

**PSYCHOLOGICAL CHARACTERISTICS
AND INTERPERSONAL DISTANCE**

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ABSTRACT

Locus of control and Mach IV scores are found to be correlated with standing interpersonal distancing behavior in a behavioral game. Correlations between interpersonal distance and factors of these scales suggest that interpersonal distance is not generally manipulated actively to influence others but that greater distance is used as a defense against perceived negative characteristics of others. Scores on Vando's (1969) Reducer Augmentor scale predict distancing behavior with specific individuals (research confederates), but the direction of the correlation varies among individuals.

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LITERATURE REVIEW

Hayduk (1983) reviewed personality as a determinant of differences in interpersonal distancing behavior. He concluded that there was insufficient evidence to provide dependable personality explanations for spatial preferences unless psychological disorders are considered extreme personality differences, in which case stronger relationships appear.

One of the major problems in interpreting the findings on personality characteristics and interpersonal distance is the difficulty of comparing results obtained using several different methodologies. One of the more basic differences is that some studies use standing subjects while in others subjects are seated. In a review of the literature, research which used standing subjects showed a greater frequency of significant findings than research using seated subjects. Results of both types of studies are summarized below.

Results obtained using methodologies where subjects have been asked to project themselves into simulated situations are not included because of the serious questions about the validity of these approaches, most recently raised by Hayduk (1983) and earlier by Altman and Vinsel (1977) and Hayduk (1978).

Research Using Standing Subjects

Cavallin and Houston (1980) found that greater personal space was needed by males who were more maladjusted and aggressive, who had a higher barrier score, and who underestimated their body size. Greenberg, Aronow and Rauchway (1977) found that the anxiety and hostility subscales of the HIT were significantly positively correlated with interpersonal distance while the human and barrier subscales showed no correlation. Beck and Ollendick's (1976) study found no significant differences in personal space requirements between the half of his sample scoring most external and the half scoring most internal on the Nowicki Strickland locus of control scale. Fromme and Beam (1974) examined the impact of dominance on interpersonal distance and found that high dominant males approached closer and more quickly in a high eye contact condition while low dominant subjects, both male and female approached closer and more quickly in a low eye contact condition. Hartnett, Bailey and Hartley (1974) found no significant correlation between subjects' scores on a self esteem inventory and stop distance used in approaching a standing or seated other. Pederson (1973b) found that males who were more intelligent and more extroverted required smaller personal space, but observed no significant correlation with neuroticism. In another study by Pedersen (1973a) where the Sensation Seeking Scale was used, no correlation was found between the disinhibition subscale and interpersonal distance, but a negative correlation was found between the boredom susceptibility subscale and interpersonal distance for females only. Stratton, Tekippe and Flick (1973) found that high self concept students approached a male student more closely than low self concept students. Fromme and Schmidt (1972) found no significant relationship between anxiety or social introversion and interpersonal distance. Finally, Williams' (1971) research indicates that male subjects who were more extroverted preferred smaller interpersonal spacing.

Research Using Seated Subjects

Gifford (1981) found no significant relationship between affiliation, exhibition, or defence and seating arrangement chosen. DeJulio and Duffy's (1977) research indicated that subjects who scored higher in neuroticism selected seats further from the experimenter than low scorers. Heckel and Hiers (1977) looked at the relationship between locus of control and interpersonal distance and found that internally controlled persons preferred less social distance when they were interacting with peers. Ickes and Barnes (1977) reported no significant relationship between self monitoring scores and either interpersonal distance or the degree of body orientation subjects maintained with each other. Patterson (1973) found no significant correlations between approach distance and subjects' scores on affiliation, dominance, social extraversion, social anxiety, and social desirability. Sewell and Heisler (1973) correlated scores for each of the twenty two scales of the Personality Research Form with their proximity measure. Significant negative correlations were found with Exhibition and Impulsivity. No other significant correlations were observed. Mehrabian and Diamond (1971) studied affiliation and rejection sensitivity and found that more affiliative subjects used significantly closer seating positions. No relationship was found between rejection sensitivity and seating position. Williams (1971) found that scores on the Extroversion

scale of the MPI were unrelated to seated conversation distance. Patterson and Holmes (1966) found that with a male interviewer, female subjects, but not males, who were more extroverted chose a closer seating position.

