

## **Notes on Measuring Recreational Place Attachment**

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A small but steady stream of people ask me for information regarding sense of place, place attachment, and the scales I have used to measure these things. Unfortunately, I haven't yet published these scales or developed a detailed paper or report describing the several studies I have done using these scales. I am happy, however, to provide information about their use, given their current level of development I would recommend that you use them with some caution. Below I describe two basic approaches that I have used for measuring place attachments. Feel free to use and modify as you see fit. One thing I would ask is to please keep me informed on any use of scales and other developments of your work on this topic.

### **Likert Approach to Measuring Recreational Attachment**

#### Validity, Reliability and Sensitivity

Validity is always a matter of degree. As a single dimension of place attachment, I think the evidence supports their use to measure emotional or affective bonds with recreation sites (and may apply or be adapted to other kinds of sites; i.e, see Nanistova, 1998). A more complex issue of validity is whether the two main sub-dimensions of place dependence and place identity constitute separate forms of attachment. Again, I believe there is some evidence in the studies and some "theory" to support this distinction. Reliability is generally not a problem. Various applications have demonstrated that 5-6 items from each of the two sub-dimensions will generally produce a Cronbach's alpha of .80 or better. In my mind, the biggest issue is sensitivity: Do these scales discriminate meaningfully between levels of attachment between subjects or for that matter between places for the same rater? On this issue I do not think the scales exhibit as much variance as I would like. However, most applications I know of have been based on "on-site" studies of visitors to a recreation/tourist destination which tends to reduce variance due to a built in selection bias (i.e., more attached visitors to a site are more likely to visit, stay longer, and therefore get selected for the study).

#### Scale Development and Item Analysis

Over the years I have examined 61 potential place attachment items. The summary presented here is based on analysis of four data sets (See Tables 2-6). Some of this analysis has been reported in Williams, McDonald et al. (1995) and Williams & Roggenbuck (1989). The "Student" data set is a sample of about 380 college students from several American universities. They were asked to rate an outdoor area of their choice on all 61 items. The "Mt. Rogers" and "Shenandoah" data sets were collected from a Forest Service National Recreation Area and a National Park, respectively. The "Caney Creek" data set refers to the original items used in the wilderness study reported in Williams et al. (1992). The numbers in the columns refer to the items numbers from a master list of 61 items (a partial list of the 61 items are shown in Table 1).

They are also presented in order of highest to lowest factor loadings. Each table presents a different data set or factoring technique.

In the some factor studies we have seen some sub-dimensions within place identity dimension. These sub-dimensions are similar to the multi-dimensional product involvement scale in consumer behavior (see McIntyre, 1989; others?). Place identity may have sub-components to it that revolve around themes such as such as self-expression and centrality. I suspect this is also a reflection of the fact that we used consumer involvement and recreation activity involvement studies literature as models for some of our items in the 61 item pool.

Most people are getting good results with the following short version measuring two dimension (Place Dependence and Place-Identity):

<u>Item No.</u>	<u>Domain</u>	<u>Item</u>
11	Identity	I feel like [this place] is a part of me.
14	Dependence	[This place] is the best place for what I like to do
30	Identity	[This place] is very special to me
08	Dependence	No other place can compare to [this area/place]
09	Identity	I identify strongly with [this place]
13	Dependence	I get more satisfaction out of visiting [this place] than from visiting any other [place]
06	Identity	I am very attached to [this place]
07	Dependence	Doing what I do [here] is more important to me than doing it in any other place
01	Identity	Visiting [this place] says a lot about who I am
10	Dependence	The things I do [here] I would enjoy just as much at another site (negatively worded – invert the scale)
22	Identity	[This place] means a lot to me
05	Dependence	I wouldn't substitute any other area/place for doing the types of things I do [here]

Depending on the circumstances, some investigators use place names instead of some generic reference to “this place” or “this area” or “here.” Items are usually rated on a five-point Likert scale from (1) Strongly disagree; (2) disagree; (3) neutral; (4) agree; (5) strongly agree. To my knowledge no one has used a seven point scale or scales anchored with different words.

Table 1. Frequently Used and Recommended Items for Measuring Place Attachment

Place Dependence

No.    Item

- 08    No other place can compare to this area
- 13    I get more satisfaction out of visiting this place than from visiting any other
- 07    Doing what I do here is more important to me than doing it in any other place
- 05    I wouldn't substitute any other area for doing the types of things I do here
- 14    This is the best place for what I like to do
- 37    No other place can compare to this area for what I like to do in my spare time
- 51    I can't imagine a better place for what I like to do.
- 35    This place makes me feel like no other place can

(Items used in some studies that load sometimes on dependence)

- 32    This is my favorite place to go during my free time
- 10    The things I do here I would enjoy just as much at another site

Place Identity

The next are several “identity” factors in order of variance explained in the factor structure from the student data.

