

EXAMINING THE STRUCTURE OF THE LEISURE INVOLVEMENT/PLACE BONDING RELATIONSHIP IN THREE SUMTER NATIONAL FOREST CAMPING AREAS

Jenny K. Cavin²⁶
Department of Parks, Recreation and Tourism
Management
Clemson University
Clemson, South Carolina
Email: jennycavin@tamu.edu

Drew A. Cavin²⁶
Department of Parks, Recreation and Tourism
Management
Clemson University

Gerard Kyle
William E. Hammitt
Department of Parks, Recreation and Tourism
Management
Clemson University

James Absher
USDA Forest Service, Pacific Southwest Research Station

Abstract

Recreation places often take on significant meaning for people for a plethora of reasons. Leisure literature has begun to examine the way that people's leisure involvement may impact their attachment to places. The purpose of this investigation was to examine the relationship between the dimensions of leisure involvement and the dimensions of place bonding among a sample of recreationists camping in three camping areas in a southeastern National Forest. Four hundred twenty four campers (83% response) in the Sumter National Forest in South Carolina were surveyed to examine the leisure involvement-place bonding relationship. Using multidimensional conceptualizations of both constructs, our results indicated that leisure involvement was a positive predictor of recreationists attachment to the forest.

1.0 Introduction

Individuals often place a high value on specific locations and select recreational activities. For a variety of reasons, certain places matter to people. People may care for places because they have visited regularly, because they

have memories tied to location or, perhaps, because the place possesses aesthetic beauty. Places may also take on significant meaning because of the involvement with the activities people enjoy there, given that involvement has been suggested as an antecedent of place attachment (Kyle et al. 2003; Moore & Graefe 1994).

In recent years, there has been considerable research within the recreation and leisure field focusing on the connections people feel with places (Bricker & Kerstetter 2000; Hammitt et al. in press; Moore & Scott 2003; Shumaker & Taylor 1983; Steel 2000) and about peoples' involvement with recreational activities (Gahwiler & Havitz 1998; Havitz & Dimanche 1990, 1997, 1999; Iwasaki & Havitz 1998; Kim et al. 1997). The literature has also begun to examine the way that people's leisure involvement may impact their place attachment (Kyle et al. 2003; Moore & Graefe 1994). Williams et al. (1992) suggested the potential connection between at least two of these constructs saying, "place attachment analysis offers a way to apply concepts of... involvement to recreational settings" (p. 43).

2.0 Previous Research

2.1 Leisure Involvement

Laurent and Kapferer (1985) suggest that enduring involvement "derives from the perception that the product is related to centrally held values, those defining one's singularity, and identity, one's ego" (p. 42.). They argued that involvement is best viewed as a multifaceted concept and proposed five facets of involvement, which opened the door for conceptualizing involvement on a multidimensional concept. Since the mid-1980s there has been a general consensus that multi-dimensional measures of the construct are best suited for measuring involvement (Havitz & Dimanche 1990, 1997, 1999; Kyle et al. 2003; McIntyre 1989; Selin & Howard 1988). McIntyre and Pigram (1992) have extended Laurent and Kapferer's (1985) research to develop three components of leisure involvement consisting of attraction (interest and enjoyment), self-expression, and centrality to lifestyle. The attraction component examines the importance and enjoyment recreationists' associate with specific leisure activities. Self-expression is closely linked with sign or symbolic values associated with leisure activities (Dimanche & Samdahl 1994). Lastly, centrality,

²⁶Jenny and Drew Cavin are now completing their PhDs within the Department of Recreation, Park and Tourism Sciences at Texas A&M University

represents the degree to which the activity holds a central role in one's life. McIntyre and Pigram echo Laurent and Kapferer's criticism of formerly used summative measures of involvement. They suggest that involvement profiles are preferred over using a summative index with a construct recognized as multidimensional, because profiles more appropriately acknowledge the singular contribution of each of the components of the construct.

In the leisure involvement literature, Havitz and Dimanche's (1997) definition of involvement has been frequently cited: "an unobservable state of motivation, arousal or interest toward a recreational activity or associated product. It is evoked by a particular stimulus or situation and has drive properties" (p. 246, adapted from Rothschild 1984). Though there is some disagreement as to which dimensions of involvement are most salient; several leisure involvement studies in the recreation field have adopted the conceptualization of involvement as a tripartite construct consisting of attraction, centrality, and self-expression (Bricker & Kerstetter 2000; Gahwiler & Havitz 1998; Kyle et al. 2003; McIntyre & Pigram 1992).

