

A conceptual model of resident satisfaction with reference to neighborhood composition

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Abstract

This paper draws upon the results of a previous research conducted by the author on the effects of cultural differences on private outside space satisfaction in Texas, USA. Private outside space in the study is defined as the immediate outdoor environments of single family, detached dwellings. Among other findings, the study indicates that private outside space satisfaction is affected by the cultural differences of residents and the cultural composition of a neighborhood. Despite this evidence of the apparent negative effects of cultural factors on satisfaction, the study indicates an increased level of tolerance and fewer differences in social relations among residents in predominantly heterogeneous neighborhoods compared to those in predominantly homogeneous neighborhoods. The author proposes a theoretical model in this paper for comparison of resident satisfaction between culturally homogeneous and heterogeneous neighborhoods both on short-term and long-term basis. Using the model, the study explains that even though resident satisfaction in heterogeneous neighborhoods is indicated to be low at present, the level of satisfaction is likely to increase considerably over time in these types of residential neighborhood, making them a socially viable alternative to homogeneous neighborhoods.

1 Introduction

Residential satisfaction, a measure of the adequacy of the living environment as evaluated by the resident, has been a major research topic in different disciplines. The literature shows that a dwelling unit by itself is not the only determinant of residential satisfaction. It is only a part or sub-system of the whole system that constitutes residential habitability^{1, 2}. Residents, through the process of interaction, come into contact with various components of this environment that affect their satisfaction. Private outside space, defined here to include all the spaces between the doorsteps and property limits, is an important component of this system.

Studies indicate that the patterns of separation between different racial and ethnic groups in America may be explained by preferences in neighborhood composition³. It is, therefore, useful to examine private outside space satisfaction in the context of cultural differences prevailing in the American Society. Since Anglo-Americans (referred to as Whites hereafter), Blacks, and Hispanics are the three largest cultural groups in contemporary American society as recognized by the Bureau of the Census, the study is related only to these cultural groups.

A study by the author indicates that resident satisfaction with private outside space is affected by overall residential satisfaction, qualitative attributes of private outside space, cultural background of residents, and the cultural composition of the neighborhoods in which the dwellings are located⁴. The study population consists of a sample of 198 households living in single-family detached dwellings, either owned or rented, in randomly selected residential communities in Bryan-College Station, Texas. Households interviewed included 33 each from the predominantly homogeneous neighborhoods and 99 from the predominantly heterogeneous neighborhoods. The results of the study indicate a higher level of private outside space satisfaction among people living in culturally homogeneous neighborhoods. The effect of cultural composition on private outside space satisfaction continues to remain statistically significant even in the presence other known correlates of the variable⁴. The following model was used to show the relationship between private outside space satisfaction and its correlates:

$$PSAT = \beta_0 + \beta_1 CCOMP + \beta_2 CULTURE + \beta_3 QUALITY + \beta_4 RSAT + e \quad (1)$$

where *PSAT* = private outside space satisfaction, *CCOMP* = cultural composition of a neighborhood, *CULTURE* = cultural background of residents, *QUALITY* = qualitative attributes of private out space, *RSAT* = overall residential satisfaction with dwelling, β_0 = intercept, β_1 , β_2 , etc. = regression coefficients, and *e* = error term.

Literature indicates that when a residential situation does not meet either family or cultural norms of a household, then a normative housing deficit exists⁵. One of the ways of overcoming this deficit is to compromise with the norms. Apparently, in a heterogeneous neighborhood all the groups living together make compromise with their own cultural norms through the processes of assimilation and acculturation. The compromises with cultural norms may produce conditions that do not allow people to relax and behave more naturally, thereby contributing to an increase in environmental stress⁶. This may be a reason why the level of satisfaction with private outside space is lower in heterogeneous neighborhoods.

Even considering the above explanation, this finding seems to be somewhat paradoxical in view of the higher level of acceptance of the inherent cultural values of Blacks and Hispanics by Whites, Blacks and Whites by Hispanics, and Whites and Hispanics by Blacks in mixed neighborhoods in the USA⁷. A comparative study on the uses of private outside reveals an increased level of social acceptability of diversified uses of the space in heterogeneous neighborhoods⁷. This is indicative of an increased level of tolerance and, thereby, fewer differences in social relations in such communities. Thus, it seems that a culturally heterogeneous community, despite providing a lower level of satisfaction, may be better alternative in terms of long term viability and ultimate survival of a society.

2 Conceptual model

2.1 Development of the model

A neighborhood cannot possibly be evaluated in isolation of the society as a whole. Social scientists emphasize that creation of common core of intercultural values is a prerequisite to common survival in a multi-cultural society. This calls for enduring relationship among different status cultures involving a substantial amount of faith and trust. A society can no longer be viable when mutual trust among members has disappeared⁸. Mutual distrust happens when a group feels that its values are threatened by forces it cannot comprehend or identify. Such a situation may be created by development of completely segregated communities, leading to antagonism between different cultural groups⁹. But the results of this study indicate that the creation of homogeneous neighborhoods may be at the apparent expense of a lower level of resident satisfaction. How can that be resolved?

