

72-5072

GRANT, Swadesh Sachdeva, 1940-
SPATIAL BEHAVIOR AND CASTE MEMBERSHIP IN
SOME NORTH INDIAN VILLAGES.

The City University of New York, Ph.D.
1971
Social Psychology

University Microfilms, A XEROX Company, Ann Arbor, Michigan

**Spatial Behavior and Caste Membership
in Some North Indian Villages**

by

Swadesh S. Grant

**A dissertation submitted to the Graduate Faculty in
Psychology in partial fulfillment of the
requirement for the degree of
Doctor of Philosophy
The City University of New York**

1971

PLEASE NOTE:

**Some Pages have indistinct
print. Filmed as received.**

UNIVERSITY MICROFILMS

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

9 June 1971
date

Stanley Mulyren
Chairman of Examining Committee

June 9, 1971
date

Mattie Weiss
Executive Officer

Professor Barnard Seidenberg

Dr. Leanne Rivlin

Supervisory Committee

The City University of New York

Acknowledgments

The author would like to express her appreciation to Professor Stanley Milgram not only as dissertation supervisor but also for his constant stimulation and guidance which have significantly aided the author's appreciation of the field of social psychology. Without his encouragement, help, and tremendous patience, this work would never have been done. The dissertation has benefited from the guidance and criticisms of many people, among whom I should particularly like to mention Professors William Ittelson, Delmos Jones, Bernard Seidenberg and Leanne Rivlin.

The author is grateful for a research grant, which provided for the collection of data, from the University Graduate Division of The City University of New York. There is no way to adequately thank the accomplices, Messrs. R. Singh and P. Mishra, the subjects who participated in the study, and my hosts in each village, who accommodated a stranger, often at personal inconvenience.

The author owes a debt to Mrs. Mary Englander for her help and kindness.

Finally, the author thanks her husband who supplied encouragement, numerous statistical computations on various computers and most of the money.

Abstract

Spatial Behavior and Caste Membership in Some
North Indian Villages

by

Swadesh S. Grant

Advisor: Professor Stanley Milgram

The present dissertation was designed to test the hypothesis that people's use of space reflects the underlying social order, and if this hypothesis was confirmed, to ascertain whether the various levels of the social order accepted this use of space or whether some levels enforced it on others.

The context in which the hypothesis was tested was the caste system in India. More specifically, the experimenter visited several villages in Northern India in 1969 and studied the interactions of Brahmins and Harijans (see Glossary) with members of their own caste and members of the other caste. It was predicted that a greater distance would be maintained from members of a different caste than members of the same caste.

A subsidiary question was addressed to the mechanism which is used to maintain a greater distance from members of the other caste, in other words, whether the boundaries implied in the caste system are mutually recognized or whether they are enforced by one caste on the other caste.

Data were obtained in a standardized situation in which Brahmins and Harijans were paired with a member of their own caste or a member

of the other caste. Supplemental data were obtained from naturalistic observation of behavior. Photographic records were obtained for both types of data.

Information received from both the sources supports the hypothesis that social structure is reflected in spatial behavior. Brahmins maintained a greater distance from members of the Harijan caste than from members of their own caste. Results obtained with Harijan subjects show the same tendency. Naturalistic observations showed that both groups recognized the boundaries implied in the caste system. It was also found that distance is not the only dimension which can be used in investigating spatial behavior. Status can be reinforced and expressed in other ways such as the Brahmins (who occupy a higher status than Harijans) using chairs and charpais (see Glossary) to sit on, while the Harijans sit on the bare ground in the presence of the Brahmins.

Table of Contents

	<u>Page</u>
Acknowledgment	iii
Abstract	iv
List of Tables	vii
List of Illustrations	viii
Glossary	ix
Introduction	1
Theoretical Basis of the study and previous research on human spatial behavior	3
Method and Procedure	18
Results	40
Naturalistic observations	66
Discussion and Summary	78
Appendix	83
References	84

List of Tables

	<u>Page</u>
1. Distribution of participants from each village.	27
2. Summary of measures obtained for all the subjects,	41
3. Z scores for comparisons between various observations.	42
4. Mean distance in inches between subject and accomplice and Z scores for comparisons between HB + BH and BB + HH groups.	43
5. Mean slant in degrees between subject and accomplice and Z scores for comparisons between HB + BH and BB + HH groups.	44
6. Mean distance in inches between the subject and the accomplice for different caste combinations.	46
7. Z scores for intergroup comparisons based on distance from accomplice.	47
8. Mean slant in degrees between the subject and the accomplice for different caste combinations.	48
9. Z scores for intergroup comparisons based on the slant of the body.	49

List of Diagrams and Illustrations

	<u>Page</u>
1. Diagram of the experimental setting	28
2. Two views of the experimental setting	29
3. Brahmin Subjects paired with a Brahmin Accomplice (1 and 2)	54
4. Harijan Subjects paired with a Harijan Accomplice (3 and 4)	54
5. Two Brahmin Subjects with a Harijan Accomplice (5 and 6)	55
6. Some Harijan Subjects with a Brahmin Accomplice (7 through 12)	55
7. The Katha Ceremony in Bhilampur (1 through 18)	61
8. Diagram showing the Seating Plan of the Katha	67
9. Seating pattern during a Bhoj (1 through 3)	73
10. A Brahmin kitchen in Bhilampur (4)	73
11. Some casual social encounters between Brahmins and Harijans (5 through 8)	74
12. Two Brahmins, a Baniya and a Harijan sitting around a Lapta (9 through 12)	75

Glossary

- Adi-Dravidas - A low caste, probably untouchable, generally found in South India.
- Baniyā - "A term applied to traders, moneylenders and shopkeepers, and often used for various trading castes" (Hutton, 1969).
- Bhoj - A feast, or a ritual in which a number of Brahmins may be given food. It is generally held on such occasions as the anniversary of a death, or on particular days of the month.
- Birādari - "A brotherhood, an association of kinsmen" (Hutton, 1969). Such an association refers to members of a certain caste, often related to each other and confined to a small area. In a particular village, it is synonymous with caste.
- Brāhmin - The highest caste in Indian society. Its traditional professions are those of priests and teachers.
- Chamār - An untouchable caste. Its traditional occupation is cleaning, tanning and working with leather.
- Chārpāi - A bed made from a wood frame and woven with jute. It is used not only for sleeping but also for sitting, much as chairs are used in the West.
- Dhobi - "A widespread caste of washermen standing low in the social scale on account of their profession" (Hutton, 1969). Dhobis are also considered untouchable.
- Ghee - Clarified butter.
- Harijan - A term coined by the late Gandhi to refer to the untouchables. Literally, it means "people of God." Since there are many castes or biradaris which fall in this category, the term refers to a group of castes.
- Jāti - An endogamous caste group. There are innumerable jatis and they are, in some cases, synonymous with caste.
- Kachchā Food - The term generally used for inferior food which does not contain highly valued foods such as ghee (clarified butter). This kind of food is not freely interchanged between various castes and in fact can only be given by a higher to a lower caste.
- Kathā - A religious ceremony in which a story is told. People of all castes can sponsor it, but only a Pundit can read the story (Katha).
- Kshatriya - "A varna; the ruling and warrior class of the vedas, now represented by Rajputs, and by other castes claiming Kshatriya origin" (Hutton, 1969). They are very high in the hierarchy of the caste system.

- Kori - A caste of Northern India. They are Harijans and fairly low in the caste hierarchy.
- Nāu - A relatively low caste in Northern India. It is not an untouchable caste and its traditional occupations are those of messengers and barbers.
- Pāñchāyāt - Literally a body of five men. The council in fact generally consists of more people. Lower castes in Northern India have their own caste councils.
- Pangat - A row. At a feast people are generally seated in separate rows by their caste.
- Pasi - An untouchable caste in Northern India.
- Pradhan - An elected official of a village. He is the highest official for any particular village and presides over the village council.
- Prasād - Food consecrated by being offered to the deity. Only Pukka food is used for this purpose.
- Pukkā Food - The term generally used for superior food that can be offered to other castes more freely than can Kachcha food. It is generally fried and contains generous quantities of ghee.
- Pundit - An honorific title for a Brahmin.
- Shudra - "The varna of indigenous castes not entitled to the initiation ceremony of rebirth" (Hutton, 1969). They are the lowest group of castes in the varna.
- Shukla - A family name limited to Brahmins.
- Taptā - An open fire built on the ground. It is considered free of caste regulations so that members of various castes can sit around the same tapta.
- Thākur - A group in Northern India that is high in the caste hierarchy and second only to Brahmins. They are traditionally landlords.
- Tolla - A neighborhood, e.g., Pasin-Tolla would be a neighborhood of Pasis.
- Vaishya - "The third varna ... The term is now generally used for the superior mercantile castes associated in particular with Rajputana and the rest of upper India" (Hutton, 1969).
- Varna - 'Color'. The term is often confused with caste though it does not mean the same thing. The term refers to the original four classes into which the Indian society was originally divided - Brahman, Kshatriya, Vaishya and Shudra. The particular varna to which a caste belongs may vary from one region to another.

Introduction

Among many others, Hall (1959, 1966) and Sommer (1969) present the idea that spatial features of interpersonal contact are stable and reliable manifestations of the underlying social relationships. Both Sommer and Hall have reported some evidence from studies of animal as well as human behavior which supports this notion. Village India presents an ideal setting for testing some of the ideas of Sommer and Hall because the caste system regulates a large proportion of social contact between members of different caste groups along strict traditional boundaries. Some castes are considered superior to others to the extent that physical contact with members of the lower castes is considered polluting. If Sommer and Hall are correct, caste membership would affect the use of space where contact between members of different castes is involved.

There are many ways in which caste membership regulates social contact. For example, there are strict rules about who can eat what and with whom, whose food is acceptable, who can perform a ritual ceremony, etc. It seems logical that it would also affect spatial behavior, i.e., the minimum physical distance that must be maintained when Harijans talk to Brahmins, their relative position, restricted areas of usage, etc. The hypothesis to be tested in this research is that the minimum distance between two people in a casual social encounter is smaller when they are of the same caste than when they belong to different castes. Of interest to the investigator is not only the minimum physical distance in a casual social encounter between Brahmins and Harijans (high and low castes), but also the mechanism that maintains it, i.e., who initiates

withdrawal when someone of a different caste gets too close. The question is whether the boundaries implied in this minimum physical distance are mutually recognized or whether they are imposed by the dominant on the submissive group. The study should determine whether the Brahmins tell the Harijans to stay away from them or whether the Harijans choose to keep a certain distance too.

The best method for studying this appeared to be to bring together Brahmins and Harijans in a situation where they would have to engage in conversation with each other. A situation was therefore set up so that the subjects could move freely and the experimenter could vary the distance they were apart. Their initial distance as well as withdrawal when the other gets too close was recorded. In addition to this, a record was kept as to who initiates withdrawal. As a control, a group of participants were paired with members of their own caste.

This experimental study was set in the context of naturalistic observations of the behavior of people living with different caste groups in a village.

Theoretical basis of the study and previous
research on human spatial behavior

The proposed study is based on two assumptions about human behavior:

1. People's use of space, including their use of distance in interpersonal contact, is a consistent and reliable feature of behavior. People place themselves with regard to space in terms of certain patterns, e.g., the distance people maintain from objects of interaction (other people), or the most common setting of furniture. There is a certain spatial pattern which is comfortable - if this is disturbed, there will also be disruption in the smooth and spontaneous flow of behavior.

2. People's use of space reflects the underlying social order. One might even say that it serves the function of maintaining and reinforcing social order. It follows that different situations and different relationships are best carried out with different spatial arrangements. In other words, social structure would be manifested in the different distance patterns that might be observed. Some of the less subtle examples include teacher-student, husband-wife relationships, and boss-secretary. There is a minimum distance below which the working relationship between a boss and his secretary cannot be carried out appropriately.

The systematic work in this area will be reviewed, starting with the views of Hall, Sommer and Altman. Then some of the research on spatial behavior will be considered.

Hall

"It is in the nature of animals including man to exhibit behavior which we call territoriality. In so doing, they use the senses to distinguish one space and distance and another. The specific distance chosen depends on the transaction; the relationship of the interacting individuals; how they feel and what they are doing" (Hall, 1966, p. 120).

Hall obviously considers spatial features of behavior dependent upon the social structures, although he does not make any elaborate statements about what comes first. The study of spatial behavior is considered important enough by Hall to deserve a special name - proxemics. He uses the term to encompass all aspects of spatial behavior. In his own words -

"Proxemics is the term... for interrelated observations and theories of man's use of space as specialized elaboration of culture" (Hall, 1966), p. 1).

He defines three modes of 'proxemics'.

1. Fixed-feature space is the term for any distribution of space on a fairly long-term basis. It is relatively fixed and one of the basic ways of organizing activities of individuals and groups.

2. Semi-fixed feature space refers to the arrangement of moveable objects in a room, e.g., a desk, a chair etc. It is the utilization of space for different types of activities.

