

Temporary Territories?: Responses to Intrusions in a Public Setting

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Do people create temporary territories in public settings? To address this question, territorial cognitions and behaviors regarding two types of study sites in a library—tables and carrels—were investigated. In the first questionnaire experiment subjects indicated that: carrel sites were more valuable for studying than table sites; they expected they would be more likely to defend a carrel site than a table site; and the perceived causes of carrel and table invasions differed. In the second field study an experimenter occupied seats that subjects had temporarily vacated. Results supported our hypothesis and the questionnaire results of the first experiment. In the carrel condition subjects were more likely to ask for their seat back than in the table condition. Thus, using the stringent demarcation and defense criterion it appears that people do create temporary territories in public spaces. Furthermore, the results suggest a close covariation between territorial cognitions and behavior, and the importance of desirability of locale for both of these. The implications of the results for territorial typologies, animal-human territorial differences, and future research on human territoriality were outlined.

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A variety of definitions of human territoriality exist ranging from loose, almost metaphorical uses of the concept, to stringent, multiple-criteria definitions. On the loose end of the definitional continuum, Scheflen (1976) has defined a territory as "a unit of space defined for a time by some kind of human behavior." Thus, two people looking at each other are creating a territory. In the midrange of the definitional continuum, a territory has been defined as a space owned or occupied by a person or group, where the occupant(s) perceive that they control access to the space and activities in the space (Edney, 1976a, 1976b; Sundstrom, 1977). On the stringent end of the continuum there are multiple criteria definitions such as that offered by Becker (1973, Becker & Mayo, 1971). He has argued that demarcation and defense must *both* occur to establish that a person is exercising territorial control over a space.

There has been some confusion as to whether or not people create temporary territories in public settings, which is in part due to the varying definitions used by researchers. (In Altman's (1975) terminology, these are *public* territories.) Some research has suggested that temporary territories do exist. In a public setting, people display spatial markers (e.g., Edney & Jordan-Edney, 1974) and these markers serve to delay occupancy of the space by others (Sommer & Becker, 1969; Shaffer & Sadowski, 1975).

While it is clear that people mark occupied spaces in a public setting, the role of these markers has been questioned. Becker (1973) has suggested that markers serve as a warning device for others not to violate the occupant's personal space, and are not related to the locus *per se*. Thus, he suggests that the markers promote jurisdictional control, not territorial control.

Two studies in public spaces have revealed a reluctance on the part of occupants to defend a place. In a library setting Becker (1973) found that occupants made no attempts to defend their table against intruders. In a cafeteria, Becker and Mayo (1971) had confederates invade marked but unoccupied seats, pushing aside the markers of the original occupant. Subjects upon returning did not defend their space by asking for their original seat back; instead, they simply occupied a nearby seat. The authors concluded that "the use of the territorial concept in this situation seems misleading," and "personal distance appears to describe the behavior more accurately because it makes fewer assumptions about the inherent value of

the space" (Becker & Mayo, 1971, p. 380). Nonetheless, before agreeing with the conclusion of Becker and Mayo (1971), two shortcomings of their study should be noted. First, subjects may not have defended the space because alternative seats were easily available; i.e., the space may not have been valuable enough to defend. Second, the invading confederate pushed aside the books of the subject, who was the original occupant. This displacement of markers may have caused confusion for the returning subject.

A notable deficit of most research on public territories is a failure to investigate the value of the contested spaces. It seems likely that defense and/or demarcation behaviors are dependent, in part, on the worth of the space. Some light has been shed on this issue by Shaffer and Sadowski (1975). They found that the consequences of demarcation behaviors are a function of spatial desirability. In a barroom context markers were less effective in delaying occupancy at more valuable spaces, i.e., tables higher in interaction potential.

Given the shortcomings of previous studies, we felt that whether or not people create temporary territories in public settings was still an open issue. We hypothesized that people do create and demarcate such territories, and are willing to defend them, if the spaces are valuable spatial resources.

