interest, and very negative affectively. These information dimensions are important discriminators of conversational behavior as reported by participants and perceived by observers (Berger & Kellermann, 1983, 1985; Kellermann, 1983; Kellermann & Berger, 1984). Furthermore, the dimensions are closely

related to past research, tapping aspects of information found to be important in previous investigations.

This characterization suggests that information exchanged in conversations should be represented dimensionally rather than categorically. In other words, the model implies that categorical schemes based on such features as topics or facts/opinions/values do not adequately represent the nature of the information that is exchanged. For example, though the topic of the weather is often presumed to be "superficial" and "general," it is certainly possible to discuss specific and exact details of the weather given the desire and opportunity. Moreover, the weather need not be a "boring" topic; in times of floods, hurricanes, tornados, blizzards, and the like, the weather is often a critically important and interesting topic of discussion. A dimensional approach that includes such concepts as specificity, interest value, and importance would detect the differences that occur in the discussion of any topic, whereas a categorical scheme would ignore such variance. The present approach is dimensionally based, suggesting that interlocutors are concerned less with tracking the exact topic than with tracking how they want the topic to progress.

Process of Influence

Information is exchanged in social interaction by conversational actors who are constrained by their own past history, the present situation, and the conversational history (for a complete description of this theoretic position, see Kellermann, in press). These constraints regulate persons' expectations about information exchange as well as their ability to achieve their expectations.

Expectations about information exchange. Interlocutors come to encounters with a history of conversations in which they have developed both a typical (mean) response and a response repertoire (variance). When faced with a specific conversational encounter, persons *instantiate* particular expectations or desires for that interaction. The instantiations reflect the influence of the present situation (including the conversational partner) and represent how the present situation affects what an actor wants for the particular interaction. For example, person A might not *typically* want to exchange intimate information, but in a given interaction may instantiate a rather high desire for intimate information exchange. In other words, this high instantiation for intimate information exchange is within the response

TABLE 1
Information Characteristics

Characteristic	*Definition*
Ambiguity/clarity	many or few interpretations of meaning
General/particular	extent of specificity
Nonpersonal/personal	extent of intimacy
Unimportant/important	extent of consequence/significance
Dissimilarities/similarities	differences/communalities
Nonknowledgeable/knowledgeable	extent of familiarity; associated internal store of information
Uninteresting/interesting	extent of excitement/attention engagement
Inaccurate/accurate	reliability/validity (correct, true)
Fact/opinion	actuality or beliefs about actuality (given state of an event)
Description/explanation	presentation or interpretation (characterization)
Atypical/typical	frequency; normative
Negative/positive	emotional reaction *to* information
Uninformative/informative	inference-making ability

repertoire of person A, although it is not the mean or typical response pattern desired prior to interacting with others. The instantiations are called *global desires.*

Global desires can change over the course of a conversation in response to the history of acts that occur. For example, an individual may initiate a conversation with a stranger while waiting for a bus. Given this situation, the global desire for exchanging important information may be instantiated at a low level. However, the sequence of acts occurring in the conversation may lead the individual to desire to exchange more important information. The general proposition is that global desires are constrained by one's life history (in terms of the response repertoire), instantiated for a given conversation (with respect to the situational context), and can change during the conversation (as a function of the history of that interaction). Thus initial global desires may or may not be equivalent to final global desires for the information dimensions.

Actualization of expectations. Although persons desire particular types of information exchange, the actualization of these desires depends on other expectations and desires they may have as well as the behavior of the conversational partner. Though an individual may want to exchange intimate information with another, that individual may be constrained in the pursuit of that desire due to considerations of social appropriateness or the desire to exchange typical information. Similarly, the actualization of a desire will hinge on the behavior of the conversational partner. Extensive evidence exists of various forms of reciprocity, matching, compensation, and spiraling in conversational behavior (see, for example, Cappella, 1981; Chelune & Associates, 1979), reflecting the influence conversational partners have on one's behavior. Thus the second general proposition is that information exchange depends not only on what a person wants to have happen but also on what has happened in the conversation.

When conversational behavior is produced, each act is said to have characteristics that track the information exchanged in the act. For example, an interlocutor might characterize the statement "I'm from Minnesota" as being very clear, somewhat general, nonpersonal, moderately interesting, and so on. Actualization of desires occurs when the characteristics of the information exchanged stand in one-to-one correspondence with desires for that information to be exchanged. Actualization is particularly important at the end of initial interactions as it indicates the extent to which expectations and desires were achieved. Interlocutors are quite capable of generating impressions of the overall characteristics of the conversational acts as well as assessing whether these met, exceeded, or fell short of their desires. The act-by-act characteristics are referred to as *local* characteristics whereas the overall impressions of the characteristics for the conversation are referred to as *global* characteristics.

The information characteristics are perceived by each person in a conversation, permitting them to judge the information exchanged in similar or different ways. Given the potential for differences in perceptions between persons in a conversation, two variables are defined. Coorientation occurs when the participants perceive the information characteristics of one of the persons in a similar manner. In other words, if person A and person B perceive the information in person A's acts similarly, coorientation exists. Reciprocity occurs when one person perceives the information exchanged by him- or herself to be "equivalent" to the information exchanged by the partner. In other

words, if person A perceives that A's and B's information has the same characteristics, reciprocity occurs. The difference between coorientation and reciprocity is this: In coorientation, the two conversational participants judge the information of *one* of the actors, whereas with reciprocity, one of the actors judges the equivalence of the two participants' information. Both coorientation and reciprocity as defined here (that is, phenomenologically) have been demonstrated to be important aspects of conversational interaction.

This article explores the coorientation and reciprocation of information exchanged in conversation as well as the actualization of conversational desires for that information to be exchanged. In specific, the desire for and actualization of information exchange are examined with respect to variations in individuals' expectations of future interaction with the conversational partner.

Anticipated Future Interaction and Information Exchange

Anticipation of future interaction has numerous theoretic relationships to the desire for and actualization of information that is exchanged in conversational encounters. The underlying thesis is that increases in the expectation of future interaction stimulate corresponding increases in our cognitive uncertainty about others (Berger, 1979). Consequently, individuals desire to exchange qualitatively different kinds of information to promote uncertainty reduction. However, the influence of cognitive uncertainty on one's *desire* for various types of information exchange can be quite distinct from what is *actualized* in conversational behavior.

Desire. Uncertainty reduction theory suggests that anticipation of future interaction would increase each of the thirteen initial global desires to exchange information. Given that a future relationship with the conversational partner is expected, initial global desires for exchanging clear, particular, personal, important, interesting, accurate, opinion, explanatory, and informative messages would be high in order to promote uncertainty reduction. This type of information is more likely to provide a deeper understanding of one's conversational partner (Berger & Kellermann, 1983). Information with such characteristics provides a better means of making proactive and retroactive attributions, thus better reducing uncertainty. At the same time, individuals anticipating future interaction desire to focus on information

about similarities. Similarities can be useful to individuals in that they can call up self-schemas or self-prototypes (Markus, 1980; Markus & Sentis, 1982; Markus & Smith, 1981; Rogers, Kuiper, & Kirker, 1977; Rogers, Rogers, & Kuiper, 1979) not only to interpret information that is received, but also to predict other likely responses. The exchange of similar information is desired, therefore, because it promotes greater uncertainty reduction.

