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MANAGING RECREATION AREAS FOR QUALITY USER EXPERIENCES:
A THEORETICAL FRAMEWORK

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Abstract

The production of opportunities for high-quality visitor experiences is a basic goal of recreation management. Recreation quality can be interpreted using concepts from psychological field theory to relate emotion to the strength of motivation. Applications to on-site management for recreation quality and use regulation are suggested.

INTRODUCTION

THE PRODUCTION of opportunities for high-quality recreation experiences is a basic goal of all recreation managers and a major and growing responsibility of foresters and other land managers (Driver and Brown 1975; Schoenfeld 1968). Unfortunately, this management objective has proved elusive; after all, just what are "high-quality experiences," and how can we produce them? Wagar (1966) emphasized the importance of providing a range of facilities and opportunities to meet a variety of human needs. Others have suggested a relationship between quality and variation in the environment (More, et al. 1977) or have attempted to define quality in terms of the values of participants in an activity (Hendee et al. 1968; Shafer and Meitz 1969).

In recent years, however, perhaps the most widely used conception of recreation quality has been that of satisfaction. Here, recreation visitors are treated as customers whom management attempts to satisfy, and their satisfaction is treated as a major output of the recreation system. In any given activity, people tend to seek multiple satisfactions (Hendee 1974), but the types they seek may differ for different types of participants. Generally, the *amount* of satisfaction an individual receives from a particular experience reflects the degree of congruence between that person's expectations and the perceived reality of the situation (Rogenbuck and Schreyer 1977; Peterson 1974; Bultena and Klessig 1969).

But what, really, is satisfaction? Perhaps it is best described as a *feeling* that people have when their needs have been met. But as a feeling, it is one of a broader group of emotions, many of which may be important in recreation (More and Payne 1978); fun, joy, pleasure—these and others are significant emotions that our research frequently neglects. Moreover, we have tended to think of satisfaction as the outcome of an experience without considering the process involved in generating total satisfaction, or how satisfaction and other feelings may vary over the entire course of an experience. In this paper, we attempt to interpret recreation quality in terms of the emotional aspects of experiences, and to show how these can be modeled using concepts from psychological field theory (Lewin 1951) and expectancy-value theory (Atkinson 1964). This should enable us to incorporate many of the ideas expressed in satisfactions research into a broader, more explicit framework. After describing the theoretical constructs, we suggest some ways in which it might prove useful in managing recreation quality.

THEORETICAL CONSTRUCTS

Application of the theoretical framework to management problems requires an understanding of the goals of users and how these goals influence behavior. The term "goal" can be defined at several levels. For example, one goal of a mountain climber might be to obtain vigorous exercise. The goal of a wilderness user might be to spend time in an unchanged natural environment. These high-level goals (or motives) are important determinants of the types of experiences sought (Driver and Brown 1975). At a lower level, goal can be defined as a specific site that will attract users and which they will strive to reach. In this terminology, the goal of a mountain climber is to reach the summit. When he arrives there, his next goal may be to return to the spot where he left his car. Similarly, the goal of a wilderness user may be to reach his next camping site.

While higher order goals are a major determinant of recreation use, most of this paper

is concerned with goals as physical sites. Forested recreation areas offer a variety of sites that serve as potential goals. There can be facilities such as visitor centers, trail shelters, trail heads, historic sites, and picnic sites. There are also many natural goals—for example, lakes, caves, mountain summits, scenic overlooks, and waterfalls.

To a visitor about to enter a recreation area, each of these goals has some emotion attached to it. The nature and extent of that emotion depends on how motivated a person is to attain that goal. This, in turn, depends on such factors as past experiences and the information available about the goal. Thus, feelings about going into a cave may vary from intense excitement to fear to indifference. Understanding how people feel about particular goals, and how these feelings vary over time and space, provides a basic framework for both enhancing user experiences and regulating the amount of use a particular goal receives.

Two assumptions underlie the application of our theory to problems in recreation:

1. The quality of an experience will be higher if the total amount of positive emotion (fun, excitement, pleasure, satisfaction) a user feels during the experience is increased.
2. The amount of emotion (positive or negative) is determined by the strength of a person's motivation; that is, the stronger the motivation, the greater the emotion.

Motivational strength is the basic variable in our model and it can change over time and space. In some cases, it may be inferred from actual behavior; the vigor of a behavior is a good indication of the strength of a person's motivation (Atkinson and Birch 1970). For example, if two people, one walking and one running, are approaching a fishing hole, we might infer that the runner is moved by a stronger force than the walker. Further, other things being equal, we would expect that the two people would *feel* differently about reaching the site as well, with the runner being the more excited of the two. Thus, these assumptions taken together imply that to increase the amount of positive emotion a person feels, increase the strength of his motivation.

The basic equation for estimating the strength of motivation (adapted from Lewin 1951) at any given moment is:

$$M = \frac{A(G)}{d_{p,g}} \qquad (1)$$

where:

M = the strength of the motivation;

A(G) = the attractiveness of a particular goal G; and

$d_{p,g}$ = the psychological distance of the person (p) from the goal (g).

