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ABSTRACT

This study addresses three issues: (1) the influence of proxemic variables (distance, furniture presence) on dyadic interaction; (2) the consistency between measures of self-disclosure; and (3) the applicability of reciprocity and distance-equilibrium views of dyadic interaction. Dyads of male college students were randomly assigned to one of four conversation situations: no table-close distance, no table-far distance, table-close distance, and table-far distance. Following a structured 20 minute conversation, subjects separated by a table perceived their partners to be better adjusted and felt more distant from their partners. Although both intent to disclose and number of topics discussed were significantly correlated with objectively rated disclosure, neither was highly correlated enough to be considered the functional equivalent of objective ratings. The correlations among dependent measures of disclosure and non-verbal involvement supported a reciprocity rather than a distance-equilibrium hypothesis concerning dyadic interaction. (Author)

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In the study of proxemic variables and dyadic interaction, researchers have been concerned with the effect of seating distance. Boucher (1972) examined the relation between seating distance and interpersonal attraction in an interview. Sommer (1962) found that given similar seating distances, individuals preferred to sit opposite one another rather than side-by-side. However, when the distance between opposite chairs was at least one foot greater than the distance between side-by-side chairs, subjects preferred the side-by-side arrangement. Lassen's (1973) findings suggested that subjects disclose more intimate information and feel more certain about an interviewer's reaction at a seating distance of six feet than at distances of three or nine feet. However in Lassen's (1973) study, physical distance was confounded with the angle between interviewer and subject and with the position of a table.

Using photographs of different seating arrangements, Hasse and DiMattia (1970) and Broekmann and Moller (1973) found differences in seating preference to be related to seating distance and the position of a table. In both studies the authors suggest that a table may serve as a psychological barrier between individuals. However, the effect of a table on dyadic interaction has not been systematically investigated.

In the present study, seating distance and the presence or absence of a table between subjects were varied in a 2x2 factorial design. The effects of

these independent variables on dyadic interaction were assessed in terms of the subjects' experience of the interaction and intimacy of their disclosures. It was expected that the table would act as a psychological barrier. That is, subjects seated close together with a table between them would experience the distance as similar to that experienced by subjects seated farther apart with no table between them.

In addition, the issues of the measurement of self-disclosure and the relation between verbal disclosures and nonverbal involvement were addressed in the present study. Self-disclosure researchers (Jourard, 1971; Panyard, 1971, 1973) have often relied on self-report measures. However, in his review of the self-disclosure literature, Cozby (1973) questioned the relation of self-report data to actual self-disclosure behavior. Jourard (1971) noted several other measures of self-disclosure including: (1) the number of topics that a subject is willing to discuss, (2) the number of topics discussed, and (3) total disclosure time. However, Bloch and Goodstein (1971) and Sermat and Smyth (1973) have questioned the use of these readily quantifiable measures because of the lack of empirical evidence indicating that these measures are directly related to the actual intimacy of disclosure content. In the present study an objective rating of self-disclosure was compared to measures of intent to disclose, perceived disclosure and number of topics discussed. It was anticipated that the objective rating of self-disclosure would be positively correlated with both intent to disclose and perceived disclosure, and negatively correlated with number of topics discussed.

According to Argyle and Bean's (1965) distance-equilibrium hypothesis, there is an optimal level of intimacy or involvement in interpersonal interactions.

A increase in one aspect of interpersonal involvement will be accompanied by a compensatory decrease in some other aspect of involvement. For example, an increase in the intimacy of a discussion should be accompanied by reduced eye contact. In the present study the relation between verbal disclosure and nonverbal involvement, in the dyadic discussion, was tested.

Method

Subjects. The subjects were 120 unmarried, white, American-born, male undergraduates between the ages of 18 and 25. Subjects were assigned to dyads on the basis of attitude similarity as determined by Byrnes' (1962) attitude scale. In the 60 dyads, the partners were within 3 years of age and were strangers.

Procedure. Each dyad was randomly assigned to one of four groups: close seating distance without a table, close distance with a table, far distance without a table, far distance with a table. Measured from the backs of the seats of the chairs, the close distance was 34 inches (2'10") and the far distance, 64 inches (5'4"). The distance across the table was 30 inches (2'6") in the close condition and 60 inches (5') in the far condition. Chair angle was 180° for all conditions.

