

Summer R. Studies in personal space. *Sociometry* 22:247-60, 1959.
[Saskatchewan Hospital, Weyburn, Saskatchewan, Canada]

Patterns of interaction in face-to-face groups were mapped as a function of table arrangement, group size, gender, and mental status. Corner locations were favored for group interaction and neighboring chairs preferred over distant chairs. Schizophrenic individuals showed an impaired concept of social distance. [The Social Sciences Citation Index® (SSCI®) indicates that this paper has been cited in over 160 publications since 1966.]

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"I was working as a psychologist in a large isolated mental hospital in Western Canada. The interior of the building was cavernous, poorly lit, with long corridors, institutional colors, inadequate ventilation, and little soundproofing. The building violated Florence Nightingale's first canon that a hospital do the sick no harm. The superintendent, Humphry Osmond, and I decided that changes in the physical milieu would benefit both patients and staff. When we attempted to learn about the connection between architecture and behavior, we were surprised to find out how little information was available. More was known about the design of zoo cages and chicken coops than about the design of hospital wards. We therefore embarked on a research program to investigate human spatial behavior. We wanted to identify those physical arrangements that would increase social interaction and those which could increase privacy. The studies began on the wards themselves, using patients and staff as subjects, and then were extended into other locations using experimental procedures.

"The article begins with natural observations of groups of people conversing in natural settings. Certain key principles of spatial behavior were identified. To control for the effects of extraneous factors, including previous level of contact, experimental studies were subsequently undertaken in which groups of people were asked to con-

verse at different layouts of tables and chairs. We wanted to determine how group size, gender, and table arrangement would affect spatial relationships. Goals of the study were both practical in seeking to improve ward design and theoretical in investigating human spatial behavior.

"The reasons why the study was so frequently cited relate to the newness of the topic being investigated. The work filled a gap in social psychological theory which tended to overlook the physical conditions under which interaction takes place. The study also filled a need in architecture and the other design fields for behavioral data. Designers were eager for information that could help them create more effective and humane interior spaces. The study also had relevance to the growing interest in nonverbal communication.

"It was not easy to publish the results back in 1959. The editor of the major social psychological journal commented that the paper was 'interesting' and he enjoyed reading it, but he did not feel that the results had anything to do with social psychology. This was true, of course, since social psychological theory and research were dominated by laboratory experimentation and neglectful of the context of interaction. Fortunately, Dick Hill, editor of *Sociometry*, a publication of the American Sociological Association, recognized the importance of the topic and accepted the paper, along with several subsequent articles clarifying and extending the 'original findings. Looking back, I am pleased to observe how well the results have held up over the years. The study has been replicated and extended and a large body of literature in this area has accumulated. More than a thousand papers on personal space have been published since the original article appeared. I remain interested but not current with the work and occasionally undertake some small study typically motivated by student interest in some specific issue. The research laid the basis for a book published ten years after the original article¹ and numerous talks to audiences of architects, planners, and psychologists. The term 'personal space' entered popular usage and is included in the 1980 edition of Bartlett's *Quotations*. More recent reviews of work in the field can be found in Altman² and Holahan.³

1. Sommer R. *Personal space: the behavior basis of design*. Englewood Cliffs, NJ: Prentice-Hall, 1969. 177 p.
2. Altman I. *The environment and social behavior*. Monterey, CA: Brooks/Cole, 1975. 256 p.
3. Holahan C J. *Environmental psychology*. New York: Random House, 1982. 422 p.