CHAPTER - 4

A PERSONAL SPACE AS A FUNCTION OF TOPIC INTIMACY, FAMILIARITY AND SEX OF DYADS

The study was designed to test the idea that under conditions of high topic intimacy, strangers are uncomfortable and compensate, but friends react by increasing the intimacy of the encounter. Hall (1966) proposed that intimate topics are discussed at closer proximity than superficial topics, but intimate topics may be uncomfortable for strangers.

Expectancy - Discrepancy model of Patterson (1982) explains that individual's pattern of interaction may be of two types:

Positive-Interactions: Which include positive gesture, postures, forward leaning, smiling, clinging etc.

Negative - Interactions: Which include negative gestures and postures, backward leaning, avoidance etc. Positive interactions depend on liking towards each other and the degree of familiarity. Fisher (1981) categorized the friendship patterns into four types:

1. Uninvolved friendship that are neither intimate nor especially friendly.
2. Friendship that center mostly around activities but involve little intimacy.
3. Friendships that include sharing and closeness but not much mutual activities.
4. Intimate and integrated friendship that involves intimacy, high self-disclosure and friendliness.

The most striking thing about friendship among adolescents is the fact that friendship seems to be more central in the lives of girls than of boys. Girls report being more strongly attached to their girl friends with higher levels of giving, sharing and trust while boys apparently spend less time sharing secrets and discussing feelings (Altman, 1975).

Familiarity and mutual disclosure play a leading role in the life of every individual but unfortunately, only a few researches have been done in these areas, especially in Indian context, hence, in the present study investigator tried to find out the effect of the degree of self-disclosure (i.e. topic intimacy, high vs. low) and the degree of familiarity (i.e. friends vs. strangers) and their interaction effect on personal space requirements for the same and opposite simulated sex dyads.

Problem:- To study the effect of topic - intimacy, familiarity and sex on personal space requirements.
Objectives:-
(1) To study the effect of topic-intimacy on personal space requirements.
(2) To study the effect of familiarity between members of the dyads on personal space.
(3) To compare the personal space requirements for female-female and male-female dyads.
(4) To study the interaction effects of different variables as corrolaries to the main objectives.

Hypotheses:
(A) High topic intimacy would lead to the smaller personal space requirements as compared to low topic intimacy.
(B) Personal space requirements would increase with the increasing degree of familiarity between the simulated sex dyads.
(C) Female-female dyads would maintain lesser personal space than male-female dyads.
(D) High familiarity between members of the dyads while discussing high intimacy topics would lead to smaller personal space requirements than low degree of familiarity with low topic intimacy.
(E) The higher the topic intimacy the lesser would be the personal space requirements for same sex dyads.
(F) During interaction with same sex dyad (as against the opposite sex dyad), the higher the degree of familiarity the lesser would be the personal space requirements.
(G) The higher the degree of familiarity and topic intimacy the lesser would be the personal space for interacting with same sex dyads.

Subjects: 160 P.G. and B.Ed. students from Dayalbagh Educational Institute and Baikunthi Devi Kanya Mahavidyalaya, Agra served as subjects.

Middle economic status subjects were selected on the basis of the income of their parents/guardians reported in college records. All subjects were Hindu. An equal number of subjects were assigned randomly to each combination of variables i.e. familiarity, topic intimacy, and sex of the dyads.

DESIGN

2x2x2 factorial design was used with its two levels i.e. high and low topic-intimacy and second variable was familiarity having its two levels i.e. friends and strangers and third variable was different combinations of simulated sex dyads i.e. female-female and female-male.
20 subjects were randomly placed in each cell as per design given below:

<table>
<thead>
<tr>
<th>Familiarity</th>
<th>Friend</th>
<th>Stranger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulated Sex-Dyads</td>
<td>Same</td>
<td>Opposite</td>
</tr>
<tr>
<td>Topic- High</td>
<td>20 Ss</td>
<td>20 Ss</td>
</tr>
<tr>
<td>Intimacy Low</td>
<td>20 Ss</td>
<td>20 Ss</td>
</tr>
</tbody>
</table>

Variables

**Independent Variables**

**Topic-Intimacy:** It is related to the increasing level of privacy and self disclosure. Private topics are termed as intimate topics while general topics are called superficial topics. The higher the privacy, more intimate the topic will be.

**Familiarity:** It is related to the pattern of friendship. Highly familiar person is known as friend, next comes acquaintances and strangers. (C) Sex dyads (Female-Female, Male-Female).

