

Repositioning Identity in Conceptualizations Human-Place Bonding ¹⁶

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Abstract

In this investigation, we adapted identity theory (references) to reassess a conceptualization of place attachment – an attitudinal construct used by environmental psychologists to describe people’s bonding to the physical landscape. Past work has conceptualized the construct in terms of three components; cognitive, affective and conative elements. Based on the tenets of identity theory, we hypothesized that the cognitive component – reflected in the dimension place identity - is an antecedent of these other affective and conative facets. We empirically tested this reconceptualization using data collected from two spatial contexts in Southern California; San Diego and Los Angeles. Analyses of both data sets provided strong empirical support for our reconceptualization of the place attachment construct and its associated measures. Rather than existing on the same temporal plane, we suggest that identification processes are a driver of other affective and conative elements that underlie people attachments to the physical world.

Introduction

In a number of fields, the place attachment construct has been used by scholars to describe the phenomenon of human-place bonding. While the construct “subsumes or is subsumed by a variety of analogous ideas (Low & Altman, 1992, p. 3), most definitions and associated conceptualizations consider the construct in terms of its cognitive, affective and conative elements (Jorgensen & Stedman, 2001; Low & Altman, 1992; Scannell & Gifford, 2010). The affective element refers to humans emotional attachments to place whereas the cognitive element is generally understood in terms of the concept of place identity which links the physical environment to self

¹⁶ Kyle and Jun contributed equally to this article.

conceptualizations (Proshansky, 1978). The conative element has been conceptualized in terms of two dimensions: place dependence and social bonding (Kyle, Graefe, & Manning, 2005; Kyle et al., 2004). Where place dependence reflects how well a setting serves goal achievement given an existing range of alternatives, social bonding refers to the connection people share with place ground in social ties.

While these conceptualizations imply that human-place bonding is, for the most part, reflected in these abstract elements, identity theory in sociological social psychology asserts that the cognitive component (i.e., place identity) is central for understanding the meanings and sentiments people ascribe to places and conative action within spatial contexts. In sociological social psychology, an identity is comprised of a set of meanings defining who one is. This set of meanings functions as a standard or reference for a person’s meaningful behaviors (Stets & Burke, 2003). For identity theorists, people act to bring the perceived meanings of the self in any given situation into consistency with the meanings associated with their identity. The congruence between the two sets of the meanings is self-verification and people experience positive emotions and sentiments during congruence (Burke & Stets, 1999; Smith-Lovin, 1995; Swann, de la Ronde & Hixon, 1994; Swann, Hixon & de la Ronde, 1992; Stets & Tsushima, 1999). Additionally, the strength of an emotion is a function of the importance of an identity to the individual with more important identities generating stronger emotions (Bartels, 1997; Burke, 1991, 1996; Burke & Stets, 1999; Cast & Burke, 2002; Stets, 2003; Stryker, 1987). Thus, in the context of place attachment, for places central to an individual’s sense of self, the greater the likelihood that the individual will endow the setting with value and sentiment.

Identity theorists have also illustrated that individuals seek to establish and maintain self-verification contexts (Swann, 1990). Actions or activities (e.g., leisure and work) and social interactions (e.g., friends and family) that permit verification of the self are played out more often and are viewed more fondly. In this way, the spatial contexts in which activities and social interactions are continuously executed are valued to the extent people are committed to their identity. As places become more central to an individual sense of self, a line of activities and social groups that verify place identities are increasingly valued, further fostering individual’s ties to place. Thus, following identity theory ground in sociological social psychology, we hypothesized that the cognitive component – place identity – is an antecedent of these other affective and conative facets of place attachment.

Literature review

In the review that follows, we provide an overview of conceptual orientations that have been employed by scholars to understand the phenomena of place attachment and its dimensionality. We then provide a review of the theoretical framework guiding our conceptualization of place attachment. This review focuses on the role of identity in shaping how we interpret and respond to the physical world. We conclude with a summary of key ideas and their implications for our reconceptualization of place attachment.