One can think of attractiveness on a scale of -100 (for a goal that is maximally unattractive) to $+100$ (for a goal that is maximally attractive). Motivational strength (M) covers the same range. If a goal is very unattractive, M will be negative, and the person will try to avoid the goal (place). For very attractive goals, M will be positive, and the person will try hard to reach the goal.

The actual attractiveness of a particular goal depends upon both the attributes of the goal and the attributes of the users. In expectancy-value theory (Atkinson 1964) the attributes of the goal form expectations—subjective probabilities or beliefs about the extent to which a goal posesses these attributes. These expectations range from 0, when there is virtually no possibility that a goal posesses a certain attribute, to 1.0, when there is absolute certainty that a goal posesses the attribute. Thus, we may have learned that when a site is designated a picnic area, there is a very good chance (expectation = 0.9) that it will have picnic tables.

While we may expect a goal to posess a particular attribute, this does not necessarily mean that it is especially valued. To continue the picnic area example, some families may not care if tables are present, preferring to spread a blanket on the ground. Values are the attributes of the person important in determining attractiveness. They reflect both the immediate, short-term needs of the person, as well as his long-term motives—the higher order goals mentioned previously. Thus, how much a person wants to go camping de-

pends both upon the long-term motives that affect camping and the nature of the immediate situation.

Values can be positive or negative; one might think of them as ranging from plus 10 to minus 10. They are paired to individual expectations in a multiplicative relationship. Moreover, values, as used here, are roughly analagous to the "satisfactions" we described. Consequently, any given goal is likely to be associated with a number of values, and the sum of the individual expectation/value pairs will determine the attractiveness:

$$A(G) = \sum_{i=1}^{n} E_i V_i \qquad (2)$$

where:

A(G) = the attractiveness of goal G
E = an individual expectation
V = an individual value

To illustrate, imagine a family conversation: "Let's not go there—it'll probably be crowded; besides, it looks like it might rain later today." "Oh, but it's such a pretty spot; we could use the exercise and I think the kids would really enjoy it." Given arbitrary values, the conversation implies 5 attributes with expectancy/value pairs:

Attribute	Expectation (probability)	Value	E_iV_i
Person 1			
Crowding	.5	−7	−5.6
Rain	.3	−9	−2.7
			−8.3
$A(G) = \sum_{i=1}^{n} E_iV_i$			
Person 2			
Aesthetics	.7	+10	+ 7.0
Exercise	.6	+ 4	+ 2.4
Please Children	.5	+ 5	+ 2.5
			+11.9
$A(G) = \sum_{i=1}^{n} E_iV_i$			

Thus, there are two very different attractiveness ratings for the same site. As discussion about the site continued, both people would probably modify their initial attractiveness ratings until some decision could be reached.

By substitution, then, the equation for determining the strength of motivation becomes:

$$M = \frac{\sum_{i=1}^{n} E_i V_i}{d_{p,g}} \qquad (3)$$

Psychological distance refers to a person's subjective estimate of the time required to reach a goal (Atkinson 1964). Psychological distance is related to, but distinct from, physical distance because the time required may reflect other factors like fatigue, frustration, and monetary costs. Thus, two people may perceive the same stretch of physical distance in very different ways. However, for the purpose of this exposition, we assume an average walking or driving time to a goal can be calculated for a particular population of visitors. Indeed, this idea is very similar to the average times already given in many roadmaps or trail guides.

To illustrate the relation among strength of motivation, attractiveness, psychological distance, and emotion, suppose you are taking a child to a beach that is an hour's drive from home. The child's goal is the beach, and because beaches are generally attractive to children, we assume that A (beach) = +100 (we also assume that the A (beach) does not change during the trip). As we start out, there are 60 minutes to go, so the strength of motivation is:

$$M = \frac{100}{60} = 1.66$$

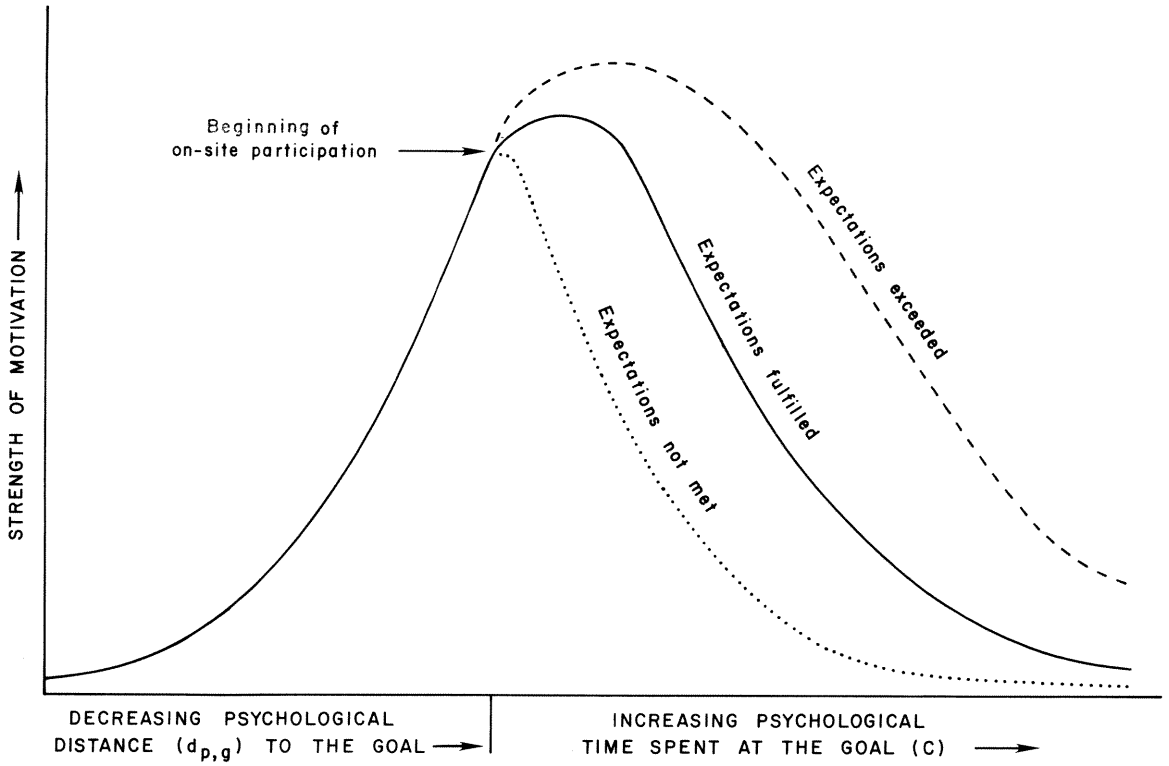
When halfway there,

$$M = \frac{100}{30} = 3.33$$

and the child is becoming excited. Finally, upon arriving in the parking lot,

$$M = \frac{100}{1} = 100.0$$

Figure 1.—Strength of motivation (and emotion) throughout a recreational experience.



the child is so excited that he may break into a run to cover the last few feet to the shore.

Since most adults have had far more experience with beaches, the A (beach) might be a lot lower. Consequently, the motivation and excitement would be less. Despite these individual variations, it should be possible to compute a mean attractiveness for a population of users by using a standard questionnaire and sampling techniques.

Of course, most of the fun of an experience comes during participation after a person has reached the goal and has begun to participate. Here, a complex set of processes take over. Psychological distance is no longer a factor since the goal has been attained. Similarly, expectations are superseded by reality.

What, then, happens emotionally during the remainder of the experience? Thus far we have been dealing with the emotions generated by anticipation. When the person arrives on-site, anticipation ceases and consummation begins. Generally, during this consummation period, the strength of motivation will begin to decline after a short lag period (a sort of "oh boy, we're here" period carrying over from anticipation), and it will continue to decline asymptotically toward zero until the person reaches a point where the strength of motivation for an alternative activity becomes dominant and the person makes the decision to leave (Atkinson and Birch 1970). This decline in motivation is accompanied by a corresponding decline in positive emotion (More and Payne 1978).

Like distance, psychological time spent at a goal is only partially determined by actual time. For instance, if a goal turns out to be disappointing, the psychological time spent may increase rapidly, causing motivation level to decline quickly (dotted line in Figure 1). However, when a goal exceeds expectations, a person may be so involved in participation that he is unaware of the passage of time. In this

case, C would increase very slowly, causing M to decline much more slowly (dashed line in Figure 1).[1]

No matter how attractive a goal is or how greatly it exceeds expectations, eventually the motivation to move on to another goal will become greater than the strength of the motivation to remain, and the person will make the decision to leave. Thus, the duration of the experience will be influenced by the initial attractiveness of the goal (the higher the attractiveness, the longer the duration and vice versa), how well the goal meets expectations, and the strengths of other motivations acting upon the person (Atkinson and Birch 1970). Finally, the decline in motivation is accompanied by a decline in positive emotion (More and Payne 1978).

While the decline is inevitable, the rate at which it occurs is variable and depends upon how well the goal/site meets a person's expectations about it. There are three possible outcomes for this situation (Fig. 1). First, a site or activity may be exactly what a person expected. If so, strength of motivation should follow the general path outlined above, declining until it is replaced by an alternate motivation toward another goal. A second possibility is that the goal/site will turn out to be disappointing—it will not measure up to a person's expectations. In this case, the motivation will decline rapidly and the person may depart sooner that he had anticipated. Finally, when a goal exceeds a person's expectations, motivation will decline more slowly, perhaps prompting the person to participate for a longer period.

Consumption may be expressed within the theory as the psychological time a person has spent at the goal. This is expressed in a parameter C added to psychological distance and defined in such a way that if $d_{p,g} > 0$, $C = 0$ or if $d_{p,g} = 0$, $C > 0$. Thus, the equation for determining the strength of motivation at any given point over the entire experience becomes:

$$M = \frac{\sum_{i=1}^{n} E_i V_i}{d_{p,g} + C} \qquad (4)$$

where C is the consummation parameter.

In summary, attractiveness, psychological distance, and consummation all play important roles in determining the quality of a particular recreational experience. Understanding how these factors contribute to the process of generating emotions during recreation can provide a useful insight into the very nature of these experiences. In the remainder of this paper we discuss some ways in which these concepts might be applied to influence recreation quality and the amount of use a particular site receives.

