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Meaning in Context: The Impact of Eye Contact and Perception of Threat on Proximity

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ABSTRACT. This study investigated the relationship of distance to eye contact and perception of possible physical threat by interrelating Argyle and Dean's (1965) compensatory hypothesis with Dosey and Meisels' (1969) perception of personal space as a "body buffer zone." Forty male and 40 female Canadians between 18 and 59 years of age served as subjects. Settings were classified as either potentially threatening or nonthreatening. The degree of eye contact was varied by having experimenters wear or not wear sunglasses. As expected, there was support for Dosey and Meisels' theory that in situations perceived to be potentially threatening, people react by standing farther back and using personal space as a buffer zone. Argyle and Dean's hypothesis was not fully supported because in the potentially threatening situation, the lower the degree of eye contact, the farther the distance of interaction between respondents and experimenters. The findings reemphasize the importance of respondents' perceptions for creating meaning within a particular social context.

THE RELATIONSHIP OF DISTANCE to other aspects of face-to-face interactions was investigated in this study. Argyle and Dean (1965) noted that whenever two or more individuals converse, they strive for a homeostatic balance between nonverbal cues, especially those of eye contact and proximity, that reflects the underlying level of intimacy between them. A change in the intimacy level of one channel (e.g., a decrease in eye contact) may result in a compensatory shift in another channel (e.g., an increase in proximity). (See Argyle & Dean; Goldberg, Kiesler, & Collins, 1969; Patterson, 1973; Patterson & Sechrest, 1970; Watson & Graves, 1966.) In another vein,

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Dosey and Meisels (1969) visualized personal space as a type of "body buffer zone" that an interactant can expand or contract in proportion to "the perception of threatening elements . . . whether originating predominantly from the environment or intra-psychic" (p. 93). In essence, they contributed another understanding of the dynamic factor affecting change of distance in the Argyle and Dean equation. The elements Dosey and Meisels refer to include not only the psychological threats associated with the emotional well-being and self-esteem alluded to by Argyle and Dean but also threats of a physical nature. Because physical threat is postulated to be an important environmental condition influencing the distance at which people interact, the relationship between them needed further empirical investigation. Therefore, we attempted to test Argyle and Dean's compensatory hypothesis both in a potentially physically threatening setting (Dosey & Meisels) and in a nonthreatening one.

Specifically, the interrelation of the Argyle and Dean theory with the Dosey and Meisels theory allowed us to hypothesize that (a) respondents would interact at a greater distance from experimenters in a situation perceived to be potentially threatening than in a nonthreatening one (Dosey & Meisels); and (b) in settings perceived to be either potentially threatening or nonthreatening, the greater the degree of eye contact between experimenters and respondents, the farther would be the distance of interaction between them (Argyle & Dean).

Method

Experimenters and Subjects

Two male and two female college undergraduates in their early 20s were the experimenters in the study. Forty male and 40 female Canadians between 18 and 59 years of age served as subjects. All respondents were strangers to the experimenters.

Varying the Threat Factor

Settings were defined as either nonthreatening (i.e., relatively safe—where an interview with a stranger would be routine or expected) or potentially threatening (i.e., unsafe—where an interview with a stranger would not be routine or expected). The nonthreatening setting was the well-lit, enclosed mall of a large shopping center in a western Canadian city on a busy Saturday. It was an enclosed area protected by security guards. The study was conducted from an "Opinion Poll" booth, a rented, clearly defined area where shoppers are routinely stopped and asked to participate in surveys. Respondents could see that the experimenters, clearly identified by large

opinion poll buttons, had some specific reason for engaging them in conversation. In this instance, the buttons and the booth served as a kind of uniform that conferred legitimacy upon the experimenters (Joseph & Alex, 1972).