Place attachment

There currently exists general consensus that place attachment can be defined as an affective bond or link that people share with specific places (Hummon, 1992; Low & Altman, 1992; Shumaker & Taylor, 1983). With emphasis on attachment processes, Hidalgo and Hernández (2001) also cited the importance of a positive affective bond for maintaining a close association with place. The importance of an association or interaction, be it real or abstract, also underlies Tuan's (1977) suggestion that through place interaction, sentiment toward the respective setting also builds. Tuan's discussion of place interaction also exposes the conative elements of place attachment; illustrating the importance of behavior relative to the environment. Physical interaction, real or imagined, allows the individual to experience and understand a setting's nuances with all of their senses. In addition to arousing strong emotions that can vary in valence (Manzo, 2005, Williams, Patterson, Roggenbuck, & Watson, 1992), setting attributes can also shape behavior and, ultimately experience, by determining what is possible within the spatial context (Milligan, 1998). While conceptualizations of place attachment generally include affect, cognition, and practice (Jorgensen & Stedman, 2002; Low & Altman, 1992; Scannell & Gifford, 2010), operations of these components have varied in the extent to which these elements are reflected in their associated measures.

Identity theory

In sociological social psychology, the central premise of identity theory lies in the suggestion that identity is a primary motivator of individual's meaningful behaviors (e.g., Burke, 1989a, 1989b; Burke & Reitzes, 1991; Stets, 1997; Stets & Burke, 1996; Stryker & Serpe, 1982). Since an identity is comprised of a set of meanings defining who one is, it provides a person with a sense of who s/he is (in an existential sense) and how s/he ought to behave. This set of meanings serves as a standard or reference for a person in the evaluations of behavioral choices (Stets & Burke, 2003). Accordingly, people act in a self-regulatory manner with the goal of achieving consistency between the meanings of their identity (which define them in a specific identity) and what they perceive to be the meanings (for that specific identity) in any situation (Burke, 1991; Burke & Stets, 1999; Cast & Burke, 2002; Robinson et al., 2006; Smith-Lovin, 1995; Stets, 2006; Stets & Tsushima, 1999). When the consistency between the two sets of the meanings occurs, identity is successfully expressed and affirmed – i.e., self-verification.

Identity theorists view one's identity the central dynamic in explaining emotions (Burke & Stets, 1999; Stets & Asencio, 2008). In the cognitive process of comparing the meanings of identity with the self-relevant meanings in a situation, a person assesses the degree of correspondence or consistency between the two sets of identity meanings. The incongruence indicates a lack of self-verification or failure of the verification and generates negative emotions (e.g., embarrassment, shames, distress, depression, disappointment or anger). Alternatively, achieving the congruency between the two meanings in self-verification process leads to positive feelings such as esteem, happiness, satisfaction, pleasure and pride. Individuals feel effective and good about themselves when they are able to verify themselves. Corroboratively, the work of Stets and her associates (Burke & Stets, 1999; Stets, 2003, 2005; Stets & Asencio, 2008; Stets & Tsushima, 2001) show that the self-verification has affective implications. For instance, in a series of laboratory studies on the worker identity, Stets

(2003, 2005) illustrated that workers experienced various gratifications when managers gave feedback to the workers that is consistent with what the workers expect to get from their performance. Similarly, Burke and Stets’ (1999) longitudinal study of the spousal identity demonstrated that positive self-feelings (e.g., competence, self-esteem, happiness, and satisfaction) were aroused when the self-views of her or his spousal identity were confirmed by the views that the spouse holds for the individuals.

The strength of emotions is function of how important an identity is. As identities define “who I am,” they provide individuals existential meanings, purpose of life and behavior guidance (Burke, 1991, 1996; Burke & Stets, 1999; Stets, 2003; Stryker, 1987; Thoit, 1991, 1995). The importance of one’s identity indicates its meaningfulness to the individual and its affective implications (Thoit, 1991; Stryker, 1968). The more important the identity, the more meaning, purpose and behavior guidance an individual derives from its enactment, and thus the more the identity influences emotional responses (Thoits, 1991, 1995). Accordingly, places are cathected more strongly as individuals find more meaningfulness from enactment of place identity. Thus, for places central to an individual sense of self, the greater the likelihood that the individual will endow the setting with value and sentiment.

Identity theory views people as an active agent in self-verification process (Burke & Reitzes, 1991; Leary, Wheeler & Jenkins, 1986; Sampson, 1978). People learn which behaviors are effective in achieving congruence between their identity meanings and meanings of the self in a situation (Burke & Reitzes, 1991). To facilitate self-verification, people seek to create opportunities and contexts in which such behaviors can be played more often. For instance, works of Stryker and Serpe (Serpe, 1987; Serpe & Stryker, 1987, 1993; Stryker & Serpe, 1982) illustrated that college freshmen who entered new environments (i.e., college) attempted to create or construct the contexts that, they learned to believe, would nurture their identities. According to Stryker and Serpe, this attempt is accomplished most effectively to find specific activities (e.g., leisure or work) and social groups (e.g., friends and family) permitting behaviors appropriate to identity.