The desire for similar information exchange implies that interlocutors also desire to exchange information for which they have an extensive knowledge base to evaluate and assess the conversation and the partner. Persons low in knowledge are viewed to be less competent (Roloff & Kellermann, 1984), a judgment that is not desirable when future interaction is anticipated. Thus the use of self-schemas and the desire to appear competent serve to direct the information that is exchanged to areas in which actors are personally knowledgeable, particularly when future interaction is anticipated.

Finally, individuals also desire to exchange positive and typical information when they anticipate interacting in the future with the conversational partner. To reduce the chance of negative evaluations, persons expecting future interaction want to restrict negative behavior (Kiesler, 1969). Anticipation of future interaction increases the attractiveness of individuals who follow social norms (Kiesler, Kiesler, & Pallak, 1967).

Thus an interlocutor meeting someone for the first time with the expectation that future interaction is certain is more likely to perceive a need to reduce uncertainty and, consequently, will desire to exchange information that aids and abets that process. In other words, anticipation of future interaction leads people to desire to exchange clear, particular, personal, important, interesting, accurate, opinion, explanatory, informative, similar, knowledgeable, positive, and typical information.

Although individuals may instantiate initial global desires for information exchange that depend on their expectation of future interaction with their partners, the level of these desires can change over the course of a conversation. Conversational history can serve to maintain, increase, or decrease the level of these initial desires. The final global desire is likely to be similar to the initial global desire when future interaction is expected, primarily because of the overriding concern for uncertainty reduction. However, for individuals with less than certain expectations of future interaction, the initial global desires are likely to increase over time. It is known, for example, that individuals generally

respond positively to others that they meet (Kellermann, 1984). Such positive affective response is likely to generate the *desire* to interact in the future regardless of the expectation. This desire is likely to be accompanied by a desire to alter the information exchanged in a conversation not only to demonstrate this positive regard but perhaps to negotiate a change in the expectation of future interaction.

Actualization. Despite the desires individuals have to exchange information when they anticipate future interaction, there is no one-to-one correspondence with actualization of those desires. Each desire for information must compete with other desires interlocutors might have as well as being subject to influences from the partner's behavior. Nonetheless, interlocutors must accept these constraints in the actualization of their desires while simultaneously attempting to reduce uncertainty. Actualization of desires is expected when those behaviors that reduce uncertainty do not violate social appropriateness and when the partner's behaviors permit the actor to engage in reciprocity and coorientation. Actualization of desires is not expected when the behaviors would be perceived as socially inappropriate or when the partner's behaviors fail to permit reciprocity and coorientation consonant with desires. To the extent it is socially appropriate and the partner's behaviors permit, however, individuals will seek to actualize their desires in conversations with others.

In specific, it is predicted that individuals will not actualize their desires to exchange personal, important, opinion, and explanatory information. Individuals anticipating future interaction with conversational partners are clearly interested in impression management (see, for example, Arkin, 1980; Tedeschi, 1981). As noted earlier, anticipation of future interaction increases adherence to social norms and constrains negative behavior. Social appropriateness has long been an important determinant of self-disclosure (for example, see Chaikin & Derlega, 1974; Derlega & Grzelak, 1979). Uncertainty reduction theory suggests that it is socially inappropriate to have an imbalance in information power in initial interactions and that intimacy will not increase until uncertainty begins to decrease. Consequently, interlocutors will constrain their behavior at the expense of their desires to reduce uncertainty in order to create positive impressions that ultimately will better reduce uncertainty.

The underactualization of the desire to exchange personal information is likely to be reflected in the underactualization of important, opinion, and explanation information desires. Individuals are likely to

follow the initial interaction script (Kellermann & Broetzmann, 1984) that concentrates on factual and descriptive information more so than opinion and explanation. Indeed, Calabrese (1975) discovered that individuals anticipating future interaction exchanged more biographic and demographic information than did those not anticipating future interaction. However, biographic and demographic information is useful and necessary to the formation of proactive and retroactive attributions; individuals without access to such information have difficulty using opinion information for reducing uncertainty (Berger, 1975). Furthermore, though individuals might *desire* important, opinion, and explanatory information, they may hesitate to exchange it in order to reduce the possibilities of conflict, and avoid a situation that would violate social appropriateness.

As desires to exchange information can change over the course of conversations, actualization of initial desires may not be the same as actualization of final desires. It is likely that desires that increase over the course of the conversation may not be actualized. Uncertainty reduction may propel an increase in desire to exchange more personal information, for example, but the opportunity may not be available in the initial encounter to actualize more intimate information exchange. Relationship development can be propelled by such increasing desires and attempts to actualize them (for example, see Roloff & Campion, 1985).

Global characteristics of information exchange not only provide an indication of the actualization of desires, but also permit examination of the reciprocity and coorientation evident in the eyes of the interlocutors. Although reciprocity may not be behaviorally verifiable at all times (for example, see Dindia, 1982), individuals do consistently operate in the belief of reciprocal information exchanges (see, for review, Chelune & Associates, 1979; Dindia, 1982). Consequently, reciprocity is predicted at a phenomonological level because it maintains equivalence in information power—equivalence that is necessary for uncertainty reduction (Berger & Calabrese, 1975). Coorientation, however, taps differences in interlocutors' perception of an actor's conversational behavior. Despite literature concerning the effects a person's point of view (actor, partner) has on perception (see, for review, Roloff & Kellermann, 1984), little of this literature addresses the actual perception of information characteristics of conversational acts. Consequently, the present study has as a major purpose the examination of coorientation in the perceptions of information characteristics

in conversational encounters. Coorientation, however, is likely to be affected by anticipation of future interaction. As anticipation of future interaction heightens liking for others, it is possible that this reflects a difference in perspective that might be detected in the perception of information exchanged in the conversation. Individuals anticipating future interaction might be more likely to distort the perception of information characteristics to "produce" positive evaluations of the interaction. If this reasoning is accurate, individuals anticipating future interaction would be less likely to exhibit coorientation with their conversational partner than individuals not anticipating future interaction.

These predictions of actualization of desires, reciprocity, and coorientation all concern global characteristics of the information exchanged in conversational encounters. These global characteristics summarize the information in conversational acts and are formed in relation to the local characteristics of those acts. However, the local characteristics of the information exchanged are not likely to be stable throughout the conversation. As noted previously, reciprocity, matching, compensation, and spiraling all occur in conversational behavior, reflecting influence processes due to the behavior of the conversational partner. The timing of the actualization of information exchange is important to understanding conversational behavior. Altman and Taylor (1973) emphasize the importance of timing in their discussion of the rate of penetration in relationship development. The issue here is similar though approached on a more microscopic level: How does anticipation of future interaction affect the timing of the information exchanged? Extant literature is inadequate for generating predictions, and, therefore, this issue is left as a research question.

