EFFECTS OF DOMINANCE TENDENCIES ON FLOOR HOLDING AND INTERRUPTION BEHAVIOR IN DYADIC INTERACTION [1]

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Eighteen dyads (10 female and eight male), each composed so as to have one member who scored high and one who scored low on a test of personality dominance, were given a cooperative problem-solving discussion task lasting fifteen minutes. The persons with the more dominant personalities held the floor more and attempted more interruptions in proportion to their partners' total amounts of speaking time than did those with less dominant personalities. There was also evidence that the high dominant subjects were more successful in completing their interruption attempts, although this result fell somewhat short of statistical significance. Despite the fact that the trend of the results appeared to be consistently stronger among males, there were no significant sex differences. Implications of the findings for the interpersonal communication theory of Watzlawick, Beavin, and Jackson (1967) are discussed.

Several recent criticisms of research on face-to-face behavior have suggested that designs are too often "input-output" rather than "process" oriented (cf. Mortensen, 1970; Larsen, 1971). That is, typically some independent "input" variable is manipulated (e.g., leadership style) in order to see the effect on a cumulative "output" variable (e.g., the quantity of work accomplished), whereas the interaction itself is not examined.[2] A second criticism which could be made of the research, however, is that even among those studies which have been concerned with process, the focus has been limited, with some notable exceptions, to what Watzlawick, Beavin, and Jackson (1967) call the "content" as opposed to the "relationship" level of communication. Thus, we may know little scientifically about the content or informational aspects of interaction, but we know even less about the process by which interactants define themselves in relation to one another by the way messages are qualified and exchanged.[3]

The present study was concerned with one particular aspect of relationship formation in dyads—the development of dominance relations. The study's purpose was to see if a differential in personality dominance would be sufficient to establish a predicted pattern in floor holding and interruption behaviors. The authors' interest in personality as a causal factor in certain dyadic interaction patterns stemmed from a "tentative axiom" and an incomplete explanation offered by Watzlawick et al. (1967). The axiom states that all relational patterns may be categorized as either symmetrical or complementary (asymmetrical) depending on whether they are based on the equality or inequality of the persons involved (pp. 67-70).

In explaining the basis for the emergence of such patterns, Watzlawick et al. say that a complementary relationship may be set up by culturally determined status differences or may be simply the "idiosyncratic" style of a particular dyad (p. 69), but they do not clarify exactly what factors may cause such an idiosyncratic pattern to develop. The present authors reasoned that where formal status is more-or-less equal, personality differences would be a primary factor in bringing about a relatively symmetrical or complementary pattern. It also seemed logical that tendencies toward dominance would be central to the development of such patterns.

Floor holding and interruption behaviors were

selected for study because these two fundamental aspects of dyadic message exchange should particularly help define the dominance relationship between partners, since their meanings with regard to the one-up and one-down character of complementary patterns seem unequivocal. In addition, these two dyad activities seem especially pertinent since they concern the temporal assigning of the communication "roles" of speaker and listener. We were also influenced in the choice of these behaviors by Mortensen's (1972) comments about their metacommunicative, or relationship defining, significance:

> It is the subtext of a relationship that determines how the back and forth sequence of speaking and listening is to be carried out. . . . The person who monopolizes a conversation indicates, by his action, that the right of each person to contribute to the discussion is not to be shared equally. As a consequence, the others who are present are placed in a subordinate relationship. . . . Consider also the person who regulates the ebb and flow of talk by persistently interrupting others. Now the very act of interrupting the flow of conversation has significance in delineating the value [of others' comments] as well as the right of others to express themselves. It implies that what one person says is not to be judged to be of sufficient importance to permit its completion. (p. 249)

Although the present authors were basically in agreement with Mortensen's statement, we found it necessary to add to his ideas in two ways. First, it would be more accurate to say that consistent and repeated interruptions would indicate superordinance while a single instance of interruption might not, since it would be possible for an interactant to signal a very submissive attitude in an isolated case by verbally or nonverbally apologizing for the interruption (e.g., "Please excuse me, but I want to make sure I am not missing anything you're saying."). Secondly, we noted that Mortensen did not distinguish between interruption attempts and interruption successes. When we considered a suggestion by Meltzer, Morris, and Hayes (1971) that interruption events might well be considered "mini-dominance battles," it seemed reasonable to predict that the dyad member with the more dominant personality would not only try to interrupt more, but also would "win" more frequently than a partner who has a less dominant personality.

