

A DECONSTRUCTION OF THE I-M-L COMMITMENT SEGMENTATION OF FOREST RECREATIONISTS

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Abstract.—Previous work has established the general utility of segmenting forest recreationists according to their commitment profiles into Indifferents, Moderates, and Loyalists (IML) groups. Observed differences between these segments suggest that place identity and affect are more central to management than previously thought. This study extends this finding through the use of deconstruction analysis across common activity groupings that encapsulate use and lifestyle factors, namely visitor centers, trailheads, off highway vehicle (OHV) areas and developed sites. Results again show strong consistency in the IML segmentation itself, with only value congruence substantially not conforming. This analysis finds little evidence that alternative cultural values or social power issues are significant factors in the segmentation, and further reinforces the finding that the commitment profile segmentation is robust and stable.

1.0 INTRODUCTION

1.1 Background

In previous investigations, we explored the utility of commitment scales designed to measure recreationists' attachment to public leisure service providers and their service offerings (Kyle et al. 2005, Kyle et al. 2006). For land management agencies, the public's perception of them is often embedded in the qualities of the settings and facilities managed by the agency. Consequently, a salient element of recreationists' relationship with public agencies can be understood by examining the nature of their attachment to the settings and facilities they use. Additionally, the concept of commitment is integral for enacting management plans that positively impact recreationists' use of the resource, and it is important to

understand how, or when, it may vary across settings and activity groupings. One key development from this work addressed in this paper is a segmentation scheme based on commitment profiles—Indifferent, Moderate, or Loyalist—which will be reviewed in more detail below.

1.2 Philosophical Foundations

The idea of studying the IML segmentation according to its underlying influences involves a form of deconstruction. Based in the phenomenological principles of Heidegger (1962), this is a type of validity challenge that searches for greater authenticity by placing a proposed theoretical construction (in this case the IML commitment segmentation) under detailed scrutiny of its inner workings or essential structures. This analytical approach was more explicitly brought forward into the realm of social science methodology through the work of Derrida (1973). He took Heidegger's philosophical ideals one step further to propose a practical approach to the epistemological problem of "taking apart" concepts that serve a particular social science theory. For our study, Derrida's process tells us that a scientifically sound phenomenon can be more fully understood by placing it at risk through a deconstructive process that is temporally and socially sensitive. Thus, in this paper we place the IML segmentation in a socially rich context or setting. The experienced reality and social worlds represented through place-based activity groupings is one way to check for variations in, and hence the validity of, the IML classification.

2.0 OBJECTIVES

Broadly stated, we test the differences across major use groups that reflect identity and affect issues through a deeper look at the linkages among the constituent meaning and commitment variables. More specifically this study a) reviews the IML segmentation and examines its differences across groups found at four main recreation settings, and b) analyzes the IML segmentation as a function of multiple sub-elements of place meaning and value congruence that constitute it.

3.0 METHODS

3.1 Dataset

Data were collected from visitors to the Chattahoochee National Forest (CNF) in northeastern Georgia. Eight sampling sites were chosen, representing four different user types (described below) with seven to eight sampling days allotted to each site. Use of a mailback survey instrument with an on-site contact plus a multiple mailing approach (Dillman 2000) yielded 562 respondents with a 43% response rate. Due to question branching and non-response, 286 of these respondents answered the questions necessary for this analysis.

3.2 IML Segmentation

Agency commitment was measured using 16 items (rated on a 1-5 scale, low to high) that measured five dimensions: place identity, place dependence, affective attachment, social bonding, and value congruence. These were adapted from earlier work in the following sets of sub-components: place identity (Proshansky 1978), place dependence (Stokols & Shumaker 1982), affective attachment (Low & Altman 1992), and social bonding (Kyle & Chick 2004). The incorporation of these sub-components into the IML segmentation is detailed in Kyle et al. (2005, 2006) and need not be repeated here. Other substantively related work on agency trust and value congruence components (e.g., Winter et al. 1999) are also reviewed in Kyle et al. (2005, 2006).

