

Territorial Cognition: Assessing Altman's Typology

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The empirical validity of Altman's typology of human territories was assessed using a modified Kelly "Rep Grid" procedure. Urban and suburban subjects, matched on several variables, were interviewed in their homes. It was expected that suburban subjects, as compared to urban subjects, would perceive more control over secondary and public territories. Results confirmed the validity of Altman's typology and the importance of the dimensions of centrality and temporal duration. The expected urban versus suburban differences were obtained. Results also indicated that primary and secondary territories, by providing the setting for interaction at varying levels of formality and exclusion, possessed role-structuring properties. Future research on human territoriality should take a multimethod approach and explore the covariation of territorial cognitions and behaviors.

Synthesizing earlier work on human territoriality, Altman (1975, pp. 111-120) has suggested that there are three types of territories. *Primary* territories are private places where the owner has exclusive rights to use the space. Primary territories, such as places in the home, are easily personalized. *Secondary* territories are semipublic places where a person interacts with acquaintances or neighbors on a relatively regular basis. Conflicts between user groups can occur in secondary territories if these territories are not personalized by the owners or regular users. Examples of secondary territories are backyard, country club, and neighborhood bar.

Public territories are spaces where almost anyone is allowed temporary access, providing they observe the relevant regulations. Examples include a nearby recreation area or park. Altman postulated that the main dimensions along which these three types of territories vary are centrality or control (how central that space is in the life of a person or group) and temporal duration (how much time a person or group spends in the space).

Altman's typology is based primarily on theory. Although it is an intuitively appealing synthesis of prior conceptions of human territories, it has not yet been empirically tested. One purpose of this study was to assess the empirical validity of Altman's typology.

A second purpose of this study was to determine if suburban residents, as compared to urban residents, perceived more control over secondary and public territories. Previous research by Stough, Brower, and Fisher (Note 1) observed that residents in black and racially mixed urban neighborhoods experienced less control over nearby secondary and public territories (i.e., sidewalks, yards, and playgrounds) than did residents in a white suburban neighborhood. However, in their study, locational differences were confounded

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with race, income, and employment differences.¹

In spite of Edney's (1974) suggestion that territorial behaviors are mediated by cognitive processes, research to date on territorial cognition has been sparse. In most studies of territoriality, "there is little reference to cognitive aspects of the territorial process: The accent is on overt behaviors rather than on the *meaning* of the situation to subjects" (p. 970). The third purpose of this study was to gain insight into how territories facilitate organized behavior, by investigating territorial cognitions.

Method

Subjects

In the urban and suburban sample sites, an acquaintance of the second author was contacted. The acquaintance in each site suggested names of persons who might be willing to participate in interviews concerned with perceptions of the neighborhood. Potential subjects who fulfilled our criteria on race, age, income, and home ownership were then selected and contacted. All those who were contacted agreed to participate in an hour-long interview, and appointments for interviews were made.

The urban sample consisted of eight white adult home owners residing in a west-side neighborhood in Baltimore City. The neighborhood is a medium-density area (tract density = 10 persons/acre), composed mainly of row houses. The population is predominantly (90%) comprised of black individuals with low income. Whites in this neighborhood, including members of our sample, are primarily young (under 35 years of age), socially mobile professionals with high education and income levels. Thus, whites in this neighborhood were economically and racially dissimilar to the majority of the local neighborhood population. All members of the sample reside in single-family dwelling units.

The suburban sample consisted of eight adult home owners living in an all-white neighborhood in Baltimore County. The neighborhood is a medium-density area (tract density = 10 persons/acre), consisting primarily of single-family row houses. Adults in this neighborhood, including members of our sample, are primarily young (under 35 years of age), socially mobile professionals with high education and income levels. Our suburban sample, in contrast to the urban sample, was racially and economically similar to the majority of the local neighborhood population.

Thus the urban and suburban subjects were matched on physical environment (density, housing type) and social characteristics (education, income, age, race, and home ownership).