Subjects were seated and asked to check those topics they would be willing to discuss from a list of 25 topics, varying in intimacy (Jourard, 1971). From the topics he was willing to discuss, each subject chose seven topics which he wanted to ask his partner. The dyad was informed that their conversation would be tape recorded, that they would be observed through a one-way mirror, and that the data would be used for research purposes only. The experimenter

randomly selected one subject to choose the first topic for discussion. The experimenter left the room to observe the interaction through the one-way mirror and allowed the subjects 20 minutes for their conversation. Following the discussion, each subject completed a questionnaire concerning the extent of his own self-disclosure, his partner's self-disclosure, his feelings toward his partner and his perception of his partner.

Dependent Measures. Six major dependent measures were used to assess the effect of seating distance and table presence on dyadic interaction: (1) perceived adjustment of partner; (2) perceived distance from partner; (3) perceived degree of disclosure; (4) general attraction to partner; (5) number of topics discussed; and (6) objective rating of dyadic disclosure behavior. The first four dependent measures were four factors from the post-discussion questionnaire. The items on the post-discussion questionnaire were grouped into these four factors on the basis of their factor loadings, their intercorrelations, and the experimenter's judgement concerning which groupings would be meaningful. The objective rating of dyadic disclosure behavior was done by a trained judge who was unfamiliar with the specifics of this research. He listened to the taped discussions, rated the discussion of each topic for intimacy of content, and calculated the average intimacy score per topic for each dyad. He used a modified form of Green's Scoring Manual (Jourard, 1971).

In addition, for each dyad the intent to disclose was measured by summing the number of topics each partner indicated he was willing to discuss prior to their conversation. Through the one-way mirror the experimenter also rated each dyad for nonverbal involvement in the discussion based on the partners' posture and facial orientation. Partners who leaned toward each other and looked at one another as they conversed were considered nonverbally involved.

Results

A 2x2 (table X distance) multivariate analysis of variance was performed with six dependent variables, the four questionnaire factors, the number of topics discussed, and the objective rating of disclosure (see Table 1). There was a significant main effect for presence or absence of table (Multivariate $F = 2.65$, $df = 6/51$, $p < .05$). Univariate ANOVAs for each of the dependent variables revealed that this effect was due to the perceived adjustment and perceived distance factors on the questionnaire. Compared to subjects with no table, subjects separated by a table perceived their partners to be better adjusted ($F = 5.40$, $df = 1/56$, $p < .05$) and felt more distant from their partners ($F = 7.86$, $df = 1/56$, $p < .01$). Neither the main effect for distance nor the distance-by-table interaction reached statistical significance in the multivariate analysis.

The intercorrelations among the dependent measures were calculated and those which were significant for the pooled data and consistent across conditions are presented in Table 2. The negative correlation between the objective rating of disclosure and the number of topics discussed indicates that dyads which spent more time discussing fewer topics tended to make more intimate disclosures. Intent to disclose was weakly but positively correlated with the objective rating of disclosure, suggesting that partners who indicated greater willingness to reveal themselves tended to make more intimate disclosures. Nonverbal involvement was positively related to the objective rating of disclosure and negatively related to number of topics discussed. That is, in dyads which made more intimate disclosures, partners were more likely to look at their partner and to lean toward one another.

Table 1

Means and Standard Deviations of the Six Major Dependent Variables for Each Experimental Condition

Experimental Condition		Dependent Measure: Partner's Adjustment[1]	Perceived Distance[2]	Perceived Disclosure[1]	Attraction[1]	Number of Topics[1]	Objective Disclosure[1]
No table-Close	$\bar{X}$	10.60	9.63	8.53	10.35	7.06	2.95
	SD	1.30	1.06	0.77	0.89	3.37	0.66
No Table-Far	$\bar{X}$	10.73	9.87	9.03	10.66	6.27	2.92
	SD	1.16	1.06	1.25	0.92	2.81	0.65
Table-Close	$\bar{X}$	11.27	9.07	8.57	10.46	6.87	2.89
	SD	1.09	1.09	1.12	0.94	3.98	0.61
Table-Far	$\bar{X}$	11.27	8.08	8.73	10.97	5.27	3.02
	SD	1.16	1.01	1.17	1.28	3.10	0.78

