

FRONTCOUNTRY ENCOUNTER NORMS AMONG THREE CULTURES

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Existing normative studies have focused on backcountry encounter norms reported by North Americans. This study extends previous research by comparing encounter norms reported by three different cultures - North Americans, Europeans, and Japanese - in a frontcountry day use recreation area. Data were obtained from on-site surveys distributed at the Columbia Icefield in Jasper National Park. Results indicated that European and Japanese respondents were more likely to have an encounter norm than the North Americans. Although the tolerance limits did not vary by culture, consistent with previous research, when contacts exceeded norm tolerance limits, crowding increased regardless of cultural origin.

Introduction

The normative approach has been developed as a useful way to conceptualize, collect, and organize empirical data representing value judgments about resource management issues (Shelby and Heberlein 1986, Vaske et al. 1993). Norms are standards that individuals use for evaluating activities, environments or management proposals as good or bad, better or worse (Vaske et al. 1986). They define what people think behavior *ought to* or *should be*.

Since the initial conceptual illustration of the normative model to natural resource environments (Heberlein 1977), the approach has been empirically used to understand *encounter norms* (Vaske 1977, Vaske et al. 1986, Shelby 1981, Heberlein and Alfano 1983, Heberlein et al. 1986, Whittaker and Shelby 1988, Patterson and Hammitt 1990, Williams et al. 1991, Roggenbuck et al. 1991, Shelby and Vaske 1991, Young et al. 1991, Martinson and Shelby 1992), and *perceived ecological impacts* (Shelby et al. 1988, Vaske and Donnelly 1988, Whittaker and Shelby 1988, Shelby and Shindler 1990, Shelby and Whittaker 1990). Encounter norms have been examined for canoeing, rafting, tubing, sailing, fishing, hunting, backpacking, and camping.

For backcountry resources, Vaske et al. (1993) suggest several general conclusions regarding norms. First, a number of specific types of norms can be identified. Encounter norms exist for particular types of contacts with certain types of visitors at particular places and for certain types of experiences. It is also apparent that recreationists have norms for acceptable distances between individuals, encounters with others at campsites or attractions, and waiting times to run a rapids. Second, individuals are capable and willing to specify their norms when asked. Third, although encounter norms vary for different activities and different areas, there is some consistency in the norms for certain types of backcountry experiences. For example, norms for encounters in wilderness areas tend to be quite low (approximately 4 or fewer encounters in most cases). Fourth, when

encounters exceed an individual's normative tolerance limit, crowding (the subjective negative evaluation of a given encounter level) increases.

Most existing normative studies have been conducted in backcountry or wilderness areas which typically provide low density recreation opportunities. Research related to encounter norms in frontcountry settings is limited (Freimund et al. 1994). For these higher use environments, encounters may be relatively less important than other types of impacts (Whittaker 1992). Findings from the New River in West Virginia support this hypothesis (Roggenbuck et al. 1991, Williams et al. 1991). The New is a day use river with use levels reaching an average of over 1,000 persons per day on summer weekends. Following Shelby (1981), respondents were asked about three different types of trips on the New River: wilderness whitewater, scenic whitewater, and social recreation (Roggenbuck et al. 1991). For each type of trip, respondents were asked to give norms for the number of other boats seen on the river, percent of time in sight of other boats, and number of rapids where it was acceptable to wait in line before running. Response choices were "makes no difference," "makes a difference but can't give a number," or to give a number. A large percentage of New River floaters did not specify a number. There was, however, considerable variation across the type of experience and the type of norm; 1258 percent said "makes no difference," 13-34 percent said "makes a difference but can't give a number," and 29-66 percent gave a number. Boaters were more likely to specify a norm (and less likely to say "makes no difference") for the experiences closer to the wilderness end of the spectrum. They were also more likely to specify a norm for waiting at rapids than for number of encounters or time in sight.

