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Influence of the Onsite Experience on Recreation Experience Preference Judgments

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This study was designed to investigate the impact of actual experience on experience preference. Experience preference measurements were taken before and after a hiking experience. A shift between pre-activity and post-activity experience preference judgments was hypothesized due to the effect of psychological adjustment to reduce dissonance between pre-activity experience preference and the actual experience. Subjects were divided into two groups based upon whether or not they achieved a given experience during their onsite activity. The application of dissonance theory suggested that "achievers" would increase their reported preference for a given experience between the pre- and post-assessments, while "non-achievers" would decrease their reported preferences. Consistent with the application of dissonance theory, repeated-measures ANOVAs indicated the presence of an interaction effect between experience achievement and time (pre/post-activity) for the experience preference domains of "physical exercise" and "escaping civilization".

KEYWORDS: *dissonance theory, REP scales, experience preferences*

Over the past couple decades, the measurement of experience preferences has been an important concern to recreation researchers. Recreation Experience Preference (REP) scales (Driver, 1977) have been instrumental in the development of perspectives on the recreation experience and have appealed to planners in search of resource classification criteria.

The REP scales have been applied by a variety of researchers attempting to understand the recreation experience. Motivation inventory and user typology studies have been a primary application (Brown & Haas, 1980; Knopf, Peterson & Leatherberry, 1983; Manning, 1986; Schreyer & Lime, 1984) although experience preferences also have been employed in satisfaction studies (Wellman, Dawson & Roggenbuck, 1982; see also Dorfman, 1979, for his explanation of discrepancy theory and consequent examination of the congruence between experience preference and perception)

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and in studies directed at recreation planning (Manfredo, Driver & Brown, 1983). In their examination of the relationship between experience preference and Recreation Opportunity Spectrum setting, Yuan and McEwen (1989) framed the REP scales within the context of preferences for a general recreation experience. On the other hand, Williams, Schreyer and Knopf (1990; see also Virden & Knopf, 1989) employed the REP scales to correspond to a specific trip. With a few interesting exceptions, applications of the REP scales have been associated with survey design methodology. In other words, measurements of experience preferences typically have been assessed after the completion of the onsite activity.

One of the threats to the post-activity survey design is that the actual onsite experience could influence reported experience preference. In other words, experience preference judgments could be affected by the experience of the recreation activity. Thus, the primary purpose of this study is to provide a preliminary examination of the relationship between the onsite experience and variation in responses to experience preference scales administered before and after the onsite activity. Cognitive dissonance theory is used to explain potential temporal variation in experience preference.

Literature Review

Although couched in the context of leisure needs, Iso-Ahola and Allen (1982) were among the first to empirically address the stability of experience preferences across time periods. Their critique of the research associated with recreation motivation and needs included the point that:

> Subjects have typically been asked to evaluate the importance of the given reasons for their leisure participation at the "frozen" time, without considering social influences on these needs, and without taking into account the effects of the most obvious variable of all—leisure experience itself (p. 141).

The results of their pretest-posttest study of intramural basketball players indicated that experience preferences were influenced by the actual recreation experience. For example, the importance of the need to "escape from daily routine" increased between the pretest and posttest for basketball players who won their game and decreased in importance for players who lost. Their study detailed other effects of the recreation experience on reported experience preference, including some which exhibited substantial interaction effects with gender. One of their conclusions suggested that experience preferences are relative constructs, and being such, would be dependent on the outcome of the actual experience.

Through atheoretical approaches, other researchers have examined the stability of experience preferences across time (see Peterson & Lime, 1973, for the inception of these studies). In a study which could be referred to as an onsite-offsite posttests-only design, Manfredo (1984) found a significant subject by time interaction component (12.9% of the variance) on the experience preference of "escape physical stress." Although actual ex-

periences were not included as an intervening variable, it was apparent that his sample of anglers contained at least two groups who reversed their importance level of the experience preference between the two posttests.