MANAGING FOR ATTRACTIVENESS

If attempting to improve the quality of the visitor's experience is a major objective of recreation management, then one way to capitalize on this theory is to try to increase the positive attractiveness of a goal. Suppose a management practice raises the attractiveness of a goal from +20 to +40, while the psychological distance remains the same (Fig. 2). All things being equal, the total area under each curve represents the amount of positive emotion or excitement that the person experiences while approaching the goal. Therefore, the difference in area between the curves indicates the extent to which the quality of this phase of the recreational experience has been improved by increasing the positive attractiveness of the goal.

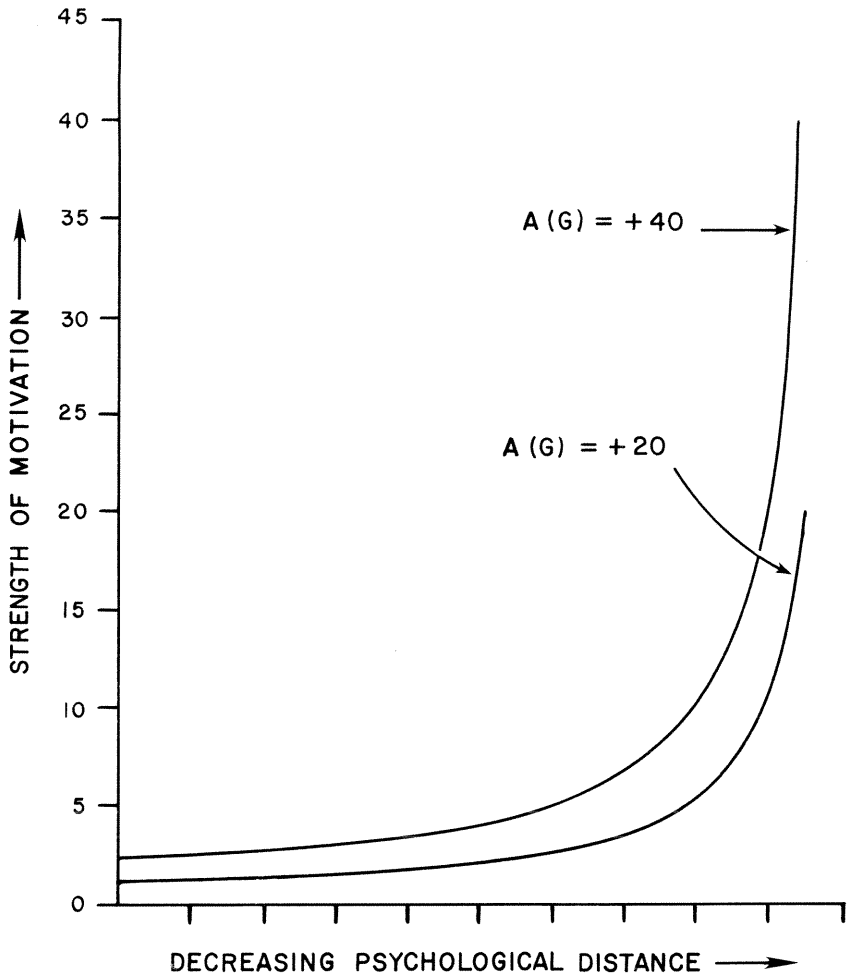
Recall that the attractiveness of a goal depends on attributes of both the user and the goal. One major user attribute that influences attractiveness is the higher order goals or

[1] A mathematical description of these changes is as yet uncertain. One possibility is that M might take a shape similar to the gamma distribution:

$$M = f(X) = \begin{cases} KX^{\alpha-1} e^{-(X/\beta)} & \text{for } X > 0 \\ 0 & \text{for } X \leq 0 \end{cases}$$

where α and $\beta > 0$ and K is a normalizing constant. Unlike the probability distribution, the area under the motivation (M) curve need not sum to 1 so K is simply a constant (not necessarily a *normalizing* parameter). Also, in this context, X would be regarded as a continuous variable representing psychological distance with values becoming negative during consummation.

Figure 2.—Strength of motivation for two goals, A(G) = +20 and A(G) = +40, over the same psychological distance.



motives mentioned above. These motives may be important determinants of the demand for a specific lower level goal (Driver and Brown 1975). For example, people who are motivated by a desire for solitude may select different types of campsites than people with strong social motives. Or a rough trail to a mountain summit may prove more attractive to visitors with strong achievement and exercise motives than a gently sloping, short, interpretive trail.

In most on-site management operations, however, it is nearly impossible to control the attributes of the users except through long-term advertising, education, or communication programs. Therefore, management can focus on attributes of the goal. Often, user preference surveys show what attributes are important. For example, some trailer campers desire flush toilets and hot showers (Bond and Ouellette 1968). For these people, a campground that provides these conveniences will be more attractive than one that does not. Similarly, a lake staffed by lifeguards may be more attractive to a mother with small children than one offering only unsupervised swimming. Creating a scenic vista from a mountain summit will probably increase the valence of the mountain top as a goal.