**Dependent-Variables**

Comfortable Interpersonal Distance or personal space of the subjects.

**Tool:** In the present study Duke & Nowicki (1972) Interpersonal distance test was used to measure personal space for the simulated sex dyads. The contents of this test have been described in earlier study mentioned in chapter -3

**Procedure:** A pilot study was conducted to determine the intimacy level of the topics. These topics were to be placed before the subjects to assess the personal space while discussing high and low intimate topics with friends and strangers. For this the investigator selected 20 topics through the discussions with the teachers and students of Psychology deptt. and the self disclosure questionnaire developed by Jourard (1971).

A random pool of 40 subjects were instructed to give appropriate ranks from 1 to 20 to selected 20 topics according to the level of intimacy (i.e. How personal or private the topics are?)

After collecting subject's responses the ranks were averaged. On the basis of mean ranks three topics having highest ranks and three topics having lowest ranks were selected for further administration (Appendix-4).
Next, Comfortable Interpersonal-Distance test was administered to measure the personal space. During administration instructions to the subjects were read as follows “Imagine that you are at the centre of your room (indicating the centre point of the graph) and someone has come to meet you. Suppose the person you meet is (a) your friend of same/opposite sex (b) a stranger of same/opposite sex for discussing high intimacy topics with you (The topics were selected on the basis of intimacy ratings done in pilot study by the investigator) e.g. what are the actions you have regretted doing in your life and why? and low intimate topics e.g. what are your hobbies? etc. (Appendix-4). This figure is you (experimenter indicates first doll (A) already in the centre position on the graph) and the second doll (B) is the person who wants to meet you (experimenter gives second doll (B) to the subjects). Imagine, that you and that person talks together for a while (in the condition referred to above).

Place yourself as closely as possible for talking together without being uncomfortable”.

When the subjects had made the placement, she was given doll (B) again and the same instructions were repeated for rest of the seven directions and each time the distances between the dolls (A & B) was measured. The mean personal space was calculated by averaging the personal space scores of eight placements (i.e. distances between doll (A) and (B) for eight different directions).

**INTERPRETATION OF RESULTS**

The data of the present study were analysed by computing analysis of variance to see the main effects of topic - intimacy, familiarity between dyads and sex of the dyads on personal space. Three two way and one three way interaction effects of the variables under study were calculated.

**EFFECT OF TOPIC INTIMACY ON PERSONAL SPACE**

The first objective of the present study was to see the effect of topic intimacy on personal space.

**TABLE - 1**

<table>
<thead>
<tr>
<th>Topic - Intimacy</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Personal Space Scores (in cms)</td>
<td>6.22</td>
<td>11.69</td>
</tr>
</tbody>
</table>

Table-1 shows that the mean values of personal space scores (in cms) for high and low topic intimacy were 6.22 cms. and 11.69 cms. respectively. These values show that subjects preferred lesser personal space for discussing high intimate topics as compared to low intimate topics.
A perusal of the table-2 confirmed the predicted difference between the personal space scores of the subjects for discussing high and low intimate topics, $F(1,152) = 343.49, p < 0.01$. Subjects preferred significantly lesser personal space requirements for discussing high intimacy topics as compared to low topic-intimacy. The result supports the hypothesis (Graph 4.1).

### TABLE - 2
**SUMMARY : ANALYSIS OF VARIANCE**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sums of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic-Intimacy (A)</td>
<td>1198.44</td>
<td>1</td>
<td>1198.44</td>
<td>343.49</td>
<td>$p &lt; 0.01$</td>
</tr>
<tr>
<td>Familiarity (B)</td>
<td>556.27</td>
<td>1</td>
<td>556.27</td>
<td>159.39</td>
<td>$p &lt; 0.01$</td>
</tr>
<tr>
<td>Sex (C)</td>
<td>947.52</td>
<td>1</td>
<td>947.52</td>
<td>271.49</td>
<td>$p &lt; 0.01$</td>
</tr>
<tr>
<td>Topic-Intimacy x Familiarity (AB)</td>
<td>2.79</td>
<td>1</td>
<td>2.79</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>Topic-Intimacy x Sex Dyads (AC)</td>
<td>52.20</td>
<td>1</td>
<td>52.20</td>
<td>14.96</td>
<td>$p &lt; 0.01$</td>
</tr>
<tr>
<td>Familiarity x Sex Dyads (BC)</td>
<td>27.52</td>
<td>1</td>
<td>27.52</td>
<td>7.89</td>
<td>$p &lt; 0.01$</td>
</tr>
<tr>
<td>Topic-Intimacy x Familiarity x Sex Dyads (ABC)</td>
<td>331.86</td>
<td>1</td>
<td>331.86</td>
<td>95.01</td>
<td>$p &lt; 0.01$</td>
</tr>
<tr>
<td>Within Groups</td>
<td>530.36</td>
<td>152</td>
<td>3.49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EFFECT OF FAMILIARITY ON PERSONAL SPACE**