In their onsite pretest-posttest study of participants in an outdoor leadership school, Williams, Ellis, Nickerson and Shafer (1988) reported similar results to Manfredo's: a "modest subject by time interaction component (5.9%)" (p. 63). In their discussion of the relative stability of the REP scales, they note the following about the role of the actual experience on experience preference:

> recreation experience preferences may sometimes represent individualized traitlike "modes of experiencing" and at other times changing states of being (outcomes) that were determined by participation in particular recreation activities or settings (p. 65).

Together the reviewed studies suggest that the potential effect of actual experience could account for differences between the pre-activity vs. post-activity measures of experience preference. Although explanations for the influence of the onsite experience on recreation experience preference judgments could be derived from a diversity of perspectives, the direction of this paper is to hypothesize that a shift in experience preference is a psychological adjustment to reduce inconsistency between preferred and actual experiences. To elaborate on this explanation, and to develop a structure to guide the analysis, dissonance theory is discussed below. Dissonance theory is not being tested here; it is introduced as a possible context to explain a set of empirical relationships.

Application of Dissonance Theory

Although it has evolved from Festinger's first formal statement, the recurrent proposition of dissonance theory is that individuals strive for cognitive consistency (Allen, 1964; Festinger, 1957; Zanna & Cooper, 1974). For any apparent psychological inconsistency, it is thought that rationalization efforts are made to regain and/or maintain consistency (Aronson, 1969; Croyle & Cooper, 1983; Festinger, 1957). To illustrate the content of dissonance theory, a commonly given example describes a person who may know that smoking is harmful to their health, yet continues to smoke. To resolve the inconsistency, one may rationalize that smoking is so enjoyable that it is worth the increased risk of contracting a fatal disease. Thus, continuing to smoke is consistent with this person's attitude toward smoking. The general notion of dissonance theory is that perceived inconsistencies, referred to as dissonance, are psychologically uncomfortable and need to be resolved (Fazio, Zanna & Cooper, 1977; Petty & Cacioppo, 1981).

Lazarus (1961) discusses reactions to dissonance in terms of adjustments. With reference to the biological concept of adaptation, he appeals to a concept of "psychological survival" (p. 5), whereby an individual reacts to environmental demands or pressures in terms of psychological adjustments. Within his comprehensive framework, Lazarus suggests that

individuals can change themselves rather than their environmental circumstance in the face of dissonance between the two (pp. 16-19). It is thought that the individual psychologically adjusts to accommodate a given environmental situation (cf. Piaget, 1951 for his work on internal adjustments made by children; Zanna & Cooper, 1976).

French, Rodgers and Cobb (1974) discuss psychological adjustment in terms of the "goodness of fit between the characteristics of the person and the properties of the environment" (p. 316). When a poor person-environment fit occurs, French and his associates suggest that the individual copes with the dissonance by psychologically adjusting (among other things) him or herself in order to adapt to the environment. From a different perspective, Little (1987) makes a similar point by suggesting that researchers in social psychology are questioning the stability and trait-like attributes of the human personality and are focusing their attention on contextual factors which direct human behavior and attitude. His directive is to encourage social researchers to focus on the relationship between the person and his or her environment rather than to dwell on individual characteristics (e.g., traits) detached from some environmental context. He discusses the person-environment interaction as being an emerging unit of analysis (pp. 226-232).

In summary, dissonance refers to a relation existing between at least two elements. For the current study, the two elements examined for inconsistency are an individual's experience preference judgment and a rating of the actual experience. When one's preference for a recreation experience does not coincide with the actual onsite experience, then dissonance could occur, in turn causing a change in experience preference measured after the actual onsite experience has taken place.

There are two possibilities for dissonance between one's experience preference and the actual experience. The first possibility would be a situation in which an experience preference domain was not important to a person, yet characteristics of this domain dominated the actual experience. For example, if "physical exercise" was not a desirable quality for an individual's hiking experience, yet the actual hike was physically challenging for the person, then dissonance could occur due to the discrepancy between the desired experience and the actual experience. In this case, the person received something that was not desired. The second possibility for dissonance to occur would be a situation in which an experience preference domain was important to a person, yet characteristics of this domain were either scarce or not present during the actual experience. For example, if "physical exercise" was a desirable quality for an individual's hiking experience, yet the actual hike was easy and unchallenging for the person, then dissonance could occur due to the discrepancy between the desired experience and the actual experience. In this case, the person did not receive what was desired.