Watzlawick et al.'s assertion that formal status differences may cause complementary patterns seems rather self-evident. There has been one study which bears on this notion. Wiens, Thompson, Matarazzo, Matarazzo, and Saslow (1965) arranged for nurses of varying positions to be interviewed by a psychiatrist within a semi-structured session. They found that higher status nurses interrupted more, defended against interruptions of their own speech behavior more successfully, and spoke in longer durations than did their lower status colleagues. Although the design did not involve higher and lower status nurses interacting together, the study does suggest that interruption and floor holding patterns will reflect status differences. More investigation of this generalization is probably warranted, but on the whole, the present authors felt that the idea of an implicit status difference arising idiosyncratically from personality factors where dyad members are ostensibly equals was a more provocative area for study.

Several previous studies have investigated the relationship between personality and ascendant-submissive interaction behavior. Cervin (1957) had pairs of subjects debate a topic on which they held initially opposing views and found that those who had scored high on a test of "emotional responsiveness" (irritability, nervousness) talked more than their partners, who had scored low in responsiveness. Carment (1961) extended Cervin's research on debating dyads by showing that opinion strength as well as responsiveness could affect the amount of talking. The person who was more responsive and/or had a stronger opinion than his partner tended to hold the floor more; in the case where the responsive person had a weaker opinion, the amount of talking tended to even out among the partners. Employing a similar format, where dyad partners held opposing views, Carment

and Miles (1965) demonstrated that a highly intelligent extrovert would talk more than an extrovert of lower intelligence, and that among pairs matched on intelligence, an extrovert would hold the floor more than an introvert.

Although the past studies suggest that personality differences can cause the emergence of complementary interaction patterns, their generalizability is limited in two important ways. First, the nature of the tasks employed in these studies suggests that the results may apply only to competitive interactions but not to the more usual situation where partners discuss a topic cooperatively. Second, only floor holding behaviors were investigated in these studies. The evidence for the emergence of a dominance-submission relationship would have been much stronger if it had been demonstrated that the pattern was sufficiently generalized to be reflected in an additional dimension of the interaction like interruption behavior.[4] In addition, it should be noted that while an interesting array of measures of individual differences has been employed in previous research, tests based on the construct of *general dominance tendencies*, which should provide the most direct means for predicting ascendant-submissive behavior, have not been used in pairing subjects.

In the present study, subjects of high and low general dominance tendencies were brought together to work on a cooperative discussion task. The following predictions were made about the influence of differences in personality on relationship formation:

1. The dyad member with the high dominant personality (HD) will hold the floor for a greater proportion of the total speaking time than will the member with a low dominant personality (LD).
2. HD will attempt more interruptions in proportion to the total speaking time of his/her partner than will LD. That is, since the opportunity to interrupt is directly related to the partner's total floor holding time, the appropriate base for comparison is not the number of interruptions attempted by each subject, but rather the rate of interruption attempts per minute of potential interruption time. This index can be found for each subject by dividing the number of attempted interruptions by the partner's speaking time. HD subjects were expected to have higher rates than LD subjects.
3. HD will win a greater proportion of his/her interruption attempts than will LD. Since the absolute number of attempts may vary in relation to unequal floor holding times between partners, it follows that the total number of successes does not provide a very meaningful index of relationship pattern. Rather, the score for each subject must be calculated by dividing the number of successes by the number of attempts.

METHOD

Personality Measures

Since all three hypotheses were dependent on the manipulation of dyad personality composition, two separate indices were used to assess the dominance tendencies of potential Ss. Likert-type items designed to tap dominance tendencies were adapted from the widely-used Cattell (1967) personality inventory. This comprised the principal measure in the study. A self-descriptive adjective check list developed by Gough (1969) provided an alternate method of measuring ascendant-submissive tendencies and was employed as a check on the Cattell scale.

Subjects

Twelve sections of a basic course in communication arts and sciences at Queens College were sampled in this study. An "attitude questionnaire" containing items from the two inventories described above was administered in class by instructors to all students present on two specific days. Ten dummy items which related to campus issues were included to lend credibility to the questionnaire as a measure of "attitudes." The dominance items served as the basis for selecting Ss.

The entire sample of 240 persons taking the questionnaire was rank ordered on the Cattell

scale, males and females being kept separate, from high to low dominance. On both the male and female lists, the upper third was considered high dominant, the middle third middle dominant, and the lowest third low dominant. Those few potential Ss who were rated as high dominant on the Cattell scale but who did not rank at or above the 60th percentile on the Gough scale were eliminated, as were those who rated low dominant on the Cattell scale but who did not rank at or below the 40th percentile on the Gough scale.