Mean values of personal space scores for interactions with friends and strangers were 7.09 cms and 10.82 cms, respectively (Table-3).

### TABLE - 3
**PERSONAL SPACE SCORES FOR FRIENDS AND STRANGERS**

<table>
<thead>
<tr>
<th>Familiarity</th>
<th>Mean Personal Space Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend</td>
<td>7.09</td>
</tr>
<tr>
<td>Stranger</td>
<td>10.82</td>
</tr>
</tbody>
</table>

Table-2 depicts that subjects preferred to maintain significantly lesser personal space for friends as compared to strangers, $F(1,152) = 159.39, p < 0.01$.

Thus, hypothesis was accepted i.e. personal space decreases with the increase in the level of familiarity (Graph 4.2).
PERSONAL SPACE SCORES FOR DIFFERENT LEVELS OF TOPIC INTIMACY

Fig. 4.1
PERSONAL SPACE SCORES FOR FRIENDS AND STRANGERS

Fig. 4.2
PERSONAL SPACE SCORES FOR INTERACTION BETWEEN SAME AND OPPOSITE SEX DYADS

Personal space scores were found to be significantly affected by the sex of the interacting dyads, $F(1,152) = 271.49, p < 0.01$ (Table-2). Mean values of personal space scores for same and opposite sex dyads ($m = 6.53\text{cms. vs. 11.39\text{cms.}}$) showed that same sex dyads maintained significantly lesser personal space than opposite sex dyads (Table-4) (Graph 4.3).

### Table - 4
**MEAN PERSONAL SPACE SCORES (in cms) AS A FUNCTION OF THE SEX OF THE DYADS**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Dyads</th>
<th>Same</th>
<th>Opposite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Personal Space Scores (in cms)</td>
<td>6.53</td>
<td>11.39</td>
<td></td>
</tr>
</tbody>
</table>

Thus, hypothesis was accepted i.e. female-female dyads would maintain lesser personal space than male-female dyads.

**INTERACTION EFFECT OF TOPIC INTIMACY AND FAMILIARITY ON PERSONAL SPACE**

Mean personal space scores for discussing high and low intimate topics with friends were 4.49 cms. and 9.69 cms. and with strangers 7.96 cms. and 13.69 cms. (Table-5) respectively (Graph 4.4). The mean values show that high intimate topics are always discussed at smaller interpersonal distances irrespective of their level of familiarity.

### Table - 5
**MEAN PERSONAL SPACE SCORES (in cms) AS A FUNCTION OF FAMILIARITY & TOPIC INTIMACY**

<table>
<thead>
<tr>
<th>Topic Intimacy</th>
<th>Friend</th>
<th>Stranger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>4.49</td>
<td>7.96</td>
</tr>
<tr>
<td>Low</td>
<td>9.69</td>
<td>13.69</td>
</tr>
</tbody>
</table>

Table-2 depicts that interaction effect of familiarity and topic-intimacy was not found significant, $F(1,152) = 0.79, p > 0.05$. Thus hypothesis was rejected that high familiarity between members of the dyads for discussing high intimacy topics would lead to smaller personal space requirements than low degree of familiarity with either high or low topic intimacy.
MEAN PERSONAL SPACE SCORES (in cms.)
AS A FUNCTION OF THE SEX OF THE DYADS

Fig. 4.3
A X B INTERACTION EFFECT ON PERSONAL SPACE SCORES

Friend

Stranger

FAMILIARITY

HIGH

LOW

A = TOPIC-INTIMACY

B = FAMILIARITY

Fig. 4.4
INTERACTION EFFECT OF TOPIC INTIMACY AND SEX DYADS ON PERSONAL SPACE:

Table-2 shows that interaction effect of topic intimacy and sex of the dyads on personal space scores was significant, $F(1,152) = 14.96$, $p < 0.01$.