In short, the application of dissonance theory can be used to explain the relationship between what people wanted and what they got. The dis-

sonance theory framework suggests that individuals will make adjustments to increase the consonance between experience preference and actual experience. Thus, the hypothesis being tested in the current study is that experience preference will change between pre-activity and post-activity assessments to accommodate the actual experience.

Methods

Subjects

Attempts were made to control variance within the study's design in order to isolate the relationship between experience preference and actual experience. The research design attempted to minimize undesirable (or extraneous) variation from the effects of gender, social group type, and activity type. Other potential independent variables could not be unobtrusively controlled while sampling in the field setting.

The operations of the above discussion on variance control were performed on visitors approaching the Maroon Lake Trailhead on the White River National Forest during August 11-18, 1988. To rule out the possibility of gender influencing the results of the study (cf. Gentry & Doering, 1979) the sample was limited to the selection of women. Also, to potentially reduce the variation attributed to social group type (cf. Allen & Donnelly, 1985), the sampling procedures were designed to restrict subject selection to parties without children (assessed via a visual scan). And finally, to reduce activity type as a potential source of extraneous variation (Kelly, 1980), day-users reaching the trailhead by concessionaire buses were the only type of recreationists invited to participate in the study. Thus, selection criteria attempted to limit the subjects of study to adult women day-hiking without children who approached the trailhead from a concessionaire bus. The purpose of this research is to focus on the association between experience preference and actual experience. The ability to generalize beyond the study's sample was not a primary concern.

The demographic characteristics of the sample reflected some variability on experience use history of the study site, age, education and household income. Two-thirds of the sampled women were on their first hike at Maroon Bells. They ranged in age from 16 to 69 years; three-fourths had graduated from a four-year college or university; and 60% reported annual (pre-tax) household income of greater than $40,000.

The variability on experience use history (EUH) represents a potentially confounding influence (Schreyer & Lime, 1984; Williams et al., 1990), and in doing so, detracts from the argument that the study sample was an homogeneous group. To explore the possibility of an ulterior explanation, analyses were performed while statistically controlling for EUH (i.e., development of a dichotomous variable to distinguish the situation novices from situation repeat users). The results of these analyses were mixed regarding a main effect on EUH (tables not shown); however EUH did not exhibit interaction effects with either experience preference or actual ex-

perience that could have confounded the results reported herein. Note that the reliability of the results associated with EUH was weak due to small cell sizes for repeat users.

Procedures

This paper reports on measurements taken at two periods: (1) prior to the subject embarking on the trail; (2) immediately after the subjects returned to the trailhead from their hike. Candidates who appeared to meet the stated sampling criteria were approached by one of two female interviewers and invited to participate in the study. They were informed of the purpose and design of the study and given the opportunity to decline participation if they did not feel committed. Eighteen out of 90 subjects (20%) declined to participate. Of the 72 subjects that participated in the onsite pretest, 55 (76%) responded to the onsite posttest. Statistical procedures required that each subject complete all pre- and post-test items. Of the 72 subjects that participated in the study, 49 (68%) fulfilled the complete requirements of the study design. Along with other questions, the research instruments contained the following experience preference and actual experience items.

Measurement of Experience Preference (EP)

Experience preferences (EP), were assessed both before and after a trail hiking experience, using responses to the statement, "Please indicate how important each of the following experiences are (were) to you for your hike in the Maroon Bells area." (The verb was changed from an "are" to a "were" for the posttest.) Six EP items were listed in a style similar to items in Driver's Recreation Experience Preference scales (1977). Each item was associated with a seven-point Likert-type scale ranging from "not important" to "extremely important". The six items were selected *a priori*, with three each to represent the domains of "physical exercise" and "escaping civilization" (Crandall, 1980). Thus, the two domains were each represented by a three-item, simple-summated EP scale the scores of which could range from 3 to 21 (Table 1). Although EP items were identical across the two measurement periods, their order on the survey instruments was scrambled between the pre-activity and post-activity assessments to preclude subject recall of a response pattern.