Peterson (1974) classified many such attributes by the way in which they contribute to the satisfaction of wilderness users in the Boundary Waters Canoe Area. There are four such classes of attributes: desirable overperformers (having to wash in cold water, using bug sprays), undesirable overperformers (biting insects, damaged birch trees, use of motors), desirable underperformers (catching big fish, beaver dams and lodges, clear lakes and streams), and undesirable underperformers (mechanized portages, fences). By understanding these attributes and how they contribute to satisfaction, managers can enhance the attractiveness of a site.

Another attribute of a site that might be manipulated is its name. For example, in the Mount Rogers National Recreation Area, the name of a point was changed from "North End of Wilburn Ridge" to "Rhododendron Gap." Almost immediately the area went from virtually no use to problems of overuse (Keith Argow, personal communication 1978). The name change apparently increased the attractiveness of this point as a goal for recreationists, probably by changing people's expectations of what could be found there.

This increase in attractiveness also may result from changes in land classification or designation. Reed (1973) found differences in people's "prestige" ratings of land classifications (for example, National Parks and State Forests), and suggested that prestige levels could be an important factor affecting visitation rates.

In general, the management of information to modify expectations seems a particularly promising technique. For instance, Lime and Lucas (1977) mailed information about use patterns in the Boundary Waters Canoe Area to people who had registered there in past years. Preliminary analysis of the data has indicated that people definitely made use of this information in planning subsequent trips. In theoretical terms, the attractiveness of some sites was reduced because of the increased expectation of crowding (a negative value), while the attractiveness of others was increased due to increased expectations of solitude.

As noted above, many users have different motives for visiting a particular site, and what attributes of the site can be successfully manipulated will depend on these motives. The attributes mentioned here reflect some of the possibilities. Creative managers will doubtless be able to think of more that are appropriate to the activities and user groups with which they deal.

MANAGING FOR PSYCHOLOGICAL DISTANCE

The management implications of psychological distance are less obvious, but quite important nevertheless. Recall that psychological distance refers to subjective estimates of the length of time required to reach the site, and that strength of motivation (and excitement) increases as the psychological distance decreases—again assuming that A(G) does not change during travel.

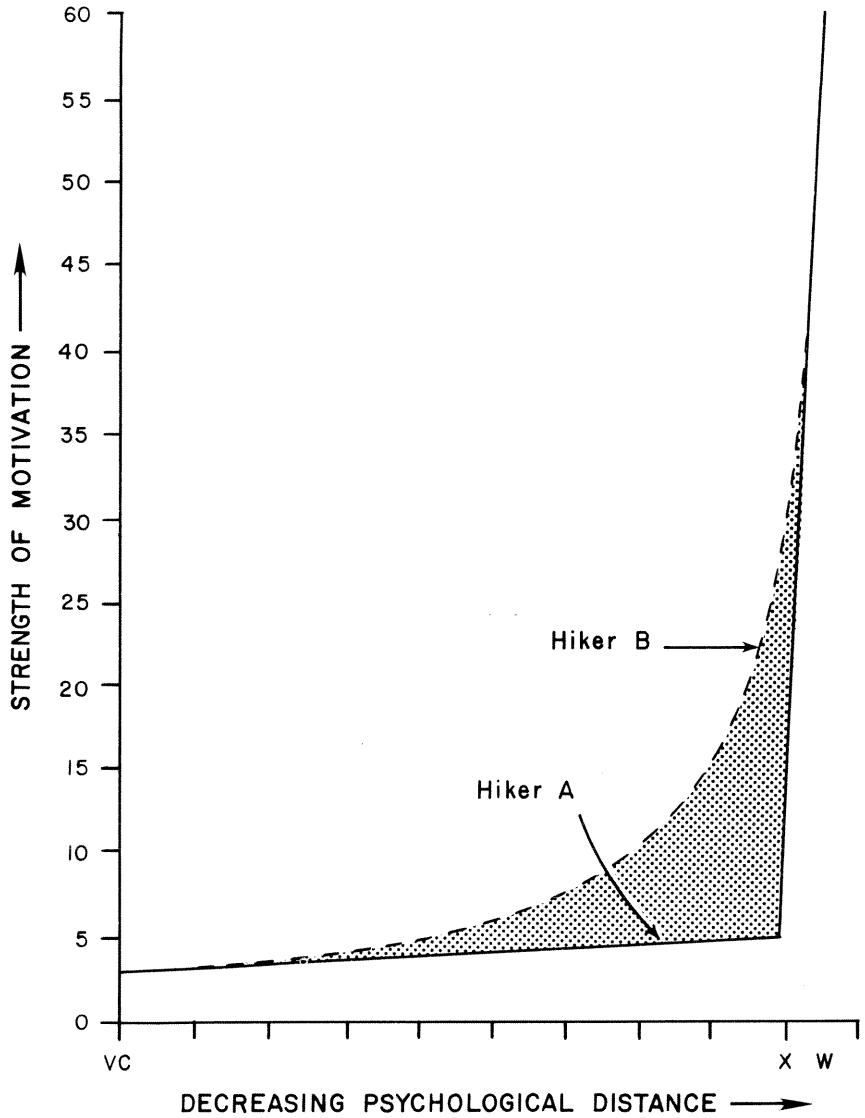
The difficulty is that people who are hiking, riding, or driving through a forest may not have a good idea of where they are in relation to a site. As a result, they may be unable to make accurate estimates of the distance.

