

The Cognitive and Emotional Components of Behavior Norms in Outdoor Recreation

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Behavioral norms consist of two components: a cognitive component of obligation that is the memory repository of social standards, and an emotional component of sanctions that are the feelings and physiological states that result when actual behavior is consistent or not consistent with the obligation. This article analyzes the cognitive and emotional components of norms identified in three studies of behaviors (littering, controlling dogs while cross country skiing, and bikers and skaters warning when passing) in outdoor recreation settings. All three studies provide data on obligations to behave a particular way and internal and informal sanctions for correct or incorrect behavior. Obligations for all the behaviors were highly crystallized and were not statistically different. Internal sanctions were shame and guilt, and informal sanction was embarrassment. The intensity of the norms was determined by summing individuals' responses for shame, guilt, and embarrassment. The power and prevalence of the norms were determined by cross tabulating obligations by intensities. Intensity, power, and prevalence were very high for littering and failing to control your dog while cross country skiing, but were very low for skaters and bikers failing to warn when passing slower users on a multiple use trail. Measuring sanctions is shown to be critical to determining the intensity, power, and prevalence of behavioral norms. Suggestions are given for ways to include sanctions in studies of social and environmental condition norms.

Keywords internal sanctions, informal sanctions, shame, guilt, embarrassment, obligations, social norms

Social norms have constituted an important area of the outdoor recreation research that has contributed much to our understanding of recreationists' preferences and behaviors (Heywood, 2000; McDonald, 1996). This line of research has been based primarily on adaptations of Jackson's (1966) Return Potential Model (RPM) of norms (Manning, Lime, Freimund, & Pitt, 1996; Shelby & Vaske, 1991). The RPM was adapted to outdoor recreation problems of crowding and other visitor use impacts by shifting the measures from behaviors to the social and environmental conditions that resulted from such behaviors (Shelby & Vaske, 1991) and came to be called the structural norms approach (Heywood, 2000). For example, to study crowding, or social standards for the frequency of contacts with other visitors, researchers ask respondents to report numbers or ranges of preferable or maximum acceptable contacts during a specified time period. Personal preferences are then aggregated to identify social standards. Social standards are considered to be normative if they have crystallized and have strong intensity. Crystallization is the level of consensus or agreement

about the norm, and intensity is the relative importance or strength of the norm (Shelby, Vaske, & Donnelly, 1996).

The structural norms approach has proved to be a reliable and frequently used basis for assessing the social and environmental conditions of recreation settings and developing management prescriptions to better serve visitor preferences and standards (Donnelly, Vaske, Whittaker, & Shelby, 2000; Vaske, Donnelly, & Shelby, 1993). Even so, the structural norm approach has not been immune to criticism. A persistent criticism has been the lack of empirical attempts to measure and quantify sanctions, the positive or negative rewards for appropriate or inappropriate behaviors, within the structural norm approach (Heywood, 1996; Roggenbuck, Williams, Bange, & Dean, 1991). Sanctions can be formal (imposed by agents for an organization or agency), informal (imposed by other persons), or internal (self-sanction by one's self) (Blake & Davis, 1964). In the RPM, sanction was the potential return of reward or punishment from others for a behavior (Jackson, 1966, 1975). In the structural norm approach, sanctions were considered to be expressions of a collective will that were less clear and direct, particularly in situations like crowding in a wilderness area (Shelby, Vaske, & Donnelly, 1996). In this context, users were seen to be more likely to rely on formal sanctions, for example, potential use limits, by addressing complaints to agency personnel. Shelby and colleagues (1996) called upon researchers interested in sanctions to address the sanctions issue empirically.

Sanctions, together with obligations, are fundamental components of normative theories of behavior (Blake & Davis, 1964; Heywood, 1996; Manning, Lawson, & Frymier, 1999; Parsons, 1951/1991). Obligation is the core cognitive component of the norm, while the intensity of sanctions is the core emotional component (Figure 1). The combination of the cognitive and emotional components determines the power of the norm. That is the norm's ability to influence behavior.

Obligation, the cognitive component, serves as a memory repository of social standards and also provides an organizational network of nodes of activation for efficiently considering the appropriateness/inappropriateness of a particular behavior (Cialdini, Reno, & Kallgren, 1990). Through processes of socialization, individuals learn obligations when they are sanctioned by significant others. The development of a conscience results from the internalization of the obligation, so that the norm eventually has the power to affect behavior even when no one else is present (Grasmick & Bursik, 1990). This does not mean that norms have absolute control over behavior. The position taken here is that normative behavior is rational, even though it is recognized that social scientists and social theorists have argued

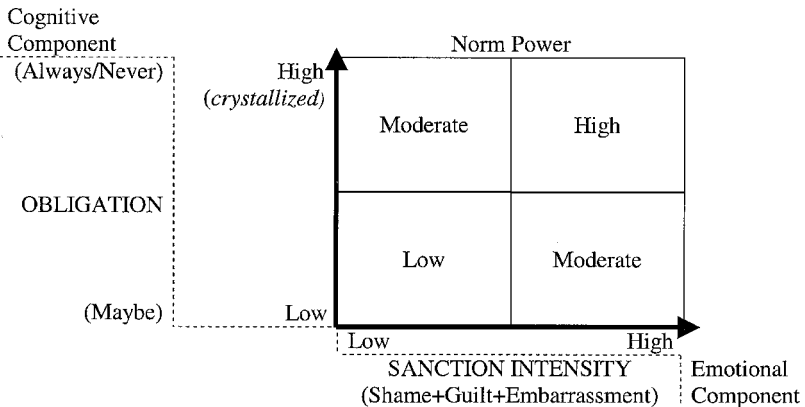


FIGURE 1 Conceptual model of norm power based on obligation and intensity.