We investigated expected and actual responses to spatial invasions in a library setting at two types of sites: tables which seated several persons, and carrels which seated only one person. In our study, as in previous studies, defense was simply defined as the original occupant regaining his/her seat by asking for it back.

EXPERIMENT 1

We felt that it would be worthwhile to see if, in fact, carrels are perceived as more valuable than tables by students. Sommer (1968) suggested that carrels provided more privacy and fewer visual distractions, and were thus better places for studying than other places in the library. We wished to determine if students at VPI&SU felt similarly. If carrels were more valued students would prefer a carrel over a table as a place for serious studying, and would pick a table over a carrel as a likely place for meeting

friends. And, if the students do value the carrels more than the tables, they should be more likely to defend against an intruder in a carrel setting.

We also anticipated that table and carrel invasions would be interpreted differently. Since there are several places to sit at a table and no clear boundary between the places, a person could take your seat at a table by mistake because he forgot where he was, or simply failed to notice the occupant's items. In a carrel, however, there is room for only one person and there are clear architectural boundaries between the different carrels. Thus, if someone took your seat in a carrel it is unlikely that he forgot where he was, or failed to notice your markers. Given the boundedness and size of the carrel, we expected that invasions would appear more deliberate, and an intruder might be seen as being rude and pushy.

In order to test these hypotheses we developed a questionnaire which asked about the qualities of various spaces in the library, and asked how people would respond to and interpret invasions of these various spaces.

METHOD

Subjects

Twenty-eight undergraduates at VPI&SU (14 males and 14 females) taking introductory psychology volunteered to participate in the experiment. For their participation they earned extra course credit.

Procedure

Subjects signed up for an experiment entitled "Spatial Cognitions." When they arrived at the lab, informed consent was obtained, and the experimenter explained that the experiment was concerned with how students perceived various locales in the library. The questionnaire was then distributed and completed by the subjects. The items on the questionnaire were closed-ended, using responses derived from earlier pilot testing. Subjects were run in two groups of 14, one male and one female, and each session lasted approximately 25 minutes. After completing the questionnaire, subjects were fully debriefed concerning the purpose of the experiment.

RESULTS

Qualities of carrel and table areas

Ninety-six percent of the subjects indicated that they were more likely to bump into friends at a table than in a carrel, $p < .001$ by binominal test. Sixty-eight percent of the subjects also preferred carrels over tables for serious studying, $p < .05$ by binominal test. In order to compare the proportion of subjects picking carrels for serious studying with the proportion of subjects picking the carrels as a likely place to bump into friends a test of correlated proportions (Ferguson, 1971) was performed. The proportion choosing carrels for serious study was significantly greater than the proportion picking carrels as a likely spot for meeting friends, $z = 4.37$, $p < .01$. This suggests that carrels afforded privacy for studying at the expense of opportunities for informal socializing.

Response to intrusions

Subjects were asked how they would respond if they were in the library studying, left their seat for 10 minutes, came back, and found someone in their place. Separate questions were used for tables and for carrels. The proportion of subjects who indicated they would ask the intruder to move from a carrel seat (68 percent) was significantly higher than the proportion who said they would ask the intruder to move from a table seat (29 percent), $z = 3.04$, $p < .01$ by test of correlated proportions. Thus, subjects expected that they would be more likely to defend the more valuable carrel spaces.

Interpreting intrusions

Pilot interviews had indicated two general types of explanation for a person taking your seat in the library. One explanation was an "absent-minded" one, i.e., the person simply did not notice your things, or forgot where his own place was. A second explanation was an "obnoxious" one; i.e., the person was being rude and pushy. On the questionnaire we asked subjects questions about how they would interpret a person taking their carrel seat, and a person taking their seat at a table. Subjects

were more likely to interpret a carrel invasion as due to rudeness and pushiness (65 percent) than they were a table invasion (22 percent), $z = 3.16, p < .01$ by test of correlated proportions. Five subjects used an "other" category in responding to this question, and their response could not be coded. Thus, this result is based on $n = 23$. Thus, it appears that the different qualities of table and carrel sites were associated with different interpretations of spatial intrusions.