METHOD

This study examines the effect of anticipation of future interaction on desire for and actualization of information exchange. Participants in the study conversed under three expectations of future interaction: no anticipation, normal anticipation, and certain anticipation. Conversations were videotaped and coded by 30-second time units by the participants as well as outside observers. The information characteristics of each act as well as the characteristics for the conversation as a whole were obtained. Both desire to exchange each information characteristic and actuality of exchanging each information characteristic were assessed.

Participants

Participants in the experiment were undergraduate student volunteers from Northwestern University, most receiving extra credit for their participation. Of 86 dyads videotaped, 7 were deleted from the analyses: 3 were not strangers to each other, 3 because one member failed to understand the instructions, and 1 because one of the members failed to return to rate the conversation. Thus, 79 dyads were used in the analyses.

Procedure

When individuals were recruited for the experiment they were informed they would be videotaped in conversation with another student who was a stranger to them. Students were asked to sign their name next to another person's of the same sex whom they had never met. Individuals were made aware that they would have to return for another videotaping session a week after the first if they agreed to participate. When participants arrived at the research center, they were greeted by the experimenter and asked to read an instruction sheet. All instruction sheets informed the participants they would be conversing with a stranger, that the conversation would be videotaped, and that their identity would be held in confidence. In addition, participants were informed the conversation should be similar to one they might hold in an informal setting such as a party. At this point the instructions diverged: The Future Interaction (FI) instructions indicated that when the individual returned for the second videotaping he or she would be conversing with the same person again. The No Future Interaction (NFI) instructions indicated that when the individual returned for the second videotaping he or she would be conversing with another person who would also be a stranger. The Normal (N) instructions were similar in every way to the others except that no mention of the second videotaping was made.

After participants read the instructions they were asked to complete a pretest to identify their initial desire (hereafter called "initial global desire") to exchange information on each of the thirteen dimensions. Participants were then given identification numbers, taken to a room where the conversation would take place, and asked to begin their conversation by announcing their identification numbers. Each dyad was taped for 5 minutes and 15 seconds; timing started with the first word spoken after the identification numbers had been announced.

The experimenter then brought each participant to another room (the participants were separated) to complete a final questionnaire designed to elicit the following for each information dimension: (a) the final global desire (how much desired to exchange), and (b) the final global characteristic (how much actually exchanged). The final global characteristics were solicited for participants' views of themselves and of their partners.

Upon completion of this questionnaire, participants were queried about their original instructions in order to isolate problems in understanding the instruction sets. Participants, without their knowledge, were then scheduled to return together (regardless of the instructions) for a one-hour session. Upon their return, participants were informed they would not be videotaped while conversing, but would instead be watching the videotape from the first session and analyzing it. They were then taken to a room where viewing equipment with pause control had been set up and were handed a transcribed copy of their conversation (one copy per participant). The transcription was done on an act-by-act basis, acts being defined as questions, answers, or statements. One sheet of paper was used for each act and included coded information about the category of the act, the person producing the act, and the time at which the act commenced. All verbal behaviors associated with the act and some nonverbal behaviors that were referenced were recorded in uncoded form on the sheet of paper. Each sheet of paper served as a rating form for the act it described; the thirteen information dimensions were listed on each sheet of paper with 7-point scales. The form was described, the scales were explained in detail, and any questions were answered. Each participant rated all acts in the conversation. The videotape of the conversation was first played completely through so the conversation could be recalled. The tape was then rewound and the conversation was played back on an act-by-act basis, pausing so that the ratings could be completed. Individuals were encouraged not to enter into habitual patterns of response and breaks were provided to prevent such problems. Upon completion of this task, participants were thanked for their participation and debriefed.

Design

A 2 × 2 design with a separated control group was used. The condition of the participant could be NFI, N, or FI as could the condition of the partner. NFI-NFI dyads were composed of individuals who were

both told that they would be conversing with other persons in the second session. NFI-FI and FI-NFI dyads were composed of one person who anticipated interacting with the partner in the second session and one person who did not anticipate interacting with the same person. FI-FI dyads were composed of persons both anticipating interaction with each other during the second session. The *participant* will refer to the person referenced first in the group name and the *partner* will refer to the person referenced second in the group name. N-N dyads served as a control group and no individuals in these dyads were informed about whom they would be conversing with in the second session.

Data Coding and Analysis

All questionnaires and rating sheets used 7-point interval scales to elicit initial global values and act-by-act characteristics. To assess the act-by-act ratings, each conversation was transcribed by two extensively trained coders who were continually checked for accuracy. Coder reliability was based on the simultaneous indentification of act category (question, answer, statement), actor, time, and word-for-word transcription of each act. In other words, each act had to be completely segmented, coded, assigned, and transcribed accurately or it was viewed as an error. Using the total of all unique acts identified by either coder across two conversations as a denominator, 99.3% of 163 acts were identically coded.

Two observers also rated the acts (N = 6827) in the conversations in the manner described for participants and their partners. For two conversations (n = 163), Pearson product moment correlations were computed for each information characteristic. By characteristic, these correlations were: clarity (r = .99), generality (r = .97), personalness (r = .96), importance (r = .96), similarity (r = .99), knowledge (r = .99), interest (r = .94), accuracy (r = .96), opinion (r = .98), explanation (r = .95), typicality (r = .99), positiveness (r = .99), and informativeness (r = .97). The data were then sent through Fortran programs designed to count by 30-second intervals, produce averaged values and frequency counts for each information dimension, and collapse data over the length of the conversation by actor, partner, and observer ratings.

Though multiple statistical techniques were employed to analyze the data, certain methods were relied on extensively. Repeated measure ANOVAs were used to test the change over time of the act-by-act characteristics. Each conversation was split into ten 30-second inter-

vals and each characteristic rated was averaged across the interval unless otherwise specified. Two sets of ANOVAs were computed. First, one-way ANOVAs were computed to determine the influence of the condition of the participant on some outcome variable in order to include the Normals in the analysis in a systematic manner. Second, two-way ANOVAs were computed to determine the influence of both the participant's and the partner's condition on the information exchanged. These two-way ANOVAs did not include the N-N dyads. Thus, all results will report any effect due to the participant's condition from the one-way ANOVAs, using the two-way ANOVAs solely for examination of condition of partner and interaction effects.

For each information dimension, a number of analyses were conducted, some relying on self- or partner-perceived global desires or characteristics and some relying on self, partner, or observer act-by-act ratings (local characteristics). Self- or partner-perceived global desires and characteristics were analyzed for each information dimension in the following manner: (a) the difference in initial global desire (desire prior to interacting) across instructional sets; (b) the change between the initial global desire to the final global characteristic as perceived by the participant across instruction sets; (c) the change between the initial global desire and the final global desire as perceived by the participant across instruction sets; (d) the difference between the final global characteristic and the final global desire as perceived by the participant across instruction sets; (e) the difference in perception between the participant and the participant's partner for the global characteristics of the participant across instruction sets; (f) the difference between the participant's global characteristic and the conversational partner's global characteristic as perceived by the participant. Act-by-act ratings were analyzed for each information dimension in the following manner: (g) the average information value for each dimension as perceived by the participant, the participant's partner, and the observer across instruction sets; and (h) the change in the average information value over time (ten 30-second intervals) as perceived by the participant, the partner, and the observer across instruction sets. These analyses were conducted for each of the thirteen information dimensions. The first six analyses concern global values (desire, characteristic) whereas the last two concern specific local characteristics of each act.