McIntyre and Pigram (1992) studied recreation involvement in the context of vehicle-based campers and used the construct to identify variation in campers' management preferences. In their study, McIntyre and Pigram expanded on Bryan's (1977) description of specialization by integrating an affective component from Laurent and Kapferer's (1985) work, which they termed enduring involvement. McIntyre and Pigram's study aimed to develop recreation involvement profiles for the sample and to demonstrate the usefulness of the profiles for segmenting their sample into subgroups that differ in terms of their attitude toward management of the study area. Four clusters of campers were identified that varied by their recreation involvement profiles, with some focused heavily on self-expression, some on centrality, and some on attraction. This finding revealed that involvement can be applied in broader contexts than rock-climbing and fishing including "more generic and less skill-oriented activities such as camping" (p. 10). Further, the profiles did prove useful in dividing the sample into homogenous groups that differed in terms of their attitudes toward management of the study area. The subgroup that was most centrally involved, most experienced, and most familiar was also most critical of management actions.

Recently, involvement studies have examined campers (Kyle & Chick 2002; Kyle et al. 2003) from quantitative and qualitative perspectives. Kyle and Chick examined campers attending an agricultural fair in central Pennsylvania using several ethnographic techniques in two stages. They sought to understand three questions: (1) Why do campers attend annually?; (2) What is the focus of the campers' involvement?; and (3) How is their involvement maintained? Through on-site and at-home contact, the investigators found that nurturing relationships with significant family and friends while camping to be the primary reason campers attend the agricultural fair annually for many decades. Additionally, social bonds were both the focus of the campers' involvement and the driving force behind their continuation. Centrality was found to be the least important dimension of involvement for the Pennsylvania campers, as the Fair only occupied 1 week of the year.

Kyle et al. (2003) examined involvement as an antecedent to place attachment among hikers along the Appalachian Trail. Across all groups of hikers (day hikers, overnight hikers, section hikers, through hikers), attraction was the most salient involvement dimension and centrality received the lowest importance ranking. Researchers found partial support for involvement as an antecedent to place attachment, however, due to the multidimensionality of both involvement and place attachment, this simple statement was found lacking. Self-expression and attraction were found to be good predictors of place identity, though the connection between self-expression and place dependence was less clear. "Overall, the dimensions of activity involvement were better predictors of the place identity dimension than they were of the place dependence dimension" (p. 267).

2.2 Place Bonding

The concept of person-place interactions has its roots in humanistic geography. People develop personal attachments to places and thereby acquire a sense of belonging and purpose that gives their lives meaning (Bricker & Kerstetter 2000; Buttimer 1980; Relph 1976; Tuan 1980). "To be human is to live in a world that is filled with significant places: to be human is to have and know your place" (Relph 1976). This knowing of place has been alternately termed sense of place (Jorgensen & Stedman 2001; Tuan 1980), place identity

(Moore & Graefe 1994; Proshansky et al. 1983), place dependence (Moore & Graefe 1994; Shumaker & Taylor 1983), place attachment (Bricker & Kerstetter 2000; Kyle et al. 2003;), and, most recently, place bonding (Hammitt 2000; Hammitt et al. in press; Steel, 2000). “Despite different names, the connecting theme among these concepts is that humans form affective bonds to significant places in their lives, whether the focus of the investigation is their home, their community or the places they recreate,” (Hammitt et al. in press b). Shumaker and Taylor (1983) included “cognitions of satisfaction and expectations of stability, feelings of positive affect, greater knowledge of the locale, and behaviors that serve to maintain or enhance the locale” (p. 237) in their definition of place attachment. This definition incorporates cognitive, affective and behavioral components into place attachment. Place bonding to a resource suggests that over repeated exposure and through a transactional process of place-people interactions, that places take on an identity of their own (Fishwick & Vining 1992). Because of the similarities between interpersonal relationships and person-place relationships, human relationships may offer “a theoretical analogue that could serve to guide research in environmental relationships” (Steel 2000, p. 798).