Rep Grid and Stimuli

A Role Construct Repertory Grid (Rep Grid; Bannister & Mair, 1968; Kelly, 1955) was developed

Table 1
Rep Grid Stimuli

Type of territory & stimulus no.	Representative stimulus
Primary	
1	Bedroom with door closed
2	Bathroom
3	Kitchen
4	Living room
Secondary	
5	Backyard
6	Front porch or stoop
7	Nearby friend's stoop or backyard
8	Sidewalk in front of your house
Public	
9	Nearby recreation area
10	Sidewalk across street
11	Neighborhood store
12	Nearby supermarket or shopping center

Note. For each stimulus that was not a place in the subject's house or on his/her property, the subject was asked to supply the name of a particular place that he/she was familiar with and to write the name of this place on the back of the stimulus card.

in modified form for this study. The stimuli used in this study consisted of 12 settings that previous research (Stough, Brower, & Fisher, Note 1) has indicated are meaningful behavior settings for the population being interviewed. The 12 stimuli included 4 primary, 4 secondary, and 4 public territories (see Table 1). Ten triads, each triad including at least two types of territories, were presented to the subject. When each triad was presented, bipolar scales (constructs) were elicited by asking the subjects to state (a) how any 2 stimuli were similar to each other but different from the 3rd and (b) how the 3rd stimulus was different from the other 2. The 10 triads were randomly chosen from a set of 13 triads that had been pilot tested by the experi-

¹The urban-suburban differences in perception observed by Stough et al. (Note 1) were not due simply to racial composition, inasmuch as the differences were observed regardless of whether the urban neighborhood was racially homogeneous or racially mixed. While there are probably numerous social causes of these urban-suburban differences, and indeed the differences may be overdetermined, in the present study we primarily wished to determine if these differences persisted when confounding variables were controlled for. Also, by eliciting subject-based constructs, we hoped to clarify the behavioral and social bases underlying these locational differences in perception.

menters. Thus, 10 constructs were elicited from each subject.

After constructs had been elicited, subjects were asked to rate each of the stimuli on the 10 elicited constructs and on 8 supplied constructs. All ratings were made on 9-point scales. Subjects were asked to use the midpoint of a scale if the scale was irrelevant to a particular stimulus. The supplied constructs were chosen to represent the theoretical dimensions of concern in this study: centrality to daily life and time spent in territories. The supplied constructs had been pilot tested. A completed Rep Grid, comprised of a Construct \times Stimuli (18 \times 12) matrix of ratings, was obtained for each subject.

By having each subject complete a Rep Grid, subject-based constructs are made available that can be compared to the constructs supplied by the experimenters. The problems that can be addressed are: (a) How relevant are the experimenter-based constructs to the subject-based constructs, and (b) roughly, what are the dimensions underlying the constructs offered by the subjects? These two problems are purely descriptive.

To deal with these descriptive problems, a principal components analysis was performed on each subject's Variables \times Variables (18 \times 18) correlation matrix. Four principal components were extracted for each subject. For 13 out of the 16 subjects, these first four latent roots were greater than 1.0.²

Validity of Experimenter-Based Constructs

As a rough guideline, a supplied construct was considered integrated into a subject's construct system if the supplied construct had a loading of .50 or greater on the same factor on which a subject-based construct loaded .40 or greater. Urban subjects, on the average, integrated six of the eight supplied constructs. Suburban subjects, on the average, integrated all eight of the supplied constructs into their construct systems.

Experimenters usually make the assumption that their constructs are meaningful to subjects. This assumption may not be warranted in all cases. The individual principal components analysis allowed us to explicitly test this assumption.

Results

Analysis of Variance

By definition, a more central territory is one over which a person has more control. One is likely to feel safer and have more privacy, since one has more control, and to feel comfortable or at ease, since one has privacy and safety. More central territories are likely to be perceived as more useful, since one can engage in a wider variety of behaviors. If Altman (1975) is correct in asserting that centrality is an important dimen-

sion on which territories differ, we should expect a main effect for type of territory on the following supplied constructs: Feel in control here/Don't feel in control here, Safe/Dangerous, Privacy usually available/Privacy rarely available, Feel comfortable here/Feel uncomfortable here, See mostly people I know here/See mostly strangers here, Useful to me/Not useful to me.

