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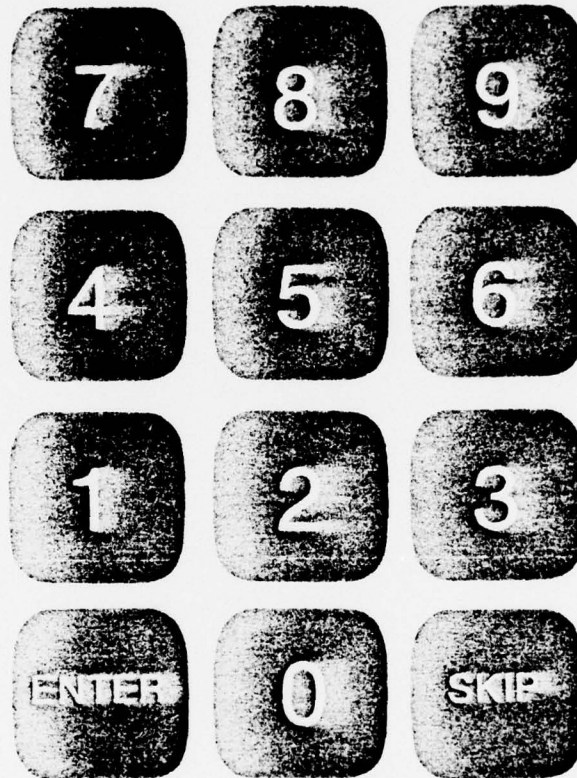
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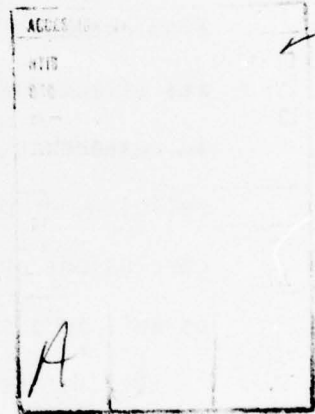
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A THEORY OF PROXIMITY AND ATTRACTION

by  
Richard E. Sykes



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## THE LITERATURE

The association between propinquity and interpersonal attraction has been subject to a long series of investigations by social psychologists beginning after World War II and continuing until the present time. The seminal contribution was that of Festinger, Schachter and Back (1950) in which the authors reported that within a sociologically homogeneous community "friendship was determined in large part by physical and functional distance." Other early investigators who reached the same conclusion were Caplow and Forman (1950) and Willerman and Swanson (1952).

About the same time Deutsch and Collins (1951) tested the hypothesis that "contact increases as distance decreases" in matched housing projects, one integrated and the other segregated. They concluded not only that contact did increase as distance decreased, but that attitudinal changes resulted from contact. The occupancy pattern not only influenced racial contact, but its effects were "of such strength as to reverse relationships often encountered in research studies between prejudicial attitudes and such factors as education, religion, or political attributes" (60). Festinger, Schachter and Back's conclusions apropos a sociologically homogeneous community appeared to apply as well to a sociologically heterogeneous one.

During the following decade a number of studies gave substantial support to these findings. Gullahorn (1952) observed employees interacting in a large office. He found that there was more interaction 1) within rows of workers; 2) between adjacent than non-adjacent rows; and 3) within a row between seatmates than between those separated by one or more other workers. As distance increased interaction decreased. When distance alone was an inadequate predictor it turned out that the interactants had a special friendship relation.

Several studies were done in classrooms. In a study of a French boarding school Maisonneuve et al. (1952) found that mutual liking was highly related to propinquity of classroom desks and to having attended another school together in the past. Byrne and Buehler (1955) and Byrne (1961) also found that seatmates were more likely to be attracted to each other. By way of explanation they utilized Festinger, Schachter and Back's concept of functional distance.

In a 1956 study Blake et al. found that the presence of barriers to interaction, walls around sets of bunks within a barracks, compared to a similar barracks without such walls, reduced volume of choice. Subjects in cubicles had a smaller average acquaintance volume and a higher ratio of buddy preferences within cubicles. Walls created greater functional distances.

