

# REASSESSING THE CAUSAL STRUCTURE OF ENDURING INVOLVEMENT

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**Abstract.**—Guided by tenets of identity theory, we hypothesized a causal structure of enduring involvement suggesting that self-relevant components precede the other dimensions. We used Kyle et al.'s (2004a) Modified Involvement Scale, in which leisure involvement is conceptualized as a multidimensional construct consisting of identity affirmation, identity expression, attraction, centrality, and social bonding. Identity affirmation and identity expression were considered as self-related facets based on their dimensional definitions. The model was tested using campers visiting a southeastern National Forest. The analyses offered partial support for our hypothesized model. Attraction was positively influenced by identity affirmation, whereas centrality and social bonding were positively predicted by identity expression. This work provides a theoretical framework for understanding the leisure involvement process, where identification with a leisure activity leads to the development of attitudinal facets of involvement.

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## 1.0 INTRODUCTION

The construct of involvement was introduced into the social psychology literature by Sherif and Cantril (1947). They conceptualized the construct in terms of the activation of ego-attitude and postulated that involvement exists when a cognitive connection

is made between stimuli (the attitude object) and elements of the ego or self system. Sherif and Cantril defined “ego” as the core part of an individual, the constellation of the social and personal values one has acquired and which determine the enduring nature of one’s identity. Leisure researchers have defined the construct of involvement as “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... In other words, leisure involvement refers to how we think about our leisure and recreation, and it affects our behavior” (Havitz and Dimanche 1997).

Although the definition of involvement holds situational properties, leisure research, consistent with Sherif and Cantril’s (1947) original conceptual work, has focused primarily on the enduring component of the relationships between the self (ego) and leisure activities (Havitz and Dimanche 1997). Leisure involvement has been conceptualized as a multidimensional construct. Three dimensions—attraction, centrality, and self-expression—have consistently been shown to be reliable and salient within leisure contexts. *Attraction* refers to the individual’s perceptions of activity importance and the pleasure or hedonic value derived from the activity. *Centrality* focuses on the extent to which other aspects of an individual’s life (such as social interactions) are centered on a chosen leisure activity. Finally, *self-expression* refers to the extent to which a leisure activity provides an opportunity to project a desired image that individuals wish to convey to others.

Several authors have also suggested and empirically tested the existence of the subdimensions *centrality* and *self-expression*. *Centrality* can be separated into two constructs, centrality and social bonding, and *self-expression* can include two distinct dimensions, identity affirmation and identity expression (McIntyre 1989, Dimanche and Samdahl 1994, Kyle et al. 2007). While this multidimensional approach

acknowledges the potential of leisure activities to be personally relevant for several different enduring reasons, it shows that much of the leisure literature on involvement has removed the focus from the self, which is the fundamental element in Sherif and Cantril's conceptualization of involvement. In fact, identity theory suggests that the self-related components of identity affirmation and identity expression determine the dimensions of attraction, centrality, and social bonding. Identity theorists agree that positive affect (i.e., attraction) results from meeting one's identity expectations, and more important elements of identity produce stronger emotions (Stets and Burke 2003). When outcomes (e.g., leisure participation) are relevant to the aspects of self (identity), individuals regard the outcomes as more important or valuable (Stryker 1987). For the relationship between identity and *centrality*, Sampson (1978) also argued that people tend to manage areas of their lives that are relevant to a central aspect of self in order to establish a sense of continuity and stability to their identity. Finally, identity theory posits that self-verification underlies behavioral processes such as group formation (i.e., social bonding) (Stets and Burke 2000).

In this investigation, we adapted identity theory to reassess the structure of enduring involvement. Specifically, we hypothesized that self-related components of identity affirmation and identity expression predict the other facets of enduring involvement (i.e., attraction, centrality, and social bonding).

## 2.0 METHODS

### 2.1 Sample

Data for our study were collected from visitors at three camping areas (Cherry Hill campground, Burrells Ford recreation area, and Ellicott Rock Wilderness Area) in the Sumter National Forest in South Carolina during the summer and fall of 2003. For visitors sampled at the Cherry Hill and Burrells Ford sites, surveys were completed on-site. For the Ellicott Rock Wilderness Area, campers were provided with a survey and a stamped, addressed envelope in a resealable plastic

bag because of the difficulty of completing survey instruments on-site. They were also asked to provide their name and address so that they could be sent a follow-up survey if they lost or damaged the survey we provided on-site. These procedures yielded 312 completed surveys (96-percent response rate) for the Cherry Hill and Burrells Ford sites, and 112 completed surveys (60-percent response rate) for Ellicott Rock. Combined, the sample size was 424 cases.

