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Personal Opacity and Social Information Gathering

Explorations in Strategic Communication¹

Tactics by which individuals withhold information from inquisitive others were explored by inducing individuals to achieve varying goals in conversational encounters. Persons were told to reveal as little as they could about themselves (low revealers), as much as they could about themselves (high revealers), or to have a typical conversation (normals). These individuals were paired in conversation with persons told to find out as much as they could about their conversational partner (high seekers). Information-quality, self-presentation, conversational-management, behavioral, content-focus, and utterance-form tactics were explored. Information-quality and content-focus tactics are the most important tactics for evasion plans, whereas pausal phenomena seem to be indicative of on-line planning of evasiveness. Implications for the study of the negativity effect and disclosure research are discussed.

Social actors deploy numerous tactical variations in their verbal and nonverbal actions in order to achieve their interaction goals (Miller, Galanter, & Pribram, 1960; Wilensky, 1983). However, the interaction goals and corresponding plans and tactics of one interactant may or may not be compatible with those of other interactants. Incompatibility may force interactants to alter one or more of their goals, plans, or tactics for given social interaction episodes (Bruce & Newman, 1978). In fact, such incompatibility can reveal the breadth and depth of individuals' social interaction capabilities (Berger, 1987, 1988; Berger & Kellermann, 1986). This study explored variations in social interaction tactics as a function of

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incompatible goals of social actors, specifically, evading the informationseeking attempts of others.

Although considerable work focuses on the seeking of social information (Major, 1980; Snyder, 1981; Snyder & Campbell, 1980; Snyder & Cantor, 1979; Snyder & Swann, 1978a, 1978b; Trope & Bassok, 1982), relatively little research explores the strategies persons employ to remain opaque to their fellow interactants. Goffman's (1969) analysis of interaction as a strategic process and work on the maintenance of privacy suggest that such strategies may be used (Burgoon, 1982; Petronio & Martin, 1986; Rawlins, 1983a, 1983b). Traditional self-disclosure research (e.g., Chelune & Associates, 1979; Jourard, 1971) has been concerned with variations in the breadth and intimacy of self-disclosures rather than with the tactics that persons employ to regulate the amount and types of information they disclose about themselves. As most of the work in the self-disclosure tradition has relied on self-reports of disclosure, it may not provide a valid indication of actual behavior in interactions (Cozby, 1973; Dindia, 1982). Furthermore, the parry and thrust of information seeking and disclosure has not been examined in ongoing social interactions in which the goals, plans, and tactics of the interactants may be compatible or incompatible. Such research provides little information about strategic and tactical variations employed by social actors in the acquisition and dispensing of social information, that is, disclosure in the context of, and in response to. information-acquisition tactics. This study focused on tactical variations persons use in withholding information from inquisitive others.

A few studies have focused on evasiveness in social interactions. Berninger and Garvey (1981) analyzed question-and-answer sequences of nursery-school children and found that answers bear a grammatical relationship to the questions that generate them. In contrast, evasive replies are linked to questions by the structure of the discourse rather than the grammar. Rumelhart (1983) explored the conversational strategies persons use to sustain discourse when they are uncertain about the content or the context of the interaction. When persons are unsure about the context of the interaction, they tend to employ such defensive tactics as remaining silent or saying as little as possible. Uncertainty about interaction content promotes the use of offensive tactics such as changing the subject or elaborating at length in an area well understood by the person. These tactics, used for sustaining discourse under conditions of uncertainty, are likely tactics for parrying information-seeking attempts by inquisitive others.

Employment of tactics, however, depends on the goals and plans of social actors in any given interaction episode. Although presentation of a complete theory of tactical deployment is not possible here, three principles that guide the use of interaction strategies and tactics will be discussed (see, for further discussion, Berger, 1987, 1988). First, the activation of goals gives rise to the search for plans from a long-term store or to their fabrication on-line as the interaction unfolds. Second, plan selection and deployment are controlled by metagoals and metaplans. Wilensky (1983) argues that persons frequently employ the metagoal of efficiency in selecting or constructing plans. In addition, we have suggested the metagoal of social appropriateness in social interaction situations (Berger & Kellermann, 1983, 1986; Kellermann & Berger, 1984), a metagoal consonant with much self-disclosure research. Depending on the goals of interactants, the metagoals of efficiency and appropriateness may be consistent or inconsistent with each other. For example, efficient social information seeking achieved through the asking of numerous questions may be socially inappropriate in informal social interactions, just as the efficient, continuous refusal to answer questions may not be the most appropriate response to inquisitive others. In contrast, the most efficient means for achieving the goal of ingratiating one's self to another are probably the most socially appropriate means as well. These two metagoals assume a regnant control status in plan formation and tactical deployments (Kellermann, in press). Third, plans can be realized at the tactical level in a number of different ways. For example, if one seeks to ingratiate one's self through self-presentation (Jones, 1964; Jones & Wortman, 1973), any number of specific tactical variations in verbal and nonverbal actions could be employed to instantiate a general ingratiation plan.

Given the goal of withholding information about one's self from another, the following three classes of tactics might be employed to realize an evasion plan: (a) varying the quality of information disclosed, (b) manipulating self-presentation, and (c) controlling the structure of the interaction. Information quality can be conceptualized in numerous ways. Information intimacy, specificity, clarity, interest level, opinion base, explanation base, and importance have all been the objects of study in research on social penetration and disclosure processes (Altman & Taylor, 1973; Archer, 1980; Chelune & Associates, 1979; Cozby, 1973; Gilbert, 1976), interpersonal epistemology processes (Berger & Kellermann, 1983, 1986; Kellermann, 1987; Kellermann & Berger, 1984), and relational involvement/withdrawal

processes (Baxter, 1979; Baxter & Wilmot, 1984; Goffman, 1969). Research on the negativity effect (Fiske, 1980; Kanouse & Hanson, 1972; Kellermann, 1984, 1988) suggests that these information qualities can be reduced to a three-dimensional space defined by information valence, typicality, and informativeness. Information valence is the positive or negative value of information, typicality is the frequency of information of that type, and informativeness tracks the utility of information. The negativity effect research suggests that disclosure of psychologically neutral, or slightly positive, information that is highly typical should be the least informative to others, whereas disclosure of atypical or negative information should be more informative. We would anticipate that persons attempting to withhold information from inquisitive others would restrict their information to highly typical and psychologically neutral, or slightly positive, information.

A second class of tactics social actors might employ to foil the information-seeking attempts of others involves the self-presentation of the reticent discloser. Self-presentation or impression management tactics are a major focus of research (e.g., Tedeschi, 1981), consisting of "any behavior by a person that has the purpose of controlling or manipulating the attributions and impressions formed of that person by others" (Tedeschi & Reiss, 1981, p. 3). Persons may enact a variety of verbal and nonverbal actions designed to affect their attractiveness as an interaction partner (Jones, 1964; Schneider, 1981). For example, reticent disclosers may avoid providing social approval as a means of becoming less attractive to inquisitive others (Jones, 1964). Self-presentation depends on the extent to which normative behaviors are employed (Schneider, 1981). Normative conversational behavior includes being involved, relaxed, and cooperative, elaborating on statements, and employing positive vocal intonation (Higgins, 1980; McLaughlin, 1984). Persons wishing to remain opaque to others might reduce their involvement in the interaction, provide only minimally necessary information, reduce their cooperativeness, and so on. Of course, engaging in such tactics to achieve the goal of an evasion plan is likely to lead to a negative image of the evader.

A third class of tactics social actors might employ to withhold information involves conversational-management tactics (McLaughlin, 1984). Persons can try to control the interaction via information seeking (Berger & Kellermann, 1983) or regulating floor exchanges. Regulating the floor concerns the ability of interactants to acquire and hold the floor during conversation, whereas conversational control refers to the ability of

interactants to dominate the conversation through extensive information seeking. This latter control dimension was found to be important in social information-seeking interactions (Berger & Kellermann, 1983).

Although these three general classes of tactics suggest potential means of achieving evasiveness goals, it is difficult to align particular behaviors with a given class of tactics. For example, persons can employ pauses in speech to slow down the conversation or to allow themselves to plan their next utterances (Goldman-Eisler, 1968); pauses and hesitations may act to manage conversations as well as serve as self-presentation cues. Such nonverbal behaviors as smiles, head nods, forward body lean, and shoulder orientation can be manipulated either to increase or to decrease affiliative expressiveness (Mehrabian, 1971), although each of these behaviors also can be viewed as serving one or more of the three general tactical functions outlined earlier. The multifunctionality of such behaviors in ongoing social interactions makes their a priori classification as to tactical function problematic. Given the potential importance of these behaviors as elements of an evasion plan, they were assessed in this study in an exploratory manner.

In addition to the three main classes of tactics and the behavioral measures, the content focus of utterances and their grammatical form were examined for evidence of tactical function. A given content focus, such as "education," implies little about the quality of information being addressed; education could be discussed in positive or negative ways, in typical or atypical ways, and in informative or uninformative ways. Moreover, a given content focus could potentially serve a number of different possible functions in interactions (Berger & Kellermann, 1983, 1986; Kellermann & Berger, 1984). Similarly, the form of utterances (question, answer, statement) could potentially be employed as part of an evasion plan (e.g., Berninger & Garvey, 1981). For example, persons wishing to reveal little to others might well provide fewer answers to questions or engage in increased question asking so as not to have to make statements about the self. Thus these two sets of tactics, content focus and utterance form, were included for exploratory reasons.

Given the present interaction context, we expected that the metagoals of efficiency and social appropriateness would be related such that efficient plans and tactics are relatively socially inappropriate for evasive interactants; that is, we expected evasive interactants to display actions that would lead to their being judged socially inappropriate relative to their

nonevasive counterparts. Because the evasiveness goal might be difficult to maintain over time, however, we also expected that interactants attempting to withhold personal information might become less efficient in meeting their goals but more socially appropriate in their actions as the interactions progressed. Thus, in addition to delineating specific tactics flowing from evasiveness plans, this study sought to track the efficiency and appropriateness mix for tactical production over time.