**TABLE-6**

MEAN PERSONAL SPACE SCORES (in cms)

<table>
<thead>
<tr>
<th>Topic - Intimacy</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
<td>4.36</td>
<td>8.68</td>
</tr>
<tr>
<td>Opposite</td>
<td>8.08</td>
<td>14.70</td>
</tr>
</tbody>
</table>

A look at the mean scores of personal space shows that subjects required 4.36 ems. and 8.68 ems. for same sex dyads for high and low topic intimacy and 8.08 ems., 14.70 ems. for opposite sex dyads for high and low topic intimacy (Table-6, Graph 4.5). This reveals that subjects placed self doll at closest distance with same sex dyad during high topic intimacy as compared to rest of the groups. Thus the results support the hypothesis.

INTERACTION EFFECT OF SEX DYADS AND FAMILIARITY ON PERSONAL SPACE

In order to study the extent of differences between mean personal space scores of the subjects having discussions with friends and strangers of same and opposite sex mean personal space scores were calculated. 5.08 cms., 9.11 cms. mean personal space scores were found between friends of same and opposite sex dyads respectively whereas 7.97 cms., 13.97 cms. mean personal space scores between strangers of same and opposite sex dyads were found. Thus it is evident that the subjects preferred to maintain least personal space scores for interaction with friends of same sex dyads & showed maximum personal space requirements for interaction with strangers of opposite sex dyads (Table-7, Graph 4.6).

**TABLE - 7**

MEAN PERSONAL SPACE SCORES AS A FUNCTION OF THE DEGREE OF FAMILIARITY & SEX OF THE DYADS

<table>
<thead>
<tr>
<th>Familiarity</th>
<th>Sex - Dyads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend</td>
<td>Same 5.08</td>
</tr>
<tr>
<td>Stranger</td>
<td>Opposite 9.11</td>
</tr>
</tbody>
</table>

A perusal of table-7 confirmed that subjects maintained significantly least personal space for interaction with friends of same sex dyads, followed by strangers of same sex dyads, friends of opposite sex dyads & strangers of opposite sex dyads, $F(1,152) = 7.89$, $p < 0.01$ (table - 2). Thus the hypothesis is supported by the results of
Fig. 4.5

A X C INTERACTION EFFECT

SEX-DYADS

---

High

Low

Same  Opposite

A = TOPIC-INTIMACY
C = SEX-DYADS
B X C INTERACTION EFFECT
ON PERSONAL SPACE SCORES

SEX DYADS

Friend

Stranger

Fig. 4.6

B = FAMILIARITY

C = SEX-DYADS
the present study i.e. during interaction with same sex dyads (as against the opposite sex dyads), the higher the degree of familiarity between members of the dyads the lesser would be the personal space requirement.

INTERACTION EFFECT OF FAMILIARITY, TOPIC INTIMACY AND SEX DYADS ON PERSONAL SPACE

Mean personal space requirements of subjects for interactions with friends and strangers of same and opposite sex dyads for high and low topic intimacy were calculated and the obtained values were 1.61 cms. and 8.55 cms. for friends, 7.12 cms. and 8.83 cms. for strangers of same sex dyads, likewise 7.38 cms. and 10.85 cms. for interactions with friends and 8.79 cms. & 18.55 cms. for strangers of opposite sex dyad during conversation of high and low topic intimacy respectively (Table-8).

<table>
<thead>
<tr>
<th>TABLE - 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN VALUES OF PERSONAL SPACE SCORES (in cms.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Sex - Dyads</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Same</td>
<td>Opposite</td>
</tr>
<tr>
<td>Topic Intimacy</td>
<td>Friends</td>
<td>Strangers</td>
</tr>
<tr>
<td>High</td>
<td>1.61</td>
<td>7.12</td>
</tr>
<tr>
<td>Low</td>
<td>8.55</td>
<td>8.83</td>
</tr>
</tbody>
</table>

Table-2 revealed that there was a significant interaction effect of topic-intimacy, familiarity and simulated sex dyads on personal space, $F (1,152) = 95.01$, $p < 0.01$.

Thus, the result support the hypothesis that the higher the degree of familiarity and topic intimacy the lesser would be the personal space for interacting with same sex dyads (Graph 4.7 (a) and Graph 4.7 (b)).