### 2.2 Measures

Enduring involvement was measured using Kyle et al.'s (2007) Modified Involvement Scale (MIS). In addition to adapting items from McIntyre (1989) and McIntyre and Pigram's (1992) involvement scale, Kyle and colleagues utilized five additional items (see Table 1). For centrality, two items were added: 'camping occupies a central role in my life' and 'to change my preference from camping would require major rethinking.' The first item was adapted from Kyle et al.'s (2003) and Kyle et al.'s (2004b) measure of centrality, which they used to measure hikers' enduring involvement with hiking along the Appalachian Trail. The second item was adapted from Pritchard et al.'s (1999) resistance dimension of their commitment scale. Though this item was originally developed to measure an outcome associated with an individual's psychological commitment to an agency, we reworded the items so that the primary attitude object now reflected personal investment in activity. In so doing, the primary attitude object reflected in the item was shifted from the brand level (i.e., service provider) to the product level (i.e., activity). Similar to centrality and Buchanan's (1985) conceptualization of side bets, Pritchard et al.'s resistance dimension examines the degree to which recreationists' attachment to a type of behavior is a function of personal investment (e.g., emotional commitment, social world ties, activity-related expenditures). Lastly, Kyle et al. (2004a) constructed one new item based on the definition of the identity affirmation dimension, 'I identify with the image associated with camping.' All items were measured along a 5-point scale where 1=strongly disagree and 5=strongly agree. Two independent samples were used to establish the

**Table 1.—Scale performance of measurement model for the pooled sample**

	M	SD	Factor Loadings	t-value
Attraction ( $\alpha=.87$ )	4.24	.71		
A1 Camping is one of the most enjoyable things I do	4.33	.78	.81	14.03
A2 Camping is very important to me	4.17	.80	.86	15.41
A3 Camping is one of the most satisfying things I do	4.20	.80	.81	14.35
Centrality ( $\alpha=.84$ )	3.00	.92		
C1 I find a lot of my life is organized around camping	2.88	.99	.79	12.51
C2 Camping occupies a central role in my life	2.88	1.05	.75	11.67
C3 To change my preference from camping to another recreation activity would require major rethinking	3.20	1.13	.71	11.14
Social Bonding ( $\alpha=.66$ )	3.38	.839		
SB1 I enjoy discussing camping with my friends	3.74	.86	.75	11.47
SB2 Most of my friends are in some way connected with camping	3.02	1.07	.66	10.11
Identity Affirmation ( $\alpha=.70$ )	3.90	.70		
IA1 When I participate in camping, I can really be myself	4.08	.78	.74	11.56
IA2 I identify with the image associated with camping	3.71	.82	.72	11.16
Identity Expression ( $\alpha=.73$ )	3.56	.69		
IE1 You can tell a lot about a person by seeing them camping	3.61	.90	.48	7.18
IE2 Participating in camping says a lot about who I am	3.61	.85	.90	15.61
IE3 When I participate in camping, others see me the way I want them to see me	3.46	.81	.66	10.71

Note: Items were measured along a 5-point scale where 1=Strongly disagree and 5=Strongly agree. CFA fit indices:  $\chi^2=127.74$ ,  $df=53$ ,  $RMSEA=.078$ ,  $NNFI=.96$ ,  $CFI=.97$

validity (i.e., convergent, discriminant, nomological) and reliability (i.e., internal consistency) of the scale using multiple criteria.

### 3.0 RESULTS

Analysis began with an examination of the measurement model (confirmatory factor analysis [CFA] in LISREL version 8.7) to determine the suitability of our hypothesized factor structure for these data. Both the fit indices ( $\chi^2=127.74$ ,  $df=53$ ,  $RMSEA$  [Root Mean Square Error of Approximation]  $=.078$ ,  $NNFI$  [Non-Normal Fit Index]  $=.96$ ,  $CFI$  [Comparative Fit Index]  $=.97$ ) for this model and the tests of internal consistency (all  $\alpha > .60$ ) indicated that the model satisfactorily fit the data (Table 1).