Two possible outcomes for this situation are: people will overestimate the remaining distance, and believe they have farther to go than they actually do; or they may underestimate the remaining distance, believing that they are closer to the goal than they really are. The first situation may lead to a mild surprise as the people stumble out onto the goal. The second can lead to frustration and disappointment. Both of these outcomes can detract from the quality of the experience.

To graphically illustrate the effects of overestimating distance, suppose two people are at a visitor center (point VC in Figure 3). A waterfall, point W, is equally attractive to both of them (A (waterfall) = 60) and both decide to go. The average walking time from the visitor center to the waterfall is 20 minutes.

Hiker A is visiting the area for the first time. As he walks along, he loses track of time and fails to realize how far he has come (thus overestimating the remaining distance). He may

Figure 3.—Effect of overestimating psychological distance.



begin to have a vague idea that he is getting closer because he has been hiking for some time. This vague idea is represented by the gradual increase in the strength of the motivation that is acting on him (solid line). Eventually, he hears the sound of the fall (point X), which indicates that he is nearly there. From this point on, the force increases rapidly until he reaches the fall, and

$$M = \frac{60}{1} = 60$$

Hiker B, on the other hand, is very familiar with the trail. As a result, he always knows where he is and is able to make accurate estimates of distance. The increase in motivation that he experiences as he gets closer to the waterfall is shown by the dashed line.

Of course, both of these people end up with M = A (waterfall) = 60, and derive pleasure from being there. However, the crucial point, according to this theory, is that the difference between the two curves (the shaded portion of Figure 3) represents the amount of excitement

or pleasure lost to Hiker A simply because he had no idea where he was.

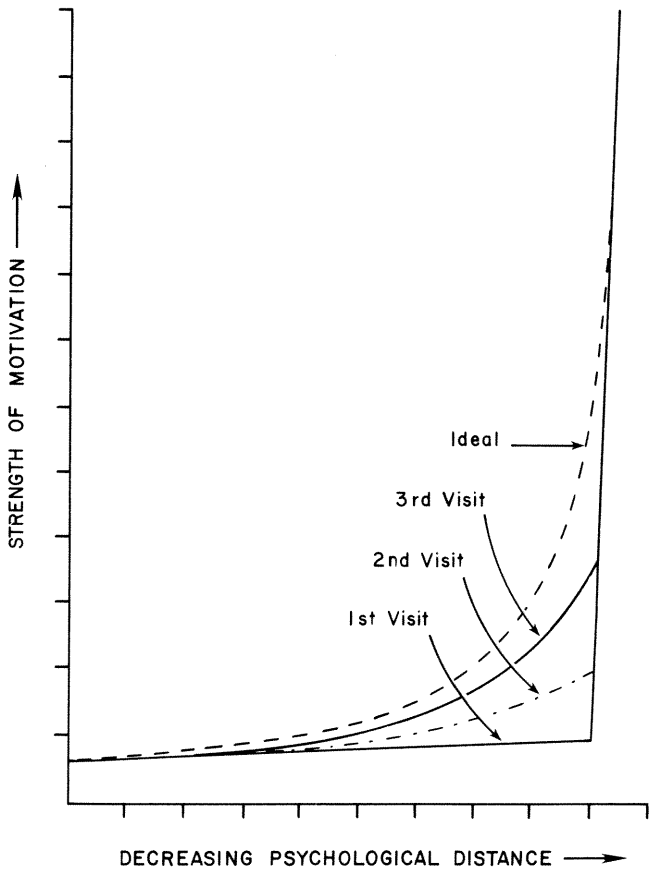
The curve for Hiker B is, naturally, an ideal curve because it is based on perfect knowledge of distance. Therefore, it follows that one effect of repeated visits to the same site would be to cause the curve of Hiker A to shift closer to this ideal (Fig. 4), assuming that familiarity with this site does not reduce its attractiveness.

The effects of underestimating distance can also be illustrated graphically (Fig. 5). In this case, the motivation level increases more rapidly than it should. Inevitably, however, people come to realize that they still have farther to go than they had thought, and the strength of motivation will decline. This decline represents disappointment and frustration ("Oh, you mean we're only here? I thought we were nearly there!"). The greater this decline is, the more disappointment there will be, and the more it will detract from the overall quality of the experience. This type of situation might occur when people are hiking on mountains with "false" summits.

Fortunately, management can reduce the impact of these two outcomes by providing stimuli that show the visitor where he is in relation to a site. One good example of this type of management is found on interstate highways where signs giving the distance to the next major city appear at frequent intervals. Most of us probably have had the experience of becoming increasingly excited each time we see a sign that tells us that our destination is nearer. In addition, these signs also prevent us from underestimating the remaining distance.