Data from the Deschutes River suggest similar relationships. The Deschutes is a higher density river, and few users believe it offers a wilderness experience (Shelby et al. 1987). A higher percentage of users "don't care" about time in sight of other boaters, while a lower percentage felt this way about discourteous behavior, sharing or passing up camps, and human waste impacts. Relative to campsite impacts, users appear more concerned about sharing camps or camp competition than about camping within sight or sound of other individuals.

Differences in the types of impacts considered relevant may also vary across different cultures. Although virtually all recreation studies of encounter norms have concentrated on North American visitors, research in sociology and psychology identify cultural distinctions. In a study comparing Asians, British and Southern Europeans relative to the way they view and adapt to the physical environment, Gillis and associates (1986) found that Asians were most tolerant of high density, with respondents of British origin least adaptable. These findings are consistent with research (Altman 1975, Hall 1966, Rapoport 1977) showing that the Japanese have developed a wide range of strategies for coping with high density situations. Others (Homma 1990), however, conclude that while the Japanese view crowding as a negative experience, increasingly high levels of density and recent cultural/social changes have inhibited the effectiveness of various coping strategies.

Based on this previous research, this paper examines the following hypotheses:

- H₁: Norm existence will vary by culture.
- H₂: For those visitors who specify an encounter norm, tolerance limits will vary by culture.
- H₃: Irrespective of cultural influences, when encounters exceed norm tolerance limits, crowding will increase.

Study Area

Results from a study conducted at the Columbia Icefield in Alberta, Canada were used to test these hypotheses. The Columbia Icefield is the most heavily visited day use area in Jasper National Park. More than 900,000 visitors traveled the Icefields Parkway through Jasper National Park in 1993, with over 500,000 stopping at the Columbia Icefield during May through September. Most of these individuals visit the adjacent Athabasca Glacier on one of the commercial snoocoach tours. Visitors are typically 55 years of age or older, making their first trip to the area, and are of foreign origin (See Vaske et al. 1994, for a more complete description of the study area and visitor profile).

Methods

Data were obtained over a 12 day interview period during August and September of 1993. For purposes of this paper, individuals who visited the area on a commercial snoocoach (n = 501) were included in the analysis. Respondents were asked to complete a one-page, selfadministered survey at the conclusion of their visit (response rate = 97%).

Independent Variable: Country of origin served as the independent variable. To ensure sufficient sample size, three cultural categories were identified: 1) *North Americans* Canadian and American visitors; 2) *Europeans* Italian, French, German and British visitors and 3) *Japanese*.

Dependent Variables: Three dependent variables were examined. *Encounters with others* were assessed by asking individuals, "While walking on the glacier, about how many other visitors were within eyesight?" This was an openended question in which the respondents specified a number. Following previous research (Shelby 1981, Vaske et al. 1993), *encounter norms* were measured by asking respondents "What is an acceptable number of other visitors to have within eyesight while you are walking on the glacier?" Response categories allowed individuals to either specify a number or to indicate that it did not matter how many visitors were within view. Individuals who checked this latter option were in essence indicating they did not have a norm for this situation. *Perceived crowding* was measured on a 9point scale ranging from "not at all" to "extremely" crowded (See Shelby et al. 1989 for a review of the crowding variable).

Results

The first hypothesis suggested that the three cultures would vary in the percentage of individuals who specified an encounter norm. The data supported the predicted relationship. Approximately half (54%) of the North Americans indicated a tolerance limit for seeing other visitors while walking on the glacier. By comparison, 77% of the Japanese and 79% of the Europeans specified a tolerable number of encounters. These differences were statistically significant ($\chi^2 = 21.59, p < .001$). Consistent with prior research in high density, frontcountry situations, this suggests that encounter norms for North Americans may be relatively less important than other impact indicators.

Table 1. Norm existence reported by three cultures.

