

1976) and differentially loaded with information relevant to personal and interpersonal behaviour (McBride and Clancy, 1976).

Yet, despite all the evidence that people do not organize their everyday conduct in terms of Euclidean or objective space, but seem to spend their entire lives within the framework of hodological (behavioural or interactional) space, no research to our knowledge has ever been conducted on the possible relationship between the subjective and objective distances in face-to-face social encounters. Thus, to better understand how individuals organize and manage their behaviours in various settings and situations, it is important to explore the issue of subjective and objective interpersonal spacing systematically.

This paper reports an exploratory investigation of how people's estimations of interpersonal distance in an unfocused interaction in an indoor public setting tends to vary as a function of (a) situation definition, (b) seating arrangement and (c) physical (objective) distance between a subject and stimulus persons. We hypothesized that each of the three main factors, as well as their interaction, would significantly change subjects' perceived interpersonal proximity.

METHOD

Subjects

A total of 36 subjects were tested, 27 of whom were second year Occupational Therapy students and the remaining 9, postgraduate university students. There were 31 females and 5 males, most of whom were in their early 20's (age range, 19-33 years).

Stimulus Material

The stimulus material consisted of a booklet with one page of instructions, three diagrams and three answer sheets. The diagrams drawn to the scale 1:40 were each a birds-eye view of people sitting side by side in orderly rows, facing the same direction. There were nine persons in each of the nine rows of chairs. Each diagram was either described as a picture of people in a cinema, a church or a lecture room in which the room was full of people with whom the subject was not acquainted. Further, the layouts of the rooms were different: either of (a) full block of chairs (9 x 9 people) or (b) the same square block of chairs divided by a horizontal aisle (9 x 4, 9 x 4 people) or (c) the block divided by two vertical aisles (2 x 9, 3 x 9, 2 x 9 people). (See Figure 1). In each case, the observer was told that he (she) was located on the bottom right-hand corner in a clearly marked seating position.

Subjects were required to rate their subjective feelings of proximity relative to 15 other specified people in the room depicted on a given diagram. Ratings were done in terms of percentage of full interpersonal proximity, 100% being closest and 1% being farthest subjective distance.

Design

A latin square design was employed such that every layout (ecology) received every descriptive label so that nine different diagrams were generated. Each subject was randomly assigned to a set of three diagrams so that he judged one of each ecology (seating arrangement) and each situation.

Secondly, the choice of the target people for proximity ratings in each ecology/situation ensured that their real distance was the same irrespective of the layout of chairs. The target (stimulus) people were placed in three different sectors of space relative to the observer (subject): in chairs in front of the subject, in the chairs placed diagonally (at a 45 degree angle) to him, and to the side (to the left) of the observer. Target people were clearly marked by numbers which were listed in a random order on the answer sheets. Reference numbers assigned to the target people were different for each of the diagrams.

Procedure

Subjects were tested individually in the presence of an experimenter, who, at the outset of the experiment, explained any ambiguities. The questionnaire took about 25 minutes to complete. All 36 subjects completed the test successfully and, therefore, all the raw data were subjected to the analysis. The analysis involved finding arithmetic means of all proximity ratings for all combinations of situations and ecologies and evaluation of the statistical significance of differences obtaining between them with the aid of the sign test (Robson, 1973).

Results

The results of the study are presented in the form of Tables 1, 2 and 3.

Table 1 shows ratings of interpersonal proximity expressed as a function of both the situation definition and seating arrangement. These data suggest that subjects perceived others as being seated subjectively closer to each other when the place was defined as a CHURCH (overall mean rating, 46.1) than when the place was defined as a CINEMA (overall mean rating, 42.1). The difference between ratings ascribed to people in these two situations was statistically significant (p less than 0.001). When the place was defined as a LECTURE ROOM, it tended to receive intermediate ratings (overall mean rating, 45.0), but these were not found to differ significantly from proximity ratings associated with the previous two settings.

Table 2 presents data on the differences in perception of interpersonal distance as influenced by the different types of seating arrangements. Of the three ways people were said to be placed in a given setting, the most "immediacy" producing conditions could be seen to arise when chairs were grouped in two clusters comprising four rows each (i.e., ecology type B). The overall mean rating for people