The IML segmentation placed respondents into one of three homogeneous groups based on their scores on the dimensions of agency commitment. Using a k-means clustering algorithm Kyle et al. (2005) placed respondents into homogeneous groups based on their scores on five separate scales that measured dimensions of agency commitment. These scales represent: place dependence (3 items, $\alpha=.79$), place identity (3 items, $\alpha=.83$), affective attachment (4 items, $\alpha=.87$), social bonding (3 items, $\alpha=.81$), and value congruence (3 items, $\alpha=.81$). For this analysis there were 102 Indifferents, 130 Moderates, and 54 Loyalists. The groups' scores on the dimensions of commitment varied in a linear fashion from low to high. Tests of differences across the IML segments with regard to respondents' sociodemographic, behavioral, and service preference indicators were previously reported

to be robust (Kyle et al. 2005). Overall, they provided evidence in support of the commitment scales' ability to identify distinct market segments.

3.3 Validity Concerns

Although the IML segmentation is robust in work reported so far, the underlying patterns of sensitivity to attachment and commitment need to be tested further. In particular, we wish to validate recreational lifestyle influences across four major use types that might be quite different in patterns of use or experience preferences. These four groups are: visitor center users, recreationists at an off highway vehicle (OHV) area, trail hikers (parked at a trailhead), and developed site users (campers and picnickers). The aim of this paper is to deconstruct, or take apart, the putatively coherent underlying segmentation to better understand the IML (commitment-based) differences, if any, across these four user groups.

4.0 RESULTS

First we present the IML segmentation by setting groups (Table 1). The first analysis cross-tabulates the user settings by IML commitment clusters (segments). Overall the IML groups are 36 percent, 45 percent, and 19 percent of all those sampled. As expected, there is an overall significant difference among the IML groups ($\chi^2_{6 \text{ d.f.}} = 22.18, p < .001$). On closer inspection, this result is attributable to a number of items. Visitor centers attracted more Indifferents and fewer Loyalists than the overall average. OHV areas were the opposite of the visitor center pattern: they had disproportionately fewer Indifferents and more Loyalists. Trailheads had fewer Indifferents and more Moderates. Developed sites had fewer Moderates and Indifferents, and many more Loyalists.

Next we present the breakout analysis based on each segmentation group's scores on the underlying, or constituent, variables used in the IML clustering algorithm (Figure 1). Our four use groups are representative of the major recreational uses in this forest environment and constitute a strong test for the deconstruction of the IML commitment segmentation, at least for this forest's summer recreation use. As presented

Table 1.—IML Segmentation by Setting-based Activity Groups

Setting		IML Segments			Total
		Indifferents	Moderates	Loyalists	
Visitor center	n	70	74	18	162
	%	43.2%	45.7%	11.1%	100.0%
ORV area	n	7	14	11	32
	%	21.9%	43.8%	34.4%	100.0%
Trailhead	n	14	30	13	57
	%	24.6%	52.6%	22.8%	100.0%
Developed site	n	11	12	12	35
	%	31.4%	34.3%	34.3%	100.0%
Total	n	102	130	54	286
	%	35.7%	45.5%	18.9%	100.0%

$\chi^2_{6 \text{ d.f.}} = 22.18, p < .001$

above, the underlying variables used for deconstruction are scales of place dependence, place identity, affective attachment, social bonding, and value congruence.

When these constituent commitment variables were analyzed, some patterns emerged that suggest causal linkages. For instance, Visitor Center Moderates (Fig. 1A) were most strongly linked to value congruence whereas OHV (Fig. 1B) and Trailhead (Fig. 1C) Moderates rated affect highest.

Given the results presented in Table 1 and the overall validity concerns outlined above, there is reason to look further into the pattern of the underlying sub-scales for each group. Recall that the segmentation is a combined function of five different sub-scales. For convenience these are called dependence, affect, identity, social, and value congruence components. The individual ANOVA statistics are noted at the bottom of each figure.

Figure 1A presents the ANOVA results for Visitor Center segmentation. For this paper we have chosen to represent the differences graphically in order to emphasize the patterns for each user group rather than describe the numerical and inferential mathematical detail of the actual ANOVA. Note that the component variables generally all trend together so that higher scores are linked increasingly to Loyalist group assignment. This is of course exactly what we expect overall and is why the original IML segmentation was robust. The only visually significant variation is in the identity and dependence

components, where neither increases concomitantly with the other three sub-measures for the Loyalist group. Only one sub-scale, value congruence, was not significant for two of the four groups (OHV and Trail use).