Culture	% Reporting an Encounter Norm
North American	54
European	79
Japanese	77

$\chi^2 = 21.59, p < .001$

Among those who specified a norm tolerance limit, there were no significant differences among the three cultures relative to the average number of other visitors each group could tolerate (Column 1, Table 2). The average number of people the three groups could tolerate ranged from 95 for Europeans to 114 for the Japanese ($F = 1.97, p < .14$). These findings do not support Hypothesis 2. Column 2 of Table 2 shows the median acceptable number of contacts each culture could tolerate. The median acceptable encounter level can be interpreted as the contact level above which half of the respondents find the number of encounters unacceptable. Half of the North American and Japanese visitors could tolerate being in sight of 100 other visitors on the glacier. The median for Europeans was 75. As indicated by the range statistic (Column 3, Table 2), the acceptable number of contacts ranged upwards to 500 other visitors. These high tolerances, however, were reported by fewer than 5 respondents.

Table 2. Norm tolerance limits reported by three cultures.

Culture	Mean *	Median	Range
North American	99.07	100	1-250
European	95.53	75	5-500
Japanese	114.47	100	2-500

* $F = 1.97, p < .14$

Of those who reported an encounter norm, between 39 and 48 percent of the three cultural groups reported more contacts with others than their norm limit (Table 3). As predicted by Hypothesis 3, mean differences in perceived crowding were significantly higher for individuals indicating more contacts than their norm. For example, among the North Americans, those who

reported more contacts than their norm had a mean crowding score of 5.27 (moderately crowded), compared to 2.00 (not at all crowded) for those reporting fewer contacts than their norm ($t = 5.57, p < .01$). This pattern of findings was observed for all three cultures.

Table 3. Norms and perceived crowding for three cultures.

Culture	Reported Contacts Compared to Norm		Mean Crowding Scores		t-value
	More Contacts	Fewer Contacts	More Contacts	Fewer Contacts	
North American	39%	61%	5.27	2.00	5.57 *
European	48	52	5.11	2.00	6.41 *
Japanese	45	56	4.01	2.32	7.27 *

* $p < .01$

Conclusions

Compared to backcountry settings, frontcountry visitors of North American origin were less likely to have an encounter norm (54%). Among the Europeans and Japanese, however, over three quarters gave an encounter norm when asked. Given the relatively higher densities these latter cultural groups may be accustomed to, it may be easier for these individuals to specify a tolerance limit. Generalizing this observation should be approached cautiously, however, due to the sample size constraints which prohibited the analysis of individuals from specific European countries. Moreover, given the differences between British and Southern European respondents noted by Gillis et al. (1986), the topic remains an issue for future investigation.

The encounter norm variable used in this investigation allowed for two types of responses: specifying a number of acceptable encounters or indicating that the number of encounters did not matter. These two options are likely to be sufficient for low density backcountry / wilderness settings where visitors are more likely to have a tolerance limit and where the presence of even a few other individuals may have a negative impact. In high density, frontcountry situations, however, the response categories ("makes no difference," "makes a difference but can't give a number," or specify a number) as suggested by Roggenbuck et al. (1991) may be more appropriate.

Among those who specified an encounter norm at the Columbia Icefield, the reported tolerance limits were considerably higher than those previously reported in backcountry research. For all three cultures, the average was approximately 100 contacts. This compares to wilderness research where 3 to 4 contacts represents the norm. Future research in other high density areas will assist in the definition of an appropriate encounter standard for frontcountry settings.

Some authors (Whittaker 1992, Brunson and Rodriguez 1992) have noted that other types of impact indicators may have a greater influence than encounters in frontcountry settings. Included among these indicators are norms for wait times to use facilities, depreciative behavior, human waste and litter. Future research is needed to examine the magnitude of these types of impacts on the quality of the visitor experience.

Taken together, the findings presented here suggest that Europeans and Japanese are more likely to have an encounter norm in high density situations than North Americans. Among those who reported a tolerance limit, however, the norms did not vary by culture. Consistent with previous research, when contacts exceeded norm tolerance limits, crowding increased regardless of cultural origin.

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