Method

Interactants were given specific goals before conversing with their partners. One member of each dyad was asked to find out as much as possible about his or her partner during the course of the interaction (high seekers). Their partners were told to reveal as little about themselves as possible (low revealers) or to reveal as much about themselves as possible (high revealers) during the conversation. A third group was simply told to have a normal conversation (normals). The high-seeker goal was employed to standardize the behavior of one person as an inquisitive other, so that goal incompatibility necessitating evasion could be obtained.

Participants

Participants in this study were 122 undergraduate students from various communication courses at Northwestern University. Of these 122 participants, 9 failed to understand their instructions, and because participants were run in dyads, these persons and their partners were deleted from the analysis. A total of 104 individuals in 52 dyads were employed in the final analysis.

Procedures

The following three types of dyads were created randomly through variations in instructions: high seeker-high revealer, high seeker-low revealer, and high seeker-normal. The instructions given to all participants indicated they would be talking with a person whom they had never met before and whom they were to assume they were meeting in the context of a party. After this common introduction, the high-seeker, high-revealer, and low-revealer instructions were identical except that they indicated to the

participants that their goal in the conversation was to find out as much as they could about their partner (high seekers), reveal as much as possible about themselves to their partner (high revealers), or reveal as little as possible about themselves to their partner (low revealers). These goal statements were repeated at three different points in the instructions. Normal instructions did not include any statement about goals that should be achieved during the conversation. Instructions also indicated that the conversation would be videotaped and that participants should not reveal their goals to their partners.

Participants were then taken to an experimental room where they engaged in a 5-min conversation. After the conversation, participants were taken to separate experimental rooms where they were asked to tape record responses to two questions: (a) What was your goal in the conversation? and (b) How did you go about achieving your goal? The first question assessed the effectiveness of the experimental instructions, whereas the second question assessed the extent to which participants could describe the tactics they used to achieve their goals. Participants then filled out a questionnaire containing a number of ratings concerning themselves and their partners, after which they were debriefed.

Interaction Indices

The videotaped conversations were analyzed in three main ways. First, judges made global ratings of interaction participants on a number of scales. Second, coders recorded the frequency and duration of various verbal and nonverbal behaviors. Third, conversational utterances were segmented and coded for content. For analytic purposes, the 5-min interactions were divided into ten 30-sec intervals. Frequency, duration, and content coding were done on the basis of these intervals; however, each global judgment was made only once at the conclusion of each 5-min interaction. Seven-point scales were employed for all ratings (1 = low, 7 = high). Factor and reliability analyses were conducted on the measures in order to achieve a more parsimonious set of indices to employ in the analyses. Reliabilities were determined by use of intraclass correlations.

GLOBAL JUDGMENTS

The global judgments employed to index evasiveness were obtained by having observers rate each participant on the quality of the information exchanged, self-presentation, and conversational management—the three aspects of conversation important to goal achievement. These global judgments are listed in Table 1 along with their respective reliabilities and the number of judgments employed in the reliability check. We anticipated that information quality could be represented by a three-dimensional space defined by information valence, typicality, and informativeness; so we developed three direct rating measures for these dimensions. However, many other qualities of information have been identified in past research. such as information intimacy, specificity, clarity, interest level, opinion base, explanation base, and importance. As many of these qualities could conceivably be affected by evasiveness, we sought to obtain global judgments tapping them. A principal components factor analysis with varimax rotation of the information-quality measures verified our expectation that information valence, typicality, and informativeness are the three dimensions differentiating the quality of information in conversations. Three factors explaining 70% of the total variance in information quality emerged from the analysis. As can be seen in Table 1, all but two of the informationquality measures loaded on the dimensions of valence, typicality, and informativeness; information intimacy and opinion base failed to load on these factors. Thus we verified our expectation that the negativity effect suggests dimensions that describe information quality in conversational interaction.

We measured individuals' self-presentation in numerous ways. These measures, listed in Table 1, tap impression management processes (e.g., Tedeschi, 1981; Mehrabian, 1971; Rosenfeld, 1966, 1967) that permit comparisons of "positive" to "negative" impressions, particularly as they pertain to evasiveness. We directly measured social appropriateness, goal efficiency, and evasiveness. A factor analysis of all self-presentation measures, excluding evasiveness, produced two factors explaining 60% of the variance. The self-image factor contained the majority of the measures and described the manner in which individuals present themselves in conversational encounters. Social appropriateness solely defined the second factor, whereas goal efficiency loaded on neither factor. Thus, as anticipated, a self-image factor emerged and the two theoretic dimensions of social appropriateness and efficiency were found to be unique. Given that all self-presentation tactics loaded on one factor and the self-presentation goals of appropriateness and efficiency did not load on this factor, future references to self-presentation should be read as references to the selfimage index.

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Table 1
Global Measures of Evasiveness

		Relia	bility	
Indices	Measures	r	n	Loading
Information quality				
Valence	Positivity	.96	10	.70
	Interest value	.98	10	.61
Typicality	Typicality	.97	10	.99
Informativeness	Specificity	.80	10	.74
	Description/explanation	.96	10	.61
	Importance	.95	10	.59
	Informativeness	.97	10	.55
	Clarity	.97	10	.43
(Not utilized)	Intimacy	.66	10	
	Fact/opinion	.89	10	-
Self-presentation				
Self-image	Involvement	.83	10	.76
	Relaxation	.97	10	.73
	Cooperativeness	.95	10	.63
	Elaboration	.96	10	.56
	Intonation (/+)	.93	10	.42
Social appropriateness	Social appropriateness	.91	10	.90
Goal efficiency	Goal efficiency	.99	10	_
Evasiveness	Evasiveness	.98	10	_
Conversational management				
Control	Information sought	.91	10	.73
	Conversational control	.90	10	.67
Floor maintenance	Induces questioning	.91	10	.92
	Refuses to give up floor	.98	10	.47
(Not utilized)	Information provision	.96	10	_
	Coordination	.69	10	_

Six measures were chosen to tap conversational-management strategies. These measures examine structural means for avoiding revealing of the self to others (e.g., Arkin, 1980; Kellermann & Berger, 1984; Rogers, 1951). A factor analysis of these six measures produced two factors explaining 50% of the variance in conversational management—one concerned with regulation of the floor and one concerned with conversational control. Previous work (Berger & Kellermann, 1983) supports the control factor, in that conversational control is largely a function of the amount of informa-

tion seeking that occurs. Similarly, regulating the floor such that one obtains it, by inducing the partner to ask one questions, and refuses to release it serves to manage the interaction. The amount of information one provided and the extent to which the conversation was coordinated did not load on either of these factors. Indeed, they loaded on a third factor that was unreliable; hence, this third factor was not employed in this research.

Overall, the global measures resulted in anticipated indices for information quality, self-presentation, and conversational management. Except for the efficiency judgment, raters for the global measures were blind to the conditions of participants; by necessity, efficiency in goal achievement required informing judges of each participant's goal, and as normals were not provided a specific interaction goal, they were not rated on efficiency. As can be seen from Table 1, the ability of observers to make these global judgments reliably is excellent.

BEHAVIORAL MEASURES

Numerous behavioral measures were also coded from the videotapes of the conversations. These measures included such nonverbal behaviors as smiles, head nods, hesitations, leg movements, arm movements, gaze, forward body lean, and shoulder orientation; verbal measures of topic initiations, responsive remarks, and nonresponsive remarks; and vocal, nonverbal measures that index speech parameters of the participants (pauses, switching pauses, floor possessions, interruptions, vocalizations). These behaviors tap processes of "becoming known" to others and can usefully be examined for tactics of avoidance. Specifically, the list of measures in Table 2 are indicators of relaxation/anxiety, involvement/withdrawal, coherence, affiliation, and control (see, e.g., Berger & Kellermann, 1983; Jaffe & Feldstein, 1970; Kellermann & Berger, 1984; Mehrabian, 1971; Mehrabian & Ksionzky, 1971; Planalp & Tracy, 1980).

Regardless of whether behaviors were counted, timed, or rated, each measure was tracked separately for each of the ten 30-sec intervals of the 5-min conversations. Coder reliabilities on the interval measures reported in Table 2 were calculated over 30-sec intervals for a varying number of conversations with four conversations as a minimum. As can be seen in Table 2, coders were able to count, time, and judge reliably these behavioral indices of evasion. Despite considerable effort to reduce all measures but those related to speech parameters to a set of fewer theoretically meaningful indices, no such set of indices could be isolated. These behavioral measures

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Table 2
Behavioral Measures of Evasiveness

		Relia	bility	
Indices	Measures	r	n	Loading
Frequency measures				
Smiles	Smiles	.83	100	_
Positive head nods	Positive head nods	.99	100	
Vocal hesitations	Vocal hesitations	1.00	40	_
Leg and foot movements	Leg and foot movements	.93	100	_
Arm and hand movements	Arm and hand movements	.99	40	_
Topic initiations	Topic initiations	.98	100	-
Responsiveness	Responsive moves	.95	40	-
Nonresponsiveness	Nonresponsive moves	.85	40	-
Duration measures				
Head orientation	Gaze toward partner	.96	40	_
Forward body lean	Lean toward partner	.99	40	
Shoulder orientation	Shoulders toward partner	1.00	100	-
Rating measures				
Social appropriateness	Appropriateness/interval	.92	40	_
Goal efficiency	Efficiency/interval	.97	40	-
Speech parameters				
Speech rate	Vocalization number	.98	10	.83
•	Pause number	.98	10	.96
Speech rhythm	Floor possession number	1.00	10	.83
	Switching pause number	.92	10	.93
	Pause total duration	.95	10	.85
	Pause average duration	.90	10	.69
Talk time	Floor total duration	.99	10	.81
	Floor average duration	.99	10	.64
	Vocalization total duration	.98	10	.89
Interruption	Interruption number	.97	10	.92
	Interruption total duration	.96	10	.89
(Not utilized)	Vocalization average duration	.99	10	_
	Switching pause total duration	.97	10	_
	Switching pause average duration	.92	10	_
	Interruption average duration	.91	10	-

apparently tap discrete tactics that individuals exhibit in conversational interaction.