Of the scientists studying proximity Newcomb (1961) gave it the least weight. While other scientists found that proximity influenced both interaction and sociometric choice in groups from two weeks (Blake, et al., 1956) to several years old (Gullahorn, 1952), Newcomb hypothesized that proximity was important only during the early stages of a relationship. "We assume that proximity promotes readiness of communication, as a result of which individuals have an opportunity to discover each others' common attitudes." "Following ample opportunity for acquaintance, high attraction is not related to proximity..." (208). His week by week data (pp. 88-89) show a gradual fading of import of floor assignment during the first year, but not during the second year. He contended that another variable, popularity, was actually the factor which accounted for the attraction rather than proximity, but he did not demonstrate that the relationship between proximity and choice actually disappeared. His focus on categories of orientation tended to

deemphasize what he may have considered a theoretically uninteresting variable. Like Byrne he began to focus on other factors.

The lesser importance of proximity was also affirmed by Barnlund and Harlund (1963) who reported in a study of 18 sororities on one campus that while proximity might determine frequency of communication during the early stages of a relationship prestige was an important factor at later stages. If their concept of "prestige" is at least analogous to Newcomb's of "popularity" then their study might lend some support to his findings.

Studies subsequent to these almost universally supported the propositions that proximity had a strong and continuing effect on interaction and attraction. Warr (1964) found that both positive and negative choices were associated with physical proximity and remained stable after separation. He concluded that proximity was an important generating factor in attraction.

Friedman (1966), studying friendships in a home for the aged, found that proximity, defined as residence on the same floor of the building (like Newcomb), was the most powerful single explanatory variable. The residents were able-bodied and could utilize elevators to move between floors. Despite this Friedman found that even after several years friends resided on the same floor. He went to the extreme of stating that in assigning new residents to rooms "too much concern with compatibility may be misplaced, since the fact of living in close proximity to someone in itself creates a strong likelihood that a social relationship will develop with that person." Friedman's and Newcomb's findings are in direct opposition to each other. While it might be hypothesized that age accounts for this difference, studies cited below will show that it is not.

More recent studies supported the import of proximity. Priest and Sawyer (1967) studied 25,000 pairs of persons in college dormitories. They



found that for both recognition and liking proximity was important. It was so important they had to refine Festinger, Schachter and Back's distinction between physical and functional proximity. Proximity differences of even a few feet were important. "That proximity continues to predict attraction when distances are so small indicates that more than physical space is involved." To explain this they developed the concept of "phenomenal" proximity. A student was more likely to interact with someone next door than someone a few doors down the hall not only because he had to bypass several intervening opportunities in going down the hall, but perhaps because those neglected might wonder at his omission. Holding proximity constant, peership (membership in the same college class) was important. "Proximity, by making friendship easier, reduces the costs; peership, through the benefits of similarity, increases the rewards." "Imbalance consists of distant friends and proximate strangers."

Still another study of a college dormitory (Brown, 1968) reached similar conclusions. In a field experiment in which different ratios of science and humanities students were assigned to each of the four floors of a dormitory he found that not only did this strongly influence subsequent choice of dissimilars as friends, but also resulted in significant changes in attitudes and behavior.

One other study of college dormitory residents (Curry and Emerson, 1970) showed that proximity was an important factor in some groups but not in others.

Three relatively recent studies of American cities added weight and specificity to the findings of neighborhood studies of 20 years previous. Laumann (1969) found that proximity was an important factor in the friendship choices of 1,013 randomly selected urban men. Athanasious and Yoshioka in a study of neighborhood friendship formation reported that "friendships established over small distances seem to require less homogeneity." Propinquity could

overcome all differences except perhaps life cycle differences. Finally, Nahemow and Lawton in a study of the friendship choices of 270 residents of a city housing project found that there was an inverse relationship between similarity of friends and proximity. "Different people will most likely be ignored unless they are within the individual's daily living space." Working in a different setting, and studying frequency of interaction rather than friendship choice, Sykes, Larntz and Fox (1976) reported that proximity was the most important factor contributing to frequency of interaction, but that subjects located adjacent to dissimilars sought out similars further away.