For the cross-validation of the hypothesized model, we randomly split our sample into two groups and compared the measurement and structural properties using LISREL group function. Separate covariance matrices were then constructed for each group. To examine the causal structure of enduring involvement,

analyses were designed to test whether components of both the measurement model and structural model were invariant (i.e., equivalent) across the two groups. The hierarchy of invariance that was tested in this study was as follows: ( $H_1$ ) equality of structure (which examines the suitability of a five-factor solution across the two groups), ( $H_2$ ) equality of scaling (which examines the similarity in the pattern of factor loadings among the groups), and ( $H_3$ ) equality of structural coefficient estimates (which examines the similarity of the regression paths for groups).

Before the invariant test, the baseline model was tested in each group's sample (Table 2). Constructing a baseline model that fits both groups is a prerequisite for invariance testing on the hypothesized model across groups. To accomplish this task, the structural model was first tested with the pooled sample. In the structural model, three of the hypothesized paths (i.e., identity affirmation  $\rightarrow$  centrality, identity affirmation  $\rightarrow$  social bonding, and identity expression  $\rightarrow$  attraction) were removed from the model on the

**Table 2.—Summary of invariance tests**

Model	$\chi^2$	df	$\Delta\chi^2$	$\Delta df$	RMSEA	NNFI	CFI
Measurement model	127.74	53			.078	.96	.97
Structural model	210.58	57			.079	.96	.97
Baseline							
Group I	131.16	53			.079	.96	.97
Group II	105.29	53			.064	.97	.98
H <sub>1</sub> - Form	236.45	106			.072	.97	.98
H <sub>2</sub> - Invariant factor loadings	243.59	119	9.14	13	.066	.97	.98
H <sub>3</sub> - Regression coefficients	253.86	129	10.27	10	.067	.97	.98

basis of nonsignificant *t*-values (Schumacker and Lomax 1996). After removal of the nonsignificant paths, the final model indicated a satisfactory model fit ( $\chi^2=210.580$ ,  $df=57$ ,  $RMSEA=.079$ ,  $NNFI=.96$ ,  $CFI=.97$ ). The baseline model was then tested for two groups.  $RMSEA$ ,  $NNFI$ , and  $CFI$  indicated that the model has a good fit for each group (Group 1:  $RMSEA=.079$ ,  $NNFI=.96$ ,  $CFI=.97$ ; Group 2:  $RMSEA=.064$ ,  $NNFI=.97$ ,  $CFI=.98$ ).

### 3.1. Invariance Testing

The first test examined the suitability of the imposed factor structure for the two groups. The models were hypothesized to have the same pattern of fixed and free values in the matrices containing factor loadings and structural coefficients, and in the variance/covariance matrices. Nonfixed parameters were not restricted to having the same value across groups in this first test. The fit of this unconstrained model, shown in Table 2 (H<sub>1</sub>), was considered adequate ( $\chi^2=236.45$ ,  $df=106$ ,  $RMSEA=.072$ ,  $NNFI=.97$ ,  $CFI=.98$ ). This unconstrained model served as a point of comparison for the second test (equality of scaling) discussed below. The  $\chi^2$  difference was used to assess support for equality constraints (Byrne 1998).

The minimum condition for factorial invariance is the invariance of factor loading (Marsh and Grayson 1995). The fit of the model that required all factor loadings to be the same across groups (equality of scaling) was compared with the fit of the model that did not require this variance (equality of structure). The  $\chi^2$  difference test indicated that this constraint did not significantly impair fit ( $\Delta\chi^2=9.14$ ,  $\Delta df=13$ ). Thus, the pattern of factor loadings was held constant across the two groups.

For the final test (H<sub>3</sub>), equality constraint was placed on each element of a lambda matrix to test the equality of the regression coefficient of the hypothesized model across the two groups. Model fit was compared with the fit indices from the model tested above and indicated that this constraint did not significantly impair the model's fit to the data ( $\Delta\chi^2=10.27$ ,  $\Delta df=10$ ). In other words, the hypothesized model explains the two groups equally.

In summary, these tests of invariance indicate that the factor structure, the performance of the indicators, and the effect of identity affirmation and identity expression on attraction, centrality, and social bonding were equivalent across the two groups.

### 3.2 Summary of Effects

Figure 1 depicts the statistically significant effects of identity affirmation and identity expression on attraction, centrality, and social bonding with the group 1 sample. These findings offer support for the hypothesized model suggesting that each of two identity-related involvement dimensions would positively predict each of the rest of the involvement dimensions. Specifically, the following relationships were observed in the final model:

- a. *Attraction* was positively predicted by *identity affirmation* ( $\beta=.59$ ,  $t= 6.747$ ). Thus, the importance and pleasure respondents associated with camping were products of the affirmation of their own sense of self. When camping provides opportunities to affirm the self to self, individuals consider the activity more important and attractive.