The speech parameters, however, could be reduced to a set of four indices. Frequency and duration (average and total) measures were obtained for the speech parameters of vocalizations, pauses within vocalizations, switching pauses between floor possessions, interruptions, and floor possessions as defined by Jaffe and Feldstein (1970).² These speech parameters, particularly those associated with rate and rhythm, a pause-

based index, have been isolated as important expressive behaviors in conversations (see, for review, Cappella, 1981; Harper, Wiens, & Matarazzo, 1978; Siegman & Feldstein, 1979). Coder reliability was assessed by having two coders analyze one conversation three times, with the first and second passes being identical in terms of which coder was assessing which participant in the conversation; on the third pass, the coders exchanged which participant they assessed. This procedure permitted calculation of two intrarater reliabilities and four interrater reliabilities. An average of these reliabilities is reported in Table 2. In the 90 different reliability tests, 6 per measure times 15 measures, the coders were above .80 on all measures and above .90 on 80 measures. A factor analysis of these 15 standardized measures yielded four factors explaining 85% of the variance in speech parameters-speech rate, speech rhythm, talk time, and interruptions. These factors verify our expectations that speech rate, pausing behavior, talkativeness, and simultaneous speech are tactics individuals employ in conversational interaction. Finally, we also measured social appropriateness and goal efficiency across the ten 30-sec intervals of the conversation, so that changes in behavior could be examined.

CONTENT CODING

Three coders classified the utterances of the 104 participants into conversational acts of questions, answers, and statements. Each act was assigned to 1 of the 2 participants in the conversation and sequenced in order of occurrence. For a target conversation used to assess reliability, three coders segmented, assigned, and sequenced 171 unique acts; 157 of these acts were identically segmented, assigned, and sequenced by the three coders for a simultaneous agreement rate of 91.8%. Following the segmentation, assignment, and sequencing of acts, each act was coded for content according to the categorical scheme outlined in Table 3. This coding scheme had been previously developed (see Berger & Kellermann, 1983), although it was modified for the present investigation. Four main subdivisions of content are possible: (a) content about attributes of the self, (b) content about attributes of the partner, (c) content about attributes of third parties, and (d) content about general information or knowledge. Under each of these four main categories are a number of subcategories, shown in Table 3. Table 3 also contains a category called verbal prompts. Verbal prompts are backchanneling behaviors such as "Oh, really?" or "Wow!" that often serve as signs of attentiveness or positive reinforcement but fail to have extensive

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Table 3
Utterance Distribution by Content Category

		Individual category (%)	Main category (%)
Cont	ent about one's self		41.63
	Experiences		
1	Locale	4.56	
2	Witness event/activity*	.44	
3	Participate in event/activity	6.84	
4	Social relations	2.96	
5	Educational experience/occupation	6.13	
6	Ownership*	.24	
	Attitudes/opinions		
7	Attitudes toward activities	1.81	
8	Attitudes toward objects	9.01	
9	Attitudes toward abilities of self	1.43	
10	Physical/mental well-being	.42	
11	Attitudes toward people*	1.65	
12	Explanations for behavior/attitudes	3.48	
13	Goals/future intentions/past intentions*	2.27	
14	Enabling conditions for goal achievement*	.42	
Cont	ent about partner's self		16.02
	Experiences		
15	Locale*	2.75	
16	Witness event/activity	.16	
17	Participate in event/activity*	2.69	
18	Social relations	2.27	
19	Educational experience/occupation	3.76	
20	Ownership*	.09	
	Attitudes/opinions		
21	Attitudes toward activities	.36	
22	Attitudes toward objects	1.52	
23	Attitudes toward abilities of self	.28	
24	Physical/mental well-being	.45	
25	Attitudes toward people	.28	
26	Explanations for behavior/attitudes	.90	
27	Goals/future intentions/past intentions*	.51	
28	Enabling conditions for goal achievement*	.03	
Cont	ent about third parties		8.72
29	Experiences*	6.63	
30	Attitudes/opinions*	.83	
31	Explanations for behavior/attitudes	1.23	
32	Goals/future intentions/past intentions	.05	
33	Enabling conditions for goal achievement	.00	

Table 3 continued

		Individual category (%)	Main category (%)
Cont	ent about general information		9.12
34	Objects/procedures	4.74	
35	Identification of others	.64	
36	Identification of self*	1.28	
37	Identification of partner	.47	
38	Identification of activities*	.02	
39	Identification of meaning/clarification*	1.19	
40	Greetings/closings*	.79	
41	Verbal prompts	24.52	

Note. Total utterances = 3697. Categories followed by an asterisk were found to be important discriminating content categories and were the only content categories employed in subsequent analyses.

information value (Yngve, 1970; Duncan, 1974). Including as errors content codes that were different or were "missed," three coders differed simultaneously on only 14 of 171 acts, for an agreement rate of 91.8%. Thus the segmenting, assigning, sequencing, and content coding of conversational acts were reliably accomplished.

A factor analysis of the content categories indicated that no common dimensions underlie the category scheme; consequently, we sought to select out the content categories most relevant to our examination of evasiveness as a means of reducing the number of variables. A discriminant analysis was conducted with the grouping variable being the participant's condition (high revealer, normal, low revealer) and the discriminating variables being the 41 content categories.

TRANSFORMATIONS

Before performing statistical analyses involving measures indexed over time or in mutually exclusive and exhaustive categories, these measures were examined for equivalence over time or by condition of participant. The purpose of this analysis was to assure the ability to report results in terms of frequencies or to undertake necessary transformations of variables into ratios. We first analyzed total utterance duration to determine whether participants in the various conditions differed from each other. This analysis revealed no significant effects for participant's condition or changes over time. Because total utterance duration has been shown to be highly correlated with actual number of words uttered (see, for review, Harper et al., 1978; Matarazzo, Holman, & Wiens, 1967), it is reasonable to

conclude the actual number of words uttered between the experimental conditions did not differ.

In order to determine whether we would have to control for the total number of conversational acts produced by a participant for analyses of act content, we performed a repeated measures analysis of variance (ANOVA) on the number of acts by the participant's condition across the ten 30-sec intervals. This analysis revealed a significant main effect for time on the number of acts emitted (F[9,441] = 9.01, p < .001, adj $r^2 = .12$). Similarly, each type of act—questions ($F[9,441] = 11.33, p < .001, adj r^2 = .17$); answers $(F[9,441] = 5.80, p < .001, adj r^2 = .09)$; statements (F[9,441] = 2.38, p < .012,adj $r^2 = .03$)—also evidenced significant variations in frequency over the course of the conversation. Because significant differences in total act frequency and in the frequencies of questions, answers, and statements were found through time, all subsequent analyses of content and sequencing controlled for differential distribution by dividing the frequency of a particular content area or act by the total number of acts. This transformation occurred within a time interval for total acts. The probability of producing each content category, overall and within intervals, was analyzed. The probability of employing a particular content code given a particular act type was also calculated, overall for the conversation and by interval. The last measure transformed to a ratio was that of responsiveness. Given that this behavior was counted on the basis of acts, a ratio was constructed by dividing the number of responsive statements by the number of responsive and nonresponsive statements.

Postinteraction Protocols

The postinteraction tape recordings made by participants were transcribed and analyzed. First, two judges, blind to the condition of the participants, read each protocol and estimated which instruction set each participant had received and whether the instructions had been understood. The two judges agreed 100% of the time in these estimates. Second, the postinteraction protocols were coded with reference to the tactics participants indicated they used to achieve their goals. Because a participant could mention more than one tactic, some individuals contributed multiple responses to the categories that resulted from this analysis. The categories representing the verbal reports of participants are presented in Table 4. Becoming a high or low seeker involved varying the extent to which

questions about the partner were asked or the person tried to find out about the partner. Making the partner a high or low seeker involved manipulating the partner to ask or avoid asking questions of the self. Providing negative feedback included hesitating, appearing "bored" or "stand-offish," and other cues of withdrawal or discomfort; positive feedback included smiling, head nodding, appearing "interested" or "relaxed," and the like. The categories of be nonresponsive, be responsive, be irrelevant, be relevant, avoid intimacy, and promote intimacy (see Table 4) are defined by the subcategories listed under each of them.

Results

In all analyses, the high seeker was deleted from each dyad to assure independence of observations in the various conditions. This procedure was necessary to prevent within-dyad mutual influence creating spurious interaction effects (Kraemer & Jacklin, 1979). Also, because the design of the study focused on tactics of evasion, high seekers were deleted from the analysis. Thus the data from 52 individuals—the non-high seeker in each dyad—were used in all analyses.