Treating each of the above supplied constructs as a variable, we analyzed results using multivariate analysis of variance (MANOVA). The design was a mixed Between-group \times Within-group design (2 \times 3), with location the between-group variable and type of territory the within-group variable. Mean ratings were used in the analysis, averaged over the four specific territories within a type of territory.³

A significant main effect for type of territory was observed, multivariate $F(12, 46) = 21.95$, $p < .001$. Primary territories were highest on centrality; secondary territories were intermediate; and public territories, lowest. The discriminant function associated with this root indicated that People I know, Comfortable, Control, and Privacy were the major variables that discriminated among types of territories.

A second significant root was obtained, multivariate $F(5, 23) = 4.13$, $p < .01$. The discriminant function associated with this root suggested that the variables People I know and Privacy contributed in a second independent way to discriminating among types of territories. The variables Safety and Useful also contributed to discriminating among the means. Significant univariate F s

² There are two limitations of the individual principal components procedure. (a) With a small number of stimuli, there is the possibility that a supplied construct may have a spuriously high loading on a subject-based factor. This limitation can be somewhat discounted if the supplied constructs and the elicited constructs that load on the same factor are roughly synonymous. (b) The meaningful rank of the principal components matrix can not be greater than the number of stimuli. Since we were extracting far fewer components than stimuli, this limitation did not pose a severe difficulty.

³ Because of limitations on the number of cells in the MANOVA program, we were not able to nest particular territories within type of territory.

Table 2
MANOVA on Centrality: Means for Location \times Territory Interaction

Variable	Territory						Coefficient on 1st discriminant function	Significance level of univariate $F(p)$
	Primary		Secondary		Public			
	S	U	S	U	S	U		
Control	1.84	1.50	2.59	4.47	3.03	6.28	0.32	<.001
Safety	2.06	1.34	2.44	3.56	3.12	4.91	0.35	<.001
People I know	1.87	1.72	2.12	4.31	5.72	7.09	-0.52	<.007
Comfortable	1.94	1.41	2.09	4.12	3.00	5.31	-1.07	<.001
Privacy	3.22	3.03	6.06	7.16	7.78	8.21	-0.47	<.380
Useful	2.28	1.94	2.88	3.16	3.00	3.87	-0.27	<.108

Note. S indicates subjects from suburban location; U indicates subjects from urban location. Higher means indicate less control, less safety, see fewer known people, less comfortable, less privacy, and less useful.

for territory were noted for each variable (all p s < .001).

If, as hypothesized, secondary and public territories were more central for suburban residents than urban residents, we would expect a significant Location \times Territory interaction using the above variables. The expected interaction was obtained, multivariate $F(12, 46) = 8.21$, $p < .001$. The means for the interaction and the standardized discriminant function coefficients for each variable are shown in Table 2. It can be seen that each variable, especially Comfortable, contributes to this discriminant function. Inspection of the means and univariate F s in Table 2 suggests that suburban residents, as compared to urban residents, perceived more control over, felt safer in, saw more acquaintances in, and felt more comfortable in secondary and public territories.

A second significant root was extracted from the interaction matrix, multivariate $F(5, 23) = 7.75$, $p < .001$. The variable Control had a coefficient of +1.00 on this second discriminant function, whereas all other variables had coefficients of 0. This second discriminant function suggests that Control contributed in a second fashion, independent of the other variables, to discriminating these means.

The Location \times Territory interaction does not invalidate Altman's (1975) typology. Within each location, the ordering of the territories on each of the variables was consistent with the typology.

A main effect for location was observed, multivariate $F(6, 9) = 3.91$, $p < .05$. Suburban residents perceived more control ($p <$

.01), saw more acquaintances ($p < .01$), and felt more comfortable ($p < .001$) than urban residents, in general, across all territories.

If, as Altman has suggested, people spend different amounts of time in different types of territories, we would expect a main effect for territory on the two variables Spend a lot of time here/Spend little time here and Spend spare time here/Don't spend spare time here. The expected main effect was obtained, multivariate $F(4, 54) = 6.57$, $p < .001$. From high to low temporal duration, the ordering of territories was primary, secondary, and public. A main effect for location was observed, multivariate $F(2, 13) = 5.10$, $p < .05$, indicating that suburban residents generally spent more time in the 12 territories. The Location \times Territory interaction was not significant.