The potentially threatening setting was a large urban park in the same city. Newman (1973) described public parks as essentially no man's land because they lack defensible space. Also, parks have always had high crime statistics compared with most other places (Hagan, 1977). To reach this particular park, respondents had to travel through the core downtown area of the city. In this setting, respondents had no obvious way of knowing that experimenters were indeed who they purported to be because they lacked the insignia needed to confer legitimacy on their presence. In essence, a request to participate in an interview was simply not part of the normal state of affairs.

Procedure

Population density has an impact on proximity. This variable was controlled by arranging to interview on the busiest days (weekends) in both settings. Furthermore, to minimize problems associated with self-selection and to avert the possibility of a respondent having observed the previous interview, cases were collected at approximately 15-min intervals. In the two situations, all respondents were alone.

In both settings, experimenters located themselves where pedestrian traffic was heavy. In the shopping mall, respondents approached experimenters, who were required to remain within a 10-foot radius of the opinion poll booth. In the park, respondents approached experimenters, who were standing on a sidewalk situated between an open area and a grove of trees. Experimenters employed the usual rituals for starting interaction with respondents by first attempting to catch their attention nonverbally with eye contact and then verbally with a standardized greeting (Goffman, 1963). In all cases, the distance of interaction was determined by the respondents while the experimenters remained in a fixed position. Respondents were thus allowed to set individually whatever they felt was a comfortable talking distance. The respondents were asked to participate in a brief survey. If they agreed, they were requested to remain at the point where they had stopped (i.e., the respondents' comfortable interaction distance). The request was made to enable the experimenter to make an accurate measurement because previous studies that relied on estimated distances have proven unreliable (Forstan, 1975). The distance between them (defined as a straight line from the tip of the experimenter's nose to the point in space where the respondent's nose would be if the two persons were of equal height) was recorded in centimeters by using a tailor's tape. Measurements were performed by a

second student observer who was present in all situations but remained outside of the interactional territory and had no direct verbal contact with respondents prior to making the measurement. Degree of eye contact between experimenters and respondents was varied by whether the experimenters wore sunglasses. In all cases, the sunglasses were of the regular rather than the mirror type to ensure that degree of eye contact would be diminished but not eliminated.

In both nonthreatening and threatening settings, 20 respondents (10 male and 10 female) interacted with experimenters who wore sunglasses, whereas 20 interacted with experimenters who did not. Male and female experimenters worked with an equal number of male and female respondents in each condition.

Results

An analysis of variance containing two conditions of eye contact (sunglasses and no sunglasses) and two conditions of setting (nonthreatening and threatening) was performed. As hypothesized, there was a significant main effect for setting, $F(1, 76) = 33.95$, $p < .01$. Thus, the results of the study support the first hypothesis insofar as respondents in the potentially threatening condition tended to stand farther from experimenters than did respondents in the nonthreatening condition. This finding supports Dosey and Meisels' (1969) theory that in situations perceived to be potentially threatening people react by standing further back and using personal space as a protective body buffer zone.

The analysis failed to yield a significant main effect for eye contact $F(1, 76) = 1.01$, $p > .05$. Consequently, the Argyle and Dean hypothesis, which suggests that in both the threatening and nonthreatening settings, the greater the degree of eye contact, the farther will be the distance of interaction between experimenters and respondents, was not supported.

However, the analysis did yield a significant Eye Contact × Setting interaction, $F(1, 76) = 10.82$, $p < .01$. An inspection of the mean scores showed that respondents in the nonthreatening condition came closer to experimenters wearing sunglasses ($M = 36.8$ cm) than to experimenters who did not ($M = 47.6$ cm). This finding is congruent with Argyle and Dean's hypothesis, as well as with the results of most other studies carried out in safe, nonthreatening settings. On the other hand, the opposite effects were observed in the setting perceived to be potentially threatening. In this condition, respondents stood farther away from experimenters wearing sunglasses ($M = 79.9$ cm) than from those who did not ($M = 59.6$ cm). The Tukey ratio revealed that all pairwise comparisons between means were significant at the .01 level.