Subsequently, place bonding has been partitioned into five dimensions: place familiarity, place belongingness, place identity, place dependence and place rootedness (Hammitt 2000; Hammitt et al. in press). Place familiarity involves place recognition that develops through experiences in/with the place, involving a sense of knowing and cognition associated with recreation place. Place belongingness entails a feeling of membership to/with a place. This dimension may include personal buy-in to the place or community and altruistic feelings and actions to the area, as if they hold “membership” and are a part of a resource place (Milligan 1998). Place identity is described by Proshansky (1978) as referring to “those dimensions of the self that define the individual’s personal identity in relation to the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences feelings, values, goals and behavioral tendencies and skills relevant to this environment” (p. 155). The dimension, place identity, refers to the possibility that a person may come to define himself or herself in terms of the place. Place dependence, then, may include elements of other dimensions, but also requires a necessity of the specific

resources. Place dependence hinges on the functional attachment reflecting the importance of a resource providing the setting and amenities for desired activities (Kyle & Chick 2003; Stokols & Shumaker 1981; Williams & Roggenbuck 1989) Place rootedness is a rare form of place bonding. Place rootedness, “in its essence means being completely at home – that is unreflectively secure and comfortable in a particular location” (Tuan 1980, p. 4). This dimension is so rooted in the notion of stability that recreation in other areas may be precluded.

Recently, Hammitt et al. (in press) analyzed place bonding of trout anglers on the Chattooga National Wild and Scenic River. They hypothesized that experience use history was associated with place bonding and resource substitution. It was anticipated that experienced anglers would feel more bonding to the resource and conceive of fewer recreation substitutes. Anglers studied felt a fairly strong bond to the Chattooga River, which was anticipated as the sample consisted of two Trout Unlimited Chapters that were affiliated with the river. In this study, the five-factor model of place bonding was confirmed, with Place Identity and Place Belongingness emerging as the most salient dimensions and Place Rootedness receiving the least support. Experience use history was found to predict place bonding more strongly than it predicted substitution behavior.

3.0 Methods and Results

3.1 Study Sites

This study focused on campers at three camping areas in the Sumter National Forest, located in the northwest corner of South Carolina near the Chattooga National Wild and Scenic River. The study sites were chosen due to their proximity to one another and differing levels of development. The three areas are within a 3-mile radius of one another. The close proximity eliminates most of the variability in campsite selection based on travel distance. Cherry Hill Campground is a developed area (\$10 per night) with marked sites, picnic tables, level tent pads, lantern hangers, nearby potable running water, garbage receptacles, and a centrally located, heated bathhouse with flush toilets and showers. Burrell’s Ford Walk-In Campground requires a 300-400 yard walk to the camping areas, but does not charge a camping fee. Once at the camping areas, campers may use a central vault toilet and may choose from unmarked sites with or without picnic tables or lantern posts. All camping areas at Burrell’s Ford are located adjacent to or in close

proximity to the Chattooga National Wild and Scenic River. Camping in the Ellicott Rock Wilderness (8,274 acres) offers the most primitive camping experience. All campers must hike at least one-quarter of a mile from the trailhead into the Wilderness to legally camp. Camping areas are unmarked, offer no built amenities, and are free of charge. The trails in this relatively small Wilderness Area are well used and most campers spend the night near the Chattooga River. Though not all users of the Ellicott Rock Wilderness are campers, only those who camped at least one night within Ellicott Rock were surveyed at this study site. A non-probability convenience sample conducted over 18 weekends in the summer and fall of 2003 resulted in 506 camper contacts with just three refusals. On-site surveys were completed and returned by 307 campers, while 196 respondents elected to complete the survey later and return it in a postage-paid envelope. Respondents who chose the latter option were sent a postcard reminder roughly 2 weeks after initially contacted if the questionnaire had not already been received. After two additional weeks, a second survey packet including a cover letter, a second copy of the questionnaire, and a postage-paid envelope was sent to those campers who had not yet returned the initial questionnaire. This modified Dillman (2000) procedure resulted in a 59.7% mail back response rate (117 of the 196 surveys returned), producing a total of 424 complete questionnaires for an 83.3% overall response rate.

3.2 Sample Selection

The Forest Service estimated that the Sumter National Forest receives the most use in the summer months with additional use during fall colors. For this reason, this study sampled on every Friday and Saturday between and including Memorial Day weekend to Labor Day weekend during the summer of 2003, and on Fridays and Saturdays during October. Because only overnight campers were surveyed, the majority of campers were assumed to be surveyed Saturday evening that would be present Sunday, thus surveying was not conducted on Sundays. A non-probability convenience sample was employed by relying on available subjects in the camping areas. Each camping group seen was approached. A survey was distributed to each member of the group that was age 16 or older and willing to participate.