Significant results for test (a) would indicate that individuals' expectation of future interaction created different "approach sets" in

terms of desire to exchange particular types of information; nonsignificance indicates that the instruction sets did not create differences in desire. Tests (b), (c), and (d) examine whether a person's desire to exchange information of a particular type was actualized in the conversation and whether that desire remained stable over time. Test (e) is a coorientation measure examining whether participants and their partners viewed participants' information exchange equivalently. Test (f) examines the relationship between participants' and partners' information exchange; significance implies some form of nonreciprocity or lack of mutual influence in the exchange process. Tests (g) and (h) examine the actual properties of conversational acts during the course of the conversation, tracking information values over time, across condition, and by rater perspective (participant, partner, observer). All tests provide information related to the effects of the level of anticipation of future interaction on information exchange. For the sake of space and parsimony, only significant results will be reported though tests were conducted for each dimension described. Furthermore, to prevent mutual influence effects between conversational actors from influencing the statistical analysis and creating spurious interactions (Kraemer & Jacklin, 1979), the analyses randomly deleted one member of each dyad.

RESULTS

Manipulation Checks

The instructions differentiated individuals in terms of their anticipation of future interaction with their partners ($F = 53.23$, $df = 2/76$, $p<.001$). Participants reading the FI instructions ($M = 6.68$, $SD = .77$) expected future interaction with their partners more than Normals ($M = 3.72$, $SD = 1.62$) or NFI participants ($M = 3.49$, $SD = 1.63$). Given that mean expectation of future interaction with others was also assessed in a generalized form across multiple hypothetical situations, the effect of the instructions was examined in terms of change from this "base-rate" level. Only persons in the FI condition significantly altered, in this case increased, their mean expectation of future interaction ($F = 181.97$, $df = 1/31$, $p<.001$). The mean expectation across multiple situations was identical for the three groups (NFI, FI, N), indicating the elevation of the FI participants' expectation was due to the instruction set. Though the instructions served to differentiate persons on the extent of their

anticipation of future interaction, the Normal and NFI groups were not found to differ on this expectation despite the fact that individuals left in the analyses all accurately verbally reported their instruction set. Seemingly, individuals often don't expect to meet others, though they "hedge" their bets and allow for some possibility of another interaction.

Effect on Uncertainty

Anticipation of future interaction did *not* affect the initial level of uncertainty experienced by participants ($F = .34$, $df = 2/76$, $p<.71$), though for all participants uncertainty did decrease between the beginning ($M = 4.56$, $SD = 1.56$) and end ($M = 3.42$, $SD = 1.29$) of the conversation ($F = 31.90$, $df = 1/76$, $p<.001$). However, this decrease was steady across instruction sets, indicating that anticipation of future interaction also did not differentially affect the level of uncertainty remaining at the end of the conversation ($F = 1.30$, $df = 2/76$, $p<.28$). Thus, the manipulation of anticipation of future interaction is only that (manipulation), as it was not found to cause variations in uncertainty levels. Certainly such a finding suggests that many of the postulated results may not materialize; however, for any significant changes in information exchange that do occur, variations in uncertainty must be ruled out as an explanatory variable.

Effects on Desire

Anticipation of future interaction had virtually no effect on any of the thirteen initial global desires to exchange information. As can be seen in Table 2, the only significant effect for the participant's condition on the initial global desire to exchange information occurred for the fact/opinion dimension ($F = 7.32$, $df = 2/76$, $p<.001$). The initial desire to exchange opinion information was lower for NFI participants ($M = 3.83$, $SD = 1.04$) than for Normals ($M = 4.31$, $SD = .66$) or FI participants ($M = 4.47$, $SD = .71$).

Four of the thirteen information desires changed over the course of the conversation. As can be seen in Table 2, the global desire for the information dimensions of ambiguity/clarity ($F = 9.28$, $df = 1/76$, $p<.003$), nonpersonal/personal ($F = 8.97$, $df = 1/75$, $p<.004$), and nonknowledgeable/knowledgeable ($F = 6.14$, $df = 1/75$, $p<.015$) increased significantly between initial and final values. Individuals desired to exchange more clear ($M = 4.10$, $SD = 1.19$), personal ($M = 3.88$, $SD = 1.27$), and knowledgeable ($M = 5.64$, $SD = 1.03$) information at

the end of the conversation than they did prior to the conversation (respectively, M = 3.78, SD = .94; M = 3.50, SD = 1.10; M = 5.37, SD = .95). However, the desire to exchange knowledgeable information also evidenced a significant interaction as a function of the participant's and partner's condition ($F = 8.65$, $df = 1/59$, $p<.005$). As this interaction occurs for both desire and actuality, and as the pattern of results is identical for both interactions, the interaction will only be described for actuality of knowledgeable information exchange. Finally, the desire for exchanging uninteresting/interesting information significantly decreased over the course of the conversation ($F = 7.67$, $df = 1/75$, $p<.007$). Persons desired to exchange less interesting information at the end of the conversation (M = 5.40, SD = 1.04) than at the beginning (M = 5.65, SD = .74). Again, anticipation of future interaction had very little effect on the change in desires for information exchange.

Actualization of Desire

Actualization (as measured by global characteristic) of the initial global desires was achieved for only five of the thirteen information dimensions: clarity, particularity, personalness, similarity, and informativeness. Four of the thirteen initial global desires were underactualized (see Table 2). People's desire to exchange important information (M = 4.40, SD = 1.10) was not fully actualized (M = 3.83, SD = 1.30) in the conversation ($F = 12.04$, $df = 1/75$, $p<.001$). This failure to actualize the initial desire did not correspond to a decrease in desire over time nor did it represent any differential effect of the participant's condition on desire. Similarly, participants were unable to actualize their desire to exchange opinion information ($F = 5.65$, $df = 1/75$, $p<.020$). People initially desired to exchange more opinion information (M = 4.03, SD = .99) than they actually perceived themselves as exchanging (M = 3.55, SD = 1.62). The desire to exchange positive information was also underactualized ($F = 13.52$, $df = 1/75$, $p<.001$) in that the extent to which the information was positive (M = 5.33, SD = .95) was less than initially desired (M = 5.73, SD = .77). The initial global desire to exchange typical information was not actualized either ($F = 16.52$, $df = 1/76$, $p<.001$). People initially desired to be less typical (M = 4.56, SD = 1.16) than they actually were (M = 5.23, SD = 1.23).