In all, 48 Ss were selected according to the above criteria, half from the high dominant group and half from the low dominant group, and asked by one of the investigators to volunteer for a "problem-solving study sponsored by the Department of Communication Arts and Sciences." All 48 did volunteer to take part, but due to problems in scheduling, only 36 Ss actually participated. As it happened, the means of the Cattell scale dominance scores were very similar among HD males and females and among LD males and females. Each dyad consisted of an HD and an LD of the same sex. In total, there were eight male and 10 female dyads.

Treatment

The sessions in which the 36 volunteers had agreed to participate were scheduled on three consecutive days across the better part of each day. For each session a pair of Ss would report to a room in the Human Communication Laboratory at Queens College, with interaction between the two being held to a minimum prior to each session. Once in the room, which contained two chairs, a table, a visible tape recorder, and two table microphones, partners were given identical instruction sheets which invited them to jointly discuss a campus problem (registration difficulties, crowded cafeterias, etc.) and reach some solution within 15 minutes.

Each session was tape recorded on a Lafayette (No. 860) stereo recorder. All recordings turned out to be clear and understandable, while both voices were clearly separated by channel. Interviews conducted by one of the investigators at the end of each session showed that no S had had any interactions with his/her partner previous to that session, and no S made any comment which might indicate that he/she was aware of the actual purpose of the study. All dyads made some progress toward accomplishing the task given to them.

Coding of Behavior from Audio Tapes

After all the data had been collected, one of the investigators coded floor holding and the two types of interruption behavior. Floor holding was defined as the total time each speaker was vocalizing as measured by a stop watch. Excluded from this measure were brief "listener behaviors" ("um," "aha," "yes," etc.), instances of simultaneous speech where the S being timed had been the second person to vocalize in the simultaneous period, and pauses within speech acts of more than two seconds in duration.

An interruption attempt was defined as an instance in which the speaker in question was the second person to enter a period of simultaneous vocalization. The total number of such attempts were counted for each speaker. Excluded from this tally were instances of the listener behaviors mentioned above.

A test was conducted in order to determine whether the coding system could be used reliably by independent judges. The investigator who coded the data trained two additional coders in separate sessions. Each coder received instruction on the rules for measuring and scoring behaviors and was given a sample tape on which to practice four or five minutes of coding for each dependent measure. Following the practice session, a sample consisting of 12, three-minute time segments of interaction selected from other tapes was submitted to each coder, and the behavior of one of the two speakers on each segment was scored. Intercoder reliabilities, as judged by Spearman rank order correlations, were .97 for floor holding

($p < .01$), .71 for interruption attempts ($p < .025$), and .77 for interruption successes ($p < .025$). The investigators concluded that these reliabilities were acceptably high, especially considering the brief period of time allowed for training, and that the clarity of the phenomena under study was sufficient to justify the procedure of having only one coder.

RESULTS

Preliminary tests showed no statistically significant sex differences on any of the dependent measures. Therefore, the data for males and females were combined for purposes of evaluating each hypothesis. The tests for sex differences are described below where each hypothesis is discussed since the nature of these preliminary analyses varied. In light of the consistent trend in the data for males to show greater evidence of the effects of the dominance differential, the results of separate tests for each sex group are also provided as a matter of incidental interest and as a means of assessing the generalizability of the findings.

Hypothesis 1 stated that the dyad member with the high dominant personality (HD) will hold the floor for a greater proportion of the total time both spent speaking than will the member with the low dominant personality (LD). As can be seen in Table 1, the HD males did hold the floor an average of 69.4% of the time, and similarly, the HD females held the floor an average of 61.5% of the time. Since the scores for high and low dominant subjects are reciprocals of one another, only the HD scores were employed for purposes of comparing the sexes. The t-test for female-male differences did not approach significance ($t = <1$; $df=16$). A matched t-test comparison of the HD and LD subjects for the combined female and male data revealed a significant difference ($t=4.65$; $df=17$; $p < .0005$). Separate matched t-tests for each of the sex groupings showed significant differences among both the males ($t=4.41$; $df=7$; $p < .005$) and the females ($t=2.56$; $df=9$; $p < .025$). Thus, the first hypothesis was accepted, and it may be added that the hypothesis would hold true if the male and female dyads were considered separately.