Measurement of Actual Experience (AE)

Actual experience (AE) was measured in order to determine if subjects had achieved their experience. AE was measured by responses to six items, with three items corresponding to each of the experience preference domains. Response categories to the items took the form of a seven-point

TABLE 1
Experience Preference and Actual Experience Scales

Physical Exercise
Experience Preference Scale[a] (Cronbach's alpha = 0.84)
a. to help keep me in shape
b. keeping physically fit
c. getting exercise
Actual Experience Scale[b] (Cronbach's alpha = 0.53)
a. My hike at Maroon Bells was a good workout.
b. I would have liked a more strenuous hike.[c]
c. I got a lot of exercise on my hike.
Escaping Civilization
Experience Preference Scale[a] (Cronbach's alpha = 0.71)
a. avoiding everyday responsibilities for awhile
b. change from my daily routine
c. releasing some built-up tensions
Actual Experience Scale[b] (Cronbach's alpha = 0.64)
a. It was an escape from a hustle-bustle world.
b. I felt removed from civilization.
c. There was a lot of noise and commotion on the trail.[c]

Note. $n = 49$.

[a]Response categories were comprised of seven points ranging from "not important" to "extremely important." Measurements were taken on the items of this scale during both the onsite pretest and the onsite posttest. The Cronbach's alpha statistic was calculated from responses to the onsite pretest.

[b]Response categories were comprised of seven points ranging from "strongly disagree" to "strongly agree." Measurements were taken on this scale during the onsite posttest.

[c]The score of these items were reversed before summing. Thus, higher scores on scales imply higher levels of attainment.

Likert-type scale ranging from "strongly disagree" to "strongly agree". The potential range of values for the summated actual experience scales is 3 to 21 (Table 1).

This application of dissonance theory is concerned with whether subjects felt they had achieved their experiences in "physical exercise" and "escaping civilization" domains. For the current study, respondents scoring 14 or below on either of the onsite posttest AE scales were considered to have not achieved the corresponding actual experience; whereas respondents scoring above 14 were considered to be "achievers." A score of 14 was the approximate mean of both AE scales. To achieve a summated score of 14, a respondent would have had to report a 4 or less (the center, or indifference point, on a 1 to 7 agreement continuum) on at least one item comprising the onsite posttest scale. (Analysis of the data with 13 or 15 as the cut-off score did not change the nature of the relationships reported herein.)

Hypotheses

Differences between pre-activity and post-activity reports of EP were hypothesized to be based on whether or not subjects reported achieving experiences during the activity. Recreationists who achieved a given experience, as measured by one of the AE scales, were hypothesized to increase the relative importance of the associated EP domain score between pretest and posttest. Recreationists who did not achieve a given experience were hypothesized to decrease the relative importance of that EP domain score between pretest and posttest. In operational terms, on a repeated-measures ANOVA with experience achievement-status (AE) as a between-groups factor, an interaction effect was expected between experience achievement and time (pre/post-activity) for the EP scale score for each of the two domains.

Results

Tables 2 and 3 indicate the presence of interaction effects between experience achievement status (AE) and time (pre/post-activity) for the two EP repeated-measures ANOVAs—"physical exercise" and "escaping civilization", respectively—at $p < 0.10$. Although the statistical significance of the *a priori* contrasts (Tables 2 and 3) was not as convincing as it could have been, the direction of the shift in the means is congruent, in all cases, with the direction predicted by the hypotheses. As illustrated in Figures 1 and 2, experience achievement status (EA) influenced the direction of the shift

TABLE 2
Test of an Achievement by Time Interaction Effect on "Physical Exercise"

Source	*M* of within Subject Differences	*df*	Sum of Squares	Mean Square	*F*
Achievement[a]		1	7.36	7.36	0.32
Subjects (Achievement)		47	1095.64	23.31	
Time[b]		1	0.65	0.65	0.21
Achievement by Time[b]		1	10.35	10.35	3.38*
Time by Subjects (Achievement)		45	144.00	3.06	
A Priori Contrasts[b]					
Achievers[c]	0.80	1	8.00	8.00	2.61
Non-achievers[d]	−0.50	1	3.00	3.00	0.98

Note. Performed on SAS Software Version 6.03 using the GLM and CONTRAST procedures.
[a]Error term: mean square of Subjects (Achievement).
[b]Error term: mean square of Time by Subjects (Achievement).
[c]$n = 24$.
[d]$n = 25$.
*$p < 0.10$.