Next observe the results of the OHV group (Fig. 1B). Again, identity falls off with the Loyalists (dependence doesn't), but also the social measure is dramatically lower for the Indifferents here. Figure 1C presents the results for trailhead users. Their pattern is the most monotonic. Again, only value differences show high initial values for Indifferents and a small increase across to Loyalists, again showing relatively constant scores across groups. Finally, Table 1D presents the results for developed site use, and here there is a relatively large jump in dependence and value scores with the Loyalist group after little difference between Indifferents and Moderates.

Overall, as might be anticipated, the IML clustering is consistent across user groups (settings), generally varying from low to high across I-M-L progression. Only value congruence was relatively flat across settings. Social, dependence, and affect sub-scales showed the strongest differences as measured by normalized scalar changes. Deconstructive analysis finds that while the sub-scales work to differentiate the IML segments, there is little evidence that alternative cultural values or social power issues contribute much to this segmentation. As concluded before, I-M-L seems robust and stable for all groups studied.

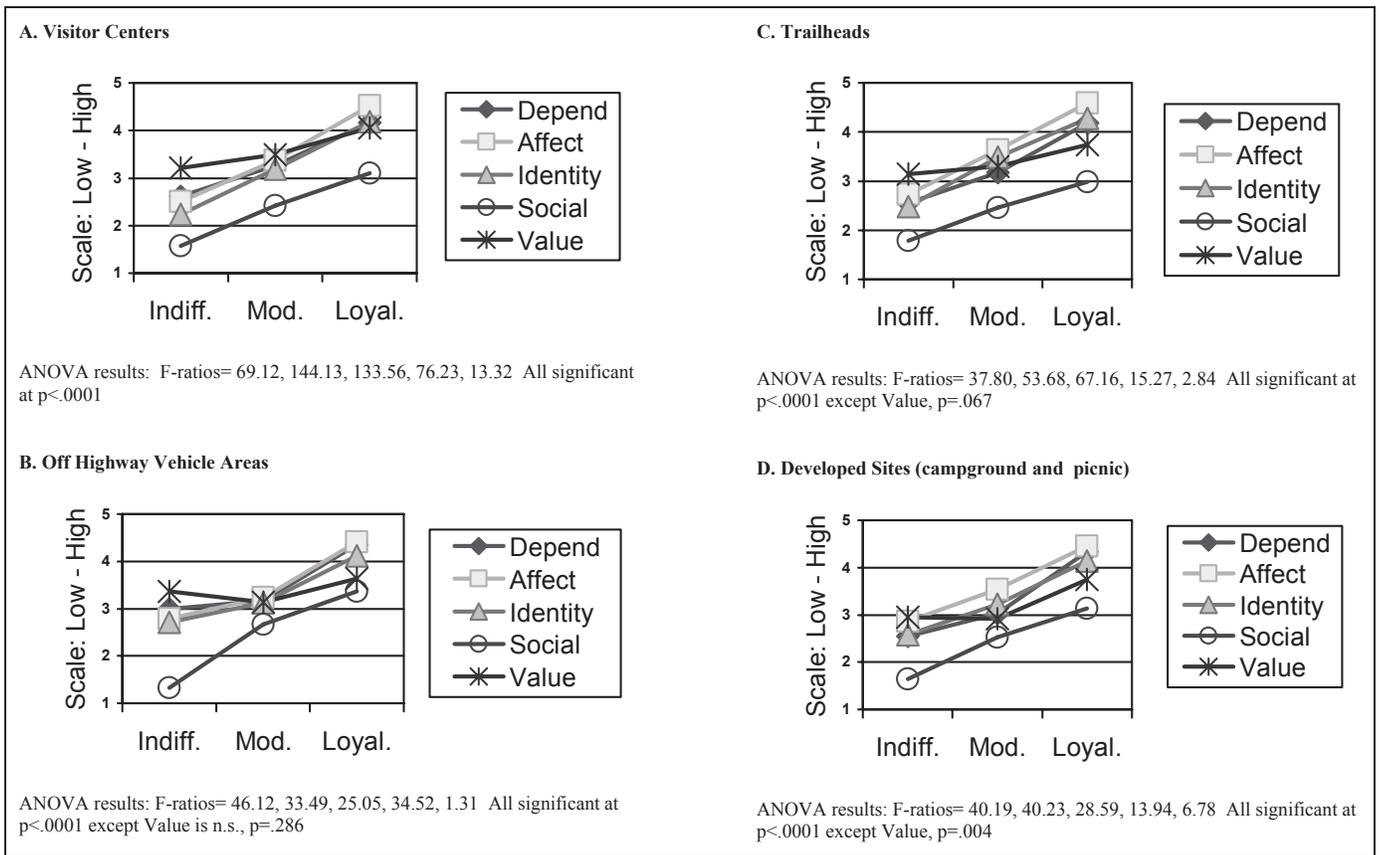


Figure 1.—ANOVA of Constituent Scales of IML Segmentation by Setting.

5.0 CONCLUSIONS AND IMPLICATIONS

Previous work recommended a focus on understanding the needs and preferences of the Loyalists segment given their strong bonds and extensive use history. The differences found from a deconstructive analysis place equal, if not more, emphasis on Moderates. Also notable from this analysis are the observed differences in the component scales, which suggest that place identity and affect are more central to management than previously thought. This is especially evident for Loyalists.

Broadly, focusing attention on the linkages of component subscales to known user groups allows for more refined site management and perhaps better experiential quality outcomes. Also, these results suggest that recreational settings operate with an intrinsic set of social influences that may be complex and require setting specific (time, season, or place) study. Obtaining a truly authentic mirror of the experiential outcomes of a given user