The process of establishing and maintaining self-verification contexts leads to the development of commitment and emotional attachment to certain activities and social groups (Burke & Stets, 1999). Individuals also learn to develop and stabilize lines of actions to maintain self-verification, especially for salient identity. According to Burke and Stets (1999), as an individual’s identity is continually verified in the interaction with specific others and certain activity behaviors, s/he begins to see the relationships and activities as predictable and dependable. The person feels confidence and secure that s/he can bring the perceived self-relevant meanings in situation based on feedback from the others and the activity participation into congruency with the meanings contained in identity (Burke & Stets, 1999). S/he also feels less vulnerable to the possibility of the negative consequences that may occur from self-verification process. Accordingly, self-verification generates not only positive self-evaluation but also positive evaluation of the groups and the activities. It follows behavioral commitment and affective attachment to the social ties and the activity specific behaviors (Burke & Stets, 1999) ¹⁷. In

¹⁷ Individuals’ commitment to certain social groups and activities is also understood in terms of their effort to avoid negative feelings. When a feedback from an environment reveals a discrepancy from the meanings of identity, people adjust their actions or alter the current situations in order to bring self-relevant meanings back in line with their identity meanings (Burke, 1997; Stryker & Burke, 2000). Identity theorists illustrate that this process is complex, demanding and stressful (Cast & Burke, 2002). Therefore, people have an interest in staying within a stable semantic context to avoid the demands and stress of modifying their behaviors and negotiating shared meanings.

this way, the contexts and spatial settings that facilitate the maintenance of such behaviors and social ties are valued to the extent individuals are committed to their identity. Attachment to places occurs as people strive to preserve contexts for self-verification. The verification of place identities evolves through place interaction, often in the context of activity specific behaviors and in the presence of significant others. These interactions further affirm individual ties to place.

Methods

Data collection

Data for this investigation were taken from a larger study of the public's perceptions of wildfire management within the wildland-urban interface near Cleveland, Angeles, and Los Padres National Forests (NF) in southern California. We began by selecting census tracts intersecting with a half mile buffer surrounding the Forests. Names and address of residents were then drawn from census blocks. The buffer was identified using ArcGIS software. Names and addresses of residents within the identified census blocks were provided by a commercial research company ($N = 4,564$). A modified Dillman (2000) procedure was used with four contacts; (a) initial introductory letter explaining the purpose of the investigation and drawing respondents' attention to the survey instrument that would be arriving within the coming weeks, (b) cover letter, survey instrument, and return postage-paid envelope, (c) a post card reminder, and (d) a second cover letter, survey instrument, and return postage-paid envelope sent to non-respondents. A total of 1,653 respondents returned their survey instruments. This sampling procedure yielded a 36.2% response rate.

Measures

Place attachment was measured using items adapted from Kyle et al.'s (2004) place attachment scales. The 11 items measured four dimensions; *place identity*, *affective attachment*, *place dependence*, and *social bonding*.

Results

Sample Characteristics

The socio-demographic profile of respondents is reported in Table 1. For both groups, respondents were mostly white (San Diego= 91%; Los Angeles= 87%) older (San Diego & Los Angeles= 61 years (M)) men (San Diego= 61%; Los Angeles= 68%). They were generally well educated (San Diego= 15 years (M); Los Angeles= 16 years (M) with annual household incomes in excess of \$60,000 (San Diego= 61%; Los Angeles= 68%).

Table 1 Sample demographics

Indicator	San Diego (<i>n</i> = 729)	Los Angeles (<i>n</i> = 929)
Gender <i>n</i> (%)		
Male	445 (61.0)	627 (67.5)
Female	275 (37.7)	291 (31.3)
Age (<i>M</i> years, <i>SD</i>)	61.4 (13.47)	61.8 (13.5)
Education (<i>M</i> years, <i>SD</i>)	15.4 (2.64)	16.3 (2.7)
Income <i>n</i> (%)		
Under \$20,000	24 (3.3)	35 (3.8)
\$20,000 - \$59,999	176 (24.2)	178 (19.1)
\$60,000 - \$99,999	186 (25.5)	230 (24.7)
\$100,000 - \$139,999	139 (19.1)	166 (17.9)
\$140,000 – 179,000	62 (8.5)	113 (12.2)
\$180,000 or more	60 (8.2)	122 (13.1)
Race/Ethnicity		
Hispanic	19 (2.6)	49 (5.3)
White	662 (90.8)	808 (87.0)
Asian American	3 (.4)	19 (2.0)
Black or African American	2 (.3)	13 (1.4)
Native Hawaiian or other Pacific Islander	21 (2.9)	12 (1.3)
American Indian or Alaskan Native	2 (.3)	2 (.2)