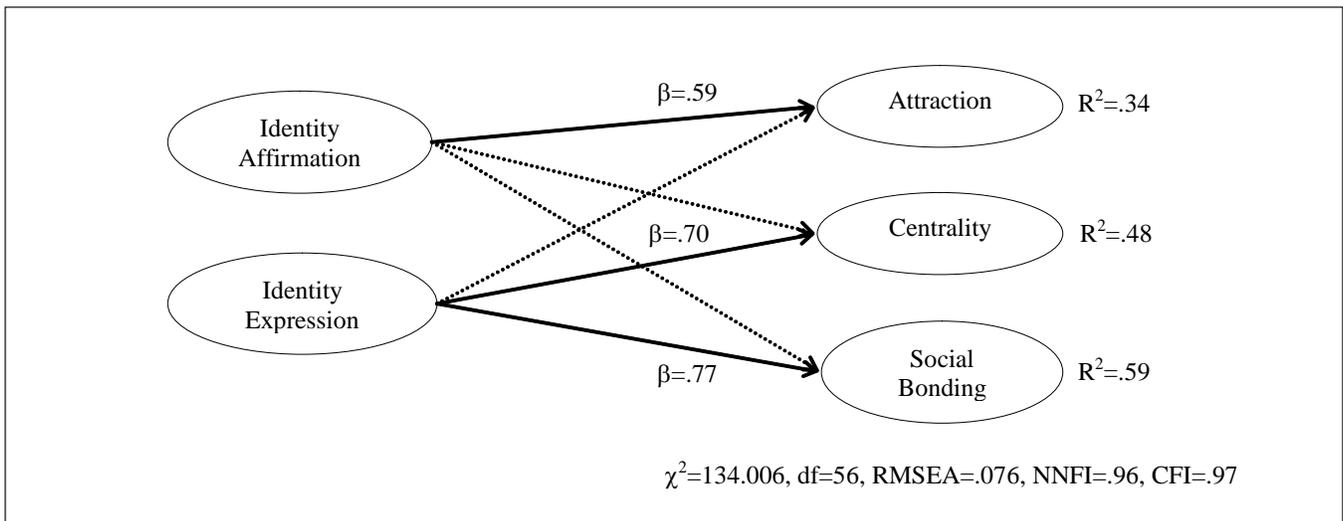


Figure 1.—Final model with group 1 sample.

- b. *Identity Expression* positively predicted *centrality* ( $\beta=.70, t= 6.601$ ) and *social bonding* ( $\beta=.77, t= 5.734$ ). Thus, as respondents' desire to express their identities (i.e., the self to others) increased, so too did their propensity to indicate that camping occupied an important place in their lives. The effect of identity expression on social bonding implies that respondents' desire to express the self to others leads to structuring their social world around camping.

The model explains 34 percent of the variance associated with attraction, 48 percent of the variance related to centrality, and 59 percent of the variance associated with social bonding.

#### 4.0 CONCLUSION

In most of the leisure literature, the dimensionality of enduring involvement has developed based on the utilization of inductive techniques. That is, investigations have typically conducted some form of Exploratory Factor Analysis (EFA), or modified the existing scales that have been developed based on EFA. This approach may mask serious flaws in

the conceptualization of involvement. Guided by tenets of identity theory, we revisited the original conceptualization of involvement by Sherif and Cantril (1947) and suggested a causal structure of leisure involvement in which the self leads the development of attitudinal involvement (i.e., attraction, centrality, and social bonding) in a leisure activity. In our results, all significant relationships demonstrated that identity-related components (i.e., identity expression and identity affirmation) positively predicted the other dimension (i.e., attraction, centrality, and social bonding). The causal structure could be applied to the weak relationship between self-related dimensions and leisure behaviors that has been observed in previous research (Havitz and Dimanche 1997). Given our conceptualization of involvement, we would suggest that the self-leisure behavior relationship is mediated by the attitudinal dimensions of involvement. As a guide for future model testing, identity theory could provide researchers with a stronger theoretical base to construct hypotheses about relationships to other leisure-related constructs such as commitment, loyalty, and specialization.

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