group will require attention to these dynamic influences. The first challenge for managers, however, remains to identify groups of users, along with the necessary setting attributes, that might be used to capture some of these social dynamics and thus enable them to manage distinct settings directly and effectively.

6.0 CITATIONS

- Derrida, J. 1973. **Speech and phenomena and other essays on Husserl's theory of signs**. Trans. David B. Allison. Evanston: Northwestern University Press. 166 p.
- Dillman, D.A. 2000. **Mail and internet surveys (2nd Ed.): The tailored design method**. New York: Wiley. 480 p.
- Heidegger, M. 1962. **Being and time (Rev. Ed.)**. San Francisco: Harper. 592 p.

- Kyle, G.T.; Absher, J.D.; Chancellor, C. 2005. **Segmenting Forest Recreationists Using Their Commitment Profiles.** *Journal of Park and Recreation Administration.* 23(2): 64-86.
- Kyle, G.T.; Chick, G.E. 2002. **The social nature of leisure involvement.** *Journal of Leisure Research.* 35: 426-448.
- Kyle, G.T.; Mowen, A.J.; Absher, J.D.; Havitz, M.E. 2006. **Commitment to public leisure service providers: A conceptual and psychometric analysis.** *Journal of Leisure Research.* 38: 78-103.
- Low, S.M.; Altman, I. 1992. **Place attachment: A conceptual inquiry.** In: I. Altman and S.M. Low eds. *Place attachment.* New York: Plenum Press: 1-12.
- Pritchard, M.P.; Havitz, M.E.; Howard, D.R. 1999. **Analyzing the commitment—loyalty link in service contexts.** *Journal of the Academy of Marketing Science.* 27: 333-348.
- Proshansky, H.M. 1978. **The city and self-identity.** *Environment and Behavior.* 10: 147-169.
- Stokols, D.; Shumaker, S.A. 1981. **People and places: A transactional view of settings.** In: J. Harvey, ed. *Cognition, social behavior, and the environment.* Hillsdale, NJ: Erlbaum: 441-488.
- Shumaker, S.A.; Taylor, R.B. 1983. **Toward a clarification of the people-place relationship: A model of attachment to place.** In: N.R. Fiemer and E.S. Geller, eds. *Environmental psychology: Directions and perspectives.* New York: Praeger: 219-251.
- Winter, P.L.; Palucki, L.J.; Burkhardt, R.L. 1999. **Anticipated responses to a fee program: The key is trust.** *Journal of Leisure Research.* 31: 207-226.