Model testing

Our analyses tested both the measurement properties of the place attachment scale in addition to our hypothesized structure; i.e., place identification processes that drive other affective and conative outcomes. We tested both the scale’s measurement properties and structural relations using data drawn from the two spatial contexts. The first step in our model testing procedure began with an examination of the measurement model (confirmatory factor analysis (CFA) in LISREL version 8.5) which examined the suitability of our hypothesized factor structure for these data. For both groups, the fit indices (San Diego– $\chi^2=177.77$, *df*=36, RMSEA=.071, NNFI=.984, CFI=.989; Los Angeles – $\chi^2=197.17$, *df*=36, RMSEA=.069, NNFI=.984, CFI=.990) for the model and the tests of internal consistency (all $\alpha \approx .70$)¹⁸ indicated that the model satisfactorily fit the data (see Table 2). Following the establishment of a valid measurement model, we then tested the structural model (Anderson & Gerbing, 1982). The final model indicated satisfactory model fit (San Diego– $\chi^2=177.77$, *df*=36, RMSEA=.071, NNFI=.984, CFI=.989; Los Angeles– $\chi^2=197.17$, *df*=36, RMSEA=.069, NNFI=.984, CFI=.990) (see Table 3).

¹⁸ Nunnally (1978) suggested that Cronbach’s alpha coefficients which are equal to or great than .70 are acceptable.

Table 2 Confirmatory factor analysis, internal consistency, and item descriptive

		<i>San Diego (n=729)</i>					<i>Los Angeles (n=929)</i>				
		α	<i>M</i>	<i>SD</i>	Factor Loadings	<i>t</i> -value	α	<i>M</i>	<i>SD</i>	Factor Loadings	<i>t</i> -value
Place Identity		.92					.90				
PI ₁	I feel the National Forest is a part of me		3.04	.95	.90	--		3.12	.94	.90	--
PI ₂	I identify with the National Forest		3.12	.93	.87	34.24		3.20	.91	.86	36.98
PI ₃	I feel that my identity is reflected in the National Forest		2.92	.88	.84	31.90		2.90	.85	.84	34.16
PI ₄	Visiting the National Forest says a lot about who I am		3.06	.86	.84	27.81		3.08	.82	.79	29.68
Place Dependence		.69					.73				
PD ₁	I can't imagine a better place for what I like to do		2.88	.88	.83	--		3.20	.91	.88	--
PD ₂	The National Forest is the best place for the recreation activities that I enjoy		3.19	.85	.65	17.26		3.12	.94	.65	18.13
Affective Attachment		.87					.85				
AA ₁	The National Forest means a lot to me		3.63	.88	.91	--		3.08	.82	.91	28.71
AA ₂	I really enjoy the National Forest		3.74	.83	.85	27.61		2.91	.85	.82	23.71
Social Bonding		.88					.88				
SB ₁	I associate special people in my life with the National Forest		3.09	.95	.88	--		3.20	.91	.87	--
SB ₂	The time spent on the National Forest allows me to bond with my family and friends		3.32	.94	.76	21.86		3.12	.94	.76	24.22
SB ₃	Visiting the National Forest allows me to spend time with my family and friends		3.74	.83	.77	22.33		2.91	.85	.77	24.83
Fit index			$\chi^2=177.77$, df=36 RMSEA=.071 NNFI=.984 CFI=.989					$\chi^2=197.17$, df=36 RMSEA=.069 NNFI=.984 CFI=.990			

Note. Items measured along a 5-point scale where 1=Strongly disagree and 5=Strongly agree.

The procedure we used for model comparison across the two groups is referred to by Bollen (1989) as invariance testing. Bollen (1989) noted that testing for model comparability across groups is a matter of degree in that the researcher decides which parameters should be tested for equality across groups and in what order these tests should be made. The hierarchy of invariance¹⁹ that was

¹⁹ For a more detailed discussion of invariance testing, see Bollen (1989) or Byrne (1998).

employed in this study involved the testing of increasingly restrictive hypotheses concerning equality between the two samples in terms of:

- H₁: equality of structure - examines the suitability of a four-factor solution across the two groups;
- H₂: equality of scaling - examines the similarity in the pattern of factor loadings among the groups; and
- H₃: equality of structural coefficient estimates - examines the similarity of the regression paths for groups.