3. Informal space refers to 'distances maintained in encounters with others', and is more relevant to the present study than the two types of 'proxemics' described above. This particular use of space varies with the nature of the situation, the relationship between interacting individuals and cultural norms. It is in this area that we are likely to observe the most variation. It is predominantly unstated but nevertheless crucial in behavior.

Hall defines four basic categories of social contact which are best carried out at different distances. They vary in the degree of intimacy they imply between participants and the distance between the participants becomes greater as they become less intimate in nature. In other words, the higher the degree of involvement, the smaller the distance is likely to be. The four distances with their corresponding relationships are as follows:

- A. Intimate Distance - reserved for intimate contact and inappropriate in public.
- B. Personal Distance - "the distance consistently separating the members of non-contact species... Subjects of personal interest and involvement can be discussed at this distance" (Hall, 1966, pp. 112-113),
- C. Social Distance - "Impersonal business occurs at this distance... people who work together tend to use close social distance. It is also very common distance for people who are attending a casual social gathering" (Hall, 1966, p. 115).

This is not a fixed distance of course, and it is large enough for people to withdraw from active involvement. In other words, there is, at this distance, an option on involvement.

- D. Public Distance - outside the 'circle of involvement'.

As Hall has himself pointed out, this scheme of dividing and describing distances is relevant basically to the American culture. It may be that in other cultures, the type of activity may not be as critical as the group one belongs to, or whether one is a man or a woman. In Indian village society, caste membership is a major factor in polarizing social situations.

It appears that there is some danger in concentraing too much on distance in spatial behavior. Hall speaks of a horizontal space in social encounters and it is quite conceivable that other aspects of space are just as relevant. For example, in intercaste contacts, the relative positions of the two high and low castes are such that the Harijan always sits on a lower plane, thus enabling the Brahmin to look down upon him.

It is really inappropriate to make any further comments on Hall's theory because there is not too much evidence to enable one to subscribe to one viewpoint rather than another. All that one can say is that there is need for greater specificity and coherence in some of the theories that have been presented. For example, it is not clear why Hall chose four distances of social encounters rather than two or ten.

Sommer

Sommer's approach to spatial behavior is marked by a clarity of thinking not very apparent in most of the written work in this area. He is also responsible for some of the pioneer research done in the area. Sommer talks about spatial behavior on two levels, i.e., territoriality, and personal space and distance.

Territoriality is defined as consistent use of space by a group or individual. He does not feel that ownership is an essential part of the definition. He agrees with Hediger that territory is an area 'which is first rendered distinctive by its owner in a particular way and, secondly, is defended by the owner'. Sommer refers to group territoriality in some cases as separate neighborhoods. It would seem that this concept, with the invisible but real boundaries that he talks about, is

applicable to the distribution of neighborhoods along caste lines in Indian villages where they are protected against unauthorized intrusion by members of other castes. For example, in some villages a Brahmin would not enter a neighborhood where members of the low caste live other than on some very special occasions and similarly, Harijans would not enter Brahmin neighborhoods other than in the capacity of servants.

Sommer maintains that

"Social and spatial orders serve similar functions... (there are) spatial correlates of status levels and conversely, social correlates of spatial positions... Status is expressed in ways of behaving as well as status symbols which are used, a) to indicate status, and b) to insure the perpetuation of the status system" (Sommer, 1969, p.17).

This statement could easily be translated into a description of the caste system which is hierarchical and serves the function of maintaining separation between various groups of people. The caste system has very marked spatial correlates of the system. This is related to the concept of fixed-feature space described by Hall.

The second level on which Sommer describes spatial behavior is where interactions between people take place. He describes two concepts in terms of which behavior at this level can be understood.

1. Personal space - "an area with invisible boundaries into which intruders may not come" (Sommer, 1969, p.26).
2. Individual distance - the characteristic spacing of species members.

"Individual distance exists only when two or more members of the same species are present and is greatly affected by population density and territorial behavior. Individual distance and personal space interact to affect the distribution of persons. The violation of individual distance is the violation of society's expectations; the invasion of personal space is an intrusion into a person's self-boundaries. Individual distance may be outside the area of personal space... or individual distance may be less than the boundaries

of personal space - sitting next to someone on a piano bench is within the expected distance but also within the bounds of personal space and may cause discomfort to the player" (Sommer, 1969, p.27).

"Individual distance is not an absolute figure but varies with the relationship between the individuals, the distance at which others in the situation are placed, and the bodily orientation of individuals one to another" (Sommer, 1969, p.29).

This summarizes Sommer's position on spatial behavior, and as one can see, there are similarities between Hall and Sommer's abstract positions although they use the concepts differently.

At both levels, Sommer makes use of the notion of defense, whether it be territorial behavior or behavior relevant to personal space. Since invasions will usually elicit a defensive response, Sommer feels that it is also the best method for studying the existence of boundaries implied in personal space and personal distance. In his own words:

"(the best)...method for exploring individual distance and personal space with their invisible boundaries is to approach people and observe their reactions" (Sommer, 1969, p. 29).

Sommer has tested out some of his ideas in experiments which are quite well designed and interesting. Some of them will be reviewed in a later part of this chapter. This study is based on some of the ideas and hypotheses suggested by Sommer, directly or indirectly.

Altman

Altman (1970) offers a very comprehensive definition of spatial behavior which is designed to encompass all aspects of the behavior and provide a framework within which all research in the area can be systematized. The concept he uses for this purpose is territoriality. His

definition of territoriality includes all the characteristics of the behavior which have been used to date. Territoriality is based on exclusive use of space, ownership, and control. It refers to objects, people and ideas as well as space. It is rooted in motivational states of individuals as well as groups. There are antecedent factors in territory which make it essential. These antecedent factors may take many forms, such as violation, invasion, contamination, etc.

Altman expresses the hope that his definitional framework

"provides a structure within which existing and future research can be organized, hopefully synthesized, and built into a theoretical system" (Altman, 1970, p. 13).

The effort and intentions are praiseworthy, but the article is difficult to comprehend.

As previously stated, there is more than one level on which spatial behavior can be analyzed and described. Certainly the number of ways in which it can be studied is large. For example, Sommer talks about the organization of neighborhoods in terms of ethnic groups and puts forth the hypothesis that segregated neighborhoods help to keep down ethnic tensions. There are studies which deal with positions which people choose when they are sitting alone. In a recent article, Lett, Clark, and Altman have reviewed about 40 studies out of a possible 137. However, this review of the research will be restricted to those studies which have dealt with face to face interpersonal situations and have also used people in the experiments rather than abstract models or simulations of actual situations.¹

¹Although animal behaviorists have studied territoriality in animals and some linguists have studied the effect of distance on voice level, systematic study of human behavior with respect to space is very recent.

Sommer was involved in a study of the effects of spatial arrangement on the social behavior of women in a geriatrics ward in Canada. Before his participation began, a great deal of money had been spent on improving the esthetics and conditions in the ward. The patients had not been consulted about any of the changes that were made. His observation of the ward was as follows:

"Most items were purchased and positioned for ease of maintenance rather than for comfort or therapy. Occasionally, the outcome bordered on the bizarre from the standpoint of human relationships. Most of the chairs in this ward stood in straight lines along the walls but there were several rows back to back in the center; around several columns there were four chairs, each chair facing a different direction" (Sommer, 1969, p. 78).

Observations indicated (surprisingly enough!) that there was very little conversation, reading, or much of any other activity in the room. Sommer's method was to change the spatial arrangement so that the chairs were facing each other, and to break up the day room into smaller sections with the help of small tables around which four chairs were placed. Observations were made both before and two weeks after this new arrangement.

Results

	<u>Brief interactions</u>	<u>Sustained interactions</u>
Old	47	36
New	73	61
Increase	55%	69%

There was also an increase in the amount of reading.

Apart from its usefulness in improving the tone of a women's geriatrics ward, the study is important for what it shows us about spatial behavior. It further shows us a concrete method for studying what effect different types of spatial arrangements will have on inter-

personal behavior. The question of methodology is not an unimportant one, because most studies in this area have serious flaws in this respect. The study also emphasizes the intimate and very real relationship between space and behavior: a change in one will produce a corresponding change in the other.

A very fruitful line of research has been to intrude within a person's invisible boundaries to see what their limits are and to observe what his response might be to this intrusion. This method is especially good because not only can the experimenter observe the minimum distance (or space) that the subject tries to maintain but also what kinds of mechanisms will be used for its maintenance. It might be pointed out that these mechanisms are inherently forms of behavior, reinforcing the point made in an earlier section.

Sommer conducted a study in a mental hospital using this technique (Sommer, 1959). He chose mental patients who were sitting alone and not engaged in any definite activity. Sommer then sat down next to the subject and kept the distance between them down to six inches. It took him 19 minutes to drive away 65% of the patients that he chose to pursue, whereas only 30% of nonpursued control patients moved in the same amount of time. It might be argued, however, that the results may not be transferable to normal subjects. However, it is likely that if a stranger were to come and sit next to a passenger on the subway while many other empty seats were available, that passenger would either ask for an explanation, move, or stay put suspiciously.

This same technique was used in a study of behavior in a library (Sommer, 1959). In this case, whenever anyone was sitting alone at a

library table with one or more books, a female observer came and sat down close to the victim. Sommer found that:

"Occupying the adjacent chair and moving it closer to the victim produce the quickest departures, and there was a slight but significant difference between the other invasion locations (directly across from the victim etc.) and the control condition... There were wide individual differences in the ways the victims reacted... (i.e.) defensive gestures, shifts in position, and attempts to move away. If these fail or are ignored by the invader, or he shifts position as well, the victim eventually takes flight" (Sommer, 1969, p. 35).

It seems that physical proximity where more space is clearly available demands an explanation of such closeness. In the subway example given above, the passenger's suspicions would be considerably increased if he were the only occupant of a car and a new arrival came and took the adjacent seat. It is by no means certain, however, that this is a universal feeling or there are no cultural variables affecting our general feelings about such situations. In certain cultures, it may be the norm for a newcomer in a similar situation to sit next to someone and any other behavior may be bizarre and demand an explanation. Space is thus more meaningful in a cultural context. It is, as Sommer has pointed out about personal space, 'a culturally acquired daylight phenomenon.'

A third approach is to structure situations for interaction and observe how people use space in these situations - in other words, how distance is used spontaneously, or what distance is 'normal' for any given situation or relationship. Implicit in this approach is that different situations and relationships demand different spatial arrangements or distances, as Hall points out. The first systematic study in this direction was done by Steinzor (1950), who found that in group discussions the response to any statement was made more frequently by someone

sitting across from the speaker rather than in any other position.

In a situation where people are not engaged in a common activity, Talcott (1965 cited by Sommer, 1969) found that people use only the two ends of benches rather than the whole bench while they are waiting for a bus.

Several studies have been done on the relationship between interpersonal relationships and distance between people. Campbell et al. (1966) found that students in a classroom tend to form homogeneous racial clusters. Sommer (1969) reported that

"Working with discussion groups in a cafeteria setting... leaders tended to select the head position at a rectangular table and other people would arrange themselves so that they could see the leader. Visual contact with the leader seemed more important than physical proximity" (Sommer, 1969, p. 20).

Strodbeck and Hook (1961) recorded seating arrangements in an experimental jury trial. Among other things, they found that the initial selection of seats around a table was not random - people from a higher socio-economic class selected head chairs more frequently than could be explained by chance.

Lott and Sommer (1961) have also reported that people sit closer to their peers than to persons who have a higher or lower status than themselves.

An interesting and well-designed study by Leibman (1970) explored the relationship between spatial behavior and sex and race. Female subjects were brought into a room where one or two confederates were already present. The race and sex of the confederates were manipulated. Seating facilities were either a six foot bench on which a confederate was already seated, or two three foot benches which were

occupied by confederates. There also was one condition in which one three foot bench was occupied and a second one was not. Leibman reported that all (n = 12) subjects chose to sit on the bench which was unoccupied. In addition she observed that

"...sex norms had differential effects on spatial behavior in different situations. Thus, subjects sat only somewhat closer to females than to males on the long bench, and sat closer to the female when she was chosen over the male. The race of the confederate, on the other hand, influenced neither the interpersonal distances, nor the intrusion choices, nor the intrusion distances demonstrated by the white subjects. Black subjects did seem to be influenced by the race of the confederate in their intrusion choices and distances, but these results would have to be replicated before we could have confidence in them" (Leibman, 1970, pp. 237-238).

Leibman's study presents some very interesting possibilities of research in the area of race relations, and techniques of investigating a relationship between race membership and spatial behavior.

The number of studies being done in spatial behavior and the variables being explored is increasing (e.g., Hearn, 1957, and Lett et al., 1969). On the basis of the available evidence, it may be tentatively concluded that psychological distance is reflected in physical distance.

At this point, however, it is impossible to say what the mechanism of control or what the nature of the relationship is. Man's use of space tells us something about his boundaries and the rights implied in these boundaries. It is also a reflection of his relationship with other people and inanimate objects. In this thesis, the relationship between spatial behavior and the caste system in some north Indian villages is explored. Specifically, the question asked is: do people use distance to express the hierarchy implied in the caste structure?