DISCUSSION

The results of present study depicted that subjects preferred to maintain significantly lesser personal space during high topic intimacy (high level of disclosure) as compared to low topic intimacy. The reason for this might be that subjects wanted to disclose their secrets before someone whom they trust, they want their conversation not to be overheard by others for fear of getting their secrets disclosed, so that the two interactants draw physically closer and talk in low pitch.

In line with the present investigation - regarding the personal space approach Altman & Taylor (1973) have discussed that unnecessary openness of an individual increases vulnerability, exposure and the potential
A x B x C INTERACTION EFFECT
(SAME SEX DYADS)

Fig. 4.7(a)

A = TOPIC-INTIMACY
B = FAMILIARITY
C = SAME SEX DYADS
A x B x C interaction effect on mean personal space scores (in cms.) (opposite sex dyads)

Fig. 4.7(b)
loss of individuality and dignity. Schultz and Barefoot (1974) found that increasing distance was associated with less topic intimacy and more speaking about general topics.

It is also important to note that subjects maintained lesser personal space with friends as compared to strangers. The reason for this might be that subjects felt more comfortable and at ease while interacting with friends, on the other hand they showed a tendency to avoid simulated figures of strangers by maintaining more space for retaining their own identity or for fear of penetration into their personal space bubbles. Kaplan & Kaplan's (1984) conflict / intimacy equilibrium model posits that interaction with strangers causes greater feelings of compensation in order to restore the desired level of privacy.

The other finding of the present investigation was that subjects preferred to maintain lesser personal space with same sex dyads as compared to opposite sex dyads. The adolescent girls in Indian society are restricted to mix freely with opposite sex. So generally they develop close friendship with same sex others and avoid closeness with opposite sex others. A number of studies support the findings of the present study. Dosy & Meisels (1969); Griffit, May & Veitch (1974); Sinha & Mukherjee (1990) have found that females generally approach to another female closer and involve themselves in more intimate relationships as compared to opposite sex dyads.

It is evident from the results of the present study that subjects preferred to maintain least personal space with same sex dyads (simulated) during high topic intimacy while maximum personal space with opposite sex dyads during low topic intimacy.

Argyle & Dean (1965) postulated that level of intimacy is not a single factor but a joint function of familiarity and self disclosure i.e. it depends how familiar the person is (close friend vs. acquaintance vs. stranger) and how private the topic is.

In line with these results Barnard & Bell (1982); Skotko & Langmeyer (1977) found that females are more affiliative and want to approach closer to a female than they approach to a male, and females disclose more with females and as a result personal space decreases. Another finding of empirical importance involves the combined effect of familiarity and sex dyads on personal space scores. Subjects preferred to maintain least personal space with same sex dyads while maximum personal space with strangers of opposite sex dyads (Stokes, Fuehner & Childs, 1980).

Though there was found to be an insignificant interaction effect of familiarity and topic intimacy, but it was also evident from the results that subjects preferred to maintain least personal space with friends (simulated figures) during high topic intimacy while maximum personal space with strangers during low topic intimacy. Friends approach each other and feel more warmth for sharing each other's secrets and feeling while strangers compensate during high level of disclosure (Sundstrom and Altman, 1976). These results are congruent with the hypothesis that the higher the degree of familiarity and topic intimacy the lesser would be the personal space for interacting with
same sex dyads. Regarding the personal space approach, Hall (1966) posits that a man is characterized by a series of concentric circles or bubbles. These bubbles are portable and expand / contract according to the level of familiarity, topic intimacy and liked sex figures.

Females generally disclose more to a friend of same sex figure (Selby & Calhoun, 1980) than a stranger of opposite sex figure. Personal concerns, individual goals and familiarity also affect individuals' pattern of interactions, beliefs and attitudes about environmental hazards and resources (De Young, 1986; Levi & Holder, 1986; Newman, 1986). In sum, it may be concluded that:

(A) Personal space decreased with the increase in the topic intimacy.

(B) The higher the degree of familiarity between the members of dyads the lesser was the personal space between dyads.

(C) Lesser personal space was maintained between members of simulated same sex dyads than between the members of simulated opposite sex dyads.

(D) Subjects preferred to maintain least personal space for discussing high intimacy topics with simulated same sex dyads, while maximum personal space was required to converse low intimacy topics with simulated opposite sex dyads.

(E) Subjects preferred to maintain least personal space to interact with friends of same sex and maximum personal space to interact with strangers of opposite sex.

(F) Subjects preferred to maintain least personal space with same sex friends during high topic intimacy, while maximum personal space with strangers of opposite sex during low topic intimacy.