TABLE 1
Floor Holding Times for High and Low Dominant Groups

		High Dominant Members		Low Dominant Members	
Sex		Total Time (in minutes)	% of Dyad Time*	Total Time (in minutes)	% of Dyad Time*
Male Dyads	(8)	$\bar{X} = 8.15$ S.D. = 2.24	$\bar{X} = 69.4$ S.D. = 10.2	$\bar{X} = 3.37$ S.D. = .82	$\bar{X} = 30.6$ S.D. = 10.2
Female Dyads	(10)	$\bar{X} = 6.58$ S.D. = 2.25	$\bar{X} = 61.5$ S.D. = 13.7	$\bar{X} = 3.98$ S.D. = 1.58	$\bar{X} = 38.5$ S.D. = 13.7
Total Dyads	(18)	$\bar{X} = 7.28$ S.D. = 2.36	$\bar{X} = 65.0$ S.D. = 12.9	$\bar{X} = 3.71$ S.D. = 1.36	$\bar{X} = 35.0$ S.D. = 12.9

*Means are of total individual percentages and are only approximated by dividing a total time *mean* by combined *means* of total time for High and Low Dominant Groups.

TABLE 2
Interruption Attempts for High and Low Dominant Groups

Sex		Number of Attempts	High Dominant Members Speaking Time of Partner (in minutes)	Attempts per Minute of Partner's Time*
Male Dyads	(8)	$\bar{X}$ = 11.0 S.D. = 7.5	$\bar{X}$ = 3.37 S.D. = .82	$\bar{X}$ = 3.2 S.D. = 1.44
Female Dyads	(10)	$\bar{X}$ = 8.9 S.D. = 5.14	$\bar{X}$ = 3.98 S.D. = 1.58	$\bar{X}$ = 2.33 S.D. = .97
Total Dyads	(18)	$\bar{X}$ = 9.8 S.D. = 6.4	$\bar{X}$ = 3.70 S.D. = 1.36	$\bar{X}$ = 2.71 S.D. = 1.33

Sex		Number of Attempts	Low Dominant Members Spcaking Time of Partner (in minutes)	Attempts per Minute of Partner's Time*
Male Dyads	(8)	$\bar{X}$ = 12.88 S.D. = 7.91	$\bar{X}$ = 8.15 S.D. = 2.24	$\bar{X}$ = 1.54 S.D. = .66
Female Dyads	(10)	$\bar{X}$ = 11.8 S.D. = 3.42	$\bar{X}$ = 6.58 S.D. = 2.25	$\bar{X}$ = 2.08 S.D. = 1.05
Total Dyads	(18)	$\bar{X}$ = 12.27 S.D. = 5.95	$\bar{X}$ = 7.28 S.D. = 2.36	$\bar{X}$ = 1.83 S.D. = .95

*Means are of total individual scores and are only approximated by dividing *mean* of interruption attempts by *mean* of partner's speaking time.

The second hypothesis stated that HD will attempt more interruptions in proportion to the total speaking time of his/her partner than will LD. Table 2 shows the means, for each condition of the study, of the subjects' rates of interruption attempts per minute of their partners' floor holding times. The data for both sexes appear to be consistent with the hypothesis, although the trend seems stronger among the males. The average HD male rate was 3.20 attempted interruptions per minute, as compared to the LD rate of 1.54. HD females averaged 2.33, and LD females averaged 2.08. Since the interruption attempt rates for HD and LD subjects are not reciprocals, t-tests for sex differences were conducted on both HD and LD subjects separately. Neither test produced significance at the .10 level, employing a two-tailed test (highs: t=1.60; df=16; lows: t=1.12; df=16). The matched t-test comparison of HD and LD subjects, combining male and female scores, was significant at the .025 level (t=2.21; df=17). The second hypothesis was therefore accepted. Some caution must be taken in generalizing this conclusion to both males and females, however, since separate tests for each sex group showed that the high-low dominant difference was significant among males (t=2.78; df=7; $p < .025$) but not among females (t= <1; df=9).

Hypothesis 3 stated that HD will win a greater proportion of his/her interruption attempts than LD. It can be seen in Table 3 that the LD subjects, who had more time to attempt interruptions since their partners tended to hold the floor more, actually attempted and completed more interruptions on the average, but succeeded less than the HD subjects in *proportion* to their number of attempts. This trend appears to hold true for both sexes, although it is much weaker among the females. As was the case with the data for attempting interruptions, the proportions of successes for HD and LD subjects were not reciprocals, so separate t-tests for sex differences were again conducted for HD and LD subjects. Neither test showed a significant male-female difference (highs: t= <1; df=16; lows: t=1.10; df=16). The results for males and females were therefore