Several experimental studies have been conducted recently. Byrne, Baskett and Hodges (1971) found that women sat alongside and closer to a same-sexed stranger with similar attitudes than to one with dissimilar attitudes. Males, on the other hand, preferred to sit across from a similar stranger. In this study the chairs were in a fixed location. Tesch, Huston and Indenbaum (1973) gave the subjects the opportunity to place the chair wherever they wished. While there did turn out to be some correlation between attraction and distance the Byrne, Baskett and Hodges results were not confirmed. Subjects of both sexes, given free choice, placed their chair across from the stranger within social zone distance.

These conclusions should be accepted with one reservation. Amir (1969) in his review of literature bearing on the contact hypothesis in ethnic group relations found that at least so far as minority groups were concerned while contact might increase interaction and probability of choice, the responses were not always positive. Some ethnically dissimilar groups improved their relations, but sometimes their relations grew worse. Not only were the direction and the intensity of the original attitudes of each group important, but the opportunity for contact needed to be such that persons could get to



know each other. It was important that minority group members be of equal or higher status, that opportunity for personal, not role specific interaction be available, that such contact receive strong institutional support and that the focus of the interaction be a cooperative as opposed to competitive activity. In a sense the contact hypothesis is a general prediction about interaction and liking between persons dissimilar on one characteristic, ethnicity. Since contact cannot occur without proximity, its basic proposition is that the effects of proximity can overcome the effects of dissimilarity under certain conditions. The generally pessimistic tone of Amir's survey suggests either that proximity is not as strong a variable as other investigators reported, or that ethnicity is a more salient or special kind of similarity-dissimilarity.

#### A CRITIQUE OF PROXIMITY RESEARCH

Festinger, Schachter and Back distinguished between physical and functional distance. Physical distance is the actual measured distance between two points. "Functional distance is measured by the number of possible contacts that position and design encourage" (35). In actual research proximity was seldom measured by either an interval scale of physical distance or counts of passive contacts. Nominal scales were used. A subject was classified as a roommate, hallmate, floormate or neighbor. These categories were assumed to approximate different physical or functional distances.

I would argue that Festinger, Schachter and Back's focus on both physical and functional distance was misplaced, at least in the sense that it tended to conceal the most important dimensions of proximity. Classification by either type of distance is only an approximation of these dimensions. Most investigators were content to pay lip service to Festinger, Schachter and Back's conceptualization, perhaps because they considered it a theoretically uninteresting area of research. There were few attempts to uncover the dimensions of

proximity or to develop more specifically the concept of passive contacts. These traditional concepts should be abandoned and concepts of territoriality and likelihood of common occupancy substituted.

### Territoriality

Human territoriality has been the subject of research for many years, but not usually with a focus on attraction (Hall, 1959, 1969; Sommer, 1959; 1969; Hare and Bales, 1963; Little, 1965; Lyman and Scott, 1967; Mehrabian, 1963; Silverstein and Stang, 1976). A "territory" was defined by Lyman and Scott as a space which an individual attempts to control. Territories have been classified differently by scholars. Lyman and Scott distinguished four types: public, home, interactional and body. Public territories are those areas to which "the individual has freedom of access, but not necessarily of action." Areas in which regular participants "have a relative freedom of behavior and a sense of intimacy and control" are home territories. Interactional territories are within that "invisible boundary" which is staked around an area by a group engaged in a conversation and which outsiders must usually seek permission to cross. The body territory includes the body itself and an envelope of a few inches around it. Lyman and Scott's perspective highlights rights and obligations of persons in regard to different types of territory.