By contrast, two initial global desires were overactualized (see Table 2): nonknowledgeable/knowledgeable ($F = 11.54$, $df = 1/75$, $p<.001$) and inaccurate/accurate ($F = 7.47$, $df = 1/75$, $p<.008$). Individuals exchanged

TABLE 2
Summary of Global Desire and Global Characteristic Effects

	Desire		*Actualization*	
Information Characteristic	*Initial Desire*	*Change in Desire*	*Initial Desire*	*Final Desire*
Ambiguity/clarity	NS	increased	yes	under
General/particular	NS	NS	yes	yes
Nonpersonal/personal	NS	increased	yes	yes
Unimportant/important	NS	NS	under	under
Nonknowledgeable/knowledgeable	NS	increased interaction	over interaction	condition
Dissimilar/similar	NS	NS	yes	yes
Uninteresting/interesting	NS	decreased	condition	condition
Inaccurate/accurate	NS	NS	over	over
Fact/opinion	condition	NS	under	under
Description/explanation	NS	NS	interaction	interaction
Negative/positive	NS	NS	under	under
Atypical/typical	NS	NS	under	under
Uninformative/informative	NS	NS	yes	yes

more information about which they were knowledgeable (M = 5.83, SD = 1.13) and were more accurate in that exchange (M = 6.15, SD = .90) than they initially desired to be (Knowledge: M = 5.37, SD = .95; Accuracy: M = 5.83, SD = 1.07). However, the knowledge information dimension also evidenced a significant interaction as a function of the participant's and partner's expectation of future interaction ($F = 6.20$, df = 1/59, $p < .016$). NFI participants perceived that they exchanged more information about which they were knowledgeable when their partners also did not expect future interaction ($F = 6.70$, df = 1/29, $p < .014$; NFI-NFI: M = 5.80, SD = .86; NFI-FI: M = 5.00, SD = .89). Similarly, NFI-NFI dyads exchanged more information about which the participants were knowledgeable than FI-NFI dyads ($F = 4.48$, df = 1/30, $p < .042$; FI-NFI: M = 5.06, SD = 1.06). Participants in NFI-FI, FI-NFI, and FI-FI dyads exchanged equivalent (and lower) amounts of knowledgeable information than NFI-NFI dyads, as if the strong expectation of future interaction depresses the actuality of knowledgeable information exchange—whether the expectation is held by the participant or the partner.

Two other information dimensions were actualized as a function of anticipation of future interaction. The actualization of the initial desire to exchange interesting information varied significantly across participant's condition ($F = 7.89$, df = 2/75, $p < .001$). Persons anticipating

future interaction perceived that they exchanged less interesting information ($M = 4.00$, $SD = 1.11$) than did Normals ($M = 5.00$, $SD = 1.25$) or NFI participants ($M = 4.77$, $SD = .99$). The actualization of the desire to exchange explanatory information, by contrast, depends on the interaction of the participant's and partner's expectation of future interaction ($F = 4.36$, $df = 1/60$, $p < .041$). Analysis of the simple effects reveals that NFI-NFI dyads ($M = 3.50$, $SD = 1.41$) exchange less explanatory information than any other dyadic condition (NFI-FI: $M = 4.81$, $SD = 1.38$; FI-NFI: $M = 4.50$, $SD = 1.59$; FI-FI: $M = 4.13$, $SD = 1.50$). Thus, anticipation of future interaction affects the actualization of information characteristics; though regardless of expectation of future interaction, actualization of information desires cannot be presumed.

Actualization of the final global desires to exchange information forms a similar pattern to the results for the initial global desires (see Table 2). In part, this pattern is determined by the limited changes in global desires that occurred between initial and final values. However, it is interesting to note that though the global desire for clear information increased over the course of the conversation, individuals were only able to actualize the initial global desire; the final global desire for clear information was underactualized ($F = 4.05$, $df = 1/76$, $p < .05$). The mean difference between final desire and its actualization was -.22 ($SD = 1.12$). By contrast, the increasing desire to exchange personal information was actualized at both initial and final values. The final global desire to exchange knowledgeable information was influenced by the anticipation of future interaction, though this influence was in the form of a main effect for the participant's condition ($F = 3.34$, $df = 1/59$, $p < .005$) in contrast to the interaction effect and overactualization found for the initial global desire. Newman-Keuls tests revealed that Normals perceived that they actually exchanged less information about which they were knowledgeable than they finally desired ($M = -.40$, $SD = 1.30$), though NFI ($M = .35$, $SD = .95$) and FI ($M = .31$, $SD = .86$) participants believed that they actually exchanged more information about which they were knowledgeable than they finally desired. Although the final global desires for interesting and explanatory information exchange were actualized as a function of anticipation of future interaction, the patterns of actualization were equivalent to those identified for the initial global desires.

Though anticipation of future interaction has few effects on the instantiation of initial global desire, its change, or its actualization, it is noticeable from Table 2 that the information dimensions of nonknowl-

edgeable/knowledgeable, uninteresting/interesting, and description/explanation are strongly influenced by expectations for future interaction.

Coorientation

In general, coorientation in perception occurred. As can be seen from Table 3, for eight of thirteen information dimensions, participants and their partners perceived the participants' acts similarly. In two instances, coorientation did not occur though this failure was not due to the influence of participant's expectation of future interaction. In the case of knowledgeable information exchange, coorientation did not vary differentially by participants' expectation of future interaction, though participants did believe they were more knowledgeable than their partners of the information in their acts ($M = .40$, $SD = 1.45$). However, for information clarity, participants perceived their acts as being less clear than their partners perceived them to be ($M = -.31$, $SD = 1.08$).

Anticipation of future interaction affected the actualization of coorientation in three instances: information interest, similarity, and positivity (see Table 3). Coorientation in perception of the interest value of the information exchanged varied significantly by the condition of the participant ($F = 3.75$, $df = 2/75$, $p < .028$). Newman-Keuls tests indicated that people anticipating future interaction ($M = -1.00$, $SD = 1.30$) more strongly believed the information they exchanged was less interesting than their partners thought it was in contrast to Normals ($M = .27$, $SD = 1.28$) or NFI participants ($M = .16$, $SD = 1.27$). The coorientation of perceptions of information characteristics was determined by an interaction of the participant's and partner's expectation of future interaction for both information similarity ($F = 7.84$, $df = 1/59$, $p < .007$) and information positivity ($F = 7.11$, $df = 1/59$, $p < .010$). For information similarity, analysis of the simple effects revealed that in pairings with equivalent expectation levels of future interaction (NFI-NFI: $M = .47$, $SD = .64$; FI-FI: $M = .44$, $SD = .89$), participants perceived the information exchanged by themselves to be significantly more about similarities than their partners did when compared to dyads of differing expectations of future interaction (FI-NFI: $M = .13$, $SD = .96$; NFI-FI: $M = -.25$, $SD = 1.06$). By contrast, for information positivity analysis of the simple effects revealed that when neither conversational member anticipated future interaction ($M = .67$, $SD = 1.68$), participants were significantly more likely to view their information as more positive than

did their partners (FI-NFI: M = .75, SD = 1.06; NFI-FI: M = .24, SD = 1.09; FI-FI: M = .06, SD = 1.06).

In general, coorientation in information exchange occurred with anticipation of future interaction affecting information exchange in terms of its characteristics of similarity, interest, and positivity. Only information clarity and knowledge failed to be exchanged in a coorientation manner.