A very brief description of the caste system is in order at this point. Indian society has been traditionally stratified along caste lines. According to the varna (see Glossary) model of the caste system there are four castes - Brahmin, Kshatriya, Vaishya, and Shudra (see Glossary) - while the Harijans are outside the caste system and thus outside the realm of contact. However, except in some very limited sense, the varna model is not used and the concept of jatis (see Glossary) is used in dealing with the castes in Indian society. There are regional differences in caste names, and some castes may be found only in certain limited regions. The position of various castes vis-a-vis the other castes also varies from one region to another. As a result of this, 'caste mainly exists and functions as a regional system' (Srinivas, 1969). The main thing to remember is that the caste system is not a rigid and static social system, but is flexible and subject to change.

There are certain features of the caste system, however, which are applicable to the country as a whole. Srinivas lists the following features:

1. Caste groups are hereditary, endogamous groups. A person belongs to a particular caste by birth and generally marries a person of the same caste.
 2. It is a hierarchical system. Certain castes are considered ritually superior to the other castes and thus occupy a higher position.
 3. Most castes are traditionally associated with one or two occupations. For example, the Thakurs are traditionally landlords, the Bhangis traditionally deal with garbage etc.
 4. Relations between castes are invariably expressed in terms of pollution and purity. For example, Brahmins will not accept cooked food of a certain kind from any other caste.
- (Srinivas, 1969)

Within any particular region, a person's last name is generally an indication of his caste, except in the case of members of the lower castes, who are commonly known just by their first names.

There is very little social contact between Brahmins and Harijans, who have basically a master-servant relationship. There are elaborate rules designed to maintain the hierarchical distance between the two castes. There is a strict taboo on touching and a Harijan may enter only a restricted area of a Brahmin's home, generally in the capacity of a servant or a laborer. Similarly, there is no exchange of meals. In some places, the neighborhoods in which they live are also distinct. Gough (1969) reports for instance that

"Non-Brahmin and Adi-Dravida (low-caste) laborers still come to the back door of a house to receive their wages, and Adi-Dravidas still do not enter the Brahmin street or of course the Brahmin temples. Brahmins and Non-Brahmins do not enter the Adi-Dravida street" (Gough, 1969, p. 49).

Similarly, Srinivas (1969) has reported that in a Mysore village

"the untouchable has to live apart from other castes and he may not take water or bathe in the river at a point higher than that utilized by a member of the other castes" (Srinivas, 1969, p. 25).

Although these observations were made in villages in South India, the pattern of caste relationships in Northern India is similar. In addition, Paranjpe (1970), in his study in an urban student population, found that many of the caste practices and attitudes exist in cities and among educated people.

The caste system is a mechanism which has traditionally introduced and maintained psychological distance between various groups of people. It also has built in mechanisms for its own survival, notwithstanding government legislation. It is an excellent setting for further

investigating the assertion that psychological distance is expressed in spatial terms. Among the mechanisms which maintain separation between the castes, people may also make use of distance in interpersonal contact.

As stated previously, it is desired to determine not only whether social structure is expressed in spatial relationships between Brahmins and Harijans, but also the exact nature of the mechanisms regulating this spatial behavior. For example, does the low or high caste member initiate approaches and withdrawals? In addition to the experimental situation in which this can be observed, there are many opportunities to observe spatial behavior in naturalistic settings.

Method and Procedure

Method

It was planned to use three sources of information about the spatial aspects of caste relationships:

1. Observation of spatial behavior in a controlled and standardized setting.
2. Material obtained with interviews with members of the Brahmin and Harijan castes.
3. Observation of behavior in naturalistic settings.

Since information obtained with the first method forms the nucleus of the study, the controlled setting for observation will be described first.

Members of the Brahmin¹ and Harijan² castes were asked to come for a brief interview which they thought was designed to elicit their opinions about the changes in village life during the past twenty years. During this interview, they had to wait with either a Brahmin or a Harijan accomplice and engage in conversation with him. Some participants were paired with a member of their own caste and some with a member of the other caste. While they were waiting and engaged in conversation, their spatial behavior was recorded at various points. The design of the study is as follows:

		<u>Caste of the Participant</u>	
		<u>Brahmin</u>	<u>Harijan</u>
<u>Caste of the Accomplice</u>	<u>Brahmin</u>	n-25	n-25
	<u>Harijan</u>	n-25	n-25

¹Brahmins occupy the highest status in the Indian caste system.

²Harijans are at the low end of the caste hierarchy and are untouchable.

There were four groups of participants, two experimental and two control. The total number was approximately 100.

Participants

All participating subjects were male. They were drawn from four villages within forty miles of Lucknow in the Mohanlal Ganj district.¹ Within this area there are very few regional differences - the same dialect is spoken throughout the area, and there are not too many differences among the villages other than the caste which is dominant in each village. Just male participants were used in order to eliminate the very obvious effects sex of the participants might have had on their behavior in the situation. The area was restricted to eliminate the confounding effects of regional differences on caste position.

Accomplices

The experimenter had two accomplices who presented themselves as a Brahmin and a Harijan. Both of them were recruited from Lucknow. One of them was a Ph.D. candidate in Psychology at the Lucknow University and the other was a clerk at the same place. Both come from villages in the Utter Pradesh and could speak the local dialect quite fluently. This was very helpful in making their assumed identities convincing. Since they had been brought up in villages and at the present time had homes in villages, they were familiar with the customs and caste relationships in the particular area in which the study was conducted. All this was

¹The original plan had been to recruit all the participants from the same village. Due to several reasons, all of them a result of the experimenter's initial ignorance of village life, this plan had to be given up very early in the study. First of all, the Brahmin population of any village is very small. Most of the Brahmins are educated and work outside the village in those cases where they do not live in the city. Secondly, it was much more difficult to persuade Brahmins to take part

essential to make their roles convincing to the residents of the village.

Both Ramdev (the Harijan accomplice) and Punditji (the Brahmin accomplice) were presented as peons who were employed at the Lucknow University. This was done for several reasons. The investigator had to be presented as a student at Lucknow University, so it seemed quite natural to say that they had been sent along to help her. Secondly, it was desirable to make their status as close to the average participant of the experiment as possible. Introducing them as peons enabled the investigator to say that they were educated only up to the sixth grade, their income was about fifteen dollars a month, and they had the same status. This was done to eliminate factors other than caste which could influence the participants' attitude towards them. The dress of the two accomplices was appropriately shabby, etc. All these factors helped to make their socio-economic status as close to that of the participants of the study as possible.

The presence of the two accomplices was 'explained' to the villages where the investigator went by the fact that no woman in a village travels alone. She should be accompanied either by a ~~member~~ of her family or by somebody who has the status of a servant. It was not necessary actually to explain their presence. The customs of the villages into which the

¹(Cont'd)

in the study, and out of the small population of Brahmins in any particular village, very few could be persuaded to take part. Last, the original plan was to give a questionnaire to each subject at the end of waiting period during which his spatial behavior was observed. It turned out that if one subject knew of this interest in spatial behavior, the whole village knew about it. People became very defensive and self-conscious of their behavior in the experimental situation. Participants could no longer be recruited from this village, and other villages had to be used.

investigator went provided a framework within which their presence could be assimilated.

There were several indications that the assumed identities of the two accomplices were convincing. The residents of the village responded to them and treated them differently, according to what they thought their castes were. Some of these differential responses will be briefly described.

The Harijan Accomplice. In Gopal Khera, the first village visited, the Pradhan (see Glossary), the chief official of the village, would sometimes give the investigator and her companions tea. Ramdev was given tea and food in separate glass utensils which were subsequently not taken inside the home. Ramdev was not invited inside the home at any point in the month-long visit. People of the lower castes, however, were generally very friendly towards Ramdev, invited him to meals, asked him if he was literate, how much he was being paid. Furthermore, they talked more freely with Ramdev about controversial issues in the village. In Bhilampur, the experimental team had a great deal of trouble getting domestic help which was needed because the Nau (see Glossary) who usually does this kind of work for members of higher castes did not want to be polluted by washing dishes which Ramdev, a Harijan, had used. He had to be assured and shown that Ramdev washed his own dishes before he agreed to do the rest.

The Brahmin Accomplice - was always addressed by people as Punditji (an honorific term of address) and there were none of the problems mentioned above with Ramdev. Also, none of the Harijan participants was friendly towards him, and all maintained the distance from him which they generally do from Brahmins.

A Brief Description of the Villages and
Recruitment of Participants in the Experiment

Participants were drawn from four villages: Gopal Khera, Bhilampur, Bharsava, and Utratia.

Gopal Khera is about fifteen miles from Lucknow. It is about one and a half miles from the main road, to which it is connected by a dirt path. It consists of little hamlets which are scattered over an area of about four square miles. All except three of the houses are mud huts. There is no electricity in the village as yet, and most of the people depend on farming for their livelihood. The village itself is further divided into 'tollas' (or neighborhoods) which are named, in most cases, after the castes which live in them; thus Chamarahi, Pasi Tolla, Korin Tolla, Dhobin Tolla, etc. are named after the Chamars, Pasis, Koris and Dhobis (see Glossary) who live in these tollas. All of these are low castes. They are all different varieties of the Harijan group of castes. The other main tolla is Purseni which is dominated by Brahmins who are also the most numerous caste there. The dominant caste in Gopal Khera, however, is the Thakurs, who own a large proportion of the land.

There are some very important differences between the two groups in which the investigator was interested. The Harijan group has a nationwide literacy rate of about 3 percent. In Gopal Khera most of the Harijans work as laborers at the rate of about 25 cents a day or as servants in the village. Of those who farm, a very small proportion, approximately 8 percent, owns the land or rents it, in which case they have to pay about half the yield towards rental. Very few of them work in the city and a few of them have been to Lucknow about once or twice in their lifetime. The lower castes have a relationship of servant-master

with the Thakurs (see Glossary) and Brahmins of this village in most cases. There are very strong caste 'panchayats' (committees) among all the lower castes which serve pretty much as their courts of law. There is a great deal of separation among the different kinds of Harijans themselves.

The Brahmins, on the other hand, have a very high literacy rate, approximately 85 to 90 percent. Most of them, about 60 men out of 80, work in the city in the railway workshop and commute every day. Men of college age either attend the nearby school or go to Lucknow University. They also farm on the side and hire laborers from the village to do most of the work. Needless to say, they own the land. There is no caste panchayat (see Glossary) among the Brahmins but there is a very strong awareness of belonging to the same caste and there is a great deal of solidarity where contacts with other castes are involved.

At the moment there is a great deal of animosity in Gopal Khera between the Brahmins and the Thakurs, and all, except eight of the Brahmins, are solidly against the Thakurs. The chief village officer, the Pradhan, is a Thakur. Although he is an elected official, the devices used in the election make it so that he does not in fact represent the village adequately.

The pattern in the other villages visited was similar. There were minor differences of detail, but the hierarchical relationships in the other villages were essentially the same.

The second village used in the study was Bhilampur. Bhilampur is about 30 miles out of Lucknow, about five miles off the main road and reached by a dirt road. It is further into the interior than Gopal Khera, and the largest nearby city is Lucknow. The dominant group in this

village is the Brahmin group who are the traditional landlords. The village Pradhan is a Brahmin. There are about twenty Brahmin homes in the entire village. The rest of the population consists mainly of Harijans, who live in separate neighborhoods. The Harijans in this village are slightly better off than those in Gopal Khera but not much: one has a high school diploma and teaches in the village primary school (not many of the Brahmins are too happy about this), while another is educated up to the sixth grade and works as a laborer for the other farmers.

Bharsava, the third village, is a few miles from Bhilampur and contains many people who have relatives in Bhilampur. The distribution of the population and land is about the same as in Bhilampur. There are, however, a few Harijans who own some land and are self-employed. There were two Harijans who were educated beyond high school. Of the three villages, Harijans were best off in this village.

Recruitment of the Participants

It had been planned to recruit participants by making an announcement in a central place that the investigator was interested in getting subjects in an experiment and that she would pay them. It had also been decided not to announce that the investigator was interested only in subjects of certain castes. This was before she had been to any village and tried to get subjects. After a slight familiarity with one village, it was necessary to change these plans radically. First of all, there was no convenient notice board on which an announcement for prospective subjects could be placed. Secondly, it was discovered that if any money was offered the subjects for the time they gave, they became very

suspicious. In Gopal Khera, a lot of the Harijans were convinced that the investigator was sent by the government in connection with family planning, since the family planning commission has offered money in the past. (It was encouraging that they no longer believed that - after they had been 'interviewed'.) The third problem was to convey to subjects, without revealing the nature of the study, that the investigator was not merely being lazy and authoritative because she asked them to come to one place instead of going to their homes. It was impossible to interview them in their homes and maintain a standard situation for the study. Last of all, the method of recruiting had to be varied for the two castes of interest. The Brahmins generally occupy a position of great power and prestige in the village; they are thus less likely to listen to an outsider unless they are approached with due respect for their high position. A person who is not very familiar with the particular caste hierarchy of a certain village finds it very easy to offend them. For example, Purseni, the Tolla in Gopal Khera which had to be dropped from the experiment, initially a resident was asked to help the investigator to get participants. But the investigator was told that if she was interested in getting people, she should come to their homes in person, otherwise she could fill out the forms herself. She did so, and this procedure worked for eight people. After several trips, she had no more success. It turned out later that none of the Brahmins would come to the place where the experimental room had been set up because of their animosity towards the Thakur from whom the room had been rented. This was one of the reasons that she had to move to other villages, where Brahmin participants were more available.