Manipulation Checks

All of the 52 participants included in the analyses and their high-seeking partners accurately identified their interaction goal in the postinteraction protocols. Furthermore, participants provided self-reports on the extent to which they provided information about themselves to their partners on 7-point rating scales. A one-way ANOVA of these self-reports of information provision revealed a main effect for the participant's condition $(F[2,49]=6.92, p < .001, eta^2=.22)$. Newman-Keuls tests indicated that low revealers (M = 2.94, SD = .80) reported providing significantly less information about themselves than did normals (M = 3.75, SD = 1.53) or high revealers (M = 4.33, SD = .97). Judges also rated participants on the extent to which they provided intimate information about themselves (see Table 1 for reliabilities). The intimacy of information varied as a function of a participant's condition ($F[2,49]=4.82, p<.001, eta^2=.16$). Newman-Keuls tests indicate that low revealers (M = 2.06, SD = .94) provided less intimate information than normals (M = 2.81, SD = 1.11) or high revealers (M = 3.00. SD = .84). Thus, not only were participants aware of their information-

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Table 4
Distribution of Strategies Reported by Participants Postinteraction Protocols

	F	requency of	mentions	
	Low	High		
Technique	revealers	revealers	Normals	Totals
Become a high seeker	17	5	5	27
Become a low seeker	1	0	0	1
Make partner a low seeker	2	0	0	2
Make partner a high seeker	0	1	0	1
Provide negative feedback	10	0	0	10
Provide positive feedback	0	5	3	8
Be nonresponsive	18	0	0	18
Be short/curt	(4)	(0)	(0)	(4)
Be evasive	(10)	(0)	(0)	(10)
Do not elaborate	(4)	(0)	(0)	(4)
Be responsive	0	13	4	17
Talk a lot	(0)	(4)	(0)	(4)
Answer/build conversation	(0)	(6)	(3)	(9)
Elaborate	(0)	(3)	(1)	(4)
Be irrelevant	9	4	8	21
Talk about general things	(3)	(4)	(8)	(15)
Talk about superficial things	(2)	(0)	(0)	(2)
Talk about unimportant things	(3)	(0)	(0)	(3)
Talk about neutral things	(1)	(0)	(0)	(1)
Be relevant	0	7	4	11
Find common interests	(0)	(5)	(4)	(9)
Talk about important things	(0)	(2)	(0)	(2)
Avoid intimacy	11	4	1	16
Talk about nonpersonal topics	(4)	(0)	(0)	(4)
Talk about surrounding environment	(3)	(0)	(1)	(4)
Be descriptive	(1)	(4)	(0)	(5)
Avoid attitudes/opinions	(3)	(0)	(0)	(3)
Promote intimacy	0	9	4	13
Discuss intimate topics	(0)	(2)	(1)	(3)
Give attitudes/opinions	(0)	(5)	(1)	(6)
Change topics	(0)	(2)	(2)	(4)
Total strategies mentioned	68	48	29	145

revealing or information-seeking goal, but differences in information intimacy covaried with the instruction sets.

That the use of evasion tactics varied significantly by the participant's information-revealing condition was demonstrated in two ways. First, inspection of the postinteraction protocol data presented in Table 4 indicates that low revealers reported being evasive, attempting to prevent

their partner from asking questions, engaging in conversations on irrelevant topics, providing a great deal of negative feedback, and generally avoiding intimacy. In contrast, high revealers reported they were responsive, engaging in positive feedback and discussion on intimate topics. Second, the extent to which judges rated each person as being evasive was analyzed. A one-way ANOVA of evasiveness by participant's condition revealed that evasiveness varied significantly across information-revealing conditions (F[2,49]=7.61, p<.001, eta² = .24). Newman-Keuls tests indicate that low revealers (M=4.78, SD=1.90) were significantly more evasive than normals (M=3.25, SD=1.07) or high revealers (M=3.00, SD=1.28). Thus, not only was the experimental induction of information revealing successful, but the underlying assumption of variations in evasiveness was verified as well ³

Participants were asked to indicate the level of difficulty they experienced in performing their task on the postinteraction questionnaire. These ratings differed significantly across the three conditions (F[2, 49] = 16.60, p < .001). Newman-Keuls tests indicated that low revealers (M = 5.00, SD = 1.68) perceived their task to be significantly more difficult than normals (M = 2.19, SD = .98). Although high revealers (M = 4.06, SD = 1.51) were not significantly different from low revealers in perception of task difficulty at the .05 level of significance, they were significantly different at the .10 level.

The Impact of Information-Revealing Goals on Interaction Tactics

This section will focus on the main effect of the participant's goal on information quality, self-presentation, conversational management, behavioral tactics, content focus, and utterance form. Two methods of analysis were employed for examining the influence of one's goal on conversational behavior. First, a discriminant analysis was conducted to isolate the most important indices for tracking variations in information revealing. Second, one-way ANOVAs were conducted on all global judgments and totaled behavioral measures.

DISCRIMINANT ANALYSIS

A number of different discriminant analyses were conducted to investigate the importance of particular sets of variables in the discrimination of behavior as a function of the experimental inductions. The variables were divided into four sets: (a) global judgment indices, (b) behavioral indices

(totaled), (c) content-category probabilities, and (d) form probabilities (e.g., question, answer, and statement probabilities). After each set of variables was examined for its ability to discriminate among the three experimental conditions, all possible combinations of the sets of variables were then employed as predictors in a series of discriminant analyses. The purpose of this procedure was to examine the stability in solutions over time as well as to identify the minimally necessary subset of variables needed to discriminate the extent to which individuals were evasive. In all discriminant analyses employing the content-category subset of variables, only the 17 found on the earlier reported initial pass were entered into discriminant analyses of combined categories. Furthermore, the fact that the efficiency judgment was made only on high- and low-revealing participants necessitated conducting two different discriminant analyses anytime the global judgment set of variables was employed—one including efficiency (and not the normal group) and one deleting efficiency (and including the normal group). Without fail, when efficiency was included in the analysis, it consistently served as a primary predictor of evasiveness, with high revealers being more efficient than low revealers. Consequently, in all other discriminant analyses, efficiency was not entered as a predictor in order to include normals in the analysis. All discriminant analyses employed a stepwise procedure, and discriminant functions were employed to the extent sufficient discriminating information was present prior to extraction of the function. A summary of the results of these analyses is provided in Table 5.

To determine the relative influence of each set of variables, four discriminant analyses were conducted. Question, answer, and statement probabilities could not discriminate low revealers from high revealers; consequently this set of variables was deleted from all further analyses. The results of the other three sets of variables are presented in columns 1, 2, and 3 of Table 5. Classification analysis results clearly indicate the use of content categories as major tactics of evasion. The second discriminant function for the content-category predictors is the critical one for separating low revealers from normals and high revealers. In general, content tactics of evasion include focusing talk on events or activities the partner participates in, focusing on things owned by oneself, identifying oneself, and identifying meaning of utterances while avoiding talk on locales the partner is from or has been to, events or activities witnessed by oneself, and verbal prompts. Although the global judgment indices did not classify

Table 5 Summary of Discriminant Analysis Results

G B C+G B+G C+B C+B C+ 17*** .57** .50** .11*** .37*** .08*** 49* .94 .96 .35*** .84 .37* 41				Var	Variable sets employed	yed		
17*** .67** .50** .11*** .37*** .08*** 44	Statistics	O	Ŋ	g	5+C	B+G	C+B	C + B + G
.17*** .50*** .50*** .11*** .37*** .08*** .49* .94 .96 .35*** .84 .37* .49* .96 .35*** .84 .37* .41 8 14 .25 .22 .31 .17 .106 62 1.50 .57 .22 .201 .49 77 2.16 88 2.02 2 .201 .49 77 2.16 88 2.02 2 95 .34 38 -1.23 72 -2.37 -2 .27 + Val. + Res. -14 + 14 <td>Wilks's lambda</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Wilks's lambda							
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Prior to first equation	.17***	**19.	**05.	.11***	.37***	***80	.04***
41 8 14 25 22 31 17 3 7 18 8 22 22 31 8377 1.0662 1.50 .57 2.01 .4977 2.1688 2.02 95 .3438 -1.2372 -2.37 14 + Inf. + Rhy. + 13 - Hes. + 1372 .27 + Val. + Res 14 + Inf 14 + 401372 13 - Arm 40 - Inf. + Arm 70p28 + .3830 + .401140	After first equation	.49*	96.	96:	.35 ***	.84	.37*	.27***
17 3 7 18 8 22 8377 1.0662 1.50 .57 2.01 .4977 2.1688 2.02 95 .3438 - 1.2372 -2.37 14 + Inf. + Rhy. + 13 - Hes. + 13 - 14 + 40 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 113 - 14 + 140 - 111 -	Number of variables entered	41	∞	14	25	22	31	39
8377 1.0662 1.5057 2.014977 2.1688 2.02953438 -1.2372 -2.37 14 + Inf. + Rhy. + 13 - Hes. + 13 - 2.7 + Val. + Res 14 + Inf 14 + 40 - Soc Hes. + 27 + Nod. + 27 + 13 - Arm 40 - Int. + 29 + 38 - Nod. + Inf. + Arm Top 28 + 30 + Val 36 + 30 +	Number of variables retained	17	က	7	18	œ	22	23
8377 1.0662 1.50 .57 2.01 .4977 2.1688 2.02 95 .3438 -1.2372 -2.37 14 + Inf. + Rhy. + 13 - Hes. + 13 - .27 + Val. + Res 14 + Inf 14 + 40 - Soc Hes. + 27 + Nod. + 27 + 13 - Arm 40 - Inf. + 29 + 38 - Nod. + Inf. + Arm Top 28 + 30 + Val 11 - 30 + Val 11 - 40 - Arm 40 - Inf. + 36 + 31 - 40 - Arm 40 - 22 + Arm 40 - Arm	Group centroids (Equation 1)							
2.01 .4977 2.1688 2.0295 .3438 -1.2372 -2.37 .2.14 + Inf. + Rhy. + 13 - Hes. + 13 - 14 + 40 - Soc Hes. + 27 + Nod. + 27 + 38 - Nod. + Inf. + Arm Top 28 + 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1	Low revealers	83	11	1.06	62	1.50	.57	2.64
95	Normals	2.01	.49	TT	2.16	88	2.02	62
14 + Inf. + Rhy. + 13 - Hes. + 13 - .27 + Val. + Res 14 + Inf 14 + + 40 - Soc Hes. + 27 + Nod. + 27 + + 13 - Arm 40 - Inf. + 29 + + 38 - Nod. + Inf. + Arm Top 28 + 30 + Val 11 - 36 + 30 + 11 - 40 - -	High revealers	95	.34	38	-1.23	72	-2.37	-2.09
+ Val. + Res 14 + Inf 14 + Soc Hes. + 27 + Nod. + 27 + - Arm 40 - Inf. + 29 + Nod. + Inf. + Arm Top + 30 + Val 11 - 38 + 36 + + 40 -	Discriminating variables ^a	14 +	Inf. +	Rhy. +	13 –	Hes. +	13 -	Nod. +
- Soc Hes. + 27 + Nod. + 27 + - Arm 40 - Int. + 29 + - Nod. + Inf. + Arm Top + 30 + Val 11 - + 38 + 36 + + 40 -		.27 +	Val. +	Res	14 +	Inf	14 +	17 +
- Arm 40 - Int. + 29 + - Nod. + Inf. + Arm Top + 30 + Val 11 38 + 36 + + + 11 - 40 -		40 –	Soc. –	Hes. +	27 +	Nod. +	27 +	Hes. +
- Nod. + Inf. + Arm Top + 30 + Val 11 - - 38 + 36 + + 40 -		13 –		Arm. –	- 04	Int. +	29 +	Flr
+ 30 + Val 11 - 38 + 36 + + + 40 - 40		38 -		Nod. +	Inf. +	Arm. –	Top	41 -
- 38 + 36 + + 11 - 40 -		28 +			30 +	Val	11 -	Con. +
+ 11 - 40 -		11 -			38 +		36 +	Typ
		30 +			- 11		40	Int. +