Experiments Using Standing Subjects Compared to Those Using Seated Subjects

Although it is difficult to evaluate the relative value of methodologies using standing subjects versus those using seated subjects, standing subjects are more mobile and therefore one would expect that standing interpersonal distance would be a more sensitive measure of proxemic behavior than seated interpersonal distance. A count of the ratio of significant to non significant reported findings from both methodologies confirms this, with research using standing subjects reporting about twice the frequency of significant (vs. non-significant) findings as seated research. However, since different and usually non comparable psychological scales were used in the various studies, this comparison is only suggestive.

A review of the personality traits studied using both methodologies shows four traits which have been studied using both standing and seated interactions: anxiety (Fromme and Schmidt (1972), Greenberg, Aronow and Rauchway (1977), and Patterson, (1973)), dominance (Fromme and Beam (1974), Patterson (1973)), extroversion (Pederson (1973b), Williams (1971), Sewell & Heisler (1973), and Patterson (1973)) and locus of control (Beck and Ollendick (1976) and Heckel & Hiers (1977)). Results of these studies reveals a similar pattern, with four out of a possible six correlations being significant in research with standing subjects versus two out of six for research using seated subjects.

Only one researcher (Williams, 1971) has performed two studies, using standing and seated subjects, reported in the same article. Extroversion was studied and significant findings were reported for standing but not for seated subjects, again confirming the trend indicating that standing interpersonal distance provides a more sensitive measure of interpersonal distancing behavior than seated interpersonal distance.

A review of these studies begins to reveal the methodological problems involved in measuring interpersonal distance. Although it is a basic, and presumably important, component of face to face interpersonal interaction, measurement is cumbersome. It could be characterized as a "big, dumb" variable, particularly when compared to the other basic elements of interpersonal immediacy (eye contact, verbal behavior, etc.). Most commonly, in experiments where actual interpersonal interaction is observed, only one measurement of interpersonal distance is made per subject run. Although IP distance has the advantage of being a physical quantity, expressed in physical units of length, reliance on one observation per subject creates the same kinds of potential reliability issues as measuring a psychological characteristic with a one item scale.

These problems of measurement are even more acute when an experiment is attempting to demonstrate correlations between interpersonal distancing behavior and psychological characteristics, which would be expected to explain only a relatively small portion of the total variance in any case. In response to these difficulties one of the authors (Ickinger) has developed a "behavioral game" methodology using standing experimental subjects which appears to permit a more sensitive measurement of interpersonal distancing behavior than other measurement techniques.

METHOD

Subjects

Subjects were 150 undergraduates, 76 male and 74 female, drawn from an introductory undergraduate psychology course.