The questionnaire was distributed by the author and another graduate student on-site in the three camping areas. In the developed campground, Cherry Hill,

questionnaires were distributed during the day at the campsites. Later the investigators collected the questionnaires during the evening around dinnertime (4–7 p.m.), when campers were likely to be around the campsite. If the respondents so chose, they could leave the questionnaires on their picnic table under a rock in a gallon-sized zippered seal storage bag that was provided with the survey instrument. At Burrell's Ford Walk-In Campground, the questionnaires were distributed during the day and were collected in the early evening around dinnertime (4–7 p.m.). The respondents were also given the option to complete the questionnaires and return them to the investigator immediately, rather than having the investigators return later in the day.

In the Ellicott Rock Wilderness Area, a slightly different technique was used. The investigators hiked in on a trail in the study area, distributing questionnaires to campers encountered. The investigators hiked through the Wilderness area throughout the day in an effort to contact every camper in the Wilderness area. To obtain complete questionnaires, a business reply envelope was provided to those respondents who preferred to fill out the survey at their convenience and drop it in the mail. This option was made available to respondents at Cherry Hill and Burrell's Ford campgrounds when campers were encountered late in the evening on Saturday and they wished to complete the questionnaire later. However, business reply envelopes were most frequently used in Ellicott Rock. When this option was utilized, a contact card was requested. Individuals who did not mail in the survey were contacted for follow up using a modified Dillman (2000) procedure.

3.3 Questionnaire Development

The questionnaire included questions about respondents' visit characteristics and about their involvement with the activities they participated in during their visit. Information requested included length of visit, group size, and group composition. In addition, respondents were given a list of ten activities and a blank space to add other activities; and were asked to mark an activity if they had participated in it during this visit. For all activities indicated, respondents were asked to rank the importance of that activity on a four-point scale ranging from "Not at all important" to Very important". Next, respondents were asked to list their primary activity from the given list of activities. Respondents were then asked to answer sixteen questions adapted on a five-point

Likert-type scale ranging from “Strongly Disagree” to “Strongly Agree” from McIntyre and Pigram’s (1992) involvement scale with regard to their primary activity. McIntyre and Pigram’s involvement scale consisted of three dimensions: centrality, attraction, and self-expression. This scale was modified to include items from a fourth proposed dimension: social bonding. Three items from the centrality dimension were included as well as four from attraction, six from self-expression, and three from social bonding. In addition, the questionnaire included questions relating to respondents’ feelings toward or attachment to the camping area where they were contacted by measuring their place bonding. Items used were adapted from Hammitt (2000), consisting of five domains and 26 individual items. The five domains were familiarity, place belonging, place identity, place dependence, and rootedness. Hammitt’s scale was originally adapted from Williams and Roggenbuck’s (1989) place attachment scale which consisted of only two dimensions: place identity and place dependence. Respondents ranked items in order of importance on a five-point Likert type scale ranging from “highly unimportant” to “highly important.” Individual items were listed in random order using a random numbers table. Finally, socio-demographic data were collected from respondents.

3.4 Data Analysis

Based on the previous literature, we hypothesized that the dimensions of involvement would positively influence the dimensions of place bonding. The hypothesized model was tested using covariance structure analysis provided through LISREL (version 8.51). Separate covariance matrices were constructed for each site. The hypothesized model was then tested across these settings (multigroup procedure).

3.5 Results

Respondents were 70.9% male and 29.1% female with the majority of respondents being between the age of 20 and 49. The majority of respondents reported having some post-secondary education (79.7%). Respondents’ incomes were fairly evenly distributed among the range of income categories. The largest group of respondents (22.1%) stated their income was between \$40,000 and \$59,999. One percent of respondents identified themselves as either Hispanic or Latino. The vast majority of respondents identified themselves as White (94.4%). Other minority groups represented included

