This study examined the effects of age, sex, and setting on interpersonal physical distance (IPD) preferences among 160 1st, 5th, 9th, and 12th grade white public school students. Within each grade, subjects were tested two at a time in same-sex pairs. Subjects' IPD preferences were tested by both direct and indirect modes of measurement in "corner" and "center" settings. Indirect measures were poorly correlated with the direct measures and showed no effects. Analysis of the direct measures showed IPD to be greater among older than among younger children; greater among males than among females; and greater in the corner than in the center setting. There were also significant interactions of age with sex and with setting. Sex differences were less marked among younger than among older subjects. Younger and older subjects reacted differently to the corner and center settings, with the youngest children maintaining closer IPD in the corner setting and all other subjects maintaining closer IPD in the center setting. (Author/CS)
Recent research has tended to regard personal space, or interpersonal physical distance (IPD), as a dynamic area surrounding an individual which expands or contracts under varying conditions and in response to factors which can be examined experimentally (Little, 1965; Duke & Nowicki, 1972). Lett, Clark, and Altman (1969) summarize research findings examining a number of the factors which seem to influence IPD. Among these factors are age, sex, and environmental setting. Although IPD is often regarded as a developmental variable (Bass & Weinstein, 1971), no study has systematically examined distance preferences across a wide age range. The present study was designed to examine the effects of age, sex, and setting upon IPD among 1st, 5th, 9th, and 12th grade children. IPD was expected to be greater among older than among younger children; greater among males than among females; and greater in the corner than in the center of a hallway (Dabbs, Fuller, & Carr, 1973). It was further expected that the sex difference would be less marked among younger than among older children.

Method

Ss were 30 male and 30 female public school children, equally divided among 1st, 5th, 9th, and 12th grade students. Within each grade Ss were tested two at a time in same-sex pairs. Testing was done during the school day in a hallway of the schools attended by the Ss. Direct IPD measures were taken by having one S stand at the end of a 2-meter tape, both in the center of an open hall and with his back to a corner. The S's partner approached slowly along the tape until the S reported that a comfortable conversational distance had been reached. The distance from toe of S to toe of partner was recorded to the nearest .05 meter. Each member of a pair served in turn as stationary S and as approaching partner. Corner and center measures were taken in a counterbalanced order. Such's height then was measured and recorded. Next, indirect IPD measures were taken by having each S indicate his IPD preferences on two paper-and-pencil scale versions of the Duke & Nowicki (1972) comfortable interpersonal distance (CID) scale modified to portray the corner and center settings. In addition, a measure of the degree of acquaintance of the two Ss in the pair was recorded.

Results

The direct measures showed a number of significant effects; indirect measures were less well correlated with the direct measures (within grade r = .35) than was expected on the basis of research reported by Duke & Nowicki (1972) and showed no significant effects of age, sex, or setting. Direct IPD measures from the two members of each pair were found to be significantly correlated with one another (within grade r = .48), apparently as a result of modeling effects. The data therefore were analyzed as mean pair scores rather than as individual scores. A 2 x 4 x 2 analysis of variance of the direct IPD scores was performed with sex and age (school grade) as between-Ss factors and setting (corner vs. center) as a within-Ss factor. IPD was greater for older than younger children (F = 17.62, df = 3/72, p < .001), greater for males than females (F = 14.57, df = 1/72, p < .001), and

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greater for corner than center setting ($F=10.22$, $df=1/72$, $p < .01$). Further, as shown in Fig. 1, both sex and setting differences changed with age. With increasing age the sex difference increased ($F$ (linear interaction) $=4.82$, $df=1/72$, $p < .05$) and $S$s changed from preferring closeness to preferring distance in corners ($F$ (interaction) $=16.24$, $df=3/72$, $p < .001$).

![Figure 1. Effects of age on personal space: interactions with sex and setting](image)

**Discussion**

The effects obtained here provide insight into the development of personal space boundaries of the maturing individual. Boys and girls apparently begin with similar personal space preferences, but before the age of puberty they already have begun to approximate a large degree adult distance patterns. Only the youngest children preferred being closer in the corner than in the open. If less distance in the corner reflects less fear of being "cornered" (Dobbs, Fuller, & Carr, 1973), those youngest children were the most trusting of the lot.

**References**