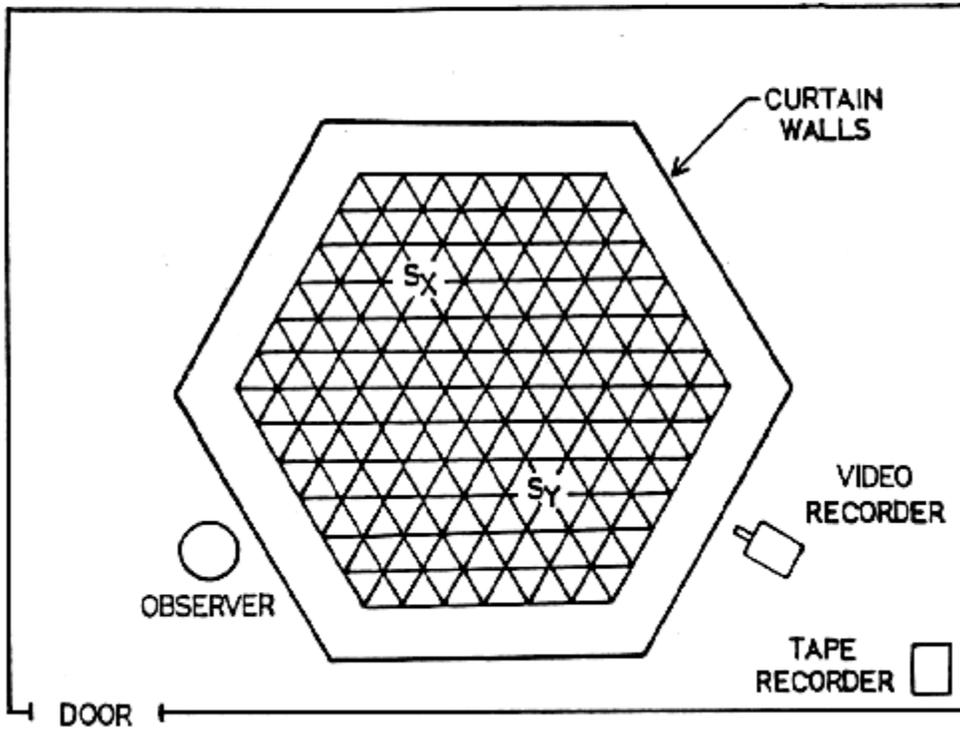
Apparatus

The physical setting in which this experiment was performed is essentially a portable room with a pattern inscribed on the floor (Figure 1). The floor pattern has spatial properties that facilitate the analysis of interpersonal distancing behaviors acted out in accordance with rules determined by an experimenter. The rules specify a "game" that can be played by one or more subjects and/or confederates within the room. The apparatus could be thought of as an instrument or experimental paradigm. It is designed to allow measurement of interpersonal immediacy behaviors using standing subjects in a reproducible environment so that, potentially, the results of different studies performed in it can be compared directly. In this sense it is similar to the "Patterson paradigm" and "Ickes paradigm" for the study of seated distancing behavior discussed by Patterson (1983). These paradigms are relatively naturalistic compared to the essentially laboratory setting used in the current research. However, in observing the experimental runs it appears that interpersonal distancing behavior is quite insensitive to the artificial nature of the setting. Experimental subjects readily accepted the "game" format described below, and the range of interpersonal distances observed is similar to that observed in standing interaction in naturalistic settings. The mean interpersonal distance used (Table 1) is near the center of the far phase of Hall's (1966) personal distance zone (2 1/2 to 4 feet) as would be expected for this type of interaction.

The room has a floor plan in the shape of a regular hexagon measuring 7.5 meters (approximately 24.6 feet) across its longest dimension. The walls of the room are made of opaque white canvas sheeting and are supported by an aluminum framework. A one foot square one way mirror through which interaction in the instrument can be observed is hung at eye level covering an opening at the center of each of the six walls. The walls create a symmetrical barrier to extraneous visual stimuli. They eliminate doors or other environmental features that might influence behavior. The instrument creates a reproducible setting that can be assumed to be equally unfamiliar to all experimental subjects. The floor of the room is a blue polyethylene swimming pool cover. The pattern on the floor is laid out with white cellophane tape. The sides of each small equilateral triangle in the pattern measure 19.7 inches (0.5 meters). Figure 1 depicts the room. It is designed to be set up indoors within a larger room.

FIGURE 1

A floor plan of the experimental apparatus as set up for this experiment.



Procedure

Subjects were first given a pretest consisting of the following scales measuring psychological characteristics. The scales were chosen to represent a variety of psychological characteristics and measurement techniques that could be relevant to the study of proxemic behavior.

Locus of control (Rotter, 1966)
 Emotionality (Bendig, 1962)
 Machiavellianism Mach IV (Cristie and Geis, 1970)
 Reducer Augmentor (Vando, 1969)
 Involvement inventory (Heslin and Blake, 1973)
 Cognitive complexity (Bieri and others, 1966)

After completing the pretest (30 45 minutes) a subject, along with a confederate, who was represented to the subject as another subject, were led into the experimental apparatus. All subjects and confederates were unacquainted. Once inside, the subject was told that he or she would be referred to as "Subject X" during the experiment and positioned on the point labeled "SX" in Figure 1. The confederate was told that he or she would be referred to as "Subject Y" and was positioned on the point labeled "SY" in Figure 1. Subjects were then told that they would be moving around on the floor pattern and that they should always stand at a point where the lines meet with the point directly between the balls of their feet. The following instructions were then read by the experimenter:

We are interested in how people use physical space in interpersonal interaction, and to help us study this we want you to play a simple game. There is no "point" or "goal" to the game other than this. You are now standing on a point where a number of white lines on the floor come together. We refer to these points as nodes.