Table 5 Continued

			>	Variable sets employed	oyed		
Statistics	O	g	В	5+3	B + G	C + B	C + B + G
Group centroids (Equation 2)			The second secon				
Low revealers	1.26			-1.70		1.84	.13
Normals	17			.26		96. –	2.46
High revealers	-1.11			1.47		98	-2.32
Discriminating variables ^a							
)	17 +			Val. +		Hes. +	14 +
	+ 9			Soc		17 +	27 +
	15 -			15 +		38 –	13 -
	36 +			17 -		Arm. –	40 -
	2 -			Typ. +		Nod. +	11 -
	41			Img. +			
	39 +			- 9			
Classification analysis							
Overall correct (%)	86.5	63.5	63.5	90.4	69.2	94.2	100.0
Low revealer correct (%)	94.4	72.2	77.8	94.4	72.2	100.0	100.0
Normal correct (%)	81.3	50.0	8.89	87.5	75.0	87.5	100.0
High revealer correct (%)	83.3	2.99	44.4	6'88	61.1	94.4	100.0

a. Discriminating variables are listed by number for C (see Table 3) and by first syllable otherwise. The plus and minus sign indicate how the variable loads in the equation. Only the main variables are listed. C = 17 content categories used as predictor variables (Table 3); G = 8 global judgment indices used as predictor variables (Table 1); B = 14 totaled behavior indices used as predictor variables (Table 2 minus ratings by interval and where responsiveness ratio is used).

p < .05; *p < .01; **p < .001.

individuals particularly well according to their induced goal, they were able to achieve some degree of classification precision for low revealers. Avoiding informative and positively valenced talk are tactics low revealers employed to achieve their evasion goal. As with the global judgment indices, the overall classification accuracy for behaviors is poor while the accuracy for identifying low revealers is significantly better. Low revealers are more likely to pause and use vocal hesitations and head nods, simultaneously reducing their arm gestures and the responsiveness of their statements.

When the sets of predictor variables are analyzed in all possible combinations, excluding the form set, if the content categories are not involved as predictor variables, classification accuracy is reduced considerably. Apparently, regulating the categories of content is a critical evasion tactic. Furthermore, focusing on events or activities participated in by partners (Category 17) seems to be the major content tactic employed to evade becoming known; this category appears as a highly weighted discriminator whenever content-category predictors are employed in the discriminant analyses. There is very little basis for determining whether global indices or behavioral indices are the necessary and sufficient repertoire of tactics in conjunction with content indices for remaining opaque to others—the classification analysis for content and global indices used as predictors is equivalent to that for content and behavioral predictors. When content and global predictors are employed, information qualities of positive valence and typicality are avoided by persons withholding information about themselves. Moreover, self-presentation is varied both in terms of image and social appropriateness. When content and behavioral predictors are employed, vocal hesitations, head nods, and arm gestures are again used as tactics of evasion. When content, global, and behavioral indices are used as predictors, the information quality of typicality, the content category of focus on partner's events or activities, the content category of verbal prompts, and the behaviors of vocal hesitations and head nods again serve as tactics of evasion. However, conversationalmanagement tactics enter the discriminant function identifying low revealers (the first function) for the first time. Low revealers decrease floor maintenance and increase control as tactics of evasion.

Across the discriminant analyses, eight conclusions can be drawn. (a) Persons attempting to remain opaque to others are less informative, exchange less positively valenced information, and are less typical in the

information exchanged than others. (b) Persons attempting to be evasive project less positive self-images, vary their social appropriateness, and are less efficient in achieving their goal. (c) Conversational-management tactics are less important than information-quality or self-presentation tactics, though floor maintenance can be avoided and control can be assumed by persons withholding information from others. (d) Behavioral tactics of evasion include increasing the use of vocal hesitations, pausing, and head nods, while reducing arm gestures and responsiveness. (e) Content-focus tactics include reducing the use of verbal prompts and focusing on activities or events in which the partner participates. (f) Utterance form (question, answer, or statement) is not used as a tactic of evasion. (g) To a large extent it is easier to identify correctly persons attempting to be evasive than it is to identify correctly normal interactants or persons attempting to reveal as much as they can about themselves. (h) The content focus of a conversation is one of the most important evasion tactics available to achieve the goal of avoiding becoming known to others.

ANOVAS

The results of the ANOVAs correspond quite well to the summary provided across the discriminant analyses. Table 6 summarizes the results of the ANOVAs along with Newman-Keuls follow-up tests. Low revealers manipulate information quality by being less informative than normals or high revealers, which is consistently found for each of the variables constituting the informativeness index. Information specificity, explanation, importance, informativeness, and clarity are all minimized by low revealers. In addition, low revealers exchange less positively valenced information than do high revealers, but normals cannot be differentiated from either high or low revealers in terms of information valence. However, only the positivity of the information is used as a tactic of evasion; interest value is not differentially employed by persons achieving varying disclosure goals. Low revealers present a less positive self-image than do normals or high revealers and are less socially appropriate and efficient. However, tactical changes in self-image seem to stem from varying how relaxed one is and how cooperative one is; evasion is accomplished by being less relaxed and cooperative than individuals normally might be.

The somewhat unexpected loadings of social appropriateness in the discriminant analyses are explained by examining the ANOVA results; social appropriateness is nonlinearly related to evasiveness goals. Both

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Table 6
Summary of ANOVA Results

Variable	<i>F</i>	η^2	Low revealers	ì	Normals	1	High evealers	a
Information quality								
Valence Positivity Interest value	5.21** 4.61* NSD	.18 .15	8.40 4.22	=	10.00 5.06	=	11.00 5.50	>
Typicality	NSD							
Informativeness Specificity Description/explanation Importance Informativeness Clarity	7.99*** 10.54*** 3.66* 3.81* 8.72*** 3.64*	.25 .30 .13 .13 .26	17.89 3.23 3.44 3.50 3.89 3.78	< < < < < <	24.94 4.56 4.44 5.00 5.56 5.38	= < = > = =	24.17 5.50 4.83 3.67 5.44 4.72	> > = > >
Self-presentation								
Self-image Involvement	4.88** NSD	.17	21.22	<	25.75	=	26.56	>
Relaxation Cooperativeness Elaboration Intonation	7.27** 11.88*** NSD NSD	.33	4.17 4.06	<	5.50 5.94	=	6.00 5.89	>
Social appropriateness Goal efficiency	6.43** 4.47*	.21 .12	3.61 4.50	< <	5.07 -	>	4.39 5.20	>
Conversational management								
Control Floor maintenance	NSD NSD							
Behavioral								
Responsiveness ratio Vocal hesitation number	3.88** 8.30***	.10 .25	.76 6.22	< >	.98 3.00	=	.99 3.22	> <
Rhythm Floor possession number	4.36** NSD	.15	1.75		-1.43	=	48	<
Switching pause number Pause total duration Pause average duration	5.31** 6.04** NSD	.18 .20	31.72 86.67	>	22.75 56.31	=	25.44 64.94	<

Note. The mathematical signs (<,>,=) to the right of the high revealers' mean indicate the difference as per Neuman-Keuls tests between high revealers and low revealers. *p < .05; **p < .01; ***p < .001.

high and low revealers are less socially appropriate than normals, with low revealers being less appropriate than high revealers. Apparently, disclosing too little information about oneself to an inquisitive other is socially inappropriate, but so is providing too much information about oneself. Low revealers are not only socially less appropriate than high revealers, but they are also less efficient in achieving their conversational goal. No con-

versational-management indices varied significantly across instruction sets, much as they had little influence as predictors in the discriminant analyses. As can be seen in Table 6, low revealers are behaviorally less responsive, engage in more vocal hesitations, and pause more than normals or high revealers. Switching pause number and total within-turn pause duration are used as evasion tactics.