In general, the problem of keeping the caste issue out of recruiting was resolved on the basis of two factors. One, a general announcement was not made about the type of subjects desired for the study. The investigator was able to get a voting list in all the villages and could therefore determine the caste of any person before recruiting. This was aided by the fact that most of the Tollas (see Glossary) are based on the caste of the various groups. People live in different neighborhoods depending on their caste. Ramdev helped to get many participants from the Harijan neighborhoods because of his common caste with the prospective participants. Participants came who fell outside the groups wanted for the study were included too for the sake of appearances. Second, when the investigator went to the homes of most Brahmins to elicit their cooperation, she said that their names had been selected from a list obtained from the village Pradhan. Thus caste could be left out of the recruiting altogether.

It was much easier to get Harijan participants than it was to get Brahmin participants. First, there are a large number of Harijans who live and work in any village. They are also much more responsive and open to people from outside than Brahmins are. Secondly, the Harijans responded much more to Ramdev asking for their cooperation (as a member of their own caste) than the Brahmins did to Punditji. With the Brahmins, much more persuasion and patience had to be employed before they would agree to come to the place where the interview had been set up. There were some who would not come at all. It was necessary to explore a much wider area before the required number of Brahmin participants could be obtained.

In most cases, the participants were told that they could not be interviewed in their homes because the investigator had all her papers set up in one place and could not move them around very easily. Secondly, the participants were told that she had to take their photographs in order to show that she had actually talked to them for her research to be credible. This seemed to satisfy most of the participants of the need for them to come to one place.

At all times, the issue of caste was kept out of the recruitment of participants. All that had to be said was that people from all the groups were being interviewed, and the meaning of the word 'group' was left ambiguous.

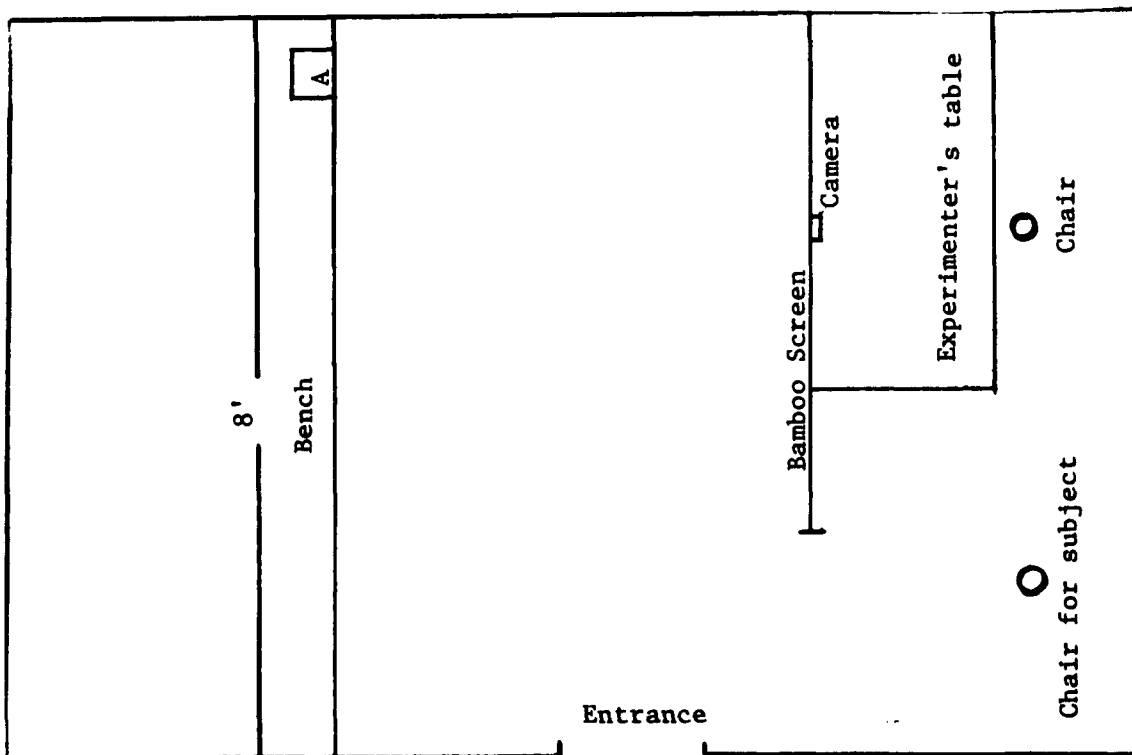
The distribution of participants drawn from each village was as follows:

Table 1

<u>Village</u>	<u>Caste</u>	
	<u>Brahmin</u>	<u>Harijan</u>
Gopal Khera	4	30
Bhilampur	20	15
Bharsava	21	15
Utratia	5	-

The Experimental Setup

The same apparatus was set up in all four villages used in the study, and is diagrammed below:



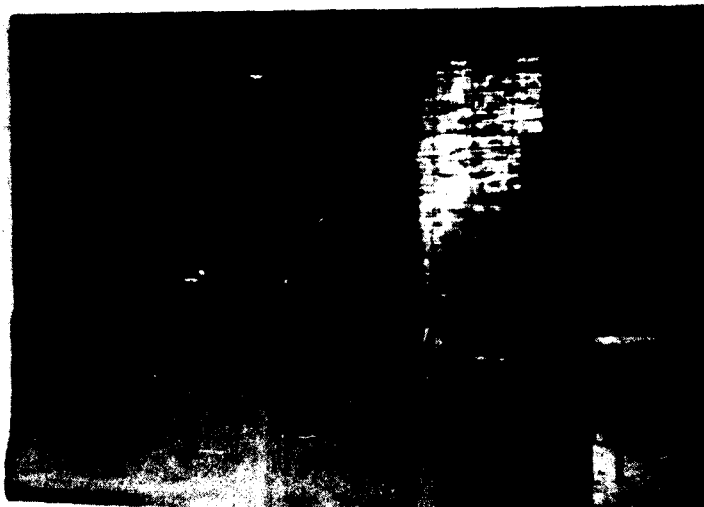
A. The position at which the accomplice sat before the entrance of every subject. The accomplice always sat at the far end of the bench from the entrance.

The experiment was held in a room, the approximate dimensions of which were 8 by 14 feet. The 8-foot bench is a common sight in most villages and was in fact borrowed from a resident of the village. In two cases, the bench had to be extended because the bench available was not long enough; in those cases, the accomplice sat on the end which was added on to the bench.

The bamboo screen (see diagram above) was hung from the ceiling so that it acted as a very clear divider for the room. There were thus two areas, one the waiting area and where the accomplice sat, and the

other where the investigator sat and the participant was interviewed.
The following photographs show the two views.

The view from the Participant's side.



The Experimenter's table, showing where the camera was placed.



The camera was thus completely hidden from the participant except for the lens. It was covered by a cloth when the participant entered this area. The camera was attached with a clamp to the table and the camera setting was the same throughout the experiment in any particular village.

Procedure and Instructions

A prospective participant was met at the entrance by the investigator and asked to come in. He was asked his name and the name of the Tolla in which he lived. If he was a Harijan, she asked him which Biradari (see Glossary) he belonged to.¹ With a Brahmin participant, she asked for his last name where he himself had not volunteered the information. It was then quite natural to introduce the accomplice who was sitting on the far end of the bench and give his name and Biradari. She also made it clear at this point that he was a peon at Lucknow University and was here to help her out. The Harijan accomplice's Biradari was given as Raidas, which is low in hierarchy even among the Harijans. The Brahmin accomplice was introduced as a Shukla (see Glossary).

If the participants happened to belong to the same sub-caste as the accomplice, the investigator mentioned this during the introduction.

After the subjects had been introduced to the accomplice, thus establishing the caste identities of the two, the investigator gave the following instructions to the subjects:

"I have to go and arrange my papers and get things ready so that I can ask you questions. In the meantime, please sit here and wait. Ramdev will tell you about my study and he will also explain to you what you have to do."

¹It is curious that only the higher castes use their last name which is indicative of the caste they belong to. The Harijans use only their first name, such as Badloo, Piyare etc. Asking a person about his Biradari is not uncommon even on the first meeting. In fact in two villages the investigator asked about how many families lived in the village and was given information not only about the number of families living in the village but also what castes they belonged to, how many families of a particular caste lived in the village, what their profession was etc. Asking someone about his Biradari and telling him about one's own Biradari is quite natural. It seems to provide a sort of introduction and common frame of reference for conversation.

While the subject waited (for 4½ minutes), the experimenter went behind the bamboo screen, rearranged papers, and wrote on the subject's form to make it appear that she needed this period to prepare for the interview. The accomplice channeled the conversation towards farming in the village, the current crop, problems of irrigation in the village, etc. The accomplice answered any questions the subject had and also told the subject that the experimenter was writing a book about changes in village life during the past 20 years, also mentioning at the same time that she was interviewing people of all groups. Both the accomplice and subject could talk freely about village life and make it seem natural because they had familiarity with village life.

At the end of this 4.5 minute period, the experimenter came out with two pictures¹ in her hand and said:

"Please look at these two pictures and describe what you see in them. I am busy at the moment and I will leave them with Ramdev. You can tell him what you see in them and he will come in and tell me."

She handed both the pictures to Ramdev, who kept them in his hand and said "Come and look at them." If the subject did not move closer at this point, he said again that subject should move closer and look at them. If, however, the subject asked Ramdev to hand over the pictures or put his hand out for them, he gave them to the subject. This period, during which the experimenter was again behind the screen, lasted for 2.5 minutes.

At the end of the 2.5 minutes, she asked Ramdev if the subject was finished with the pictures and to come and tell her what he said.

¹The pictures depicted two rustic scenes: A man sitting by a river, perhaps bathing, and a street sweeper at dawn.

The accomplice came and related how the subject had described the pictures. After the accomplice had told her what the subject said, the experimenter said loudly enough so that the subject could hear:

"I am going to write down what you have just told me. Go back and sit down while I write and I will ask you to send Badloo (or whatever the subject's name was) when I am finished."

The accomplice went back and sat down close enough so that he was almost touching the subject. This was kept constant by having the accomplice put a hand right next to the subject and sitting down, so that the shoulders almost touched. The accomplice always followed this procedure while sitting down at this point in the experiment, so that there was generally a distance of about 4 inches between the seats of the two and their shoulders almost touched, depending upon the angle at which the subject's head and shoulders were.

The subject's response to the pictures enabled the experimenter to judge how close the subject would move voluntarily to the accomplice, and his response to the accomplice sitting right next to him enabled her to judge how he would respond if somebody moved too close to him.

The period during which the subject's response to the proximity of the accomplice was under observation lasted 1.5 minutes. As far as the subject was concerned, the experimenter was using this time to write down his response to the two pictures which he had been asked to describe. At the end, she asked the accomplice to send the subject in. When he came in, she asked him to sit down. This was the main reason for the whole procedure as far as the subject was concerned. She asked him some standard questions about village life and wrote down as much as

possible.¹ At the end, she asked the subject to go back and sit down. The accomplice had in the meantime moved back to his original position at the end of the bench. After a few moments, the experimenter came out and thanked the subject, telling him that he could leave. (For a summary of the procedure, see record sheet, Appendix.)

There were thus four discrete periods.

1. 0-4.5 min. The initial waiting period. This period made it possible to determine at what distance the subject would voluntarily choose to sit from a stranger who might belong to his own caste or another caste.
2. 5-7.5 min. Period during which subject looks at two pictures. This period made it possible to judge how far the subject would move to decrease the distance between himself and the accomplice when a reason for moving closer was provided. Would he move at all?
3. 8.5-10.0 min. Period immediately after accomplice has sat down right next to the subject. During this period, the subject's response to proximity of the accomplice could be observed and recorded. It was essentially 'an invasion of personal space' which the subject would often defend by moving away.
4. After the interview - Generally lasted about a minute or so. With the help of an observation made at this point it could be determined whether the subject maintained the same distance from accomplice as he had initially maintained or whether even a slight acquaintance such as was provided during the preceding time brought them any closer spatially.

The record sheet in the Appendix indicates the exact points at which photographic records were made. The timing for each phase of the procedure was controlled with a stop watch as was the time at which photographs were taken.

1

It had been planned to use this period to administer a questionnaire about the spatial aspect of caste relationships, but this plan was abandoned after interviewing the first 30 subjects, all of whom were in the control Harijan group. In a later section it will be explained why this plan was not feasible.