After reading these instructions and answering any questions you may have, the experimenter will leave the apparatus and you will hear a number of recorded statements as follows. "Subject X, move 1 please," followed by a twelve second pause, then "Subject Y, move 1 please," followed by another twelve second pause, then "Subject X, move 2 please," and so on.

Each time you are requested to move, you can move to any node adjacent to the one you are on. You must move. You cannot remain where you are. Unless you are at the edge of the pattern on the floor you will always have six adjacent nodes to which you can move. If you are at the edge of the pattern you will have less than six, but the principle is the same. That is, when requested to move you can move to any adjacent node.

You may both occupy the same node if you wish. You can do this by standing close together so that you are physically touching while you are both standing as close to the "target" node as possible. The total number of moves that you will be asked to make is unknown, but will be 25 or less. The experimenter will observe and record your moves from outside the apparatus.

You may talk to each other during the game if you wish. You may talk about anything you wish, the game in general, how you feel, etc., except you are forbidden to discuss your actual moves or those of the other person. You may not tell the other person where you are going to move or discuss or attempt to influence his or her moves in any way.

After the last move, the end of the game will be announced. At this point remain where you are until the experimenter returns to lead you out of the apparatus.

Do you have any questions?

After answering any questions that the subject raised, the experimenter then left the apparatus and positioned himself in the spot marked "observer" in Figure 1 in order to record the moves of the subject and confederate through the one way mirror. An assistant then started the tape with the "move" instructions and video recorded the session through another one way mirror as shown in Figure 1.

Experimental Design

If interpersonal separation is measured by the minimum number of moves required to cover the distance between subject X and subject Y (i.e., distance measured in "moves"), then a move made by either person must affect the interpersonal separation in one of three ways. It can either increase the separation, leave it unchanged, or reduce it. In a pretest using the instrument with two naive subjects rather than a subject and confederate, it was found that the subjects used their first three moves each to establish an equilibrium interpersonal distance, and that thereafter there was no significant overall net increase or decrease in the interpersonal distance maintained. To mimic the natural behavior as closely as possible, confederates were coached to always make their first and third moves reduce the interpersonal separation (measured in "moves") and their second move leave the separation unchanged.

In all cases the fourth through ninth moves of the confederates were to leave the interpersonal separation (in moves) unchanged. This allowed the subjects six moves in which they essentially controlled the interpersonal distance through their moves. Only moves four through nine are used in the analysis presented below. The actual distance in meters (not the distance in moves) between the nodes on which the subject and confederate are standing after each of the subject's fourth through ninth moves is calculated by a computer program and the mean of these six observations is used as the measure of interpersonal distance.

Both the subject and confederate then made another six moves each to complete the game. A different pattern of confederate moves was used in this part of the experimental run to finish the game and these moves were separately analyzed, and are not reported here.

Four confederates were used in the experiment, two male and two female. Three were graduate students and one was an undergraduate. In order to control as much as possible for other immediacy behaviors (Argyle and Dean, 1965) of confederates that might influence the interpersonal distancing behavior of subjects, confederates were coached in two conditions of eye contact (a high eye contact condition where they maintained as much eye contact as they comfortably could with the subject without staring, and a low eye contact condition where they avoided eye contact with the subject), and two conditions of verbal behavior (a high verbal condition where they maintained a flow of conversation as much as possible, and a low verbal condition where they did not initiate conversation and responded to questions or comments as briefly as possible.) These conditions were crossed to create a 2 (eye contact conditions) x 2 (verbal conditions) x 4 (confederates) factorial design.

RESULTS

Confederate Errors

As described above, in order to allow the subjects to set the interpersonal distance, confederates were instructed to make each of the fourth through ninth moves a move that left the interpersonal separation unchanged. Any experimental run where a confederate made more than two moves in error was not analyzed. This resulted in the elimination of eleven runs leaving a total of 139 runs (69 male and 70 female subjects) analyzed. The error rates for confederate moves in these runs were confederate 1 (male) 4.1%, confederate 2 (female) 3.6%, confederate 3 (male) 17.2% and confederate 4 (female) 4.2%.