The present results illuminate subjects' territorial cognitions regarding carrel and table sites in a library. Carrel sites were seen as more valuable for studying, and subjects expected they would be more likely to defend against a carrel invasion than a table invasion. In order to determine if territorial behaviors actually covaried with these territorial cognitions, a field experiment was carried out.

EXPERIMENT 2

Based on the questionnaire results of Experiment 1, we predicted that subjects would be more likely to defend a carrel site than a table site.

METHOD

Setting and Procedures

The field experiment was conducted in the main library at VPI&SU during the prime study hours (1:30-3:30 p.m. and 7:00-9:00 p.m.) over a four week span. On the three floors of the library there were a total of 84 carrels and 105 tables. The tables were of round or rectangular shape. All round tables seated four persons each. The rectangular tables seated four, 12, or 18 persons. Each carrel consisted of a table built into a metal six feet high partition and a chair. There was a window on one side and a metal partition on the other three sides, with an opening for entry and exit on the side opposite the window. All carrels were placed against an outside wall of the library. Study spaces in the library were generally considered inadequate, and the university was in the process of adding a sizable extension to the library. During the prime study hours when the field experiment was conducted density in the library was fairly high.

Spatial invasions were carried out by a female undergraduate

experimenter.* For every trial the floor and type of site (carrel or table) were each randomly chosen by consulting a string of digits drawn from a random numbers table. After determining the floor and type of site for an invasion, the experimenter proceeded to the appropriate area and inconspicuously observed until a potential subject left his seat and left behind markers signifying his intention to return. As the potential subject departed, the experimenter started a stopwatch, approached the subject's seat, and sat down. When approaching the site, the experimenter avoided observation by approaching from behind the departing subject. While occupying the site the experimenter read a book. If the subject did not return within 20 minutes the trial was aborted, and the experimenter left and began a new trial. (Four carrel trials and two table trials were aborted due to subjects' failure to return within the time limit.)

If the subject did return within the time limit, the experimenter continued reading her book, avoided eye contact, and waited for the subject's verbal reaction. If the subject verbally asked for his seat back, the experimenter apologized and left the site. Upon leaving the site the experimenter recorded the following information on small data sheets: (a) sex of subject, (b) duration of subject's absence, (c) subject's verbal and nonverbal reaction upon returning, (d) number and type of markers at the site, and (e) whether or not adjacent seats were vacant. If the subject returned and did *not* ask for his seat back, the experimenter continued reading in the seat for another 2–3 minutes, and then left the site and recorded the data for the trial. Thirteen successful carrel trials and twelve successful table trials were carried out.

Subjects

Ten female and 15 male students at VPI&SU participated as subjects. The male/female ratio of the subjects was not significantly different from the male/female ratio of students in the library at the time of the field experiment, $\chi(1) = 2.0, p > .05$.

*The invader in Experiment 2 was a female, and it is possible that the sex of the invader influenced subjects' behaviors. Subjects may have been more likely to defend against a female intruder than a male intruder. To assess this possibility, in Experiment 1 we asked subjects, in both a carrel and a table setting, whether they would be more likely to ask a male or a female invader to move. In the table setting male subjects indicated that they would be more likely to ask male invaders to move, while female subjects showed no partiality to either male or female invaders. Sex of subject was correlated with sex of whom they would be more likely to ask to move, $r = .63, p < .001$. In the carrel setting, male and female subjects indicated they would be equally likely to ask a male or female invader to move, and sex of subject was uncorrelated with sex of whom they would be more likely to ask to move, $r = .10, p > .05$. These results suggest that, if anything, the female intruder in Experiment 2 was receiving more courtesy than a male intruder would have, and that the high rate of defense responses was not due to the sex of the invader.

RESULTS AND DISCUSSION

In support of our hypothesis, subjects at carrel sites were more likely to defend their space against the experimenter than were subjects at table sites. All 13 subjects in the carrel condition asked for their seats back, while only six out of the twelve subjects in the table condition asked for their seats back, $p < .01$ by Fisher's one-tail test.