TABLE 3
Test of an Achievement by Time Interaction Effect on "Escaping Civilization"

Source	*M* of within Subject Differences	*df*	Sum of Squares	Mean Square	*F*
Achievement[a]		1	5.33	5.33	0.23
Subjects (Achievement)		47	1095.92	23.32	
Time[b]		1	11.80	11.80	4.87**
Achievement by Time[b]		1	7.40	7.40	3.05*
Time by Subjects (Achievement)		45	113.81	2.42	
A Priori Contrasts[b]					
Achievers[c]	1.06	1	19.06	19.06	7.87**
Non-achievers[d]	−0.13	1	0.13	0.13	0.06

Note. Performed on SAS Software Version 6.03 using the GLM and CONTRAST procedures.
[a]Error term: mean square of Subjects (Achievement).
[b]Error term: mean square of Time by Subjects (Achievement).
[c]$n = 15$.
[d]$n = 34$.
*$p < 0.10$.
**$p < 0.05$.

in experience preference (EP) judgments between pre-activity and post-activity reports.

Discussion

The results of this study were convergent with the results of Williams et al. (1988) and Manfredo (1984). A subject by time interaction indicated that "some [subjects] score higher on the second administration than on the first while some score lower [on the second administration] than on the first" (Manfredo, 1984, pp. 297-8). The inclusion of the experience achievement (EP) variable was designed to explore the outcomes of dissonance reduction, analogous to Iso-ahola and Allen's (1984) use of win-loss status in their study of intramural basketball players.

"Sweet Lemons" and "Sour Grapes"?

The results of the study were consistent with the predictions of dissonance theory. Subjects that achieved a given experience, reinforced the high priority for that experience in their post-activity reporting of experience preference. And conversely (although not as dramatic), subjects who did not achieve a given experience, were likely to lower their reported priority for that experience between pretest and posttest experience preference judgments. A shift in experience preference between pre-activity and post-activity reports may be due to rationalization. Such a shift could be considered a coping mechanism which would allow the subject to ac-