Factorial Design

Results of an analysis of variance on the factorial design described above revealed no significant main effects or interactions in subjects' interpersonal distancing behavior. Only the main effect for the verbal condition approached significance ($p = .076$) with subjects in the low verbal condition using a slightly greater interpersonal distance than those in the high verbal condition.

Psychological Characteristics

Means and standard deviations of all dependent and independent variables are given in Table 1.

TABLE 1

Means and standard deviations for all dependent and independent variables.

VARIABLE	CASES	MEAN	STD. DEV.
IP Distance (Conf. 1)	37	1.01*	0.45*
IP Distance (Conf. 2)	37	0.93*	0.28*
IP Distance (Conf. 3)	29	1.11*	0.40*
IP Distance (Conf. 4)	36	0.94*	0.32*
IP Distance (All Conf.)	139	0.99*	0.37*
Affective involvement	139	106.04	12.87
Behavioral involvement	139	89.07	11.15
Cognitive involvement	139	76.47	10.50
Cognitive complexity	139	88.22	25.22
Emotionality	139	15.61	5.52
Locus of control	139	10.88	4.07
Machiavellianism	139	95.27	13.29
Reducer-Augmentor	139	28.83	6.55

*in meters

PSYCHOLOGICAL CHARACTERISTICS

The correlation matrix for interpersonal distance (all confederates combined) and the psychological characteristics is presented in Table 2. Locus of control ($r = .198, p < .05$) and Machiavellianism ($r = .226, P < .005$) were significantly correlated with interpersonal distance and also with each other ($r = .337, P < .005$). The observed correlation between Machiavellianism and locus of control is consistent with the results of prior research by Christie and Geis (1970) $r = .43, p < .01$, and Solar and Bruehl (1971) r 's between .33 and .44, $p < .01$.

Correlations among interpersonal distance (all confederates) and psychological variables.

TABLE 2

	1	2	3	4	5	6	7	8
1 - IP Distance (meters)	-							
2 - Affective involvement	-.031	-						
3 - Behavioral involvement	-.075	.155*	-					
4 - Cognitive involvement	-.049	.093	.091	-				
5 - Cognitive complexity	.044	.139	-.010	-.141*	-			
6 - Emotionality	.135	.009	-.143*	.165*	-.021	-		
7 - Locus of control	.198*	-.144*	-.138	-.291**	.115	.213*	-	
8. Machiavellianism	.226**	-.112	-.058	.109	-.188*	.093	.337**	-
9. Reducer-Augmentor	-.086	.255**	.373**	.127	-.074	.035	-.057	.119

* $p < .05$
 ** $p < .005$

A multiple regression of the psychological variables on interpersonal distance was performed for each confederate separately and for all confederates combined. Results for all confederates combined are presented in Table 3. Overall (all confederates) only Machiavellianism shows a significant relationship ($B = .223, P < .01$) with IP distance, with high Machs using a greater distance than low Machs. Although all of the other psychological characteristics except cognitive involvement show significant ($p < .05$) betas with one or more confederates, only Machiavellianism exhibits a beta which is both consistent in sign for all confederates and statistically significant for more than one confederate. The beta for locus of control is not significant because of the relatively large shared variance with Machiavellianism.

Multiple regression of psychological variables on interpersonal distance for all confederates and for each confederate separately.