The sex of the experimenter had virtually no impact on the distance of interaction in the mall (female, M = 40.8 cm, and male, M = 43.3 cm). However, in the park setting, the distance maintained from the male was almost twice that from the female experimenters (female, M = 47.2 cm, and male, M = 90.5 cm), which makes sense if female are perceived to be less threatening than male individuals.

Discussion

Because the presence or absence of sunglasses was the same in both settings, differences in behavior may well have been due to intervening interpretative processes: The respondents must have defined the same objects (sunglasses) in the two settings in different ways. When interaction with strangers (experimenters) was not expected, as in the situation perceived to be potentially threatening, subjects were suspicious and wary of their intentions. Uncertainty was intensified when experimenters wore sunglasses, not only because of their stereotypical connotations but also because in uncertain, potentially threatening situations people want as much information as possible and sunglasses served to conceal information by reducing eye contact. As one respondent stated: "I wondered what he [the experimenter] had to hide?"[1] Consequently, out of caution, they stood even farther from experimenters instead of approaching them to compensate for the decreased level of eye contact.

Evidence for this latter interpretation comes from experimenters acting in the dual roles of observers and participants (Gold, 1968), as well as from the different quality of interactions in the two settings and comments made by respondents after the measurements were made. Respondents in the shopping center asked many more questions about the research than did respondents in the park setting. One female respondent summed up the sense of nonthreat in the shopping center: "I felt it was OK because I wouldn't expect persons to choose this site if they were doing anything wrong." Another person stated that the opinion poll button "allowed me to trust that you would not do anything not expected of you." On the other hand, in the park setting, the few respondents who engaged the experimenters in any sort of conversation did indicate that they were wary, and they usually hurried off at the first opportunity.

[1]After the measurement process was completed, the experimenters explained to the subjects that the purpose of the study was to explore the distance at which people choose to interact with others in different kinds of settings, i.e., out of doors, indoors, etc. The subjects were then given the opportunity to comment on the encounter if they wished or to ask any questions they might have about it.

Although the respondents in both situations disliked interacting with experimenters who wore sunglasses, the reasons for their displeasure varied. In the shopping center, respondents indicated that the glasses interfered with the process of interaction: "I have to see a person's face and eyes, in particular, to communicate." The comment "Why don't you take off your sunglasses so I wouldn't have to get so close to see your eyes?" was also noted. Along the same lines, many subjects said something to the effect that "I hear better when I can see a person's eyes." In the park setting, the few respondents who did speak not only mentioned that the sunglasses interfered with the process of interaction, but also conveyed a sense of suspicion of both the glasses and the experimenters: "Why don't you carry it [the study] out in a more suitable setting?" Later, the same subject added, "The meanings I have associated with parks tend to make me more leery of strangers." In addition, many participants elaborated on the notion that parks provide an easy opportunity for crime. One woman went so far as to tell the experimenter, "Take off your glasses . . . because I for one associate sunglasses with the idea of a person trying to hid something . . . Not being able to look into your eyes makes me feel even more uncomfortable."

In large measure, the explanatory power of a theory depends on the variety of conditions under which it holds. Our lack of support for the Argyle and Dean hypothesis, which predicts that a change in the intimacy level of one channel (e.g., a decrease in eye contact) will result in a compensatory shift in another channel (e.g., an increase in proximity), in the situation perceived to be potentially unsafe, reemphasizes the importance of setting in determining subjects' responses. It appears that the perception of possible threat in a setting has a greater impact than eye contact on proximity in interaction. Our findings indicate that, as predicted, the presence of sunglasses increased proximity in the nonthreatening situation; however, in the situation perceived to be potentially threatening, subjects stood farther from experimenters who wore sunglasses than from those who did not. It seems that in the park setting, the sunglasses contributed to the perceived element of threat. This study lends credence to Mishler's (1979) argument for "meaning in context"—indeed, "Is there any other kind?"

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