Formation of culturally heterogeneous neighborhoods is comparatively new¹⁰. As the processes of assimilation and acculturation continue in integrated neighborhood, it is possible that there will be continued reduction of stress in these communities. Assuming that an increase in environmental stress causes a lower level of satisfaction as suggested by Rapoport⁶, a continued reduction in stress should produce a concomitant increase in the level of satisfaction. If that is the case, then level of satisfaction experienced by residents in heterogeneous neighborhoods can be reasonably assumed to increase with passage of time; it can perhaps be higher than in homogeneous neighborhoods. A conceptual model of short and long-term effects of different cultural compositions of neighborhoods on private outside space satisfaction is shown in Figure 1.

The proposed model makes a comparison between culturally homogeneous and heterogeneous neighborhoods. It shows that there is minimal internal conflict among residents living in culturally homogeneous neighborhoods because of similarity of cultural norms. The residents, therefore, experience very little environmental stress that, in turn, produces an increased level of satisfaction. But there is an external cultural conflict between the residents of a homogeneous neighborhood and other cultural groups living beyond the neighborhood. Since there is no close contact among these different cultural groups, the external conflicts remain unresolved. Distance between these different cultural groups gradually grows wider, giving rise to a decreased level of tolerance and increased level of mistrust. Residents of homogeneous neighborhood may eventually feel that their cultural values are threatened by other cultural groups in the society. This perceived threat is likely to produce an increase in environmental stress that consequently may result in lowered satisfaction.

Residents of culturally homogeneous neighborhood, on the other hand, initially experience internal conflicts due to differences in cultural norms. These conflicts produce an increase in environmental stress resulting in a lower level of satisfaction. Each of the cultural groups also has external conflicts with other cultural groups living beyond the neighborhood. However, because of close contact among different cultural groups, both internal and external conflicts are resolved over time. Cultural assimilation and/or acculturation take place resulting in increased level of tolerance and mutual trust. The social bond among the cultural groups thus becomes stronger leading to an enduring social relationship. Environmental stress, experienced during the earlier stages of formation of a culturally integrated neighborhood, is likely to decrease considerably over time resulting in an increased level of satisfaction.

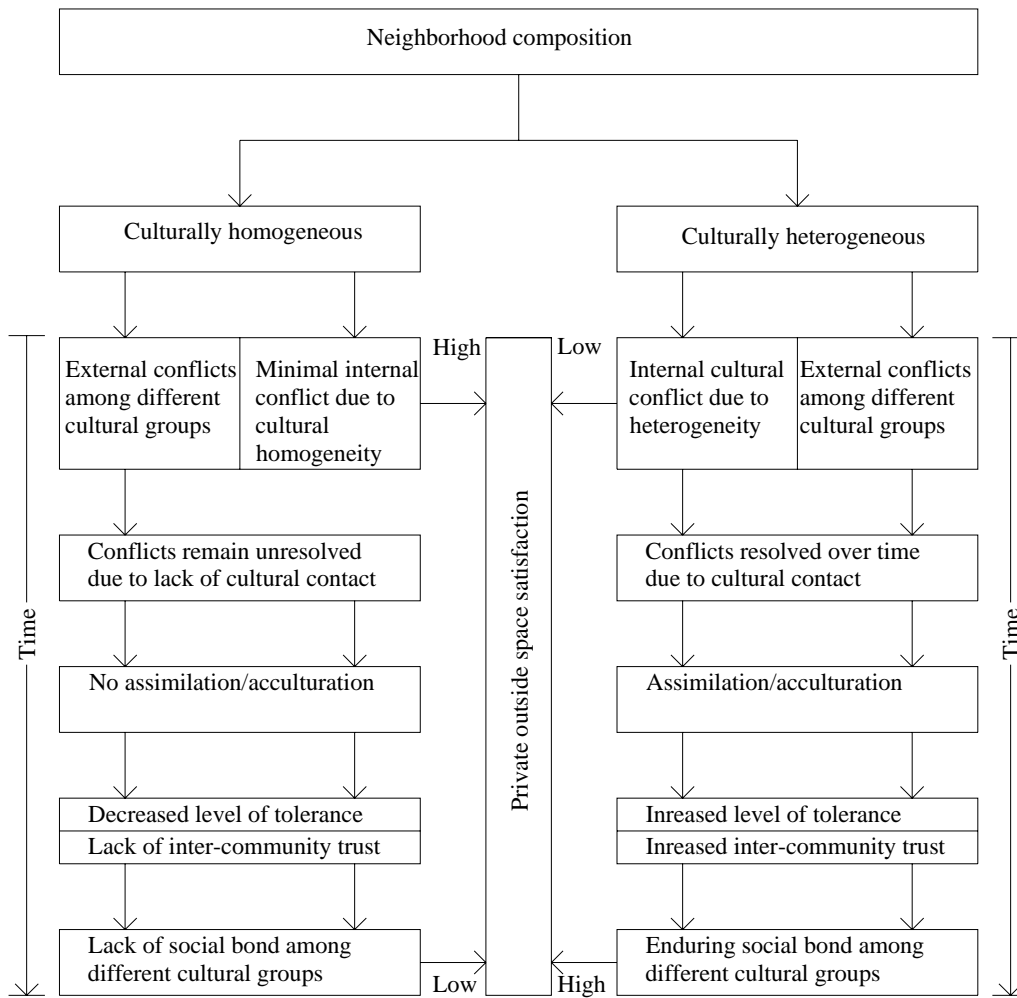


Figure 1: Short and long-term effects of different cultural compositions of neighborhoods on private outside space satisfaction