This procedure evolved out of a great deal of pilot work with setting of the experiment and the timings for each phase. In the given cultural setup, this seemed the closest to a natural situation. For example, one method that had been tried and abandoned was to have someone from the village bring the subjects in and give them the appropriate information. The resident of the village was very frequently not available, varied the information that he gave to the subjects and sometimes failed to say anything at all. In addition to this, unless the investigator herself came and gave specific instructions, the subjects preferred to wait outside or not to wait at all.

Measurement of Distance

Photographs were taken to record the position of the subject and his distance from the accomplice. The actual distance was measured after the data had been collected. The technique of measurement was based on one camera setting for each village visited. As stated previously, the camera was attached to a table with the help of a clamp so that its position was the same throughout the data collection in any one village. The same table was used throughout the study. For each village, a photograph was taken with a striped cloth on the bench which was removed before the subject entered. The distance was later computed from this since the width of each stripe was known. For each photograph, the distance between the shoulders of the two people was measured with a millimeter scale, in units of half millimeter. This was subsequently converted into actual distance by using the photograph of the striped cloth and converting the stripe units into millimeter units. The efficacy of this measure depends upon the prints being exactly the same size - this was in fact done for

this study. The print size for any particular setting was the same.

Initially, it had seemed that the simplest thing to do would be to put a striped cloth on the bench itself and have the subjects sit on this. This would provide a built-in unit of measurement. But two problems arose. First, the subjects were very reluctant to sit on the bench, not because it is unusual to spread a piece of cloth on a bench, but because most of the Harijan subjects felt that it was too good for them to sit on. It seemed to add to the discomfort of most of the subjects. Secondly, it obscured a clear measurement of the distance between the shoulders of the subject and the accomplice.

Another technique tried was to put a striped cloth on the wall behind the bench. There were two arguments against that. First, it caused too much comment: People were very curious about the relevance of a striped cloth to an investigation of how things had changed in the village over the last 20 years. Second, the length of the bench that was borrowed in each village was not the same - this meant that a different conversion would have to be used for each village and it seemed best to eliminate it altogether.

Analysis of the Results

Statistically, analyzing either the distance or the angles required caution. The use of parametric tests would have been inappropriate because both of these variables are not distributed normally. Fortunately, both sets of data were rankable, so the quite powerful Mann-Whitney U-test could be used. The U-test was used wherever comparisons between groups were made.

The formula produces a value of Z appropriate for a two-tailed test of significance. The probability of many exact ties which distort the results of the U-test is very low because the data are essentially measurable.

Probability of rejecting a true null hypothesis
and the probability of alpha error =

<u>Z Score</u>		<u>Two-tailed Significance</u>
1.96	less than	.05
2.326	"	.02
2.576	"	.01
3.291	"	.001

Responses to Questionnaire

The use of a questionnaire was rapidly abandoned because it aroused too many fears and anxieties among the villagers. All Brahmins refused to answer in any event, while the Harijans' answers were stereotyped and uninformative.

Observation of Behavior in Naturalistic Settings

In any study of this kind, natural behavior is the richest source of information and gives meaning and adds depth to the observation of behavior in a controlled setting such as the one described. One can observe how people place themselves with each other when they are not only in a more or less structured situation but also in informal situations. There are many situations in which distance is handled by custom, without any self-consciousness on the part of the people who are being observed. The object was to get a sample of a wide variety of situations, ranging from situations involving just a few people to a situation where

a large number of people were present.

There were a number of occasions on which people in the village were involved in a 'casual social encounter' other than the one which had been designed for members of different castes. It was easy to get photographic records of people in this kind of encounter. There were certain others in which a special type of religious ceremony was involved. Photographic records were obtained of a few situations from this broad spectrum, some of which will be briefly described here.

1. Spontaneous encounters between members of the Harijan and Brahmin castes -

In this group is included all the occasions on which the investigator saw people of different castes sitting around and passing the time. There were also occasions when she could observe a Harijan who had come to visit a Brahmin for some reason.

In the winter time, when the data were being collected, it is a common practice for people to sit around an open fire. People arrange themselves all around the fire. It is one of the occasions in the village where everyone disregards their caste membership. Photographic records were obtained of this situation. There were members of three different castes present, the first one to sit down being the Harijan accomplice and the people who came later choosing their places and distance as they wished.

2. While staying with a Brahmin widow, the investigator was able to observe the differential behavior of members of different castes. This was particularly informative in the matter of food and the idea of the kitchen being a sanctified area where members of lower castes than Brahmins had to observe the strict boundaries. The investigator was

also able to record what areas the Harijan servants were forbidden and what areas they could enter freely.

3. Although Brahmins, as has been mentioned before, do not accept cooked food from other castes, they do accept fruits or sweetmeats in their ritualistic capacity on certain occasions. Some examples of such occasions are a festival, the anniversary of a death, a religious ceremony, etc. This custom (of Brahmins accepting ceremonial food) was used as a reason to bring together two Brahmins and two Harijans while both were eating. The investigator explained to her hostess in Bharsava that the investigator's mother wished to give food to two Brahmins and two Harijans (this is a recognized ceremony called bhoj (see Glossary)). The food was brought and handed over to her hostess so that she could deal with it. Since the investigator wanted to observe how such a situation would be handled normally in the village, she did not take any part in the distribution of the food or the seating pattern. She took photographs after the four people had been served and seated.

4. The Katha (see Glossary) ceremony -

On certain days of the lunar month, anyone can sponsor a religious ceremony in which a Pundit reads a story, and afterwards some token food is distributed. On such an occasion, a large number of people are generally present. Generally, most of the households in the village are represented by at least one person. It seemed that this would be a good occasion on which to study distance among members of different castes on a large scale. After consulting with her hostess in Bhilampur the investigator decided to sponsor a Katha. She turned over all the preparations of the Katha to the Brahmin widow in addition to soliciting her help in getting a Pundit (see Glossary). This was done in order to keep

it as close as possible to the way such a ceremony is usually held. The Katha was held in the school where the experiment was set up. The seating arrangements, the announcement for the Katha etc. were made by the village Nau (see Glossary) who traditionally performs these functions. Photographic records were obtained both during the Katha and afterwards when the Prasad (see Glossary) was being distributed.

These naturalistic observations are not only interesting in their own right but also provide a check of the observations made in the controlled setting. At no point did the investigator mention what she was actually interested in and people did not suspect that her interest was spatial behavior. These observations are thus a small sample of the many ways in which people use traditionally maintained mechanisms to maintain distance or emphasize closeness in their interpersonal relationships.¹

¹At this point the investigator also wishes to make an apology to the residents of the villages that she visited. She feels that it is dishonest and perhaps a breach of implicit trust in outsiders to have pretended to be interested in religious ceremonies or just people in general while everything done was for an ulterior motive which they were not aware of. The investigator's defense is that, a) she would not otherwise have been able to observe the behavior which was the object of the study, and b) it did not in any way harm any individual. The information is not obtained to make a value judgment or to be used against any group.

Results

Participants for the study were drawn from four villages. All of these villages were within ten miles of each other. Intuitively, it seems reasonable to combine the data from the various villages because the dialect spoken is the same. In addition, there are not any regional differences in the relative position of the two castes that were studied, i.e., the Brahmins are high caste and the Harijans are low caste throughout. Nevertheless, a test was performed to demonstrate the appropriateness of combining the data from the several villages. For each group (H-H, B-H, and H-B, etc.), where participants were obtained from more than one village, the participants from each village were compared with participants from every other village. A total of thirteen such comparisons were made. Within each comparison, there were ten observations - five for distance and five for slant of the body. The results of the 130 U-Tests showed 8 significant differences --a number which is low enough to be attributable to chance. Therefore, data from all the four villages were combined.

The results obtained for all the subjects may be summarized first.¹ Two types of measurements were made, 1) a measurement of the distance between the shoulders of the subject and the accomplice; and 2) the slant of the body from the seat to the head. The results for all the subjects for the five observations that were made are as follows:

¹ Before the results are discussed, it is necessary to point out that exact data about age were very difficult to get. It was found that first of all, the subjects were very reluctant to give their age, and second, the reported ages were very clearly wrong. Age data were available for about 60% of the subjects and on the basis of these subjects, a statistical test revealed that there was no significant difference between the mean age levels of the four groups.

Table 2

Summary of Measures Obtained for all the Subjects (N = 112)

<u>Observations</u>	<u>Mean distance in inches</u>	<u>Standard deviation</u>	<u>Mean slant in degrees*</u>	<u>Standard deviation</u>
1) The initial waiting period	41.21	15.84	89.95	5.97
2) Period during which subject looks at 2 pictures (at beginning of the period)	19.88	14.87	75.92	14.35
3) Period during which subject looks at 2 pictures (at the end of the period)	19.60	12.27	80.18	13.21
4) Period immediately after accomplice has sat down right next to the subject	8.37	6.81	93.07	7.80
5) After the interview	31.90	16.24	89.06	7.26

*When sitting straight, the subject was allotted a value of 90°. When he was leaning towards the accomplice, the value was less than 90°, and if he was leaning away from the accomplice, it was greater than 90°.

The results show that there was a difference in the distance between two people at various points in the experiment. Perhaps the most interesting difference is the difference between the first observation and the fifth observation. This means that even such a brief acquaintance as is provided in the experimental setup brings the accomplice and the subject closer to each other. In addition to this, the difference

1(Cont'd)

In addition to this, a median test was done combining all groups of subjects. Subjects were divided in terms of their two groups - 1) those below the median and, 2) those above the median. The mean distances for the two groups were almost identical to each other on all the observations.

between the first observation and the second observation (41.21 and 19.88 inches) indicates that giving reason, such as viewing a picture which the accomplice is holding, reduces the distance between the two people. The second and third measurements were taken in a similar situation and one can see that the difference between the two measurements is negligible. Tests for significance, based on the Mann-Whitney U-tests give the following results:

Table 3

Z Score for Comparisons Between Various Observations

	<u>Observations compared*</u>				
	<u>1 and 5</u>	<u>1 and 2</u>	<u>2 and 3</u>	<u>3 and 4</u>	<u>2 and 4</u>
<u>Z Score</u>	-4.31	-8.83	.68	-8.19	-7.19

*All comparisons were made by the Mann-Whitney U Test.

With the exception of the difference between 2 and 3, all the differences have a probability value of less than .001. This is an indication that the experimental manipulation of the situation was effective and that it affected the distance between the two people. The only occasion on which two measurements of the same situation were taken (observations 2 and 3), the means were almost identical. These results show that the situation regulates the distance maintained by the two people. In other words, the change from observation 1 to 2 was in response to the demands made by the situation. Similarly observation 5 is different from 1, and this difference can only be accounted for in terms of the involvement in the present situation. It seems that this

measure is a fairly sensitive index of the slight degree of closure introduced by participation in this experiment.

The specific prediction of the study was that members of the Harijan and Brahmin castes would maintain a greater distance from members of a different caste than members of their own caste. A test of the prediction involves combining data from Brahmin and Harijan subjects who were paired with a member of their own caste (homogeneous dyads) and comparing them with data obtained from Brahmin and Harijan subjects who were paired with a member of the other caste (heterogeneous dyads). Table 4 gives a summary of the mean distances for the five observations and Z scores for comparisons between the two groups.

Table 4

Mean distance in inches between subject and accomplice and Z scores for comparisons between HB + BH and BB + HH groups

Observation	Groups*		Z Score
	HH + BB (N-56)	BH + HB (N-56)	
1. Mean	39.67	42.76	.75
SD	15.94	15.58	
2. Mean	14.79	24.97	4.26****
SD	12.23	15.54	
3. Mean	15.53	23.65	3.59****
SD	10.02	12.92	
4. Mean	5.80	10.94	4.96****
SD	4.87	7.48	
5. Mean	28.10	35.65	2.27**
SD	15.15	16.39	

p less than .02; **p less than .001

*Groups are labelled in terms of the caste of the accomplice and the subject. The first letter refers to the caste of the subject and the second refers to the caste of the accomplice. Thus, H-B is a Harijan subject-paired with a Brahmin accomplice. The letter A is used when two groups have been combined. Thus H-A is all Harijan subjects regardless of the caste of the accomplice. A-H is all subjects who were paired with a Harijan accomplice.

With the exception of the first observation, there are significant differences between the two groups. Subjects in the heterogeneous dyads maintain a greater distance from the accomplice than subjects in the homogeneous dyads. All the differences are in the predicted direction.

It would also be expected that where the accomplice got too close to the subject, the subjects in the BB + HH group would not be made as uncomfortable as the subjects in the BH + HB group. The subjects in the latter group would tend to lean away from the accomplice. This can be seen in the mean slant of the body and the Z scores for the comparisons between the two groups shown in Table 5 below.

Table 5

Mean slant in degrees between subject and accomplice and Z scores for comparisons between HB + BH and BB + HH groups

<u>Observation</u>	<u>Groups</u>		<u>Z Score</u>
	<u>HH + BB</u>	<u>BH + HB</u>	
1. Mean	89.08	90.80	1.56
SD	4.73	6.85	
2. Mean	74.45	77.38	1.00
SD	13.27	15.22	
3. Mean	79.90	80.46	.39
SD	12.91	13.49	
4. Mean	91.45	94.69	2.21*
SD	5.22	9.42	
5. Mean	88.03	90.08	1.39
SD	6.57	7.75	

*p less than .05.