The same principle can be applied in forested recreation areas. The simplest way would be to provide signs that actually show the vis-

Figure 4.—Effect of repeated visits to the same goal by the same person.



itor how much distance remains. However, any stimulus that reveals that information will do as well, and other stimuli may be more appropriate for use in natural areas. To use the waterfall example, suppose that Hiker A had a map showing another trail crossing the waterfall trail about halfway out. Then, when A arrived at this spot, he would know he had traveled half the distance. This knowledge would increase his motivational level and also would help him to make more accurate estimates of distance during the remainder of the journey. This effect is illustrated in Figure 6, where two stimuli, one at 14 minutes away, the other 6 minutes away, are applied to one hiker walking out to the waterfall. The shaded area indicates the extent to which these stimuli have improved the quality of his experience.

It also seems possible that providing these stimuli may affect the rate of learning that occurs, thereby reducing the amount of time required to approach the ideal curve. In other words, fewer repeated visits should be needed for the hiker to approach the ideal curve.

Finally, the question arises: how many of these stimuli should be provided? The actual number will, of course, vary with the length of the distance to be covered. Perhaps we can borrow some concepts from economics to answer the question. For any given distance, then, there will be a point of diminishing marginal return where each additional stimulus contributes less to the quality of the experience than the previous one. Beyond this, there should be a point where the "marginal cost" of an additional stimulus will be equal to its

Figure 5.—Effects of understanding the remaining distance to a goal.

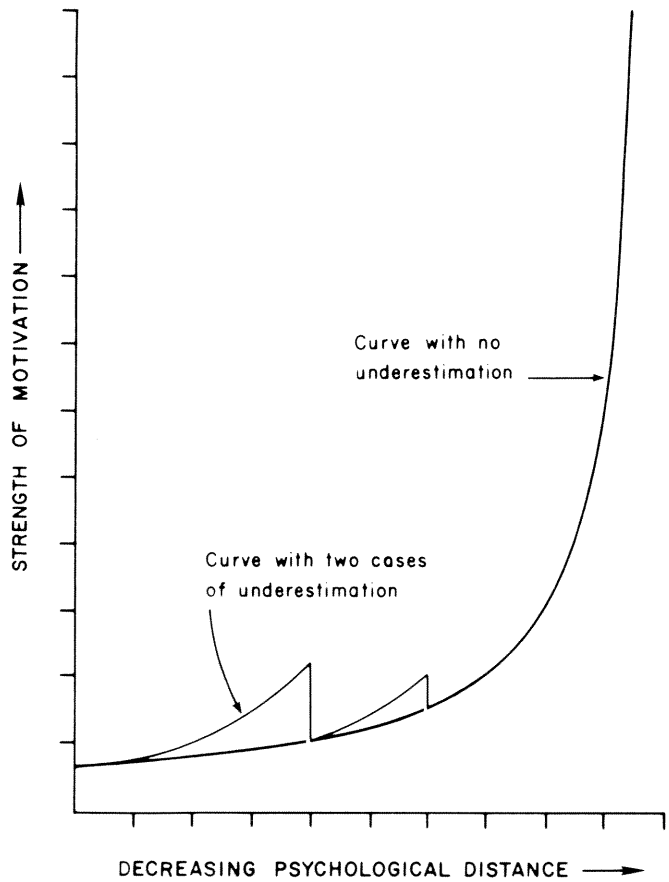
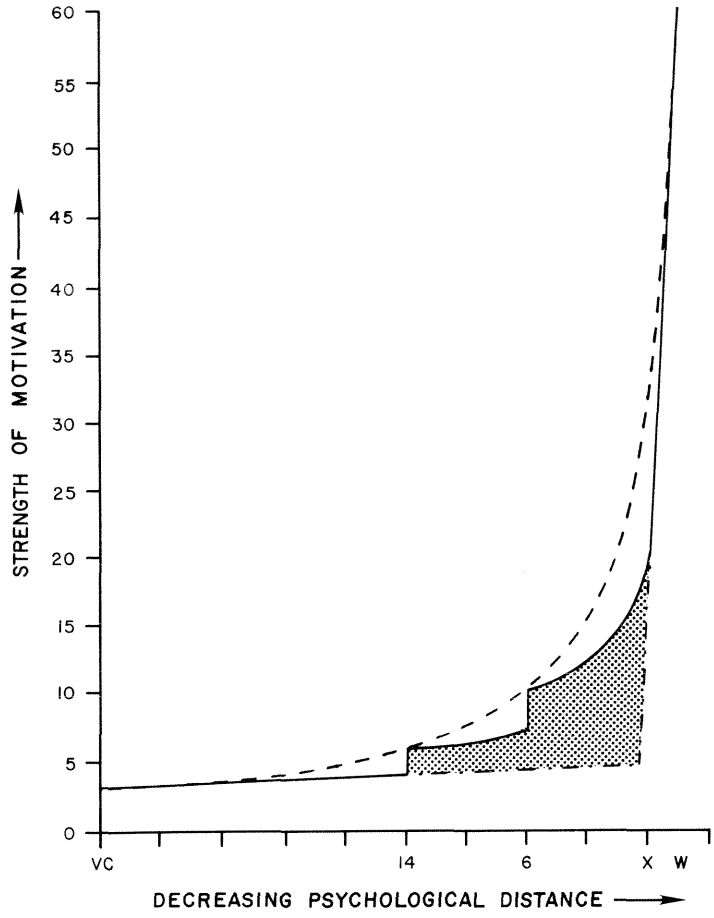


Figure 6.—Effects of two stimuli on the quality of the recreation experience.