Content Analysis

Content analysis of the individual factor structures suggested that urban subjects were concerned with issues of privacy. The supplied construct Privacy tended to show up with a high loading on the first or second factor for these subjects. Privacy was usually offered as an elicited construct by these subjects and was correlated with other elicited constructs such as Inside/Outside, Personal/Public, and Responsible for what happens here/Not responsible for what happens here.

With the suburban subjects, social concerns were preeminent and usually occurred on the first factor. The elicited constructs Socialize here/Don't socialize here and See

neighbors here/Don't see neighbors here occurred numerous times and were often correlated with other elicited constructs such as Outside/Inside and Nearby place/Faraway commercial place. Socialize/Don't socialize also correlated in several cases with the supplied construct Privacy rarely available/Privacy usually available. This pattern of responses, and inspection of factor scores, suggested that the suburban subjects engaged in informal socializing with neighbors and acquaintances in nearby outdoor secondary and public territories and were less likely to see neighbors or socialize when inside.

Discussion

The results indicated that Altman's (1975) typology of territories, and the proposed dimensions of centrality and temporal duration along which types of territories differ, have substantial empirical validity. Both urban and suburban subjects perceived the predicted differences between primary, secondary, and public territories. The subjective importance of centrality was highlighted by the fact that Privacy was offered numerous times by subjects as an elicited construct. Centrality appears to be a complex dimension. The two variables See people I know and Privacy each contributed in two independent ways to this dimension. Other analyses have also suggested that centrality is multidimensional (see Taylor, Note 2).

The results of the present study may be somewhat limited, inasmuch as a small number of subjects were interviewed, and these subjects were not randomly selected. Thus, there is the possibility of subsample bias in both the urban and suburban groups. However, offsetting these limitations are two factors: The two groups of subjects were matched on several variables, and the MANOVA results were quite strong.

Results have shed considerable light on how human territories support social roles (Proshansky, Ittelson, & Rivlin, 1970) and structure ongoing interaction (Edney, 1976). Primary territories afforded privacy and solitude for adults, escape from children or neighbors, or a setting for formal, controlled interaction

with friends. For suburban subjects, widespread informal socializing with neighbors occurred in secondary territories. With the urban subjects, no clear consensus emerged on the usage of secondary territories. Urbanites noted that privacy was not available in these spaces and that they did not feel comfortable there. These locational differences in the use of secondary territories in part explain the Location \times Territory interaction on centrality. Public territories were mainly noted for the fact that they fulfilled certain routine needs (e.g., place to do the shopping).

In short, territories were perceived as possessing various functional properties. Primary and secondary territories possessed role-structuring properties to the extent that they provided settings for social interaction at varying levels of exclusion and formality.

The finding that urban subjects, as compared to suburban subjects, perceived secondary and public territories as less central may be explained by the fact that the urban subjects were living in a dissonant environment, whereas the suburban subjects were living in a consonant environment (Rosenberg, 1975). The needs and habits of the urban subjects were probably dissimilar to those of the majority of their neighbors, who were low-income black families. Thus, the urban subjects were probably not inclined to socialize with their neighbors in nearby outdoor spaces. Inasmuch as little privacy from dissimilar others was available in nearby outdoor spaces, subjects were probably not inclined to use these spaces extensively for any purposes. By contrast, the suburban subjects lived in a homogeneous neighborhood, surrounded by similar others, and thus were probably inclined to socialize with them in nearby outdoor spaces.

Future research on territoriality should include the dimensions of centrality and temporal duration, as these factors appear quite fundamental. Altman's (1975) typology provides an empirically validated framework within which future research can be conducted.

In the present study, the most salient aspect of centrality, from the subjects' point of view, was privacy. While territoriality and privacy are distinct concepts that have been separated in laboratory research (Edney & Buda,

1976), there appears to be a fair degree of linkage between the two phenomena in most natural settings.

Present results have helped to clarify the meaning and cognitive significance of a set of human territories. An important task for future researchers is to take the multimethod approach and clarify how territorial cognitions and behaviors covary. Firm links between specific types of territorial behaviors and cognition need to be established.

Reference Notes

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