Determinants of Evasiveness

Exploratory analyses were conducted to isolate behaviors and judgments that typically accompany use of evasive strategies. Stepwise regression analyses were conducted for the judgment of evasiveness regressed on various combinations of the four possible sets of predictor variables. Minimum F to enter was set at 4.0 and minimum F to remove at 3.9. For the regression of evasiveness on the eight global indices, only the information quality of informativeness was sufficient to enter the regression equation (beta = -.69, F[1, 34] = 32.46, p < .001, adj $r^2 = .48$). For the 14 behavioral indices, only vocal hesitations had a sufficient F to enter the regression equation (beta = .41, F[1, 34] = 6.63, p < .015, adj $r^2 = .14$). No utterance-form variables entered the regression equation when they were used as sole predictor variables. When evasiveness was regressed on the contentcategory variables, two content categories were found to be associated with evasiveness: focus on what things are owned by the partner (beta = .40, F[1,34] = 7.21, p < .011, $r^2 \Delta = .17$) and avoid discussion of goals and intentions of the self (beta = -.32, F[2, 33] = 4.61, p < .039, $r^2 \Delta = .10$). These two variables accounted for 23% of the variance in evasiveness. The information quality of informativeness accounted for whatever variance was explained by vocal hesitations when evasiveness was regressed on the global and behavioral indices, as only information quality entered the regression equation. Similarly, informativeness accounted for the variance explained by the two content-category variables when evasiveness was regressed on global indices and content. However, when evasiveness was regressed on behavioral indices and content categories, only the previous two content categories entered the equation; vocal hesitations explained no further variance in evasiveness. As was expected, informativeness was the only variable to enter the equation when evasiveness was regressed on content, behavioral, and global indices.

Efficiency and social appropriateness were negatively correlated (r = -.30, p < .01) overall, whereas only socially appropriateness was negatively

correlated with evasiveness (r = .43, p < .01); overall efficiency was linearly unrelated to evasiveness (r = .08). However, as indicated earlier, efficiency and appropriateness may vary over the course of conversations.

Evasiveness Over Time

We hypothesized that efficiency and appropriateness might not remain stable over time. In fact, we believed that low revealers might have particular difficulty in maintaining efficiency as the conversation progressed. Hence, repeated measures ANOVAs over the ten 30-sec intervals for the interval ratings of efficiency and social appropriateness were conducted. The efficiency with which high and low revealers achieved their interaction goal evidenced a significant interaction effect between time and condition (F[9, 306] = 3.11, p < .002, adj r^2 = .08). A trend analysis revealed a linear interaction (F[1, 34] = 8.64, p < .005) and a quintic interaction (F[1, 34] = 5.89, p < .02). Low revealers were able to achieve efficiency in evasion in the early stages of the conversation (by Interval 2), although maintaining this evasiveness proved difficult. In contrast, high revealers had some difficulty in the initial stage of the conversation in efficiently achieving their goal, although they were able to maintain efficiency once it was achieved. Furthermore, a phase shift appears to have occurred between low and high revealers, in that the trajectory of lows appears to be about two intervals ahead of the trajectory of highs. The level of efficiency of low revealers decreased, particularly after the fourth interval. Figure 1 diagrams the efficiency trajectories of high and low revealers over time.

Although the interaction of time and condition was not significant for social appropriateness, a weak, nonsignificant interaction did occur (F[18,432]=1.50,p<.086), with the main effect for time being significant (F[9,432]=2.82,p<.003). A trend analysis of the trajectory revealed a significant quadratic interaction effect (F[2,48]=5.75,p<.006). Figure 1 diagrams the trajectories. High revealers and normals appear to maintain their appropriateness cyclically at elevated levels in comparison to low revealers. Low revealers cyclically increase their appropriateness from depressed levels. Comparison of efficiency and appropriateness cycles over time indicates that for high revealers, similar trajectories in appropriateness and efficiency occur until Interval 8, after which increases in efficiency promote decreases in appropriateness. In contrast, for low revealers, as the efficiency of goal achievement decreases, appropriateness increases.

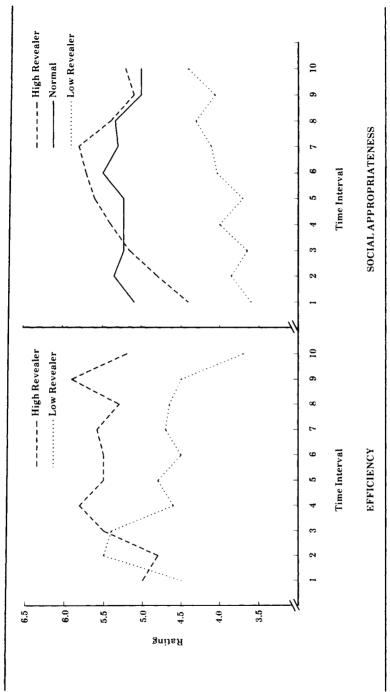


Figure 1. Efficiency and social appropriateness over time.

Discussion

The findings of the present study provide general support for the theoretical perspective advanced earlier. Evasiveness plans were realized in several different behavioral variations at the tactical level; however, certain tactical dimensions discriminated among evasiveness goals better than others. Specifically, particular categories of conversational content and the quality of information exchanged were found to be important classes of actions used to achieve evasiveness goals. The focus on the nature and quality of information exchanged is consistent with the perspective that conversation is an information-exchange process (Kellermann, 1987). Selfpresentation tactics assumed a lesser role in evasiveness, whereas conversational-management tactics exerted the least influence. This rank ordering of the importance of the various classes of tactical actions may be related to their relative social appropriateness. Being evasive by proffering uninformative content or by refocusing the conversation on one's partner are potentially less intrusive than are such tactics as refusing to give up the floor and wresting control of the floor from one's partner. Such traditional interaction rate indices of power (Berger, 1985) as question asking, question answering, statement giving, and words spoken all failed to discriminate among the groups. Apparently, the evasiveness goal was not generally achieved through assertions of dominance and control that might be judged to be inappropriate for an informal interaction setting. As with Berninger and Garvey's (1981) research, the form of the interaction seems less affected than the grammar of the interaction by evasiveness plans.

Although the results clearly demonstrate that conversational-management tactics and related power moves were generally not employed to achieve the evasiveness goal, the actions of the low revealers were judged to be less socially appropriate than those of normals. However, the actions of the high revealers were also judged to be less appropriate than those of the normals, but not as inappropriate as those of the lows. Although Chaikin and Derlega (1974) similarly discovered that too much or too little nonreciprocal disclosure was viewed as less appropriate than reciprocal disclosure, it appears that being evasive is a greater social sin than being overly disclosive. More important, however, are the trajectories of change over time in both social appropriateness and efficiency displayed by the groups. Consistent with our reasoning, efficiency and appropriateness were in tension for the low revealers. Early in their interactions, low revealers were judged to be efficient but relatively inappropriate. By the

end of their interactions, efficiency levels for low revealers had declined, and social appropriateness levels had risen. This pattern of change is consistent with the notion that low revealers found it difficult to maintain their evasiveness tactics. In contrast, high revealers showed early gains in both efficiency and appropriateness. These trajectories most probably resulted from the tendency for high revealers' elevated levels of disclosiveness to be more in line with expected disclosure levels later in interactions (Altman & Taylor, 1973). The metagoals of efficiency and appropriateness seem to be in tension for low revealers but in correspondence for high revealers; for lows they move in opposing directions, whereas for highs they move in similar directions. The situational determinants for tension or correspondence in these goals are discussed in other research (Kellermann, in press).

Overall, low revealers were judged to be less efficient in reaching their goals than were high revealers. This difference may be due to the relative frequency of occurrence of high- and low-revealing goals in everyday interaction situations and the amount of practice that persons have at reaching these goals. Persons may be less likely to be faced with the task of withholding information about themselves than with that of revealing considerable information about themselves during their daily interactions with others. Indirect support for this line of reasoning is provided by the postinteraction ratings of task difficulty made by the participants. Both high and low revealers reported that their tasks were more difficult than those of normals, and the lows indicated that their task was marginally more difficult than did the highs. Regardless of the explanation for these results, efficiency and social appropriateness seemingly serve as regnant metagoals in the production of social action.

Evidence for planning of evasion tactics comes from the analyses of pauses in speech. Considerable research suggests that pausal phenomena are related to cognitive planning activities (Beattie, 1980; Brotherton, 1979; Butterworth, 1975; Butterworth & Goldman-Eisler, 1979; Cappella, 1981; Greene, 1984; Green & Cappella, 1984; Goldman-Eisler, 1967, 1968; Henderson, Goldman-Eisler, & Skarbeck, 1965, 1966). Our findings show that low revealers displayed more vocal hesitations, switching pauses, and longer pauses than did the high revealers or the normals. Although these differences could be interpreted as conscious moves used by the low revealers to slow down their conversations rather than as opportunities to plan their subsequent utterances, the former interpretation is rendered less plausible by the fact that low revealers uttered as many words as their

high-revealing and normal counterparts. If lengthy pausing was being used as a tactic by the low revealers to slow down their conversations, it was apparently unsuccessful. The finding concerning the relative difficulty of the task for the interactants also supports a planning interpretation of the pausing findings; that is, the fact that low revealers found their conversational task to be the most difficult suggests that on-line planning demands may have been greatest for them. Other evidence lends support to the notion that cognitive planning increases with task difficulty and induces increases in speech disturbances (Goldman-Eisler, 1961a, 1961b; Lay & Paivio, 1969; Levin, Silverman, & Ford, 1967; Ramsey, 1966; Reynolds & Paivio, 1968; Taylor, 1969). In effect, these findings suggest that persons attempting to achieve particular interaction goals may use some actions to buy themselves time so that they can develop interaction plans. Simultaneously, persons may employ other dimensions of their communication behavior to achieve the goal itself. In the present case, low revealers may have used pausing to increase their planning opportunities and may have varied the quality and content of the information they provided to reach their evasiveness goals.

As we anticipated, information quality was manipulated by low revealers to achieve their conversational goal. Specifically, low revealers disclosed information that was judged to be less informative, positive, and typical than the information disclosed by the highs and normals. Given the interaction context, we predicted that low revealers would generally disclose typical and neutral to slightly positive information so that their partners would generally find the information less informative. This expectation of the negativity effect (Fiske, 1980; Kanouse & Hanson, 1972; Kellermann, 1984, 1988) is historically derived from attribution theory (Jones & Davis, 1965). Contrary to this body of theory and research, we found that the relatively uninformative information of the low revealers was judged to be both atypical and psychologically neutral, and less positive than highs or normals, conditions that should give rise to increased judgments of informativeness. The discrepancy between our findings and previous research may be explained by the fact that nonnormative actions may be more informative than normative ones only when the actions are comprehended by the perceiver. Deviant actions that are incomprehensible may be less informative than actions that are inconsistent with role expectations. Inability to comprehend the deviance is possible, given that low revealers exchanged less clear and specific information. The resultant ambiguity was judged atypical and less positive but less informative. Although the present findings cannot directly support this comprehension interpretation, they do clearly suggest that all atypical or negative events are not equally informative and some may actually be quite uninformative.