Reciprocity

Information was exchanged for nine of the thirteen dimensions in what was perceived by participants to be a reciprocal manner (see Table 3). However, in the case of the knowledge dimension, participants believed they were more knowledgeable about their acts than they were of their partners' acts (M = .55, SD = 1.52).

Anticipation of future interaction influenced the extent of reciprocity in information exchange for three dimensions. Information clarity ($F = 4.06$, $df = 2/76$, $p<.021$), importance ($F = 3.36$, $df = 2/75$, $p<.040$), and interest ($F = 7.51$, $df = 2/75$, $p<.001$) all were influenced by a main effect due to the participant's expectation of future interaction. In each of these cases, persons anticipating future interaction perceived their own information to be less clear (M = -.44, SD = 1.52), important (M = -.53, SD = 1.32) and interesting (M = -1.19, SD = 1.38) than their partners. By comparison, Normals and persons not anticipating future interaction saw their information to be equivalent to or more clear (N: M = .40, SD = 1.64; NFI: M = .59, SD = 1.41), important (N: M = .27, SD = 1.79; NFI: M = .39, SD = 1.48), and interesting (N: M = .27, SD = 1.75; NFI: M = .06, SD = 1.46) than their partners. Thus, anticipating future interaction altered participants' characteristics of their acts relative to their perception of the partner's acts, with the partner being perceived as exchanging information that was clearer, more important, and more interesting.

Act-by-Act Characteristics

The timing of information characteristics over the course of the conversation was examined from three perspectives: participants' point of view, partners' point of view, and outside observers' point of view. As can be seen in Table 4, none of the effects of anticipation of future interaction that were located in analyses of global desires or global characteristics could be located in the act-by-act analyses from

TABLE 3
Summary of Coorientation and Reciprocity Results

Information Characteristic	*Coorientation*	*Reciprocity*
Ambiguity/clarity	partner	condition
General/particular	yes	yes
Nonpersonal/personal	yes	yes
Unimportant/important	yes	condition
Nonknowledgeable/knowledgeable	self	self
Dissimilar/similar	interaction	yes
Uninteresting/interesting	condition	condition
Inaccurate/accurate	yes	yes
Fact/opinion	yes	yes
Description/explanation	yes	yes
Negative/positive	interaction	yes
Atypical/typical	yes	yes
Uninformative/informative	yes	yes

any point of view. Instead, the only significant effects located were time effects with observers detecting many more changes over time (8 of 13 dimensions) than participants (3 of 13 dimensions) or partners (2 of 13 dimensions).

Only observers perceived a change in information particularity over the course of the conversation ($F = 2.22$, $df = 9/441$, $p<.020$), with a significant positive linear component to the trend ($F = 7.04$, $df = 1/49$, $p<.011$). Similarly, only observers detected a change in the exchange of important information in the conversations ($F = 2.08$, $df = 9/441$, $p<.030$) that a trend analysis also identified as having a positive linear component ($F = 5.83$, $df = 1/49$, $p<.020$). Although observers were the only perceivers to detect a change in the exchange of interesting information over the course of the conversation ($F = 9.64$, $df = 9/441$, $p<.001$), the trend had significant linear ($F = 10.03$, $df = 1/49$, $p<.001$) and quadratic ($F = 8.16$, $df = 1/49$, $p<.006$) components. Observers were again the only perceivers to see a change in explanatory information over time ($F = 3.55$, $df = 9/441$, $p<.001$) though the trend included significant linear ($F = 15.59$, $df = 1/49$, $p<.001$) and septic ($F = 5.18$, $df = 1/49$, $p<.027$) components. The positivity of information exchanged exhibited a significant time effect from the point of view of observers ($F = 3.36$, $df = 9/441$, $p<.001$) though the trend analysis identified only a linear component ($F = 10.93$, $df = 1/49$, $p<.002$).

TABLE 4
Summary of Act-by-Act Effects

Information Characteristics	*Participants*	*Partners*	*Observers*
Ambiguity/clarity	NS	NS	NS
General/particular	NS	NS	time
Nonpersonal/personal	NS	NS	NS
Unimportant/important	NS	NS	time
Nonknowledgeable/knowledgeable	NS	NS	NS
Dissimilar/similar	NS	NS	NS
Uninteresting/interesting	NS	NS	time
Inaccurate/accurate	NS	NS	NS
Fact/opinion	time	time	time
Description/explanation	NS	NS	time
Negative/positive	NS	NS	time
Atypical/typical	time	time	time
Uninformative/informative	time	NS	time

By contrast, two information dimensions were perceived to change over the course of the conversation by all three perceiver groups. Participants ($F = 3.99$, $df = 9/441$, $p<.001$), their partners ($F = 10.70$, $df = 9/441$, $p<.001$), and observers ($F = 5.38$, $df = 9/441$, $p<.001$) saw the opinion characteristics of acts changing as conversation continued. When participants perceive their own acts, the trend analysis indicates significant linear ($F = 15.11$, $df = 1/49$, $p<.001$), quadratic ($F = 5.42$, $df = 1/49$, $p<.025$), and cubic ($F = 4.47$, $df = 1/49$, $p<.041$) components. When participants' acts are perceived by partners, the trend analysis locates significant linear ($F = 15.18$, $df = 1/49$, $p<.001$) and cubic ($F = 6.87$, $df = 1/49$, $p<.021$) components. When participants' acts are perceived by observers, the trend analysis locates significant linear ($F = 36.78$, $df = 1/49$, $p<.001$), quadratic ($F = 4.67$, $df = 1/49$, $p<.036$), and quartic ($F = 6.64$, $df = 1/49$, $p<.013$) components. The act-by-act analyses generally reveal a steadily increasing (though sometimes cycling) move toward higher opinion information exchange.

Participants ($F = 4.30$, $df = 9/441$, $p<.001$), partners ($F = 6.41$, $df = 9/441$, $p<.001$), and observers ($F = 4.06$, $df = 9/441$, $p<.001$) also agreed that the typicality of the information exchanged varied as a function of time. When perceived by participants, the trend analysis identified significant linear ($F = 8.29$, $df = 1/49$, $p<.006$), quadratic ($F = 6.71$, $df = 1/49$ $p<.013$), quartic ($F = 6.09$, $df = 1/49$, $p<.016$), and quintic ($F = 5.71$, $df = 1/49$, $p<.021$) components. When perceived by partners, a trend

analysis identified significant linear ($F = 10.48$, $df = 1/49$, $p<.002$), cubic ($F = 9.66$, $df = 1/49$, $p<.003$), and sextic ($F = 5.27$, $df = 1/49$, $p<.026$) components. When perceived by observers, a trend analysis located only a significant linear component ($F = 19/.67$, $df = 1/49$, $p<.001$). In general, the trend analyses isolated various cycles of decreasing amounts of typicality over time.

Participants ($F = 2.01$, $df = 9/441$, $p<.036$) and observers ($F = 3.55$, $df = 9/441$, $p<.001$), though not partners, perceived that the content of the information exchanged varied as a function of time. A positive linear component to the trend was identified for both participants ($F = 5.54$, $df = 1/49$, $p<.023$) and observers ($F = 17.56$, $df = 1/49$, $p<.001$).