Hall (1969, pp. 116-129) emphasized measured distances and the physiological responses of persons within those distances in developing his categories. Nonetheless he acknowledged that the distances are culture-specific and that rights and obligations differ in each kind of territory. His categories are displayed in Figure 1.1

Figure 1.1  
Hall's Categories of  
Interpersonal Distance

<u>Zone</u> <u>Category</u>	<u>Phase</u>	<u>Physical Distances</u> <u>in American Culture</u>
Intimate	Close	< 6 inches
Intimate	Far	6 - 18 inches
Personal	Close	1 1/2 - 2 1/2 feet
Personal	Far	2 1/2 - 4 feet
Social	Close	4 - 7 feet
Social	Far	7 - 12 feet
Public	Close	12 - 25 feet
Public	Far	> 25 feet

It is worthwhile to combine Hall's emphasis on distance with Lyman and Scott's preoccupation with control. Actually what is implied by their concepts are three different kinds of space: objective, subjective and normative.

One kind of space is geographical. I shall call this objective space. Rooms, hallways, buildings and streets are all forms within objective space. Measured distance is distance between humans or non-humans in objective space.

Implicit in the concept of territoriality is another kind of space. I shall call this subjective space. Subjective space is always measured outward from the body. It is not measured so much in terms of physical as in terms of social distance. Subjective space is unusual in that it accompanies the human being as he moves. Furthermore, it expands and contracts as the human being enters and leaves different situations (Loo, 1972). It is skin-tight on a crowded elevator but more commodious at night on a deserted street with a stranger approaching.

Certain rights in regard to space are legitimated by society. Laws pertaining to "indecent liberties" protect the body while other laws regarding trespassing and burglary protect private territory. The space encompassed in this set of norms regarding both objective and subjective space I shall term normative space. The important thing to remember about normative space is that it is defined by group consensus, not the individual.

Some though not all aspects of human territoriality are protected by norms which are culture-specific. Space protected by these norms is normative space (Goffman, 1971; Edney, 1972; Roger and Schalecamp, 1976). Normatively private space is that over which society acknowledges the individual has control of access and within which the individual has rights to privacy. Privacy means that behavior within that space may not be monitored by persons who are not granted permission by the person to enter it. Normatively public space is that to which the individual has no right to deny others access; and within which anyone may monitor his behavior.



Both subjective and normative space are conditioned by objective space, the actual forms and distances of the real world. Physical and functional distance are only of interest to the social psychologist to the extent they condition subjective or normative space.

The loci of control of subjective and normative space are different. Lyman and Scott characterized public space as that to which the individual has freedom of access, but not necessarily in which he has freedom of action. Hall on the other hand defined as public space that 12 feet or more from the individual. Suppose, however, you awoke one night in your large bedroom to find a stranger standing therein and gazing at you from, say, 13 feet. It is unlikely that you would receive his claim to be a devotee of Hall and within his public rights with much equanimity. Public space is that which some class of people (customers, fans, citizens), who are also strangers, have a right to enter. Its status as public is normative. Its status is not related to the presence or absence of any particular person. Similarly, one's bedroom is private however large or small. Its status as private is independent of the presence of the individual. Hall is preoccupied with what I have termed subjective space, while Lyman and Scott focus more on normative space.

Suppose now that an individual enters a public space. He brings his subjective space with him, so that some of the public space is now his. It is no longer public. If two persons walk down a sidewalk two subjective spaces approach and perhaps briefly intersect within a public space. As the population density of a public space increases the amount of public space decreases. As the population density of a public space increases past a certain threshold the subjective space of each individual decreases, assuming the area of the public space is finite.

Since all human beings have a sense of space in relation to themselves, I postulate that there is a personal feeling of territoriality or of subjective space and a drive to maintain territorial boundaries. This drive is aroused whenever there is a threat to violate such boundaries.



The conceptualization of subjective and normative space leads to formulation of the typology shown in Figure 1.2. When there is congruence between the normative definition and subjective feeling of private space, or congruence between the normative definition of public and subjective feeling of public space there will be no arousal of the territorial drive. When, however, there is incongruence between the definition of normatively public space and the personal feeling of private, subjective space, the territorial drive, which is experienced as a feeling of discomfort and anxiety, will be aroused. When there is incongruence between the definition of normatively private space and the personal feeling of public, subjective space, social regulatory mechanisms will be activated.