Beyond the use of the tactics of refocusing the conversational content and lowering the quality of information disclosed, low revealers also presented a slightly negative self-image by decreasing their levels of relaxation and cooperativeness. Although these dimensions of impression management differentiated between low revealers on the one hand and highs and normals on the other, they were not particularly powerful discriminators when compared with the content and information-quality tactics. Dimensions related to self-image should be powerful means for achieving the evasiveness goal by making one's self unattractive as an interaction partner. Although this argument is plausible, it ignores the role played by social appropriateness in controlling such actions. Although potentially very efficient, extremely negative self-presentations could permanently sever interaction possibilities. In the present interaction context, not only were such extreme measures unnecessary for achieving the evasiveness goal, but because the participants might well encounter each other at some future time, presenting a very negative self-image might have important consequences in these possible future interactions. Anticipation of future interaction is known to constrain negative behavior for precisely these reasons (Kiesler, 1969; Kiesler, Kiesler, & Pallak, 1967).

The general rule that appears to have governed tactical deployments in the present study seems to have been to use those tactics that are most efficient and least offensive—that is, information quality and refocusing content-and to resort to such extreme tactics as negative self-presentation or conversational control only if the more socially appropriate tactics become less efficient. Perhaps another way to think about this rule is in terms of the subtlety of the tactics chosen. There may be a general preference for the initial deployment of relatively unobtrusive means of achieving goals. If these tactics fail, less subtle tactics are then substituted. In support of this general rule, several studies have shown that in their initial influence attempts, persons generally employ positive demeanors; however, as their influence attempts fail, they become progressively more coercive and negative (Goodstadt & Hjelle, 1973; Goodstadt & Kipnis, 1970; Kipnis & Consentino, 1969). Because low revealers themselves reported that they disclosed less information about themselves and observers of their performances agreed with their self-assessments, low revealers generally achieved their goals without recourse to the more extreme tactics. Indeed,

as low revealers lost efficiency over time in the conversation, many might have chosen to permit some degree of failure in goal achievement in order to permit the corresponding rise in social appropriateness.

Although self-judgments of the participants frequently showed agreement with observers' judgments, sometimes participants' verbal reports of the tactics they used were inconsistent with the action tactics they displayed. For example, a large number of low revealers indicated they achieved their conversational goal by seeking large amounts of information from their partners. Indeed, if a low revealer were to become a high seeker, the evasiveness goal might easily be achieved. These verbal reports, however, do not comport well with the actual verbal output of the low revealers. In fact, low revealers asked neither more nor fewer questions of their conversational partners than either the high revealers, who said they became low seekers, or the normals. Similarly, low revealers answered questions with the same frequency as normals and high revealers, although they apparently did so in less responsive ways. It seems that rather than becoming high or low seekers as they reported, participants instead varied the information quality of their questions, answers, and statements. Analyses of information-quality measures showed that the low revealers provided information that was less positive, specific, explanatory, important, clear, and informative; yet relatively few of the low revealers mentioned these particular evasiveness tactics in their verbal reports. These findings suggest that contrary to the arguments advanced by Ericsson and Simon (1984) concerning the usefulness of verbal reports about mental processes, verbal reports about tactics used to achieve interaction goals may be considerably less reliable than thinking-aloud protocols given in the process of nonsocial, problem-solving exercises.

The fact that persons generally strive for multiple goals simultaneously in their interactions with others coupled with the fact that persons employ different classes of tactics simultaneously to reach these goals suggests difficulty in gaining an understanding of the relationships among goals, plans, and tactics. Persons did far more than withhold intimate information in order to remain opaque to an inquisitive other. The wide range of evasiveness tactics deployed suggests evidence of planning and the use of metagoals of efficiency and social appropriateness for regulating disclosure in ongoing interaction. The regulation of disclosure is achieved by controlling such information qualities as valence, typicality, informativeness, and intimacy as well as by varying self-presentation and the content focus of the conversation. Such behavioral tactics as responsiveness and arm

gestures also are integrated into plans to achieve evasion goals. The theoretical perspective employed in the present study as well as the methodological approach of observing persons attempting to achieve their goals in both compatible and incompatible situations can provide considerable purchase in understanding the linkages among interacting goals, plans, and communication tactics.

Notes

- 1. We would like to thank Angela Bognanno, Mardee Marcus, Janice Nichols, and Tom Nowinski for their extensive coding efforts.
- 2. Two button boxes were attached to a PDP-12 computer. Two chronographers were trained to mark sound made by the participant each was viewing by indicating start and stop points of the sound. Each participant in a dyad was "button pressed" by one chronographer, both chronographers "button pressing" a dyad simultaneously. Computer programs read these marks in tenths of seconds and translated the marks into the dyadic states of Jaffe and Feldstein's (1970) six-state model after adjusting the sampling rate to 200/min. The state data were employed to generate frequency and duration information for each speech parameter.
- 3. It should be noted that an observer-based comparison of high seekers' goal achievement could not be undertaken for lack of an adequate comparison group. Differences between normals and high seekers are not expected (given past research; e.g., see Berger & Kellermann, 1983; Kellermann & Berger, 1984). Given that a main strategy for low revealers might be information seeking (see postinteraction protocol results), lows cannot serve as a comparison group either. Furthermore, many high revealers adopted an "implicit" reciprocity norm that high revealing meant high seeking. Finally, problems with mutual-influence effects would arise if comparisons were made requiring use of both the participants and their partners. It should be remembered, however, that only high seekers who could reiterate their instructions remained in the analyses. Earlier work indicated that the ability to recall the goal was an accurate indicator of performance (Berger & Kellermann, 1983; Kellermann & Berger, 1984).

References

- Altman, I., & Taylor, D. M. (1973). Social penetration: The development of interpersonal relationships. New York: Holt, Rinehart & Winston.
- Archer, R. L. (1980). Self-disclosure. In D. M. Wegner & R. R. Vallacher (Eds.), The self in social psychology. New York: Oxford University Press.
- Arkin, R. M. (1980). Self-presentation. In D. M. Wegner & R. R. Vallacher (Eds.), *The self in social psychology*. New York: Oxford University Press.
- Baxter, L. A. (1979). Self-disclosure as a relationship disengagement strategy: An exploratory investigation. *Human Communication Research*, 5, 215-222.

- Baxter, L. A., & Wilmot, W. W. (1984). "Secret tests": Social strategies for acquiring information about the state of the relationship. *Human Communication Research*, 11, 171-201.
- Beattie, G. W. (1980). The role of language production processes in the organization of behavior in face-to-face interaction. In B. Butterworth (Ed.), Language production: Vol. 1. Speech and talk. London: Academic Press.
- Berger, C. R. (1985). Social power and interpersonal communication. In M. L. Knapp & G. R. Miller (Eds.), Handbook of interpersonal communication (pp. 439-499). Beverly Hills, CA: Sage.
- Berger, C. R. (1987). Planning and scheming: Strategies for initiating relationships. In P. McGhee, R. Burnett, & D. Clarke (Eds.), Accounting for relationship: Social representations of interpersonal links. London: Methuen.
- Berger, C. R. (1988). Planning, affect, and social action generation. In L. Donohew, H. Sypher, & E. T. Higgins (Eds.), Communication, social cognition, and affect. Hillsdale, NJ: Lawrence Erlbaum.
- Berger, C. R., & Kellermann, K. (1983). To ask or not to ask: Is that a question? In R. N. Bostrom (Ed.), Communication yearbook 7. Beverly Hills, CA: Sage.
- Berger, C. R., & Kellermann, K. (1986, May). Goal incompatibility and social action: The best laid plans of mice and men often go astray. Paper presented at the International Communication Association convention, Chicago.
- Berninger, G., & Garvey, C. (1981). Relevant replies to questions: Answers versus evasions. *Journal of Psycholinguistic Research*, 10, 403-420.
- Brotherton, P. (1979). Speaking and not speaking: Processes for translating ideas into speech. In A. W. Siegman & S. Feldstein (Eds.), Of speech and time: Temporal speech patterns in interpersonal contexts. Hillsdale, NJ: Lawrence Erlbaum.
- Bruce, B., & Newman, D. (1978). Interacting plans. Cognitive Science, 2, 195-233.
- Burgoon, J. (1982). Privacy and communication. In M. Burgoon (Ed.), Communication yearbook 6 (pp. 206-249). Beverly Hills, CA: Sage.
- Butterworth, B. (1975). Hesitation and semantic planning in speech. Journal of Psycholinguistic Research, 4, 15-87.
- Butterworth, B., & Goldman-Eisler, F. (1979). Recent studies on cognitive rhythm. In A. W. Siegman & S. Feldstein (Eds.), Of speech and time: Temporal speech patterns in interpersonal contexts. Hillsdale, NJ: Lawrence Erlbaum.
- Cappella, J. N. (1981). Mutual influence in expressive behavior: Adultadult and infant-adult dyadic interaction. Psychological Bulletin, 89, 101-132.
- Chaikin, A. L., & Derlega, V. J. (1974). Self-disclosure. Morristown, NJ: General Learning Press.