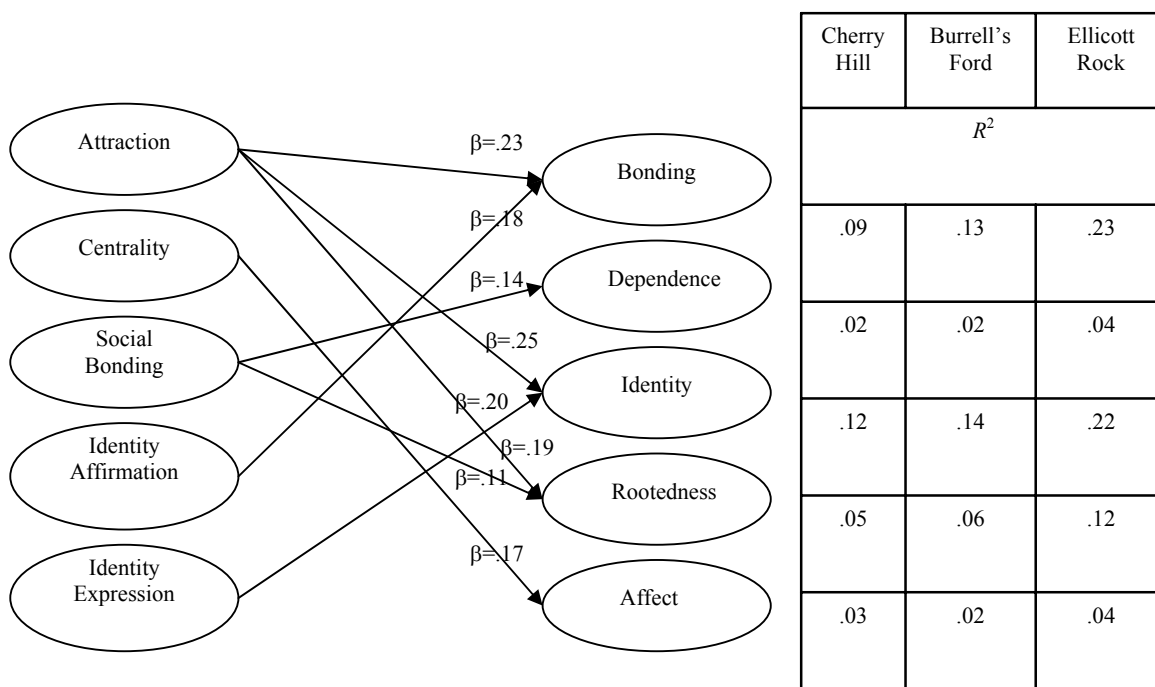
3.2% American Indian or Alaskan Native, 1.2% Asian American, 0.7% Black or African American, and 0.5% Native Hawaiian or other Pacific Islander.

On average, the camping groups were composed of 4.82 people. The majority of the camping groups were comprised of either family (36.2%) or friends (35.2%). The other 28.5% of camping groups were either alone (3.4%), were comprised of a combination of family and friends (18.2%), were a part of an organized group (5.3%), or identified some other group composition (1.7%). Other than camping, many campers participated in viewing scenery (67.9%), day hiking/walking (64.9%), and fishing (52.1%). A small majority of respondents considered camping (51.6%) to be their primary activity on this visit. On average, respondents had been camping at the area where they were contacted for 6.50 years ($SD=8.88$) and for 1.38 years ($SD=2.63$) at other local camping areas. Last year respondents reported camping at the area where they were contacted 9.49 times ($SD=10.95$) and 2.44 times ($SD=4.23$) at other local camping areas. The most important activity reported was camping ($M=3.76$).

The results of the model testing are depicted in Figure 1. Only the statistically significant relationships are reported ($p < .05$). These results offer partial support for our hypothesized model and indicate:

- a. Bonding was positively influenced by Attraction ($\beta=.23$) and Identity Affirmation ($\beta=.18$);
- b. Dependence was positively influenced by Social Bonding ($\beta=.14$);
- c. Identity was positively influenced by Attraction ($\beta=.25$) and Identity Expression ($\beta=.20$);
- d. Rootedness was positively influenced by Social Bonding ($\beta=.11$); and
- e. Affect was positively influenced by Attraction ($\beta=.17$)

The variance accounted for by involvement in the dimensions of place bonding was shown to vary across the sites where respondents were sampled. The general pattern of results indicated that the dimensions of involvement captured more of the variance in the dimensions of place bonding in the more primitive settings. Involvement was the strongest predictor of the Bonding and Identity dimensions of place bonding and the weakest predictor of Dependence and Affect.