Furthermore, whether or not subjects asked for their seat back was not confounded with subject characteristics. Male and female subjects were equally likely to regain their original seat, $p > .1$ by Fisher's test. Also, the duration of subjects' absence was unrelated to defense behavior. A median split on absence times indicated that those with a long absence were as likely to defend their space as those with a short absence, $p > .10$ by Fisher's test.

The different percentages of defending subjects in the carrel and table conditions cannot be fully explained by differences in the availability of nearby seats. Six of the carrel subjects had at least one vacant adjacent carrel they could have occupied; 12 subjects in the table condition had at least one vacant chair at their table which they could have occupied.

Subjects' markers at the site were coded as personal (e.g., coat, purse) or impersonal (e.g., library books, magazines), and 88 percent of the subjects left personal markers at the site. This suggests that most of the subjects were fairly attached to the space, in the sense that they had personally demarcated the space and expected to be there for a while.

One intriguing result was that 78 percent of the carrel subjects walked past the experimenter once before returning to their seat, while all the subjects in the table condition returned directly to the experimenter, $p < .001$ by Fisher's test. Perhaps invasion of the carrel sites was much more unexpected, and the subjects required time to think about how they would deal with the situation.

GENERAL DISCUSSION

Using the stringent demarcation and defense criterion for the establishment of territories, results from the present study suggest that people create, demarcate, and defend temporary

territories in public settings. The expected and actual behaviors observed in the two different studies cannot be attributed to personal space or jurisdiction since the behaviors observed were locus-dependent, and not role-dependent. Contrary to suggestions by Becker (1973, p. 444), the present results indicate that in a relatively short period of time people can become attached enough to an unassigned space to actively defend it.

Several important implications for human territorial behavior can be drawn from the present results. First, the use of temporary territories, as demonstrated in the present investigation, is one of the important ways in which human territorial behavior differs from animal territorial behavior (Sundstrom, 1977), and underscores the lack of homology between these two behavioral systems. Second, the results emphasize the close relationship between desirability of locale and territorial behavior: spaces are defended if they are valuable. While Sundstrom and Altman (1974) investigated this linkage in the stronger, more central territories of a residential environment, this is the first study that has systematically demonstrated this tie in non-residential temporary territories. (Shaffer and Sadowski's (1975) barroom study examined encroachments on territorial markers not territorial behaviors themselves.) Third, the inclusion of temporary or public territories in typologies of territories (cf. Altman, 1975) appears warranted. The same type of demarcation and defense behaviors can occur in public settings as occur in more permanent territories. Finally, the finding that territorial behaviors and cognitions closely covary is important, and supports previous suggestions (Taylor, 1978; Taylor & Stough, 1978). This bond enhances the possibility that territorial cognitions can be used to predict patterns of territorial behavior.

Of course, the present findings need to be interpreted with some caution. As in most previous studies on spatial behavior in public settings, only one locale was investigated. In addition, the desirability of the carrel sites was somewhat confounded with other characteristics that may have contributed to defense behaviors. For example: (a) a carrel is clearly bounded and it is evident what space is yours; (b) moving from a carrel seat requires more effort than moving from a table seat; and (c) carrel invasions were perceived as more intentional than table invasions. In future research attempts should be made to disen-

tangle spatial desirability from variables such as these, so that their relative importance for territorial behaviors can be assessed. Such disentanglement may not be possible in a field setting. However, offsetting these limitations are the multi-method approach and the observed congruence between the behavioral and questionnaire results.

In closing, the finding that temporary territories do exist in public spaces, and that people can become attached to these spaces in a short time, in a sense raises more questions than it answers. Previous research has indicated that spatial behavior in public spaces is a function of jurisdictions (Sommer & Becker, 1969; Becker, 1973) or personal space (Becker & Mayo, 1971; Hayduk, 1978). An important task for future research is to clarify when the various mechanisms (territorial, personal space, and jurisdictional control) are operating, and the factors that determine why one takes precedence over another.

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