- Chelune, G. J., & Associates (1979). Self-disclosure: Origins, patterns, and implications of openness in interpersonal relationships. San Francisco: Jossey-Bass.
- Cozby, P. W. (1973). Self-disclosure: A literature review. *Psychological Bulletin*, 79, 73-91.
- Dindia, K. (1982). Reciprocity of self-disclosure: A sequential analysis. In M. Burgoon (Ed.), Communication yearbook 6. Beverly Hills, CA: Sage.
- Duncan, S. D. (1974). On the structure of speaker-auditor interaction during speaking turns. Language in Society, 2, 161-180.
- Ericsson, K. A., & Simon, H. A. (1984). Protocol analysis: Verbal reports as data. Cambridge: MIT Press.
- Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology*, 38, 889-908.
- Gilbert, S. J. (1976). Empirical and theoretical extensions of self-disclosure. In G. R. Miller (Ed.), Explorations in interpersonal communication. Beverly Hills, CA: Sage.
- Goffman, E. (1969). Strategic interaction. Philadelphia: University of Pennsylvania Press.
- Goldman-Eisler, F. (1961a). The significance of changes in the rate of articulation. Language and Speech, 4, 171-174.
- Goldman-Eisler, F. (1961b). Continuity of speech utterance, its determinants and its significance. Language and Speech, 4, 220-231.
- Goldman-Eisler, F. (1967). Sequential and temporal patterns and cognitive processes in speech. Language and Speech, 10, 122-132.
- Goldman-Eisler, F. (1968). Psycholinguistics: Experiments in spontaneous speech. New York: Academic Press.
- Goodstadt, B. E., & Hjelle, L. A. (1973). Power to the powerless: Locus of control and the use of power. *Journal of Personality and Social Psychology*, 27, 190-196.
- Goodstadt, B. E., & Kipnis, D. (1970). Situational influences in the use of power. *Journal of Applied Psychology*, 54, 201-207.
- Greene, J. O. (1984). Speech preparation processes and verbal fluency. Human Communication Research, 11, 61-84.
- Greene, J., & Cappella, J. N. (1984, November). Cognition and talk: The relationship of semantic units to temporal patterns of fluency in spontaneous speech. Paper presented at the annual convention of the Speech Communication Association, Chicago.
- Harper, R. G., Wiens, H. N., & Matarazzo, J. D. (1978). Nonverbal communication: The state of the art. New York: John Wiley.
- Henderson, A. I., Goldman-Eisler, F., & Skarbeck, A. (1965). Temporal patterns of cognitive activity and breath control in speech. *Language and Speech*, 8, 236-242.
- Henderson, A. I., Goldman-Eisler, F., & Skarbeck, A. (1966). Sequential temporal patterns in spontaneous speech. *Language and Speech*, 9, 207-216.

- Higgins, E. T. (1980). The "Communication Game": Implications for social cognition and persuasion. In E. T. Higgins, C. P. Herman, & M. P. Zanna (Eds.), Social cognition: The Ontario Symposium (Vol. 1). Hillsdale, NJ: Lawrence Erlbaum.
- Jaffe, J., & Feldstein, S. (1970). Rhythms of dialogue. New York: Academic Press.
- Jones, E. E. (1964). Ingratiation. New York: Appleton-Century.
- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions: The attribution process in person perception. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 2). New York: Academic Press.
- Jones, E. E., & Wortman, C. (1973). Ingratiation: An attributional approach. Morristown, NJ: General Learning Press.
- Jourard, S. (1971). Self-disclosure: An experimental analysis of the transparent self. New York: John Wiley.
- Kanouse, D. E., & Hanson, L. R. (1972). Negativity in evaluations. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), Attribution: Perceiving the causes of behavior. Morristown, NJ: General Learning Press.
- Kellermann, K. (1984). The negativity effect and its implications for initial interaction. Communication Monographs, 51, 37-55.
- Kellermann, K. (1987). Information exchange in social interaction. In M. E. Roloff & G. R. Miller (Eds.), Interpersonal processes: New directions in communication research (pp. 188-219). Newbury Park, CA: Sage.
- Kellermann, K. (1988, May). The negativity effect in interaction. Paper presented at the meeting of the International Communication Association, New Orleans.
- Kellermann, K. (in press). A theory of meta-goals in conversation. In K. Tracy (Ed.), Goals and discourse. Hillsdale, NJ: Lawrence Erlbaum.
- Kellermann, K., & Berger, C. R. (1984). Affect and the acquisition of social information: Sit back, relax and tell me about yourself. In R. N. Bostrom (Ed.), Communication yearbook 8. Beverly Hills, CA: Sage.
- Kiesler, C. A. (1969). Group pressure and conformity. In J. Mills (Ed.), Advanced experimental social psychology. New York: Macmillan.
- Kiesler, C. A., Kiesler, S. B., & Pallak, M. S. (1967). The effects of commitment to future interaction on reactions to norm violations. *Journal of Personality*, 35, 585-599.
- Kipnis, D., & Consentino, J. (1969). Use of leadership power in industry. Journal of Applied Psychology, 53, 460-466.
- Kraemer, H. C., & Jacklin, C. N. (1979). Statistical analysis of dyadic social behavior. *Psychological Bulletin*, 86, 217-224.
- Lay, C. H., & Paivio, A. (1969). The effects of task difficulty and anxiety on hesitations in speech. Canadian Journal of Behavioural Science, 1, 25-37.
- Levin, H., Silverman, I., & Ford, B. L. (1967). Hesitations in children's speech during explanation and description. *Journal of Verbal Learning and Verbal Behavior*, 6, 560-564.

- Major, B. (1980). Information acquisition and attribution processes. *Journal of Personality and Social Psychology*, 39, 1010-1023.
- Matarazzo, J. D., Holman, D. C., & Wiens, A. N. (1967). A simple measure of interviewer and interviewee speech durations. *Journal of Psychology*, 66, 7-14.
- McLaughlin, M. L. (1984). Conversation: How talk is organized. Beverly Hills, CA: Sage.
- Mehrabian, A. (1971). Nonverbal communication. In J. K. Cole (Ed.), Nebraska Symposium on Motivation. Lincoln: University of Nebraska Press.
- Mehrabian, A., & Ksionzky, S. (1971). Factors of interpersonal behavior and judgment in social groups. *Psychological Reports*, 28, 483-492.
- Miller, G. A., Galanter, E., & Pribram, K. H. (1960). Plans and the structure of behavior. New York: Holt, Rinehart & Winston.
- Petronio, S., & Martin, J. (1986). Ramifications of revealing private information: A gender gap. Journal of Clinical Psychology, 42, 499-506.
- Planalp, S., & Tracy, K. (1980). Not to change the topic but...: A cognitive approach to the management of conversation. In D. Nimmo (Ed.), Communication yearbook 4. New Brunswick, NJ: Transaction Books.
- Ramsey, R. W. (1966). Personality and speech. *Journal of Personality and Social Psychology*, 4, 116-118.
- Rawlins, W. (1983a). Openness as problematic in ongoing friendships: Two conversational dilemmas. Communication Monographs, 50, 1-13.
- Rawlins, W. (1983b). Negotiating close friendships: The dialectic of conjunctive freedoms. *Human Communication Research*, 9, 255-266.
- Reynolds, A., & Paivio, A. (1968). Cognitive and emotional determinants of speech. Canadian Journal of Psychology, 22, 164-175.
- Rogers, C. R. (1951). Client-centered therapy: Its current practice, implications, and theory. Boston: Houghton-Mifflin.
- Rosenfeld, H. M. (1966). Approval-seeking and approval-inducing functions of verbal and nonverbal responses in the dyad. *Journal of Personality and Social Psychology*, 4, 597-605.
- Rosenfeld, H. M. (1967). Nonverbal reciprocation of approval: An experimental analysis. *Journal of Experimental Social Psychology*, 3, 102-111.
- Rumelhart, M. A. (1983). When in doubt: Strategies used in response to interactional uncertainty. *Discourse Processes*, 6, 377-402.
- Schneider, D. J. (1981). Tactical self-presentations: Toward a broader conception. In J. T. Tedeschi (Ed.), *Impression management theory and social psychological research*. New York: Academic Press.
- Siegman, A. W., & Feldstein, S. (Eds.). (1979). Of speech and time: Temporal speech patterns in interpersonal contexts. Hillsdale, NJ: Lawrence Erlbaum.
- Snyder, M. (1981). Seek and ye shall find: Testing hypotheses about other people. In E. T. Higgins, C. P. Herman, & M. P. Zanna (Eds.), Social cognition: The Ontario Symposium on Personality and Social Psychology (Vol. 1). Hillsdale, NJ: Lawrence Erlbaum.

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- Snyder, M., & Campbell, B. (1980). Testing hypotheses about other people: The role of the hypothesis. *Personality and Social Psychology Bulletin*, 6, 421-426.
- Snyder, M., & Cantor, N. (1979). Testing hypotheses about other people: The use of historical knowledge. *Journal of Experimental Social Psychology*, 15, 330-342.
- Snyder, M., & Swann, W. B. (1978a). Behavioral confirmation in social interaction: From social perception to social reality. *Journal of Experi*mental Social Psychology, 14, 148-162.
- Snyder, M., & Swann, W. B. (1978b). Hypothesis-testing processes in social interaction. *Journal of Personality and Social Psychology*, 36, 1202-1212.
- Taylor, I. (1969). Content and structure in sentence production. Journal of Verbal Learning and Verbal Behavior, 8, 170-175.
- Tedeschi, J. T. (1981). Impression management theory and social psychological research. New York: Academic Press.
- Tedeschi, J. T., & Reiss, M. (1981). Identities, the phenomenal self, and laboratory research. In J. T. Tedeschi (Ed.), *Impression management theory and social psychological research*. New York: Academic Press.
- Trope, Y., & Bassok, M. (1982). Confirmatory and diagnosing strategies in social information gathering. *Journal of Personality and Social Psychology*, 43, 22-34.
- Wilensky, R. (1983). Planning and understanding: A computational approach to human reasoning. Reading, MA: Addison-Wesley.
- Yngve, V. H. (1970). On getting a word in edgewise. In *Papers from the Sixth Regional Meeting, Chicago Linguistic Society*. Chicago: Department of Linguistics, University of Chicago.