$\chi^2=2845.11$, $df=1974$, $RMSEA=.056$, $NFI=.87$, $CFI=.93$, $IFI=.93$

Figure 1.—Involvement → place bonding model

4.0 Discussion and Conclusions

Involvement, which consisted of five dimensions (attraction, centrality, social bonding, identity affirmation, and identity expression), was found to positively predict place bonding, which consisted of five dimensions (bonding, dependence, identity, rootedness, and affect). The variation in place bonding was best explained among campers in the most remote camping area, Ellicott Rock Wilderness, across all dimensions of place bonding.

This study found support for the five dimensional model of place bonding proposed by Hammitt (2000). The results of this study also confirmed previous findings (Bricker & Kerstetter 2000; Iwasaki & Havitz 1998; Kyle et al. 2003; Kyle et al. 2004) that involvement influences place bonding on a global scale, and that several dimensions of involvement have significant positive influences on the dimensions of place attachment, labeled here as place bonding. "[I]ndividuals initially form involvement(s) with an activity (e.g. running), then gradually develop psychological commitment to brands (e.g. running shoes, workout courses, specific road-races)" (Iwasaki & Havitz 1998, p. 278). The involvement→commitment

relationship described by Iwasaki and Havitz closely mirrored the involvement→place bonding relationship noted here. Further, the results of this study supported multidimensional measures of the constructs (Havitz & Dimanche 1990, 1997, 1999; Kyle et al. 2003; McIntyre 1989; Selin & Howard 1988), which are "better equipped to tap into these meanings and provide researchers with profiles rather than a single summative score where subjects can then only be placed along a continuum from low to high" (Kyle et al. 2003, p. 266).

To serve the broader heterogeneous camping population, recreation managers have been using various planning frameworks, such as limits of acceptable change. In the planning process managers must identify stakeholders to inform and guide the decision making process. Williams and Stewart (1998) concluded that "it is not sufficient to continue to rely solely upon demographic variables like race and income to provide information about people's reaction to the natural world" (p. 12). Place bonding offers a more complete understanding of users, especially those who feel deep attachment to places, whereby managers may most effectively seek input from representative users. This becomes particularly important when smaller homogeneous subgroups are

identified within the broader heterogeneous camping population. These subgroups, categorized by the degree to which they are attached to place, often have varying, even contradictory, preferences and attitudes toward management practices.

In the future, place bonding should be examined in the context of specific areas (i.e. Cherry Hill Campground) versus bonding to the Sumter National Forest as a larger entity. Though respondents did not show strong dependence on the specific camping area where they were contacted, future investigators may find that similar campers do feel a dependence upon the Sumter National Forest as a whole. Conversely, those primarily interested in fishing might feel a weaker bond to the Sumter National Forest in its entirety, but a stronger bond to the Chattooga National Wild and Scenic River within its jurisdiction. Also, further investigation is needed in developing the place bonding scales to achieve reliability, validity, and parsimony across settings and activities. Future research could be extended to additional outdoor settings and activities, such as commercial rafters in the Grand Canyon, South Texas birders, Front Range climbers in Colorado, or even children using a soccer field in an urban area.