*Identity/Importance*

- 11    I feel like this place is a part of me
- 22    This place means a lot to me
- 06    I am very attached to this place
- 09    I identify strongly with this place
- 12    I think a lot about coming here
- 30    This place is very special to me

(Used on the Shenandoah Study)

- 01    This place says a lot about who I am
- 02    I would prefer to spend more time here if I could

### *Identity Expression*

- 26 My use of this place allows others to see me as I would really like them to see me
- 45 I can relate this place to other parts of my life
- 33 Because of my lifestyle, this place is important to me
- 50 When I am here, others see me the way I want them to see me
- 39 Visiting this place helps me attain the life I strive for
- 44 You can tell a lot about a person by whether they visit this place
- 38 This place is for me
- 15 I use this place to help define and express you I am inside
- 16 A visit to this place is a bit like giving a gift to oneself

### *Centrality*

- 32 This is my favorite place to go during my free time (loads also on dependence)
- 04 This place plays a central role in my lifestyle
- 52 I find that a lot of my life is organized around this place
- 17 One of the major reasons I now live where I do is that this place is nearby
- 03 I enjoy doing the types of things I do here more than in any other area
- 29 Most of my friends are in some way connected with my use of this place

### *Satisfaction*

- 59 Coming here is one of the most enjoyable things I do
- 61 Coming here is one of the most satisfying things I do
- 58 I get greater satisfaction out of visiting this place than I do out of work

### *Identity Items Used in Other Studies*

- 18 I feel no commitment to this place
- 40 The time I spent here could just as easily have been spent somewhere else

## Guttman Approach to Measuring Sense of Place

A second approach to measuring place attachment is the "sense of place" measure we developed for Mt. Rogers Community Residents (see Williams, McDonald et al. 1995). The advantage is that it can examine places at multiple geographic scales, unlike the place attachment measure above which focuses on tourist or recreation places. Below is a table showing how proposed items relate to Shamai's attachment levels.

<u>Level</u> (Shamai, 1991)	<u>Item</u>
(0) Not having any sense of place	I would rather be (live) somewhere else
(1) Knowledge of being located in a place	I have no particular feeling [love] for this place
(2) Belonging to a place	I do not really feel like I am from this place I (always) feel like I belong here
(3) Attachment to a place	I am emotionally attached to this place
(4) Identifying with a place	I identify with the goals of this (community) I identify with the lifestyle and values of the people who live (come) here
(5) Involvement (investment) in a place	I have (am willing to) invest(ed) my heart and soul in this place
(6) Sacrifice for a place	I would make (have made) personal sacrifices to save/protect/preserve/maintain this place

In the Mt. Rogers Community Survey the following items were used:

I have negative feelings for this place  
 I have no particular feeling for this place  
 I do not think of myself as being from this place  
 What happens in this place is important to me  
 I have an emotional attachment to this place – it has meaning to me  
 I am willing to invest my talent or time to make this an even better place  
 I am willing to make financial sacrifices for the sake of this place

In a more recent survey this was modified as follows:

I have no particular love for this place  
 I sometimes feel like I do not belong in this place  
 What happens in this place is important to me  
 I have an emotional attachment to this place – it has meaning to me  
 I identify with the physical landscape of this place  
 I identify with the lifestyles and values of the people who live here  
 I am willing to invest more time or effort to make this an even better place  
 I am willing to make greater financial greater to make this an even better place

This scaling approach was set up much like a Guttman scale (meaning if the respondents feel a that the next item going down the scale is “true” about them then logically they should say “true” to all of the positively phrased lower levels). The problem we have observed is that most of the variance is a result of the last three items. In the Mt. Rogers study it was interesting however, to note that about 15% of the respondents endorsed the negative item. The advantage of this overall approach is that these items can be presented in a matrix with different places listed as columns as shown in the questionnaire (See Mt. Rogers Questionnaire -- Figure 1). We used a “true/false” response format to simplify the task of rating multiple place scales. In this matrix form, ratings at one level of scale tend to be duplicated at other levels of scale (i.e., people do not appear to give very independent ratings as they go from one scale to the next). In some applications it might be better to present these different scales in separate questions within the questionnaire. The labels could be varied in terms of the specific (named) places, or levels of specific places (i.e., from town to region), or in terms of the major components of places (i.e., "social" community, natural landscape).