In all cases, the homogeneous group tends to lean closer toward the accomplice than the heterogeneous group. Observation four is the occasion on which the accomplice makes an invasion of personal space - i.e., he sits down right next to the subject. Subjects in the heterogeneous group lean away significantly further than subjects in the homogeneous group - thus indicating the greater underlying discomfort caused by a member of a different caste invading personal space. Another mechanism used by subjects to introduce distance at this point (when the accomplice sits too close to the subject) was to move away. Altogether about 25% of the subjects moved away. In the homogeneous group, 13% of the subjects moved away while in the heterogeneous group 33% of the subjects did so.

The results support the prediction that subjects will maintain a greater distance from members of a different caste than members of their own caste in a casual social encounter, except in the first observation. This may be explained in terms of the tendency of Brahmins to sit about ten inches closer to the accomplice - thus occupying a more central position. Harijans on the other hand tended to sit further away from the accomplice initially. This and some of the other differences between the behavior of Harijans and Brahmins in the experimental situation will be further discussed at a later point.

Next, results for the different caste combinations in the experiment are presented. Tables 6 and 7 summarize the observations of distance in inches between the subject and accomplice for the different caste combinations.

Table 6

Mean distance in inches between the subject and the accomplice for different caste combinations

<u>Groups</u>	<u>Observations</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
H-H (N=30)					
Mean	46.75	10.32	11.66	4.80	28.89
SD	13.81	10.23	6.63	3.93	14.04
H-B (N=31)					
	43.57	22.72	19.58	10.53	37.24
	15.62	13.24	10.39	6.87	17.57
H-A (N=61)					
	45.13	16.63	15.69	7.71	33.13
	14.84	13.38	9.60	6.31	16.47
B-H (N=25)					
	41.74	27.75	28.70	11.44	33.75
	15.46	17.58	13.96	8.12	14.61
B-B (N=26)					
	31.50	19.93	20.03	6.96	27.23
	14.25	12.29	11.34	5.54	16.30
B-A (N=51)					
	36.52	23.77	24.28	9.16	30.43
	15.71	15.62	14.41	7.28	15.83
A-H (N=55)					
	44.47	18.25	19.41	7.82	31.10
	14.80	16.52	13.59	7.02	14.50
A-B (N=57)					
	38.06	21.45	19.79	8.90	32.67
	16.17	12.89	10.83	6.55	17.72

Table 7

Z scores for intergroup comparisons based on distance from accomplice

<u>Observations</u>	<u>Groups Compared</u>							
	<u>BB vs BH</u>	<u>BB vs HB</u>	<u>BB vs HH</u>	<u>BH vs HB</u>	<u>BH vs HH</u>	<u>HB vs HH</u>	<u>AB vs AH</u>	<u>BA vs HA</u>
1) The initial waiting period	2.30*	2.60**	3.60****	.42	1.12	1.24	2.34**	2.76***
2) Period during which subject looks at 2 pictures (at beginning of the period)	1.40	.76	-2.97***	-1.22	-5.00****	-4.51****	-2.01*	-2.94***
3) Period during which subject looks at 2 pictures (at the end of the period)	2.11*	-.12	-2.71***	-2.71***	-4.88****	-3.25***	-.66	-3.66****
4) Period immediately after accomplice has sat down right next to the subject	2.41**	2.70***	-2.02*	-.40	-3.87****	-4.69****	-1.72	-1.22
5) After the interview	1.44	2.23*	.62	.77	-.94	-1.69	-.28	.98

* p less than .05

** p less than .02

*** p less than .01

**** p less than .001 and beyond

Table 8

Mean slant in degrees between the subject and the accomplice for different caste combinations

<u>Groups</u>	<u>Observations</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
H-H					
Mean	89.53	69.22	78.58	92.3	86.32
SD	4.09	11.25	13.71	3.97	5.80
H-B					
	88.83	72.58	73.52	94.37	90.66
	6.59	13.48	13.15	9.03	8.70
H-A					
	89.17	70.93	76.01	93.35	88.52
	5.51	12.54	13.66	7.09	7.73
B-H					
	93.3	83.34	89.08	95.1	89.36
	6.40	15.16	7.71	9.10	6.30
B-B					
	88.56	80.5	81.42	90.46	90.02
	5.33	12.84	11.74	6.22	6.84
B-A					
	90.88	81.89	85.18	92.73	89.70
	6.34	14.10	10.68	8.55	6.59
A-H					
	91.24	75.64	83.35	93.57	87.7
	5.59	14.93	12.52	7.42	6.22
A-B					
	88.70	76.19	77.12	92.59	90.37
	6.05	13.77	13.13	8.11	7.92

Table 9

Z scores for intergroup comparisons based on the slant of the body

<u>Observations</u>	<u>BB vs BH</u>	<u>BB vs HB</u>	<u>BB vs HH</u>	<u>BH vs HB</u>	<u>BH vs HH</u>	<u>HB vs HH</u>	<u>AB vs AH</u>	<u>BA vs HA</u>
The initial waiting period	2.67***	.09	.62	-2.26*	-2.41**	.30	1.96*	-1.38
Period during which subject looks at 2 pictures (at beginning of the period)	.56	-2.21*	-2.95***	-2.37**	-3.35***	-1.18	-.51	-3.86****
Period during which subject looks at 2 pictures (at the end of the period)	2.32*	-2.12*	-.49	-4.36****	-3.18***	1.60	2.73***	-3.60****
Period immediately after accomplice has sat down right next to the subject	2.40**	1.41	.93	-.94	-2.04*	-.62	1.15	-.19
After the interview	-.15	.22	-1.80	.21	-1.57	-2.02*	-1.57	-1.02

* p less than .05
** p less than .02
*** p less than .01
**** p less than .001 and beyond

In addition to the distance between the shoulders of the accomplice and subject, the slant of the subject's body was also measured. This was done when it was observed that some subjects were reluctant to move closer but preferred to lean towards the accomplice when they were asked to look at pictures. Similarly, when the accomplice came and sat down next to the subject, some subjects did not move away but leaned away from the accomplice to express their discomfort. These results are summarized in Tables 8 and 9.

A brief glance at the results shows that there are some important differences between the behavior of the Brahmin and Harijan subjects, regardless of who the accomplice is. First of all, Brahmins start out by being closer to the accomplice than the Harijans are (36.52 vs. 45.13 inches, p less than .01). In other words, they start in a more central position on the bench. Having started with this position, they are less willing to move when they are asked to look at the pictures, when observation 2 was recorded. The distance between the accomplice and subject at this point for Brahmin subjects is 23.77 inches and for the Harijan subjects is 16.63 inches. As a group, the Brahmins move 12.75 inches and the Harijans move 28.50 inches. The Harijans are closer to the accomplice at this point than the Brahmins, and the difference between the two groups is significant at the .01 level (see Table 6, p. 46). The last observation, number 5, is also interesting because although there is a difference between the means for the two groups for the initial position, there is a negligible difference between the two means for the last observation. The Harijans have moved 12 inches closer whereas the Brahmins have moved only six inches closer to the accomplice.

The Brahmins therefore show less variation in the distance they maintain from the accomplice than the Harijans do. In other words, the Brahmins are less responsive to the demands of the situation than the Harijans are. They seem to be more in control of the situation; it is not simply a matter of maintaining a certain distance but keeping control of the situation. This is corroborated by certain other observations that were made during the experiment (see Appendix). A record was kept as to whether, when the subjects were asked to look at the pictures that the accomplice was holding, the subject moved closer or asked the accomplice to give him the pictures. Eighty-eight percent of the Brahmin subjects immediately asked the accomplice to hand over the pictures to them, thus assuming control of the situation. Only 20 percent of the Harijan subjects did that. One does not need a statistical test to decide that this cannot be attributed to chance alone.

There is one other difference between the two groups which should be mentioned. It was stated earlier that some subjects decreased or increased the distance from the accomplice by leaning towards or away from the accomplice. Among the Harijan subjects, it was observed with many subjects that when they were reluctant to move closer (to look at the pictures which the accomplice was holding), and at the same time did not employ the method that the Brahmins did, i.e., ask for the pictures, they resolved the problem by sitting where they were and leaning towards the accomplice. This is reflected in the slant of the body for the two groups, observations 2 and 3. The mean angle for Harijans is 70.93° and for Brahmins is 81.89° . The difference between the two groups is significant at the .001 level. These differences can best be illustrated by

a set of photographs (see page 54, photographs 1 through 4.) Photographs from the control groups illustrate that these are general features of the response of the Brahmin and Harijan subjects, regardless of the caste of the person they are interacting with. The slant of the body is quite close to the means for these two groups, 84° (compared to a mean of 81.89°) for the Brahmin subject, and 70° (compared to a mean of 70.93°) for the Harijan subject. The Brahmin subject has barely moved and made fewer adjustments to the situation, as illustrated by the two photographs. The Harijan subject on the other hand has moved in the second observation, instead of asking the accomplice to hand over the pictures to him.

That the Brahmin subjects were in control of the situation is supported by the observation that they initiated and led conversation in 88 percent of the cases whereas only 20 percent of the Harijans did so.

In summary, Brahmin subjects behaved differently not only in the experimental situation, but they brought their customary form of behavior into the experimental situation. They made fewer adjustments to the situation compared to the Harijan subjects. This was observed whether they were paired with a Brahmin accomplice or a Harijan accomplice.

The pictures have been outlined in different colors for members of the various castes -

Red - Brahmins

Black - Harijans

Green - Other castes

Brahmin Subject paired with a Brahmin Accomplice:
Observations 1 and 2

1



2



Harijan S paired with a Harijan A: Observations 1 and 2

3



4



Two Brahmin Subjects with a Harijan Accomplice: Observation 4, response to proximity of A

5



6



5.73

Some Harijan Subjects with the Brahmin Accomplice



7

Observation 1



8

Observation 2

Observation 3

9



Observation 4

10



-56-



Observation 3

11



Observation 2

12

Although some of the features of the response of the Brahmin subjects were common to them as a group, there were important differences between the control group (B-B) and the experimental group (B-H). (See Table 6, page 46; and Table 7, page 47.) For instance, Brahmins sit closer to a member of their own caste (mean distance 31.50 inches) than to a member of the Harijan caste (mean distance 41.74 inches). This difference is significant at the .05 level of confidence (Z score, 2.30). They have a slight tendency to sit closer when asked to look at the pictures but it is only slight. Observation 4 is more informative. All subjects start out with roughly the same distance because the accomplice comes and sits down right next to the subject, and the observation is made 1.5 minutes later. Approximately 20 percent of the subjects moved away when the accomplice sat down next to them. In the control group, seven percent of the subjects moved away. In the experimental group, 33 percent of the subjects who were paired with the Harijan accomplice moved away. As a result of this and another maneuver, leaning away from the accomplice without actually moving, the Brahmin subjects placed a greater distance between themselves and the Harijan accomplice than between themselves and the Brahmin accomplice (mean distance for control group is 6.96 inches and for the experimental group is 11.44 inches). The difference is significant at the .02 level of confidence. There was no significant difference for the last observation.

Photographs 5 and 6, page 55 illustrate what is described above. Five shows that the subject was able to introduce distance (not all of it physical) without actually moving away. Six shows very clearly that

the subject did not take kindly to this attempt at intimacy by the Harijan accomplice. He expresses it by leaning away and also by the general stance of his body. The means for the body slant for observation 4 for the control and experimental groups are 90.46° and 95.1° respectively. The difference (on the basis of Z score values) is significant at the .02 level. Interestingly enough, there is a similar significant tendency for the first observation.

It is clear that there are some important differences in the control and experimental groups of Brahmin subjects. Not all of these differences are expressed by physical distance. As photographs 5 and 6, page 55, show there are other signs of discomfort, such as shifting around, looking away, and shaking one's feet, etc. These are, however, hard to standardize and thus difficult to measure.

The Harijan Subjects

As was mentioned earlier, it was much easier to get Harijan subjects than it was to get Brahmin subjects. They were also much more responsive to instructions and the experimental variable. In general, the behavior of Harijan subjects showed much more variability depending upon the experimental variable and the situation. Some of the differences between Harijan subjects and Brahmin subjects have been mentioned above. In addition, the Harijan subjects showed more discrimination between their behavior towards an accomplice of their own caste and a member of the Brahmin caste. This was true outside the experimental situation also. They seemed much more open towards the Harijan accomplice than towards the Brahmin accomplice. This was not observed in Brahmins because they seemed less outgoing in general.

The results obtained for the control and the experimental groups of Harijan subjects (see Table 6, page 46, and Table 7, page 47) show that, while the initial position (observation 1) is the same for the two conditions, observations 2, 3, and 4 reveal clear differences between the two groups. When asked to move closer to look at the pictures, the Harijan subjects move much closer to the Harijan accomplice than to the Brahmin accomplice (the mean distance between the subject and the accomplice is 10.32 and 22.72 inches respectively). The difference between the two groups is significant at the .001 level for observation 2 and .01 for 3. Even though most subjects looked at the pictures while the accomplice was holding them, they preferred to look from a greater distance while a Brahmin was holding them.