[1] Higher score indicates greater amount of variable

[2] Higher score indicates lesser amount of variable

Table 2

Correlations Significant for Pooled Data and Consistent Across Conditions

Condition	Correlation Coeffieients			
	Objective Disclosure with Number of Topics	Objective Disclosure with Intent to Disclose	Objective Disclosure with Nonverbal Involvement	Number of Topics with Nonverbal Involvement
Pooled Data	-.45***	.25*	.3?**	-.46***
No Table-Close	-.40^{t}	.47*	.38^{t}	-.16
No Table - Far	-.53*	.19	.21	-.46*
Table - Close	-.48*	.30	.33	-.57*
Table - Far	-.43^{t}	-.04	.37^{t}	-.62**

t $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$

There was not a statistically significant correlation between the objective rating of disclosure and perceived disclosure for the pooled data or for any experimental condition. This indicates that subjects' judgements of own and partner disclosure are not related to the judgements of an impartial rater using objective criteria of intimacy of disclosure.

Discussion

Obtaining an effect for table presence in the absence of an effect for seating distance suggests that the presence or absence of a physical barrier influences dyadic interaction more strongly than does physical distance. The effect of the table on perceived distance provides support for the concept that the table functions as a psychological barrier between individuals (Haase & DiMattia, 1970; Broekmann & Moller, 1973). Previous proxemics research has focused on physical distance, often to the exclusion of other salient aspects of the immediate environment, such as furniture placement, which apparently have some influence on dyadic interaction. Hopefully, future researchers will examine the effect of furniture placement and other environmental variables in greater detail. For example, it would be fruitful to determine the circumstances under which the presence of a table impedes dyadic interaction and the circumstances under which it enhances interaction. Variables such as setting, lighting, and number of participants could be used to elucidate this issue.

The negative correlation obtained between the objective rating of disclosure and the number of topics discussed provides some empirical support for the use of the number of topics discussed, or of the duration of topic discussion, as measures of the amount of disclosure. However, the number of topics discussed accounts for only 20 percent of the variance in the objective ratings of disclosure intimacy. Direct measures of the intimacy of disclosure would seem to be more precise.

The absence of a relation between objectively rated disclosure and the subjects' perceived disclosure suggests that an individual's statement of his own past disclosure behavior may not be a valid measure of that behavior. This lack of relation calls into question the extensive use of self-report measures of disclosure, and underscores the need for further investigation of behavioral correlates of self-disclosure questionnaires.

Finally, an increase in the intimacy of disclosure was accompanied by an increase in nonverbal involvement, rather than by a decrease. This finding seems to be at variance with Argyle and Dean's distance-equilibrium hypothesis and with other research which supports that hypothesis. For example, Exline, Gray & Schuette (1965) found that subjects spend less time looking at an interviewer in an intimate interview than in a non-intimate interview.

However, the results of the present study may indicate a boundary condition for the Argyle and Dean hypothesis rather than a direct contradiction of it. This boundary condition is that a compensatory decrease in one area of involvement in reaction to increased intimacy in another area only occurs when an interpersonal interaction is thrown into disequilibrium. Perceived intrusions, such as a spatial invasion or a unilateral demand for greater disclosure may cause disequilibrium and compensatory actions to restore equilibrium. Under conditions of more mutual interaction, such as reciprocal self-disclosures, an increase in intimacy in one area would be met with a complementary increase in another.

In the Exline, Gray and Schuette study (1965) an interviewer made unilateral requests for intimate material which were presumably intrusive, thereby causing disequilibrium. In the present research peers were allowed to talk at a level of intimacy which they selected. There was reciprocal sharing between equals, and therefore, no intrusive event causing disequilibrium. In those dyads in which the individuals became involved in relatively intimate discussion, there was greater nonverbal involvement.

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FOOTNOTE

1. The authors appreciate Elizabeth Jaffer Keys' editorial comments on an earlier version of this paper.

Abstract

This study addresses three issues: (1) the influence of proxemic variables (distance, furniture presence) on dyadic interaction; (2) the consistency between measures of self-disclosure; and (3) the applicability of reciprocity and distance-equilibrium views of dyadic interaction. Dyads of male college students were randomly assigned to one of four conversation situations: no table-close distance, no table-far distance, table-close distance, and table-far distance. Following a structured 20 minute conversation, subjects separated by a table perceived their partners to be better adjusted and felt more distant from their partners. Although both intent to disclose and number of topics discussed were significantly correlated with objectively rated disclosure, neither was highly correlated enough to be considered the functional equivalent of objective ratings. The correlations among dependent measures of disclosure and non-verbal involvement supported a reciprocity rather than a distance-equilibrium hypothesis concerning dyadic interaction.