5.0 Citations

- Bricker, K. S., & Kerstetter, D. L. (2000). Level of specialization and place attachment: An exploratory study of whitewater recreationists. *Leisure Sciences*, 22, 233-257.
- Bryan, H. (1977). Leisure value systems and recreation specialization: The case of trout fishermen. *Journal of Leisure Research*, 9, 174-187.
- Buttimer, A. (1980). Home, reach, and the sense of place. In A. Buttimer & D. Seamon (Eds.), *The human experience of space and place* (pp. 167-187). London: Croom Helm.
- Dillman, D. A. (2000). *Mail and Internet surveys: The tailored design method* (2nd ed.). New York: John Wiley & Sons, Inc.
- Dimanche, F., & Samdahl, D. M. (1994). Leisure as symbolic consumption: A conceptualization and prospectus for future research. *Leisure Sciences*, 16, 119-129.
- Fishwick, L. & Vining, J. (1992). Toward a phenomenology of recreation place. *Journal of Environmental Psychology*, 12, 57-63.
- Gahwiler, P., & Havitz, M. E. (1998). Toward a relational understanding of leisure social worlds, involvement, psychological commitment, and behavioral loyalty. *Leisure Sciences*, 20, 1-23.
- Havitz, M. E., & Dimanche, F. (1990). Propositions for the involvement construct in recreational and tourism contexts. *Leisure Sciences*, 12, 179-195.
- Havitz, M. E., & Dimanche, F. (1997). Leisure involvement revisited: Conceptual conundrums and measurement advances. *Journal of Leisure Research*, 29, 245-278.
- Havitz, M. E., & Dimanche, F. (1999). Leisure involvement revisited: Drive properties and paradoxes. *Journal of Leisure Research*, 31, 122-149.
- Hammitt, W. E. (2000). *Place attachment and its influence on sustainability of campus resources*. Clemson, South Carolina: Clemson University, Department of Parks, Recreation and Tourism Management.
- Hammitt, W. E., Backlund, E. A., & Bixler, R. D. (in press). Experience use history, place bonding, and resource substitution of trout anglers during recreation engagements. *Journal of Leisure Research*.
- Iwasaki, Y., & Havitz, M. E. (1998). A path analytic model of the relationships between involvement, psychological commitment, and loyalty. *Journal of Leisure Research*, 30, 256-280.
- Jorgensen, B. S., & Stedman, R. C. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of Environmental Psychology*, 21, 233-248.
- Kim, S., Scott, D., & Crompton, J. L. (1997). An exploration of the relationships between social psychological involvement, behavioral involvement, and future intentions in the context of birdwatching. *Journal of Leisure Research*, 29, 320-342.

- Kyle, G., & Chick, G. (2002). The social nature of leisure involvement. *Journal of Leisure Research*, 34, 426-448.
- Kyle, G., Graefe, A., Manning, R., & Bacon, J. (2003). An examination of the relationship between leisure activity involvement and place attachment among hikers along the Appalachian Trail. *Journal of Leisure Research*, 35, 249-273.
- Laurent, G., & Kapferer, J. N. (1985). Measuring consumer involvement profiles. *Journal of Marketing Research*, 22, 41-53.
- McIntyre, N. (1989). The personal meaning of participation: Enduring involvement. *Journal of Leisure Research*, 21, 167-179.
- McIntyre, N., & Pigram, J. J. (1992). Recreation specialization reexamined: The case of vehicle-based campers. *Leisure Sciences*, 14, 3-15.
- Milligan, M. J. (1998). Interactional past and potential: The social construction of place attachment. *Symbolic Interaction*, 21, 1-33.
- Moore, R. L., & Graefe, A. R. (1994). Attachments to recreation settings: The case of rail-trail users. *Leisure Sciences*, 16, 17-31.
- Moore, R. L., & Scott, D. (2003). Place attachment and context: Comparing a park and a trail within. *Forest Science*, 49, 877-884.
- Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology*, 3, 57-83.
- Relph, F. (1976). *Place and placedness*. London: Pion Ltd.
- Selin, S. W., & Howard, D. R. (1988). Ego involvement and leisure behavior: A conceptual specification. *Journal of Leisure Research*, 20, 237-244.
- Shumaker, S. A., & Taylor, R. B. (1983). Toward a classification of people-place relationships: A model of attachment to place. In N. R. Feimer & E. S. Geller (Eds.), *Environmental psychology: Directions and perspectives* (pp. 219-256). New York: Praeger.
- Steel, G. D. (2000). Polar bonds: Environmental relationships in the polar regions. *Environment and Behavior*, 32, 796-816.
- Stokols, D., & Shumaker, S. A. (1981). People and places: A transactional view of settings. In J. Harvey (Ed.), *Cognition, social behavior, and the environment* (pp. 441-488). Hillsdale, NJ: Erlbaum.
- Tuan, Y. F. (1980). Rootedness versus sense of place. *Landscape*, 24, 3-8.
- Williams, D. R., Patterson, M. E., Roggenbuck, J. W., & Watson, A. E. (1992). Beyond the commodity metaphor: Examining emotional and symbolic attachment to place. *Leisure Sciences*, 14, 29-46.
- Williams, D. R., & Roggenbuck, J. W. (1989, October). Measuring place attachment: Some preliminary results. Paper presented at the Symposium on Outdoor Recreation Planning and Management, National Recreation and Park Association Research Symposium on Leisure Research, San Antonio, TX.
- Williams, D. R., & Stewart, S. I. (1998). Sense of place: An elusive concept that is finding a home in ecosystem management. *Journal of Forestry*, 96(5), 18-23.