TABLE 3
Interruption Successes for High and Low Dominant Groups

Sex		Interruption Attempts	Interruption Successes	Successes Divided by Attempts*
High Dominant Members				
Male Dyads	(8)	$\bar{X}$ = 11.0 S.D. = 7.5	$\bar{X}$ = 8.25 S.D. = 7.49	$\bar{X}$ = .75 S.D. = .15
Female Dyads	(10)	$\bar{X}$ = 8.9 S.D. = 5.14	$\bar{X}$ = 7.3 S.D. = 4.63	$\bar{X}$ = .82 S.D. = .16
Total Dyads	(18)	$\bar{X}$ = 9.83 S.D. = 6.41	$\bar{X}$ = 7.72 S.D. = 5.24	$\bar{X}$ = .79 S.D. = .16
Low Dominant Members				
Male Dyads	(8)	$\bar{X}$ = 12.88 S.D. = 7.91	$\bar{X}$ = 8.25 S.D. = 6.7	$\bar{X}$ = .57 S.D. = .29
Female Dyads	(10)	$\bar{X}$ = 11.8 S.D. = 3.42	$\bar{X}$ = 9.3 S.D. = 2.32	$\bar{X}$ = .79 S.D. = .06
Total Dyads	(18)	$\bar{X}$ = 12.27 S.D. = 5.95	$\bar{X}$ = 8.83 S.D. = 4.83	$\bar{X}$ = .69 S.D. = .24

*Means are of total individual scores and are only approximated by dividing *mean* of interruption attempts by *mean* of interruption successes.

combined. The matched t-test comparison of the high and low dominant scores approached but fell just short of significance at the .05 level (t=1.71; df=17). Again, separate matched t-tests for each of the sex groups showed that while the males approached significance at the .05 level (t=1.70; df=7), the females did not approach significance (t=<1; df=9). The third hypothesis was rejected with the qualification that the results were in the expected direction and came very close to being significant at a traditional level. Although the failure to achieve significance appeared to be attributable primarily to the weaker effect of the dominance differential among females, it must be noted that the results were not significant for either of the sex groups considered separately.

In addition to the above analyses related to the hypotheses of the study, two *ex post facto* analyses were made. First, it was noticed that when each of the dyads was asked to sit at the work table (no directions having been given as to who should sit where), out of the 18 sessions, 13 times the HD member was observed to choose the seat which was located more toward the center of the room. Had this result been predicted, the difference would have been significant at the .05 level of confidence, according to a sign test.

Secondly, it was observed that when the interruption scores of both the HD and LD members were taken together, interruption attempts were ordinarily successful. Out of the total number of interruptions, about 75% of the time the interruption was successfully completed, while 25% of the time it was not (see Table 3). This proportion was significant at the .05 level, according to a standard error of a proportion test, assuming a null hypothesis which predicts a .5 proportion of successes to failures.

DISCUSSION

In the present study, it was predicted that complementarity in dyad composition in terms of dominance tendencies would bring about comple-

mentary patterns of message exchange. Although the results varied in the degree to which they provided support for this expectation, all were in the anticipated direction and achieved or approached statistical significance. The more dominant members of each dyad held the floor about twice as much of the time as their less dominant partners. They were about half again as likely (1.48 to 1) to attempt interruptions during their partners' speaking time. And they held a slight edge in interruption successes, winning proportionately 1.14 to 1 as many attempts as the low dominant subjects, although this finding fell short of significance at the .05 level. The results seem especially strong when one considers that the subjects with higher dominance tendencies not only talked more, but also interrupted more during the limited amounts of time their partners had to talk. In addition, they were at least as effective—and appeared to be more effective—than the less dominant subjects in taking over the floor when they attempted to interrupt. In other words, their domination of the conversation, as shown in these three measures, was rather complete.

These findings have implications for Watzlawick et al.'s (1967) theory of interpersonal communication. Specifically, the present study's findings add to the theory by showing that a difference in personality between dyad partners is sufficient to bring about a complementary pattern where the status of the interactants is equal. To some extent this has been demonstrated in previous research (cf. Cervin, 1957), but the present study is unique in generalizing the principle beyond floor holding behavior to interruption phenomena and in showing that such patterns can emerge from personality differences where the task is cooperative rather than competitive in nature.