"marginal benefit." This, naturally, would be the optimal number of stimuli to provide. An excessive number of stimuli may detract from the quality of the experience by reducing the attractiveness of the goal.

These examples are greatly oversimplified for illustrative purposes, and are based upon assumptions that may be unrealistic (for example, equal and unchanging attractiveness levels). In reality, people probably fluctuate around the ideal curve, switching back and forth between overestimating and underestimating distance. The key point, however, is that managers can reduce the impact of these fluctuations by providing stimuli that serve as landmarks.

USING THE THEORY TO REGULATE USE

Recreational carrying capacity is a broad subject that has attracted considerable attention (Frissell and Stankey 1972). In fact, the large number of proposed definitions is indicative of the breadth of the concept. According to Brown et al. (1976), carrying capacity can be conceived as "that configuration of use (amount, distribution, type, etc.) which is consistent with the long-term production of a specified recreational experience or set of such experiences." Thus, the amount and distribution of use are an important factors in identify-

ing whether current use levels are within the carrying capacity of an area.

In our opinion, this theory offers a useful approach for regulating use after management has decided on a particular use level. Suppose the decision had been made to try to increase the use of a particular site or facility. Management might then try to make the site more attractive to visitors and easier to get to; that is, increase the attractiveness and decrease the psychological distance. There is some indication that by modifying the attributes of a site, the time people spend there can be changed. In fact, the amount of time people spend at a site may well be a good indicator of its attractiveness (Buhyoff 1975).

Another common difficulty in forest recreation areas today is reducing the level of use in overcrowded facilities. In this case, management can attempt to decrease motivation by decreasing the attractiveness or increasing the psychological distance, or both. Returning to the Rhododendron Gap example, suppose ecological degradation was beginning. What could be a simpler solution than to change the name to something less attractive? Many people who had learned to appreciate attributes of this site other than its name would probably continue to visit it, but we would expect the number of new visitors to decline and total use to decline over time.

The theory can also be used to help attain a desired use distribution within an area by providing an insight into how visitors make decisions about goals. Most large natural areas offer the visitor more than one potential goal. To a visitor at the gate, each of these goals has some attractiveness level associated with it. Although it is oversimplifying, we can say that visitors will select the goal that they are most motivated to attain (the highest M value). Therefore, when an area offers several goals, it may be possible to manipulate the motivations created by each in order to distribute the amount of use in a more desirable manner.

Suppose that an area offers a number of potential goals. By increasing the attractiveness of some goals, while decreasing the attractiveness of others, it may be possible to achieve the desired use distribution. In fact, it may be desirable to think in terms of attractiveness regions—groups of goals whose attractiveness can be manipulated relative to one another, thereby regulating motivational level. In the case of the Boundary Waters Canoe Area, providing the information on use patterns apparently shifted the relative attractiveness of different trips. Or creating a new access point will affect use distribution by changing psychological distances. When the motivations to visit goals throughout an area are nearly equal, an even distribution of visitors would be expected.

Many of the above management techniques for manipulating motivation and attractiveness are currently in use and have been discussed in the literature. For instance, Brown and Hunt (1969) pointed out the role that informational signs can play in effecting changes in visitor distribution and use, while Wagar (1974) suggested that such changes can also be accomplished by interpretation.

Another possibility for regulating use might be to remove the motivation to visit a particular goal altogether by eliminating references to it on maps and other publications. If people have no knowledge that a goal exists, then there can be no motivation to visit it, and they will respond only to the remaining motivations. This might greatly reduce the amount of use that a site receives. This approach is currently being used in Shenandoah National Park, where all designated backcountry campsites are being eliminated in the hope that campers will distribute themselves more evenly, and in Acadia National Park, where overuse has threatened the Anemone Cave.

SUMMARY

A primary objective of all resource management is the production of sustained benefits for people. In recreation resource management, one facet of this objective is the production of high-quality recreation experiences. We believe that field theory offers insights which can help to accomplish this. Of course, Lewin's (1951) theoretical work was not specifically designed to be applied to the topics discussed here, nor have we used all the constructs from field theory. As a result, the simplified version pre-

sented here glosses over many pertinent factors governing recreation behavior.

Perhaps even more important, much of our argument rests on the assumption that motivation and emotion are related. Readers should be cautioned that this is an assumption in the classic sense—though it seems to fit well without intuitive experience, there is little evidence to support it. Nevertheless, we feel that field theory offers a good base upon which to build systematically. Initial evidence suggests that variables within this model can be quantified successfully and that the mathematical relations suggested can be tested (Hoar 1977). It is hoped that future work can clarify relations among motivation, attractiveness, psychological distance, and other factors that may affect on-site behavior and the quality of recreation experiences.

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