TABLE 3

Psychological variable	All confederates			Confederate 1			Confederate 2			Confederate 3			Confederate 4		
	β	F	P<	β	F	P<	β	F	P<	β	F	P<	β	F	P<
Affective involvement	.027	0.09	ns	-.254	2.08	ns	.482	8.41	.01	*	*	*	.082	0.22	ns
Behavioral involvement	*	*	*	-.320	2.49	.05	.184	1.21	ns	.098	0.19	ns	*	*	*
Cognitive involvement	.050	0.29	ns	-.305	2.15	ns	-.016	0.01	ns	.030	0.03	ns	-.175	.091	ns
Cognitive complexity	.061	0.48	ns	.040	0.05	ns	-.035	0.04	ns	.398	3.93	.01	-.149	0.63	ns
Emotionality	.112	1.61	ns	.055	0.10	ns	-.142	0.59	ns	*	*	*	.335	3.67	.01
Locus of control	.076	0.57	ns	.071	0.14	ns	.552	6.89	.01	-.208	0.81	ns	-.167	0.88	ns
Machiavellianism	.223	5.69	.01	.268	2.43	.05	.157	0.47	ns	.380	2.79	.05	.268	2.32	ns
Reducer-Augmentor	-.108	1.52	ns	.364	3.42	.01	-.163	1.12	ns	-.380	2.55	.05	-.354	4.40	.01

* too small to compute

Rotter's (1966) locus of control scale and the Christie and Geis (1970) Machiavellianism scale have each been shown to have a factor structure. Collins (1974) identified four components of

the locus of control scale: belief in a difficult world (Difficult), a just world (Just), a predictable world (Predictable), and a politically responsive world (Responsive). Nearly identical factors were found by Zuckerman and Gerbasi (1977). The Mach IV scale was factor analysed by Hunter, Gerbing and Boster (1982) who found four components: belief in the efficacy of flattery (Flattery), rejection of honesty (Deceit), rejection of the belief that people are moral (Morality), and the belief that people are vicious and untrustworthy (Cynicism).

Scales representing each of these factors were generated using subsets of items from the original instruments. For the locus of control scales the items in Collins' (1974) Table 1 were used, and for the Machiavellianism scales items from Hunter, Gerbing and Boster's (1982) Table 1 were used. Items with negative factor loadings were subtracted in determining the scores for each scale. When these scales were correlated with interpersonal distance the following correlation coefficients were found: [note that * = $p < .05$] (Machiavellianism) Deceit ($r = .0919$, $p = .132$), Flattery ($r = .1151$, $p = .080$), Immorality ($r = .1860$, $p = .011^*$), Cynicism ($r = .2053$, $p = .006^*$); (Locus, of Control) Difficult ($r = .1537$, $p = .030^*$), Just ($r = .1759$, $p = .016^*$), Predictable ($r = .1497$, $p = .034^*$), Responsive ($r = .0955$, $p = .123$)

Of the other psychological variables tested, reducer augmentor (Vando, 1969) is the most interesting. It shows surprising strength as a predictor of distancing behavior of subjects interacting with individual confederates (significant for three out of four confederates) but the direction of the relationship is reversed with confederate 1. This may indicate that this scale measures an individual difference that is manifested in behaviors that are more specific to the other person than the apparently more general interpersonal strategy measured by the Mach IV and locus of control scales. The remaining psychological variables seem to have little, if any, predictive power.

DISCUSSION

In their review of research on proxemic behavior, Altman and Vinsel (1977) summarized the research on individual characteristics and personal space, saying that it "suggests a framework based on the power, confidence, and control properties of the subject and the other participant. Low power in the subject is associated with increased distance from others, while confidence or power is associated with a willingness to be physically closer to others." Patterson (1983) has extended this line of thought, suggesting that Machiavellianism and locus of control orientations (along with self monitoring) should be reflected in the social control function manifested by nonverbal immediacy behaviors. The results of this study confirm this suggestion.

Results of the research reported in this paper tend to confirm that the most significant differences in standing interpersonal distancing behavior are associated with psychological variables that tap the general area of power, confidence, and control. The direction of the observed relationships is also consistent with Altman and Vinsel's suggestion. Significant correlations (Table 2) were found between interpersonal distance and both locus of control and Machiavellianism, each of which is conceptually closely related to power, confidence, and control. The other psychological scales used have no obvious conceptual linkage to this area and show no significant correlations. Because of the shared variance between Machiavellianism and locus of control, only Machiavellianism shows significant predictive power over all confederates when a multiple regression (Table 3) is performed.

The direction of the relationship may appear to contradict Altman and Vinsel's suggestion, since high Machs are observed to use greater interpersonal distances. However, research on the Machiavellianism construct indicates that high Machs are not motivated by a sense of being powerful, but rather by a feeling of powerlessness in the face of powerful others. "The interpersonal perceptions of such individuals tend to be guided by an indiscriminate cynicism and suspicion." (Miller and Minton, 1969.)