At this point, it is not clear what factors besides personality differences could account for the development of a complementary pattern. A study by Carment (1961) suggests that a dyad member who has a much stronger opinion on the topic for conversation than his partner will hold the floor more. This may be one of a number of situational factors which cause interaction asymmetry. In general, however, the present authors would expect to find that such transitory features of initial interactions do not have an enduring effect. A true pattern of interaction is one that occurs repeatedly, not only within a single interaction, but also across interaction events involving the same people. We think it more likely that personality differences, especially in dominance tendencies, will produce such consistency. Of course, new studies would have to be designed with partners engaging in at least two conversations, preferably on separate occasions, in order to test this assumption.

The present authors are tempted to agree with the suggestion of Meltzer et al. (1971) that interruption events are "mini-dominance battles," since the high dominant subjects in the present study did appear to be more successful in completing interruptions than their low dominant partners. Such a conclusion would be premature, however, since this finding was not statistically significant. In addition, it should be noted that both high and low dominant partners ordinarily gave in when the other tried to interrupt, suggesting that a major portion of the interruptions were not contests of will. However, in light of the fact that the data were in the expected direction, further testing seems warranted. Since the subjects did not know one another prior to the interaction, and since they talked for only about 15 minutes, it is possible that the high dominant subjects did not have time to "assert" themselves in their efforts to win interruption attempts and that a longer period of interaction would have produced clearer results.

Examination of the findings and the design of the present study suggests several other directions for further investigation. First, while the sex differences were not statistically significant, they were quite consistent across the dependent measures. In each case, the effect of the differential in dominance tendencies appeared to be greater among the males than the females. Retesting for sex differences with a larger sample of subjects seems necessary. Second, we do not know whether a less extreme difference in dominance tendencies

between partners would produce the consistent pattern shown in the present study, nor can we say how the various possible combinations of high, middle, and low dominant subjects would perform. A more complete design would enlarge our understanding of the relationship of dominance tendencies to patterns of message exchange. Third, it would be desirable in future studies to ask the subjects and a panel of observers to record their general impressions of the degree to which each partner was in a relatively one-up or one-down position during the conversation. This procedure would help to test the assumption that floor holding and interruption behaviors are perceived as communications about the relationship of the participants. In a more complete version of the study, such as has been suggested above, there should be sufficient variability from dyad to dyad in floor holding, interruption, and other behaviors to make it feasible to conduct multivariate analyses to determine the strength of each of these factors in contributing to this over-all impression.

Finally, no attempt was made in the present study to account for exactly how the high dominant subjects managed to hold the floor. It appears that to some degree this was accomplished by means of interruptions. However, it also seems likely that various nonverbal messages and subtle verbal cues were exchanged between the partners at the onset of the interaction, the most obvious example being that the more dominant person usually took the seat toward the middle of the room and the less dominant person sat "with his back to the wall," and that these were the first of a series of messages which signaled who was going to do the majority of the talking and served to regulate the process throughout the interaction. Some of these kinds of regulatory patterns of behavior have been discussed by Scheflen (1963, 1964) and by Duncan (1973). It may be that dominant persons are especially adept in the use of such signals. Further studies employing audio-visual records of interaction could provide a fuller picture of the effects of personality on the process by which communicators jointly determine who will talk when and for how long.

NOTES

1. This article is based on Mr. Rogers' M.A. thesis, completed under the direction of Dr. Jones at Queens College, June, 1973.

2. In the sense that the term is used here, "process-oriented research" means any investigation which involves an analysis of the actual messages in a communication exchange. The term is sometimes also used in a more restricted sense to apply only to a study of continuous changes in messages over time.

3. This distinction between the "content" or "report" and "relationship" or "command" levels of communication is not equivalent to Bales' (1950) separation of all messages into either "task" or "socioemotional" categories. Rather, in Watzlawick et al.'s view, every message has both functions of conveying information and delineating relationship (p. 54). They provide the following illustration of this duality: " 'It is important to release the clutch gradually and smoothly' and 'Just let the clutch go, it'll ruin the transmission in no time' have approximately the same information content (report aspect), but they obviously define very different relationships" (p. 52). In the same way, what a person says when he talks at great length or breaks in on his partner's speech is the content of his communication, but the fact of his holding the floor more or interrupting more than his partner comprises part of the relationship aspect of his messages.

4. Each of the past studies did involve observation of another factor—who spoke first in each dyad—and one study (Carment & Miles, 1965) investigated opinion change as well. As expected, the partner who talked more also tended to speak first and was less likely to indicate that he had changed his opinion during or after the interaction. These findings are not applicable to relationship formation, however. Making the first statement cannot be called patterned behavior, since it constitutes only the initial act of communication, while stated opinion change has to do with content rather than the relationship aspect of an exchange.

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