Summary

Anticipation of future interaction had few of the expected effects on the exchange of information in conversational encounters. Five dimensions (general/particular, nonpersonal/personal, inaccurate/accurate, atypical/typical, uninformative/informative) did not vary in terms of desire, actualization, coorientation, reciprocity, or act-by-act analysis as a function of an individual's expectation of future interaction. Anticipation of future interaction had its strongest effects on two information dimensions: (1) The exchange of information about which participants are knowledgeable depends greatly upon the expectation of future interaction of both persons in the dyad, though overall impressions for the conversation do not correspond to act-by-act impressions. Furthermore, the anticipation of future interaction tends to decrease the knowledge base related to the information exchanged. (2) Persons anticipating future interactions were less able to actualize the (initial and final) desire to exchange interesting information, saw their information as less interesting than their partners did, and believed they failed to reciprocate the higher interest level of their partner's information.

Anticipation of future interaction only elevated the initial desire to exchange opinion information, tended to depress the final desire to exchange information about which one is knowledgeable, made it more difficult to actualize the final global desire to exchange interesting information, while elevating the desire to exchange explanatory information. Anticipation of future interaction influenced the coorientation of information exchange in that participants believed their information was less interesting or positive than their partners while

also creating an interaction effect in terms of information similarity. Finally, anticipation of future interaction led persons to perceive their own information as less clear, important, and interesting than that of their partners.

DISCUSSION

Many of the expected differences in information exchange due to anticipation of future interaction simply did not materialize in this research. An obvious explanation for the failure to support the predictions of the study concerns the theory from which those predictions were derived. Clearly, the underlying theoretic approach was the motivation to reduce uncertainty that supposedly is heightened when future interaction is expected. Data collected in conjunction with this experiment reveal that the amount of uncertainty experienced does not vary as a function of expectation of future interaction. The failure of anticipation of future interaction to create differences in uncertainty is a serious problem for the theory. In attempting to determine the exact source of the problem, a number of alternatives should be considered. First, anticipation of future interaction may not be an antecedent of high uncertainty levels as argued by Berger (1979). If this is the case, then the only two antecedents remaining may also be questioned. For example, Berger (1979) argues that potential rewards controlled by the partner serve as incentives to individuals, hence increasing initial levels of uncertainty. Yet much of the analysis of why anticipation of future interaction should elevate uncertainty deals with the potential reward of a pleasant future relationship or encounter. Because uncertainty reduction theory has an explicit boundary condition requiring the existence of high levels of uncertainty in an initial interaction, the applicability of the theory is severely curtailed if the antecedents to high uncertainty cannot be verified. Although high uncertainty may occur, on occasion, the typical initial interaction may not be characterized by high uncertainty about the conversational partner. Inability to verify frequently occurring antecedents to high uncertainty limit the utility of the theory to explain behavior in initial encounters.

It is possible, of course, that initial interaction is sufficiently uncertainty-provoking (just by fact that it is *initial* interaction) that anticipation of future interaction can only have a minor effect on its severity. In many ways, this ipso facto presumption of uncertainty

generation has guided much research on initial interaction. However, the mean level of uncertainty was only moderate, giving ample room for elevation if anticipation of future interaction truly were able to cause high uncertainty. Consequently, it must be concluded that anticipation of future interaction does not affect one's uncertainty about the conversational partner and that this lack of effect sheds suspicion on the ability of uncertainty reduction theory to explain information exchange in initial interaction.

Admittedly, it could be argued that the level of anticipation of future interaction was not sufficient to create large differences in uncertainty. It is noticeably difficult to get people not to anticipate future interaction (witness the equivalence in expectation of Normal and NFI groups). Nonetheless, these people have average anticipation levels versus the very high levels of Anticipators. Moreover, Berger (1979) clearly postulates a linear relationship between the expectation of future interaction and the extent of cognitive uncertainty. This postulated relationship must be rejected. Even if the linear relationship were replaced by a "threshold" relationship, for anticipation of future interaction to cause uncertainty would require the threshold to be set so low (below normal) as to make the relationship essentially meaningless.

It is also possible that whatever motivations exist to reduce uncertainty are swamped by other motivations that neither the theory nor this study is designed to consider. For example, it is possible that individuals simply are interested in self-presentation or having a stimulating conversation. The results related to the exchange of interesting and positive information would support such an analysis. Indeed, it is fairly clear that the explanation for any differences in information exchange due to variations in expectation of future interaction cannot rely on uncertainty reduction theory. If uncertainty reduction motivations are typically swamped by other concerns in initial interaction, however, the applicability of the theory again comes into question.

Finally, it is possible to argue that anticipation of future interaction might have its effect on the reduction of uncertainty rather than its initial level. This argument clearly contradicts Berger's (1979) analysis of antecedents to high uncertainty, although it should be considered if only to rule out the theoretic shift. The results of this study indicate that uncertainty was not reduced differentially as a function of expectation of future interaction. Failure to reduce uncertainty differentially may

have occurred because of the length of the conversations rather than because the theory is inaccurate. On the average, initial interactions last 16.9 minutes (Kellermann, 1983) and the conversations analyzed here were only 5 minutes long. It may be that differential uncertainty reduction takes longer to accomplish. For example, even Calabrese's (1975) interactive study on anticipation of future interaction identified differences in behavior for the exchange of factual/opinion information though he analyzed 10-minute conversations. These differences in fact/opinion information were not replicated here; in fact, no differences in fact/opinion actualization were detected. Although individuals anticipating future interaction desired more opinion information, this desire was not actualized. The timing of actualization for opinion information may require at least 10 minutes in initial encounters. However, most research dealing with uncertainty reduction theory in initial interaction has dealt with 5-minute encounters, as did this study. It is difficult to understand why differential reduction would not occur in the first 5 minutes, but nonetheless occur in the last 5 or 10 minutes. If conversational history *does* influence the course of the conversation, differential reduction would somehow require conversationalists to begin ignoring the influence of the past in pursuit of their objectives. Such a change in rate would be noticeable and, most probably, inappropriate. Furthermore, uncertainty reduction theory makes no statements about differential rates of information exchange over the course of the conversation. The only rate-based construct is "reciprocity rate" which refers to the "tit-for-tat" exchange rather than the quality of information. Consequently although a theoretic shift cannot be ruled out completely, it is unlikely that such a shift could find a rationale within the boundaries of the theory.