Results of the analysis of factors of the Machiavellianism and locus of control scales indicate that greater interpersonal distance is maintained by people who believe that the world is difficult and uncertain, and that others are immoral and untrustworthy. It is interesting that the two factors in the Machiavellianism scale that did not correlate significantly with interpersonal distancing behavior (advocation of deceit and the use of flattery) represent instrumental behaviors or strategies used by the focal person in his or her relations with others while those that did correlate (belief that others are immoral and belief that they are vicious and untrustworthy) represent beliefs about the behavior of others. These results suggest that differences in interpersonal distancing behavior are not the result of active interpersonal strategies used in dealings with others, but more a passive defensive strategy associated with beliefs about the motives and behavior of others.

Perhaps the most puzzling results of the current research are the relatively large but inconsistent betas associated with reducer augmentor for the individual confederates (Table 3). The reducer augmentor construct was proposed by Petrie (1967) as part of a general theory of individual differences in sensory processing, wherein reducers manifest greater tolerance for pain than augmentors. Petrie used a rather cumbersome procedure, the Kinesthetic Figural Aftereffect (KFA) task to distinguish between augmentors and reducers. Vando's (1969) paper and pencil instrument is an attempt to develop a more convenient measure. Vando (1974) found that high scorers on the reducer augmentor scale (reducers) exhibited greater tolerance for pressure induced pain and more stimulus seeking. The validity of the Vando scale has been questioned by Mahoney, Shumate, and Worthington (1980), but supported by Barnes (1976) and by Goldman, Kohn, and Hunt (1983). In particular, the Goldman, Kohn and Hunt study indicates that the Vando scale is a valid measure of the reducer augmentor construct and that reducers tend to be sensation seekers.

The meaning of reducer augmentor in interpersonal distancing is not clear from the results of the current experiment. The significant positive correlations with affective and behavioral involvement (Table 2) suggest support for the idea that reducers are more sensation seeking. Confederate 1, with whom reducers used significantly greater IP distances, was a tall athletic male. The other confederates, with whom reducers used closer IP distances, were physically

less imposing. It is only speculation that this was a factor influencing the distancing behavior of subjects, but it suggests a possible direction for further research. There may be a factor related to perceptual reactance, or possibly sensation seeking, that moderates interpersonal distancing behavior in a manner that is dependent on the physical characteristics of the other person.

In general the results of this study are consistent with theoretical expectations. The authors suggest that, at least in part, the current inconsistent results in the literature on personality and interpersonal distance may be a function of the characteristics of the various methodologies used and the sensitivity of the associated measurement techniques. The variance in interpersonal distance explained by psychological characteristics is small and easily masked by measurement error, though interesting from a theoretical viewpoint. A review of prior results suggests that, in general, methodologies using standing rather than seated experimental subjects allow subjects to control the interpersonal distance more precisely, and therefore may be more suitable for studies of psychological characteristics.

The results presented in Table 3 show that experimenters should be cautious in using confederates in experiments involving interpersonal distancing behavior. The generalizability of results obtained using only one confederate is questionable since subjects' responses to specific characteristics or behaviors of any one person, which are at best poorly understood, can mask or distort their more general response patterns.

Finally, in interpreting the results of any study of interpersonal distancing, it is good to keep in mind that interpersonal distance is only one of a complex of nonverbal immediacy behaviors which people appear to use in an interactive way. Individual differences in distancing behavior associated with various psychological variables may just as easily reflect preferences for the use of different immediacy behaviors, such as eye contact or facial expression, rather than an overall preference for greater or lesser interpersonal immediacy in face to face interaction.

FOOTNOTES

- 1 The apparatus described has been patented by one of the authors (Ickinger).
- 2 The filler items were deleted. Higher scores are more external.
- 3 Higher scorers are reducers.
- 4 The ten role types in the original Rep Test (Bieri and others, 1966, p. 191) were replaced by the following six: yourself, person you dislike, mother, father, best friend, person with whom you are most uncomfortable.

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