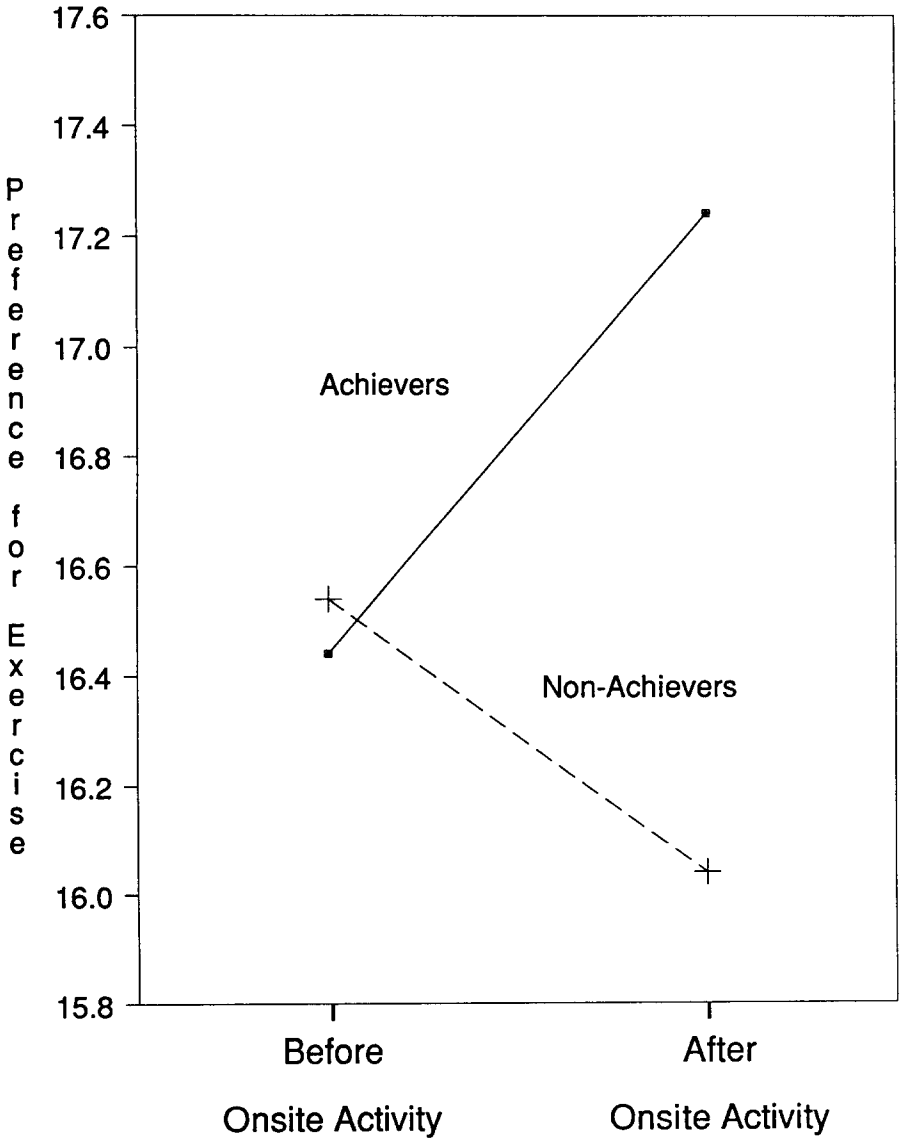

Figure 1. The influence of the onsite experience on preference for "physical exercise."

commodate the environment thereby maintaining psychological consistency.

Without the adjustment due to rationalization, the divergence between the preferred and the actual experiences could have been a source of discomfort and annoyance. If rationalization is considered a plausible ex-