Observation 4 was recorded when the accomplice sat down next to the subject. Here too, there is a marked difference in the distance for the two groups. Altogether, 28 percent of the Harijan subjects moved away at this point. Of the experimental group 33 percent moved away while only 20 percent of the control group did that. This is in the same direction as the behavior of the Brahmin subjects. A higher percentage of the Harijan subjects moved away. The mean distance between the two people is 4.80 inches for the control group and 10.53 inches for the experimental group. The difference between the two groups is significant at the .001 level of confidence.

There were some subjects who, when a Brahmin was sitting on the bench, would not sit down as a mark of respect for him. Photographs 7-11 on pages 55, 56 illustrate this very well. Though not too many subjects did that, they underline the general tendency of behavior in

the Harijan subjects. For example, 34 percent of the Harijan subjects sat on the floor when they came for the interview while only one Brahmin subject did not sit on the chair which had been placed there.

In a sense, two groups, the control B-B and H-H, represent the closest physical proximity that the two groups tolerate. Except in the initial position, the Harijan subjects are significantly closer to members of their own caste than the Brahmins are.

The data presented above support the hypothesis that 'the minimum distance between two people in a casual social encounter is smaller when they are of the same caste as compared to the minimum distance when they belong to different castes'. The Brahmins initially sit closer to the accomplice but they are much more reluctant to reduce this distance. The observation that Brahmins sit closer to the accomplice can be interpreted in terms of occupying a more central position rather than sitting closer to the accomplice, particularly in the light of the Brahmin subject's refusal to reduce this distance.

The question which this thesis was addressed to concerned the mechanism for maintaining this distance. It was found that some members of both groups of subjects moved away when somebody sat down too close to them, although there was a slight tendency for the Harijans to do this more often when a Brahmin sat down too close to them. On the basis of these data alone, one cannot say that one of the groups adjusts more, i.e., moves away. Naturalistic observations give more information on this point.

The Katha Ceremony in Bhilampur

1



2



3



4

6



8



5



7



10



12



9



11



14



16



13



15



18



17



Naturalistic Observations

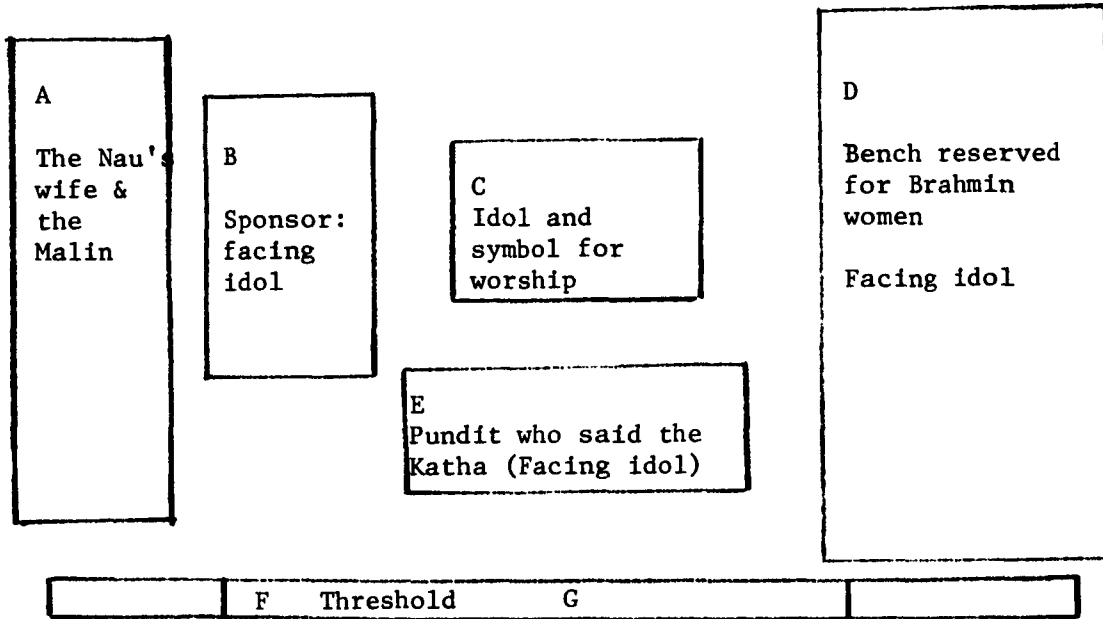
Some naturalistic situations that relate caste membership and spatial behavior were described earlier. A description of what was observed in these instances follows. The data consist of photographs taken at the time.

First a brief account of the Katha ceremony and the spatial behavior observed at it will be given. In the ceremony, the place where the Katha is to be held is prepared by the Nau who generally does this. He cleans it up, makes arrangements for sitting, etc. He also makes an announcement to residents of the village so that they may come at the appropriate time. The following diagram illustrates the seating plan set up by him (see page 67).

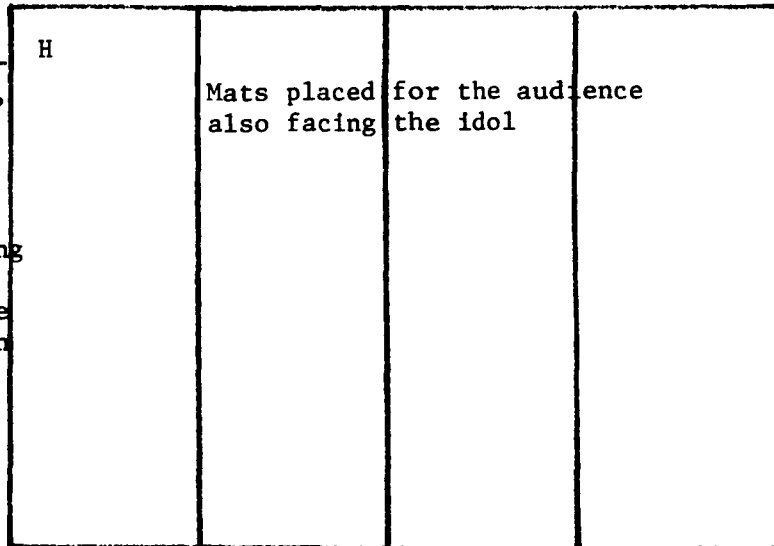
After the sponsor of the Katha and a few other people are seated, the Pundit relates a series of stories and then a prayer is said. The last act is the distribution of a token of food to everyone who has come to hear the Katha. People do not arrive at the same time, and there is a constant flow of people as the Katha progresses. As people come to hear the Katha, most of them bring some offering which eventually goes to the Pundit. This is usually in the form of coins or some food grains. Cooked food is not accepted.

Seating pattern during the Katha: There was a distinct pattern in seating which can be explained in terms of two factors. The first is sex, and the second is the caste of the audience (see photographs 1 through 6, pages 61-62). The photographs have been marked in red for Brahmins, black for Harijans, and green for other castes. The area where the Katha was held happened to be divided into an indoor and an

Seating Plan for the Katha



Note: Photo-
graphs 1, 2,
and 3 on
page
are marked
with the
corresponding
letters to
identify the
seating plan
described
here



outdoor area. The women sat indoors and the men sat outdoors, with the exception of one Harijan woman who sat on the threshold. The Brahmin women sat on the bench which was lying there (see photograph 2, page 61). Two women, who were of a lower caste but not Harijans, sat on the floor on the area to the left of the Pundit.

Outside, the Brahmin men sat on the mat which had been spread out by the Nau for this purpose, although they were not restricted to this area. With the exception of one Harijan, who was the accomplice in the study, this area, marked H, was used exclusively by Brahmins. Some Brahmins in the village came very late. They occupy the position of local dignitaries and this was obvious as soon as they arrived. People got up and brought chairs for them to sit on in addition to a charpai. They sat about 20 feet away from the place of the Katha. One got the impression that they were gracing the occasion with their presence and also maintaining a proper distance by sitting so far away from everyone else (see photographs 3, 4, 5, and 6, pages 61-62).

The Harijans sat quite far away from the place of the Katha. They sat about 30 feet away but as more of them came, they moved closer. They did not get closer than 4 feet to the Brahmins at any point. Most of them maintained a distance of about 7 feet.

How was this seating pattern arrived at? There was no one supervising the seating arrangements, and no one had to tell the Harijans that they could not sit on the matted area. The segregation was maintained by commonly understood rules. The one Harijan who sat with the Brahmins was an outsider, and no comment was made. This is not to say that the Harijans could have sat anywhere but they just liked to sit

where they did. It was observed that when the Harijans came to offer something to the Pundit who was conducting the Katha, one of them happened to step on the threshold and was immediately reprimanded by the observers. Somebody usually took things away from them and passed them on to the Pundit. This person did not belong to the Harijan caste. In addition to this, there were murmurs of protest about the Harijan woman sitting on the threshold. She was not asked to move but then she might have been asked to do so if there were no outsiders present. Children also maintained the lines observed by their parents.

Such patterns of spatial behavior are basically enforced by custom. The Brahmins do not have to tell the Harijans that they have to 'keep their place' because they know that they will. Harijans 'keep their place' because they know that there will be reprisals if they go against the custom. The Brahmins thus are aware of the security of their position because in a sense it is taken for granted. Since it is a religious ceremony, neither group is particularly likely to change the ritual. These limitations and rules may not be recognized outside the village, but in the village they are very important. One of the reasons is that there is not too much mobility in the village; not too many people go outside. The behavior is appropriate basically in maintaining a certain set of relationships and a certain structure in the village. In the light of this, it becomes understandable why the investigator's Harijan accomplice, an outsider, was not chastized for sitting at the same place as the Brahmins were sitting.

This type of seating pattern has to be understood in terms of the fear of being polluted by Harijans, and their generally lower social

position. The fear of pollution is responsible for keeping the Harijans at an appropriate distance. Their low social status is emphasized not only by spatial factors, but also by other things. After the Katha, when the Prasad (food) was being given out, it was done by Brahmins (see pages 64 and 65). The Brahmins were the first to receive it and they were also recipients of greater amounts. At this time too, a clear segregation was maintained by the two groups. The Harijan children were told not to get too close to the Pundit when they were being given something.

In all this, the point seems to have been not merely to maintain the maximum distance between members of the high and low castes, but to represent a social structure in spatial terms. In other words, distance is not the only aspect of space that was used here. For example, there was a great deal of emphasis on separate areas. There was a separate matting for people who were supposed to keep a distance from each other. It is irrelevant how close they are, as long as they are separate. Presumably, there need have been only one mat for the sponsor, and the two women who were sitting behind the sponsor (see photograph 1, page 61), but there were two. This is clearly important because they were touching each other.

Another feature of space that seemed important was the threshold, as something which divides two spaces. The Harijans could not cross the threshold after the Katha had been set up. During the Katha also, they were not allowed generally to step on the threshold.

Last, the Brahmins, literally as well as figuratively, occupied a higher position. The important men of the village were given chairs

and a charpai to sit on (see photograph 11, page 63, and photograph 15, page 64). This is generally a mark of high social status.

In conclusion, space is used multidimensionally to depict a certain social structure. The Katha ceremony is a ritual which highlights this relationship between spatial behavior and social structure. This relationship, however, is not limited to such ritual ceremonies alone, but cuts across many other types of social encounters too.

There are other situations in which this type of behavior may be observed also.

There was one other occasion in which a slightly ritualistic form of behavior was involved (as described on page 38). This consisted of giving food to two Brahmins and two Harijans. The distribution of food and seating were arranged by a Brahmin woman who was a resident of the village. Photographs 1, 2, and 3 on page 73 illustrate the seating pattern in this case. The Brahmins are again marked in red and the Harijans are marked in black ink. The physical distance was about 20 feet, but more important, the Brahmins were seated on a charpai and the two Harijan children were seated on the ground. This was in a Brahmin home, but the Brahmins would have been given a chairpai even if it had been a Harijan home, and the Harijans would have sat on the ground.

Taking food and the preparation of food are marked by very strict observance of spatial boundaries. In a Brahmin home, if 'kachcha' (without butter) food is being cooked, people of other castes are not allowed in the kitchen. This is not so if 'pukka' food is being cooked. But Harijans are not allowed in no matter what kind of food is being cooked. It was possible for the investigator to observe this while she was staying with a Brahmin woman in the village of Bhilampur. Photograph

4 on page 73 is marked to illustrate the area which is taboo. The Harijan servants were given food by the mistress of the house. The servant placed his tray on the lower level marked A and sat down on the opposite end of the courtyard to eat his food. The girl in the picture who came to wash the dishes (she was not a Harijan) was not allowed beyond the line marked B.

Some Casual Social Encounters

Photographs 5 and 6 were taken while the investigator observed some people in casual social situations (see page 74). In both photographs, the distance between the Brahmin and the Harijan is clearly greater than that between a Brahmin and a member of some other caste (marked in green). During all the time spent in the villages, the investigator did not observe a single example of a Harijan sitting on a charpai while a Brahmin was present. This came out in the questionnaire responses also.