2.2 Mathematical expression

Given the assumed effect of the dimension of time on private outside space satisfaction and the interaction of this factor with the cultural composition of a neighborhood, the proposed model can be mathematically expressed as follows by modifying the equation used by the author in a previous research and shown in this study (See Equation 1):

$$PSAT = \beta_0 + \beta_1 CCOMP + \beta_2 CULTURE + \beta_3 QUALITY + \beta_4 RSAT + \beta_5 TIME + \beta_6 TIME * CCOMP + e \quad (2)$$

where $PSAT$ = private outside space satisfaction, $CCOMP$ = cultural composition of a neighborhood, $CULTURE$ = cultural background of residents, $QUALITY$ = qualitative attributes of private out space, $RSAT$ = overall residential satisfaction with dwelling, $TIME$ = time elapsed between the first and subsequent measurements of private outside space satisfaction, β_0 = intercept, β_1, β_2 , etc. = regression coefficients, and e = error term.

The model was tested by introducing some hypothetical values for private outside space satisfaction over time in the existing data used by the author for the previous study on private outside space satisfaction⁴. The hypothetical values were in line with assumption that satisfaction values will change in a linear manner, decreasing with time in homogeneous neighborhoods and increasing with time in heterogeneous neighborhoods. The results of the analysis are shown in Table 1.

TABLE 1: General Linear Model Analysis of PSAT using Cultural Factors, and Qualitative Attributes of Private Outside Space, Overall Residential Satisfaction, and Time

Variable	Intercept	Regression Coefficient	<i>T</i>	<i>p</i> > <i>T</i>	Critical Value of <i>T</i>
Intercept	-0.65		-2.56	0.0106	1.65
<i>Cultural composition of Neighborhood (CCOMP)</i>					
<i>HETEROGENEOUS</i>		2.88	20.68	<0.0001	
<i>Cultural Background (CULTURE)</i>					
<i>BLACK</i>		-0.55	-5.37	<0.0001	
<i>HISPANIC</i>		-0.39	-4.01	<0.0001	
		0.05	0.005	<0.0001	
<i>Quality of Private Outside Space (QUALITY)</i>					
		0.41	11.90	<0.0001	
<i>Overall Residential Satisfaction (RSAT)</i>					
<i>Time Elapsed (TIME)</i>					
1		1.94	13.96	<0.0001	
2		0.96	6.91	<0.0001	
<i>Cross Product of CCOMP and TIME</i>					
1		-3.36	-17.14	<0.0001	
2		-1.49	-7.58	<0.0001	
Model <i>F</i> (9,584) = 117.08			Model <i>R</i> ² = 0.64		
<i>p</i> >Model <i>F</i> = <0.0001					

An important aspect of a statistical procedure that derives model from empirical data is to indicate how well the model predicts results. A widely used measure the predictive efficacy of a model is its coefficient of determination, or *R*² value. If there is a perfect relation between the dependent and independent variables, *R*² is 1. The results indicate the modified model will have a better predictive efficacy with an *R*² of 0.64 if the levels of satisfaction in different types of neighborhood change over time in the assumed directions. Both the effects of time and the interaction of time (*TIME*) and neighborhood composition (*CCOMP*TIME*) on satisfaction will be statistically significant with a *p*-value of less than 0.0001.

It can, therefore, be stated with some confidence that the predictive efficacy of the proposed model for measuring private outside space satisfaction (PSAT) will be higher than the earlier model (see equation 1) developed by the author. Time is assumed to be an important predictor of PSAT.

3 Conclusions

The study draws on the results of some earlier findings by the author that indicates a lower level of private outside space satisfaction in culturally heterogeneous neighborhoods. But considering a higher level of tolerance that exists in these neighborhoods, it may be assumed that they are socially more viable in the long term than culturally homogeneous neighborhoods. The present study hypothesizes that if a longitudinal study of satisfaction is done for the same neighborhoods taking the dimension of time into consideration, it is very much possible that one may find an increased level of satisfaction in heterogeneous neighborhoods. Using this conceptual model, the study explains that even though resident satisfaction in heterogeneous neighborhoods is indicated to be low at present, the level of satisfaction is likely to increase considerably over time in these types of residential neighborhood, making them a socially viable alternative to homogeneous neighborhoods. The model has been expressed mathematically and tested using both existing and hypothetical data.

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