These hypotheses were tested sequentially by constraining the relevant elements of the model to be equal across groups. The effect of these constraints was examined using the χ^2 difference test (Byrne, 1998). In essence, these tests establish the degree to which our conceptualization of place attachment applies in different spatial contexts.

Table 3 presents a summary of the analysis. The first test examined the form of the factor solution (H₁) across the two groups. The models were hypothesized to have the same pattern of fixed and free values in the matrices containing factor loadings, structural coefficients, and the variance/covariance matrices. Nonfixed parameters were not restricted to have the same value across groups in this first test. The fit of this unconstrained model was considered adequate ($\chi^2=374.96$, $df=72$, $RMSEA=.070$, $NNFI=.984$, $CFI=.990$). This unconstrained model served as a point of comparison for the second test (equality of scaling) discussed below.

In our second test (H₂), the factor loadings were constrained to be equal across the two groups (Marsh & Grayson, 1995). The fit of this model was compared with the fit of the model above which did not require this invariance (equality of structure). As shown in Table 3, the imposition of this constraint did not significantly impact the goodness-of-fit indices ($\Delta\chi^2 = 7.83$, $\Delta df = 7$). Thus, the pattern of factor loadings was held constant across the two groups.

For the final test (H₃), equality constraints were placed on each element of beta matrix in order to test the equality of regression coefficients across two groups. Model fit was compared with the fit indices from the model tested above (H₂) and illustrated that this constraint did not significantly impair the model’s fit to the data ($\Delta\chi^2 = 4.20$, $\Delta df = 3$). This finding indicates that the latent structure tested in our hypothesized model was equivalent among the two groups.

Table 3 Summary of cross-validation

<i>Model</i>	χ^2	<i>df</i>	$\Delta\chi^2$	Δdf	<i>RMSEA</i>	<i>NNFI</i>	<i>CFI</i>
Baseline							
Cleveland	177.77	36			.071	.984	.989
Angeles & Los Padres	197.17	36			.069	.984	.990
H ₁ - Form	374.96	72			.070	.984	.990
H ₂ - Invariant factor loadings	382.77	79	7.83	7	.067	.985	.990
H ₃ - Regression Coefficients	386.97	82	4.20	3	.066	.986	.990

Summary

These findings offer support for the hypothesized model suggesting that the identity-related dimension would positively predict each of the place attachment dimensions. Specifically, the following relationships were observed in the final model (see Table 4):

a. *Place dependence* was positively predicted by *place identity* ($\beta = .83, t = 35.12$). For the San Diego data, *place identity* accounted for 77% of the variation in *place dependence*, and 63% of the variation for the Los Angeles data. Thus, the degree of self-identification with these National Forests influenced respondents' dependency on the ability of the setting to provide or facilitate functional outcomes (e.g., leisure experiences).

b. *Affective attachment* was positively influenced by *place identity* ($\beta = .77, t = 34.46$) and accounted for 64% of the variance for the San Diego data and 65% of the variance in the Los Angeles data. Thus, the sentiment respondents associated with the setting was a product of the association between the physical environment and their self conceptualization.

c. *Place identity* positively predicted *social bonding* ($\beta = .80, t = 34.40$). This dimension accounted for 64% of the variance in *social bonding* for the San Diego data and 65% of the variance for the Los Angeles data. This finding suggests that self conceptualizations are closely intertwined with respondents' social ties.

Table 4 Structural model analysis

Dependent variable	β	t-value	R^2	
			San Diego	Los Angeles
Place dependence	.83	35.12	.77	.63
Affective attachment	.77	34.46	.59	.60
Social bonding	.80	34.40	.64	.65

Conclusion

In this investigation, we adapted identity theory to reposition identity in the conceptualization of human-place bonding. Guided by tenets of identity theory, we proposed a revised casual structure of place attachment in which the cognitive component - place identity – precedes other affective and conative facets. Analyses of two data sets (San Diego and Los Angeles) provided strong support for our reconceptualization of the place attachment construct and its associated measures. In our results, all significant relationships demonstrated that place identity positively predicted the other dimensions (i.e., affective, place dependence, and social bonding). Rather than existing on the same temporal plane, we suggest that identification processes are a driver of other affective and conative elements. As a guide for future model testing, identity theory could provide researchers with a stronger theoretical base to construct hypotheses related to the relationship to other leisure related constructs such as enduring involvement, commitment, loyalty and specialization.

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