More than just uncertainty reduction theory must be questioned, however, for the failure to verify some of the hypotheses. Given the extent of past research employing the variable of anticipation of future interaction, it is surprising not to find differences in information personalness, similarity, and so on, regardless of problems with uncertainty reduction theory. One possible explanation for the failure to replicate past research concerns the manner in which anticipation of future interaction has been or can be operationalized. In all past investigations but one (that being Calabrese, 1975), individuals never engaged in interactions with other people; instead, they were told (or not told) they would interact and then allowed time to gather information or assess what they knew. In such an impoverished

information situation, future interaction may have a very strong impact on decision making, hence providing the results on recall, judgment, and attraction that have fascinated many researchers (for review, see Berger & Roloff, 1982; Tyler & Sears, 1977). In the one investigation in which anticipation of future interaction did not apply to the first encounter but to the second encounter, few differences in conversational behavior occurred. Thus, the anticipation of future interaction may have its major effect when passive observation opportunities are available prior to the first encounter and/or when the information situaton is impoverished. When all individuals do initially interact, however, and only the second encounter is questionable in terms of occurrence, the information situation includes not only the impoverished aspect similar to past research but also the visual, verbal, and aural information from the first encounter on which to base judgments. An important boundary condition on effects stemming from differences in future interaction expectations may be that the first encounter must be uncertain. Given the "real life" analogue of the "first encounter uncertain" manipulation has often been assumed to be the acquaintance process itself, this boundary condition is relatively severe for this line of research. Indeed, the boundary condition may be indicative of other differences inherent in distinguishing passive from interactive information-seeking strategies (Berger, 1979).

This study, consequently, suggests two major problems. First, the inability of expectations of future interaction to affect uncertainty levels highlights important problems in the integrity and utility of uncertainty reduction theory for explaining initial interaction behavior. Second, the belief in the importance of anticipation of future interaction should be seriously questioned even if uncertainty reduction is not used as an explanatory mechanism for effects. Problems with the operationalization of the construct of anticipation of future interaction suggest its limited value in understanding interaction behavior.

In limited areas, however, anticipation of future interaction (defined as "second encounter uncertain") did produce effects, although these effects tend to be perceptual rather than behavioral. Although anticipation of future interaction had little effect on the desire and actualization of a person's own information exchange, it did have a much stronger effect on variables reflecting conversational coordination—reciprocity and coorientation. Both of these variables tap an individual's orientation to the conversational partner, reciprocity reflecting the mutuality of various types of information transfer and coorientation

reflecting the correspondence in perception about the information transfer. For reciprocity, the importance, interest, and clarity dimensions resulted in perceptions of nonreciprocal information exchange by the anticipation participants had of future interaction. Persons anticipating future interaction saw their own information as being less important, less interesting, and less clear than their partners' information whereas persons not anticipating future interaction saw their own information as being more important, more interesting, and more clear than their partners' information. It seems that individuals anticipating future interaction become oriented toward their partner, thereby decreasing the importance and interest value in their own information. Similarly, the clarity of the partner's information would be higher because of the possible increase in attention those anticipating future interaction would devote to the information. The argument here is not based on actual behavior but on perceptual differences of that behavior. The failure to locate differences in behavior necessitates such an approach as well as indicating that the important effects of differences in expectations about future interaction expectations might be cognitive in nature.

This difference in orientation, propelled by varying expectations of future interaction, is supported by the coorientation results as well. For the interest dimension, persons anticipating future interaction believe their own information was less interesting than their partners thought it was, whereas persons not anticipating future interaction perceived the information to be equivalently interesting. Similarly, partners generally viewed conversational acts to be clearer than participants did, heightening further the reverse findings on reciprocity for persons anticipating future interaction.

These reciprocity and coorientation results are indicative of the focus or orientation being employed by individuals under varying expectations of future interaction. Those anticipating future interaction seem more oriented toward the partner whereas those not anticipating future interaction seem more self-oriented. In essence, near certain expectations of future interaction may require an assessment not only of self in proximity to others but also others in proximity to self. Even if I desire future interaction, my expectation depends on the joint assessment of my own and my partner's behaviors. Thus, as the expectation of future interaction increases, increased attention devoted to the partner might easily be the point where differences are created in variables having comparative value to the individual, that is, variables referencing

orientation or mutuality. Supportive of such reasoning are the many findings dependent upon the expectation levels of both individuals in the conversation, particularly when comparing NFI-NFI dyads to the other dyadic types. Even in the coorientation results such dyadic patterning was apparent. For example, participants in NFI-NFI dyads saw their own information as more positive than the information of their partners whereas just the reverse was true in all other dyadic types. Thus, anticipation levels for future interaction may be most likely to affect variables referencing the orientation of individuals, that is, variables having some comparative quality to their conceptualization.

Along with anticipation of future interaction as a focus of the study, the model guiding the research differentiated between desire and actualization of behavior. The relationship between desire and actualization is a complex one, not permitting any hard conclusions at this point though certainly opening doors to differences. Only four dimensions—general/particular, dissimilar/similar, nonpersonal/personal, and uninformative/information—were perfectly actualized. Individuals were more accurate than they desired to be and were less important, positive, typical, clear, and opinion-oriented than they desired to be. The inability to actualize completely one's desires may be a function of the brevity of the conversations, again indicating the importance of timing in initial interactions. On the other hand, actualization could easily depend on the activities of both interactants not being under the sole control of one individual in the conversation. Perhaps the only conclusion possible at this point is that desire for, impression about, and occurrence of information exchange are three distinctly different judgments for individuals.

The interrelationships between these judgments would be interesting to investigate. The relationship between perception and behavior is an important one for communication scholars. Changes in global impressions were often not located in the act-by-act analyses for the information dimensions. There are many possible explanations of these results. First, the level of analysis of the act-by-act ratings might be inappropriate for conversational segmenting and processing. Though not micromomentary, segmenting conversations by questions, answers, and statements may not be equivalent to how social actors segmented the conversations when the global impressions were made. It is also possible that global judgments do not assess anything but salient or negative events (Fiske, 1980; Kanouse & Hanson, 1972; Kellermann, 1984; Taylor & Fiske, 1978); in other words, each act may

not be viewed "equally." Although it is difficult a priori to specify which acts should be weighted more heavily, one method might be to weight acts based on their negative/positive valence. According to the negativity phenomenon (Fiske, 1980; Kanouse & Hanson, 1972; Kellermann, 1984), the more extreme an act from its neutral point on positive/negative valence *and* the more negatively valenced the act, the more informative the act will be. Such a weighting strategy would be consistent with Anderson's (1981) claim that weighted averaging models are more accurate predictors of global judgments than unweighted models. Finally, the disjunction between global assessments and act-by-act occurrences might be explained by stimulus differences. The global assessments relied on recall of the conversation as a stimulus for the judgment whereas the act-by-act ratings provided a videotape of the encounter along with a transcript as the stimulus. A videotape stimulus, in contrast to recall, might serve to highlight parts of an encounter, alter the point of view or perspective of the rater, or provide information to the rater that initially did not draw attention (Storms, 1973; Taylor & Fiske, 1978). Prior to being able to specify a theory of communication explaining the acquisition and use of conversational information, these differences in perception and behavior will have to be explored.

In sum, anticipation of future interaction may have its strongest influence in passive settings prior to the first interaction. When anticipation of future interaction implies interactions beyond the first, the strongest influence seems to be on variables reflecting comparative orientations of individuals with respect to their partners. Given that conversation involves more than one individual, comparative processes are likely to come into play as interlocutors simultaneously shape the information exchange process. Furthermore, these comparative differences are likely to be cognitive rather than behavioral, though the relationships among desire for, impression about, and occurrence of conversational behavior should be further examined.

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