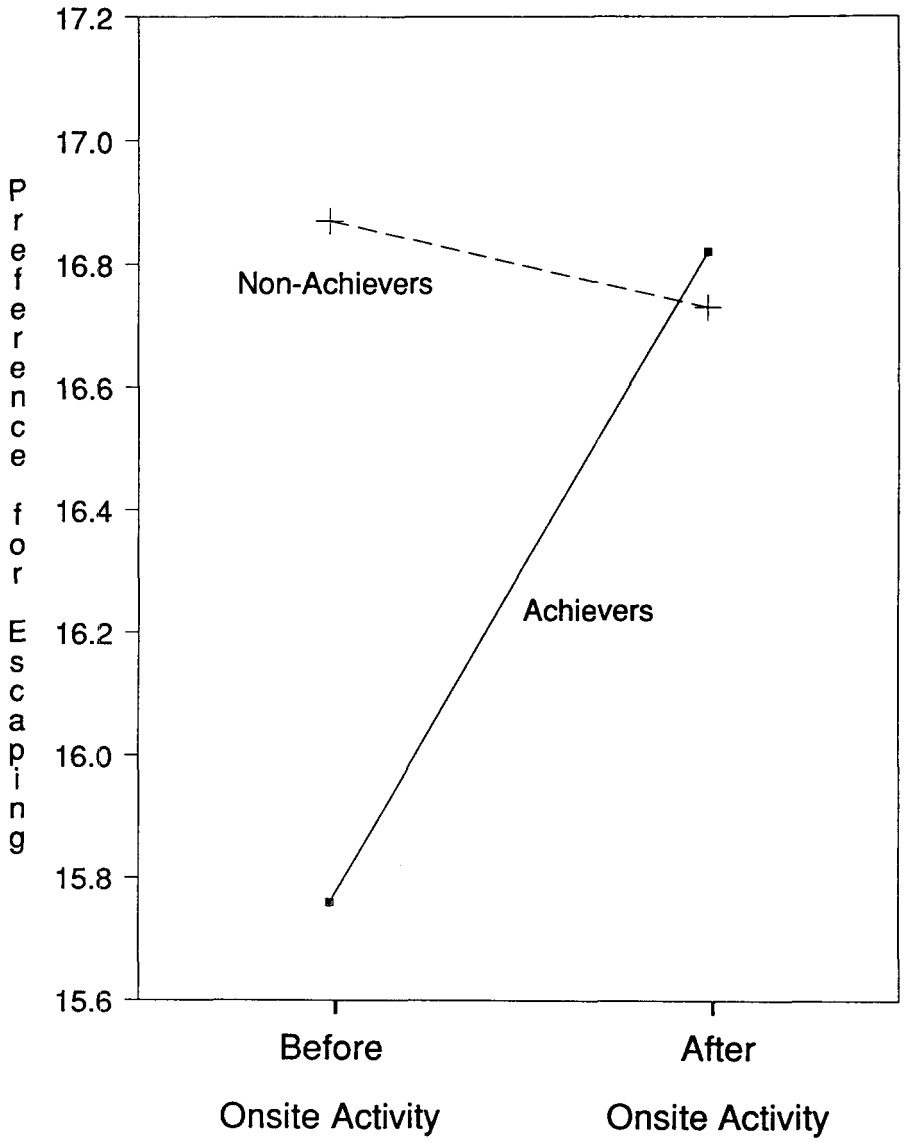

Figure 2. The influence of the onsite experience on preference for "escaping civilization."

planation for the interaction effect between experience achievement and time, then the group of achievers would be associated with "sweet lemons": although they initially had lower ratings on experience preference, the achievers left their hike fulfilled because they thought that they got what they wanted. The group of non-achievers would be associated with "sour

grapes": although they initially gave higher ratings on experience preference, the non-achievers left their hike fulfilled because they thought that they did not get what they did not want. The common effect of rationalization for both the "sweet lemons" and "sour grapes" groups is that the subject is left feeling happy and fulfilled.

The above discussion is qualified by the premise that recreationists hold specific experience preferences; in other words, recreationists are assumed to be conscious and particular about the psychological goals they wish to achieve. Could it be that recreationists have a range of acceptable experiences for any given domain? When prompted during the pre-activity assessment, they are forced to fit their range of acceptable experiences onto a single value of a seven-point Likert-type scale. In the post-activity assessment, they would be able to give further specificity to their experience preference, in part, relying on the qualities of the onsite experience. In this case, one could shift experience preference priorities between pre-activity and post-activity assessments and still be logically consistent; the shift would be attributed to enhancing the definition and specificity of one's experience preference judgments. Within this alternate explanation, an interaction effect would be interpreted as attending to the onsite experience to accommodate the researcher, as opposed to a rationalization to accommodate the environment.

Conclusions

An interesting point emerged regarding the validity of a survey design to assess experience preferences: for the subjects of this study, the results indicated that experience preferences changed over the course of the recreation endeavor. A posttest-only assessment of experience preference would have been vulnerable to the confounding influence of the onsite experience.

The interpretation of the meaning of the EP scales is also left as a point for discussion. The results of this study suggest that experience preference may be experience dependent; in other words, experience preference could be an artifact of participation in the actual recreation experience. An alternate interpretation acknowledged by Williams et al. (1988) and argued by Rosenthal, Waldman and Driver (1982) is that responses to the EP scales represent trait characteristics.

The REP scales, from which the EP scales in this study have been drawn, have provided a popular framework for analysis in recreation studies. In diverse ways, they have shaped researchers' understanding regarding the meaning of recreation. Due to their variety of applications, the meaning of the REP scales has become a critical concern. This study is best viewed as part of a continuing discussion regarding the nature of experience preference and its measurement. The distinguishing feature of this study was to introduce cognitive dissonance to explain the confounding effect of the recreation experience on an experience preference assessment.

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