For example:

Please rate how you feel about your town or local community.

Please rate how you feel about the \_\_\_\_\_ region.

Other ideas might be to separate out major aspects of the place to identify which aspect(s) are the most salient for sense of attachment (e.g., social network and friendship ties, physical landscape, and/or cultural landscape). For example:

Please rate how you feel about the land and natural features that make up the (this place/region).

Please rate how you feel about the people and culture of the \_\_\_\_\_ place/region.

Perhaps another way to get at the basis for attachment might be to ask what aspect of living in the [e.g., Rocky Mountain] region do people most identify with?

Social networks and friendships

The physical landscape (Mountains, valleys etc.)

The people, values, culture(s) and ways of life

etc....

## Williams' Place Related Research

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Williams, D. R., & Roggenbuck, J. W. (1989, October). Measuring place attachment: Some preliminary results. Paper presented at the Symposium on Leisure Research, San Antonio, TX.

Watson, A. E., M. J. Niccoulucci, et al. (1994). "The nature of conflict between hikers and recreational stock users in the John Muir wilderness." Journal of Leisure Research 26: 372-385.

Watson, A. E., D. R. Williams, et al. (1991). "Sources of conflict between hikers and mountain bike riders in the Rattlesnake National Recreation Area." Journal of Park and Recreation Administration 9(3): 59-71.

## Other Place Attachment References

Below are selected references to place attachment. Papers that have employed some version of the scales described above are shown with an asterisk (\*).

Altman, I., & Low, S. M. (Eds.). (1992). Place attachment. Human behavior and environment. Advances in theory and research. Vol. 12. New York: Plenum Press.

\*Gibbons, S. & Ruddel, E. J. (1995). The effect of goal orientation and place dependence on select goal interferences among winter backcountry users. Leisure Sciences, 17(3), 171-183.

Giuliani, M. V., & Feldman, R. (1993). Place attachment in a developmental and cultural context. Journal of Environmental Psychology, 13, 267-274.

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\*Kaltenborn, B. P. (1997). Nature of place attachment: A study among recreation homeowners in southern Norway. Leisure Sciences, 19, 175-189.

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\*Moore, R. L., & Graefe, A. R. (1994). Attachment to recreation settings: The case of rail-trail users. Leisure Sciences, 16, 17-31.

\*Nanistova, E. (1998). The dimensions of the attachment to birthplace and their verification after the 40 years following forced relocation. Sociologica, 30, 337-394. (Abstract in English, article in Slovak)

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Table 2  
Student Data  
(Varimax)

F1 Expression	F2 Dependence	F3 Identity	F4 Centrality	F5 Satisfaction
26	07	11	32	59
45	08	22	04	61
33	05	06	52	58
50	13	09	17	
39	37	12	03	
44	14	30	29	
38	51			
15	35			
16				

Table 3

Shenandoah  
 (Variables Present/Natrual Factor Loadings/Varimax)

Expression	Dependence	Identiv	Centrality	Satisfaction
15 (1)	08 (2)	09 (1)	04 (1)	
	13 (2)	11 (1)	03 (1,2)	
	05 (2)	06 (1)		
	07 (2)	12 (1)		
	14 (2)			<b>Others:</b>
				1 (1)
				2 (1)
				10 (2)

Note: Numbers in Parentheses indicate factor association

Table 4

Caney Creek  
(Variables Present)

Expression	Dependence	Identity	Centrality	Satisfaction
	08	09	52	
	13	11	03	
	35	22		
	05	06		
				<b>Others:</b>
				18
				40

Table 5

**Mount Rogers Factor Structure  
(Forced from Student Struct.)**

F1 Dependence	F2 Identity	F3 Expression	F4 Centrality	F5 Left-Overs
08	11	39	32	61
13	06	50	04	15*
07	09	38	52	16*
05	12	33	03	
14	22	15*		
37	30	16*		
51	15*			
35	16*			

\*=Cross loaded

Table 6

Mount Rogers  
(Natural factor loadings/Varimax)

F1 Dependence	F2 Identity1	F3 Expression	F4 Identity2	F5
08	11	39	22	
13	15	50	30	
07	09	38	33	
05	12	51		
14	16	35		
03	06	52		
37	04	61		
32				