One important demarcation point of subjective space is the boundary within which a person may physically lay hands on another. Intrusion within that boundary may create anxiety and a sense of threat (Felipe and Sommer, 1966; Patterson, 1968). Normally persons wish to keep their private, subjective space inviolate against strangers. Circumstances prevent this. Many situations arise in which the constraints of objective space force strangers to violate their subjective spaces. Persons walking past each other on a sidewalk or in a hallway must pass within inches. Students seated at desks are usually close to intimate distance. Two apartment residents living across the hall or next door to one another must intersect personal spaces if they enter or exit their apartments at the same time.

Neighbors also have certain anxieties in common, for invasion of a neighbor's home territory is an implied threat to one's own. How many, sitting talking within an apartment, have suddenly quieted down at the sound of a key in a lock. From the sound it is soon evident that it is the neighbor returning home, and upon the slam of his door talking resumes. Those living in adjacent home territories have a common interest which

Figure 1.2

A Typology of Interaction of Normative and  
Subjective Space in Interpersonal Relations

		Normative Space	
		Private	Public
Subjective Space	Private	Normative/Subjective Congruence	Violations of Privacy
	Public	Violations of Public Order	Normative/Subjective Congruence

unites them more with each other than with those further separated. "It's only the neighbor" is a confession of this solidarity of common locus.

I hypothesize that whenever an individual perceives a violation of his private, subjective space a drive is aroused which is experienced as noxious. In an interpersonal situation this drive is originally stimulated by alter. Since each is alter to the other, both experience the same discomfort. This is relieved by an exchange of symbolic acts indicating that the violation is not a threat. Symbolic acts include such nonverbal behaviors as not staring, taking care not to touch or to minimize touching the other, smiling and verbal behaviors such as the exchange of greetings and conventional pleasantries.

This is an extension to proximity and attraction of Byrne's reinforcement theory relating attitude similarity and dissimilarity to attraction (Byrne and Clore, 1970; Byrne, 1971; Byrne and Lamberth, 1971; Byrne, Clore and Griffitt, 1973). The difference is that since the drive aroused by proximity is initially noxious, negative reinforcement, escape from that noxious stimulus, is the fundamental factor. If alter reduces this discomfort by symbolic reassurances, then he is associated with negative reinforcement and attraction results.

#### Common Occupancy

Fixed, propinquitous locations do not, in and of themselves, lead to attraction. They lead to attraction only when the likelihood of common occupancy of the same objective space is increased by residency in fixed locations, for instance, when living in the same apartment house leads to meeting in the hall. Common occupancy is occupancy of an objective space in such a way that subjective personal spaces are highly likely to intersect.

Likelihood of common occupancy is a function of a) small objective space; b) frequency of occupancy of that space by each person; c) duration of occupancy of that space by each person; and d) the extent to which the schedules of occupancy of that space by each person overlap. The smaller the space, the more frequent the occupancy, the longer duration of occupancy, and the more overlapping the schedules of occupancy the greater the likelihood of common occupancy. The greater the likelihood of common occupancy the more likely that subjective personal spaces will intersect. The more these spaces intersect the more the territoriality drive will be aroused. The more it is aroused and then reduced by symbolic acts of reassurance, the more each person will be associated by the other with removal of the noxious stimulus. The more such negative reinforcement occurs the more the attraction. Of course, if one or both actors do not provide symbolic acts of reassurance, then the drive will not be reduced. Under such circumstances proximity will lead to repulsion not attraction (King, 1966). As Berscheid and Walster (1969, p. 49) wrote: "While propinquity may be a necessary condition for attraction, it appears that it also may be a necessary condition for hatred."

#### CONCLUSION

Festinger, Schachter and Back initiated the modern era of proximity research. They distinguished between physical and functional distance, but few subsequent studies utilized their concepts. An explanation of how proximity leads to interaction and attraction was not developed. There was little progress in proximity research.

Proximity research may be facilitated by a theory based on the variables of territoriality and likelihood of common occupancy. These variables integrated into a negative reinforcement paradigm may help explain the association between proximity and attraction.



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