2



My Mother in Chilumpan. She is sitting
4

1



3



6



School actors in Philadelphia, 1958

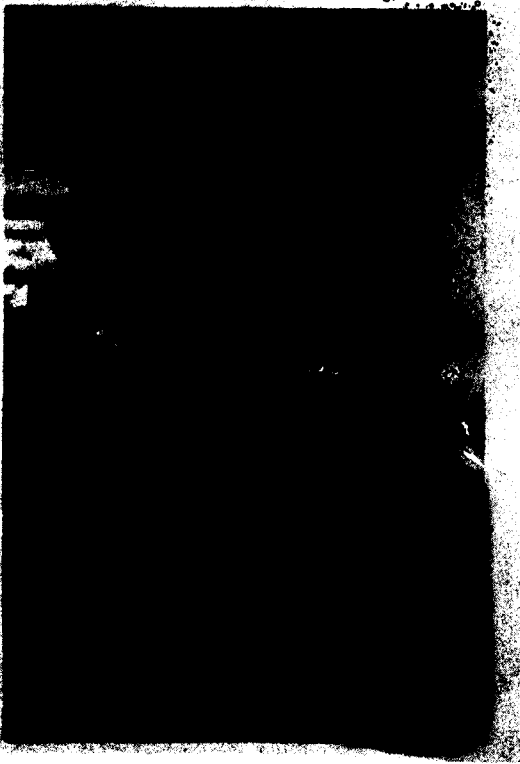
8

5



7

10



12



9



11



The last two examples to be described are particularly interesting because in these encounters it is claimed that one forgets about what caste one belongs to. The first was an encounter between the local school masters, one of whom was a Harijan while the rest were Brahmins. Photograph 7 was taken at the request of the school teachers. Both the accomplices in the study were invited to join in. The Brahmin was asked to sit with 'his own group' while the Harijan by implication stood with a member of his group. The difference here is obvious. Photograph 8 was taken while the four teachers were sitting around during a break. The Harijan is sitting quite apart from the others, while the Brahmins form a separate group. It is almost as though, even if he sits on the same plane, he has to maintain a greater distance.

The second example of the occasions on which caste is supposed to be disregarded is around the 'tapta' (a fire) during the wintertime. Everyone sits around a fire which is built on the ground. However, there are rules to be observed here also. If a Brahmin comes, one gives him something to sit on, even if it means depriving oneself. Photographs 9 through 12 show the seating pattern, when two Brahmins and a Baniya joined Ramdev (the Harijan accomplice) around a fire. The four photographs were taken from different angles and they indicate that the distance between members of the same castes is smaller than the distance between members of different castes, especially if one of them is a Harijan.

As was said earlier, spatial behavior varies along caste lines not only in limited situations such as the Katha ceremony, but in many other situations. The incidents described here also indicate clearly

that distance is only one of the dimensions along which spatial behavior may be investigated. The high status associated with being a Brahmin is emphasized by a 'higher' seat. This hierarchical relationship between the Brahmins and the Harijans is a general feature of village life and spatial behavior is only one of the ways in which it may be expressed. It is part of the very fabric of life in most Indian villages.

Discussion and Summary

The caste system of India is a hierarchical system in which various castes occupy a high or low position, the highest in most cases being the Brahmins and the lowest being the Harijans. Although the exact position of any caste on a scale of hierarchy may vary from one region to another, the pattern is found in most Indian villages. It regulates many aspects of social contact in village life. Results presented in the previous section show that the distance implicit in the hierarchy can be expressed in spatial terms. The results also showed to a certain extent that both castes recognize regulation of spatial behavior in terms of caste membership. For example, when the accomplice approached the subject and sat down very close to him, members of both castes showed discomfort if the accomplice did not belong to the same caste as themselves. During the Katha ceremony, the seating pattern was not enforced but was followed by everyone automatically.

There is some indication, however, that Harijans make more adjustments in this respect than Brahmins do. It is as though the Brahmins were secure in their position that the Harijans would not step beyond their limits. If they are asked whether they enforce certain seating patterns, they generally say that they do not have to. Also, if a Harijan is sitting on a charpai, it is they who have to stand up and squat on the ground. Questionnaire responses to informal questions indicate that they are aware that if they do not follow the custom of thus paying respect to a member of the higher caste, there will be repercussions. It appears that there are two mechanisms which maintain the proper social distance as observed in spatial behavior.

1. Both castes withdraw if a member of the other caste gets too close. The Brahmins withdraw because they do not want to be touched by a Harijan, and the Harijans withdraw because they do not want to touch a Brahmin.
2. Although most people follow the general custom, there is fear of reprisal if a Harijan gets too close to a Brahmin and does not pay him the proper respect. It would seem that this is indirectly a form of enforcement.

Distance has been the main dimension along which spatial behavior has been generally investigated. It was observed that distance is only one dimension which can be used to convey status differences. One is the level at which a person is seated. Harijans and Brahmins do not sit on the same level. In fact it is customary even among members of higher castes than the Harijans to occupy the foot end of the bed and let a Brahmin sit on the 'head' end of a charpai. The other factor was the observance of boundaries. In the Katha ceremony, it was very critical that separate mats be provided for the various people present. Similarly, in the kitchen in any Brahmin home, the absolute distance does not matter as long as the person stays 'outside' the threshold.

It may be that these other aspects of space are not so important in other cultures but it is worthwhile investigating some of these factors in other hierarchical societies.

There are some interesting aspects of the universality of these practices which are relevant if one is to make any general statements based on the present study. The various caste practices are suspended to a certain extent when a person goes outside the particular village of which he is a resident. The reason for this is obvious; cities are structured differently and social life in the cities is also conducted

along different lines. For example, if one is waiting for a bus which is already crowded, one is not going to ask what caste anyone else belongs to. Also, if people do not know each other, they can hardly enforce any rules of conduct based on caste lines. These behaviors are relevant and meaningful only when they are viewed against the background of a village people who are known to each other and are in a position to exercise some control by common sanctions.

This factor had a distinct effect on the standardized setting in which the investigator observed spatial behavior. The laboratory situation was viewed by the residents of the villages not as a normal occurrence but in the context of behavior in the city and therefore outside the village. To a certain extent, the experimental setup was viewed as alien territory, and behavior was modified accordingly. By the very act of sitting on the bench rather than squatting on the floor, the Harijan accomplice provided a framework which is not normal for the village. In other words, the behavior of the subjects was modified to comply with the unstated demands of the outsiders. The maximum distance was defined by the length of the bench, and this may have tended to reduce distance between people. The distances observed in the natural situations were much greater because people there were free of outside influence and other dimensions of space could also be used.

There are many advantages in studying the caste system through spatial behavior, the chief one being that people are relatively unaware of their use of space. They are not likely to disguise their behavior to produce socially more acceptable responses. There is considerable pressure from the government to abolish the caste system and this pressure has produced some results. It is in just this type of ingrained

and spontaneous behavior that the real change in attitudes can be measured.

At this point some of the underlying rules of spatial behavior that were observed in the present study can be summarized as follows:

1. Physical distance is used by people to express psychological distance in everyday interaction among people. People tend to stay further away from people towards whom they feel a psychological distance. This was observed in the behavior of Brahmins and Harijans in the standardized setting as well as in the natural setting in which behavior normally occurs.

2. Differences in social status, as in the caste system in India, may be expressed spatially not only in terms of distance, but along other dimensions. The Brahmins literally occupied a 'higher' position than Harijans did. One might say that any aspect of space which can be used to indicate superiority of status will be generally used - e.g., the use of chairs or charpais by Brahmins and the use of the bare ground by the Harijans.

3. In those cases where actual distance is not used to introduce discriminations of social status, the use of boundaries was observed - e.g., the use of separate mats in the Katha ceremony, where the emphasis was on separation. Another instance in which this was observed was the kitchen of the investigator's hostess in Bhilampur. The critical factor was what defined 'inside' and 'outside' the kitchen area.

4. A comparison of the spatial rules in the Katha ceremony and casual social encounters reveals that some aspects of spatial behavior become ritualized and therefore consciously recognized and enforced, while some are implicit rules of behavior. The Katha as a religious

ceremony is ritualized and the different arrangements for seating of different castes are ritualized as well. Such spatial rules are likely to persist as long as the ritual is kept alive to the extent that the spatial rules are part of the ritual. They are likely to persist even after the reason for their existence in terms of the general social structure no longer exists. This is not to say however, that the ritualized aspects of spatial behavior are rigid and completely impervious to change. For example, the investigator observed that a Katha ceremony held in Lucknow did not yield the same pattern of seating arrangements. There was much less emphasis on segregating the caste of the people who had come to the Katha.

Last of all, the study provides some cross-cultural basis for the theory of spatial behavior. Sommer and Hall have presented ideas about the relationship of social structure and spatial behavior. This study supports these ideas. Of course, caste is not the only factor which influences spatial behavior. Analogous factors in other societies may be social class, ethnic groups, and other forms of status differentiation. To the extent that there is some generality in these phenomena, sex may be an important dimension of social relationships which may influence spatial behavior in the same way as caste membership does. The scope for studies in spatial behavior is as wide as the possible ways of stratifying society.

Appendix

RECORD SHEET

Name: Serial No.: Dtg. Film No.:

Discrete Periods: Photographs Shot No.:
taken at (min)

I. 0-4.50 (Initial waiting period for the S) 3

A. Does the S remove his shoes before sitting down?

Yes No Does not wear shoes

B. Does the S take the lead in the conversation?

Yes No Not certain

II. 5-7.50 min. (Period during which S looks at 5
two pictures) 7.5

A. Does S move voluntarily or only when asked?

Voluntarily When asked Does not move

B. Does S take the pictures from the A instead of moving closer?

Yes No

C. Does S touch A?

Yes No
(Seems unconcerned) (Is anxious to avoid contact)

III. 8.50-10.00 min. (Period immediately after A 10
has sat down 5 inches away from S)

A. Does S move away?

Yes Latency No

B. Does S shift around or collect his clothes?

Yes No

C. Does S ask A to move away?

Yes No

IV. 30-32 (After the interview) 30

A. Does S sit closer to the A?

Closer Farther Same place

B. Where does S sit for the interview?

Chair Stool On the floor

Any Other Observation -

(Swadesh S. Grant)

Date: _____

References

- Altman, I., Territorial behavior in humans: An analysis of the concept. L. Pastalan and D. Carson (Eds.). Spatial behavior of older people. University of Michigan Press, 1970.
- Campbell, D.T., Kruskal, W.H., and Wallace, W.P., Seating aggregation as an index of attitude. Sociometry, 1966, 29 (1), 1-5.
- Cohn, B.S., The changing status of a depressed caste. In McKim Marriott (Ed.) Village India, University of Chicago Press, 1969.
- Gough, E.K., The social structure of a Tanjore village. In McKim Marriott (Ed.) Village India.
- Hall, E.T., The Silent Language, Garden City, N.Y., Doubleday, 1959.
- _____, The Hidden Dimension, Garden City, N.Y., Doubleday, 1966.
- Hearn, G., Leadership and the spatial factor in small groups. J. Abnorm. Soc. Psychol., 1957, 54, 269-272.
- Hutton, J.H., Caste in India: Its nature, function and designs, 4th Ed. Oxford University Press, Bombay, India, 1969.
- Leibman, M., The effects of sex and race norms on personal space. Environment and Space, 1970, 2 (2), 208-246.
- Lett, E.E., Clark, W., and Altman, I., A propositional inventory of research on interpersonal distance. Report (unpublished) No. 1, May 1969, N.M.R.I. Bethesda, Maryland.
- Little, K.B., Ulehla, F.J., and Henderson, C., Value congruence and interaction distance. J. Soc. Psychol., 1968, 75 (2), 249-253.
- Lott, B.S., and Sommer, R., Seating arrangements and status. J. Pers. and Soc. Psychol., 1967, 7 (1), 90-95.
- Paranjpe, A.C., Caste, prejudice and the individual. Lalvani Publishing House, Bombay, India, 1970.
- Sommer, R., Studies in personal space. Sociometry, 1959, 22, 247-260.
- _____, The distance for comfortable conversation: A further study. Sociometry, 1962, 25.
- _____, and Ross, H., Social interaction in a geriatrics ward. Intl. J. Soc. Psychol., 1958, 4, 128-133.
- _____, Personal space: The behavioral basis for design. Prentice-Hall, Inc., Englewood Cliffs, N.J., 1969.

Srinivas, M.N., The social system of a Mysore village. In McKim
Mariott (Ed.) Village India.

_____, Social change in modern India. University of California
Press, California, 1969.

Steinzor, B., The spatial factor in face to face discussion groups.
J. Abnorm. Soc. Psychol., 1950, 45, 552-555.

Strodtbeck, F.L., and Hook, L.H., The social dimensions of a twelve-man
jury table. Sociometry, 1961, 24, 397-415.