and debated the rationality or nonrationality of normative behavior (Blake & Davis, 1964; Elster, 1989). As a rational process, normative behavior is a conscious consideration of one's obligation and the personal, social, and societal costs and benefits of a behavior that is or is not consistent with the obligation. The expected costs or benefits are sanctions, the emotional component of the norm, and are a function of the perceived certainty and severity of punishment or reward (Grasmick, Bursik, & Kinsey, 1991).

Formal sanctions are societal costs or benefits imposed by agents and officials with the power to punish or reward for violations or compliance with rules. Formal sanctions were the initial focus of deterrence theory that considered the emotion of fear of punishment as a deterrent to crime (Tittle, 1980). Deviant behavior was seen as the result of the rational consideration of the certainty and severity of punishment. If punishment was very certain and very severe, the costs would outweigh any benefits that could result from the behavior. Blake and Davis (1964, p. 465) recognized that formal sanctions can also be rewards—a medal, an honorary dinner, a parade—for societally beneficial behaviors. Consequently, the imposition of formal sanctions can have immediate consequences of disgrace and contempt or recognition and esteem. In the long term, formal sanctions rely on the severity of fines, public service, and incarceration as deterrents to deviance. The opposite, that rewards, awards, and recognition encourage conformance in the long term, is also assumed, but has not been a critical research focus.

Social costs or benefits result from informal sanctions by persons who observe another's behavior. Informal sanctions are the rewards of a smile and approving nod, a sympathetic silence, or a spoken praise, or the punishments of a contemptuous glance, a derisive laugh, or a spoken rebuke (Blake & Davis, 1964). Depending on the significance of the person who sanctions someone informally, the person sanctioned may feel more or less embarrassment (Grasmick & Bursik, 1990) or more or less admiration (Heywood & Aas, 1999). A significant other is someone—family, friend, coworker, employer—whose opinions are important to us. The immediate consequence of embarrassment is physiological discomfort. The more certain and severe the embarrassment the more discomfort that is felt. Long term embarrassment and discomfort can lead to the loss of friendships and valued relationships that can restrict opportunities “. . . to achieve other valued goals over which significant others have some control” (Grasmick & Bursik, 1990, p. 841). The immediate consequence of admiration is physiological comfort. In the long term admiration and comfort can strengthen friendships and valued relationships that can lead to greater opportunities and greater social influence. As Tittle (1980) initially found and others later confirmed, informal sanctions are more effective deterrents than formal sanctions (Grasmick & Bursik, 1990; Grasmick et al., 1991; Petee, Milner, & Welch, 1994).

Personal costs or benefits result from the internalization of the obligation and either the threat of self-imposed feelings of guilt and shame (Grasmick & Bursik, 1990) or the positive possibility of feeling guiltless and proud (Heywood & Aas, 1999). Thus behavior is also guided by self-sanctions. The certainty and severity of self-imposed punishments or rewards that affect self-image and self-esteem determine the power of self-sanction. There can be both immediate and long-term consequences that result from self-sanction. Lowered self-image and self-esteem can immediately result in physiological discomfort that over time can lead to long-term damage to self-concept, resulting in anxiety and possibly depression (Grasmick, Blackwell, Bursik, & Mitchell, 1993; Grasmick & Bursik, 1990). On the other hand, heightened self-image and self-esteem can result in an immediate physiological condition of comfort that over the long term leads to an enhanced self-concept and fulfillment. Grasmick and colleagues (Grasmick & Bursik, 1990; Grasmick et al., 1993; Grasmick et al., 1991) have shown that the combination of internal and informal sanctions is a more powerful deterrent than either informal or formal sanctions alone.

This article addresses some of the issues in the empirical study of sanctions and norm power by reporting on a comparison of four norms from three different studies of behaviors in outdoor recreation settings. In each study, data was collected on an obligation to behave in a certain way, on the certainty of internal sanctions of guilt-guiltlessness and shame-pride, and informal sanctions of embarrassment-admiration. The proportions of respondents who chose the most extreme—should never or should always—obligation responses determined the crystallization of the obligations. Internalization was determined by summing scores for guilt-guiltless and shame-pride. Informal sanction was measured by the degree of embarrassment-admiration, and was added to the internalization scores to determine the norm's intensity. To determine intensity it is assumed that the certainty of sanctions are additive.¹ Considering negative internal sanctions for example, feeling guilty results from an awareness that an accepted or appropriate behavior has been violated, and shame is the pain caused by the consciousness of guilt. If one knows or suspects that significant others know about the unacceptable or inappropriate behavior, the feelings of guilt and shame are increased by the social stigma and added feelings of embarrassment. The intensity of the norm is the sum of shame plus guilt plus embarrassment. When behavior conforms or fails to conform to the obligation, sanctions can produce feelings, emotions, and/or physiological states that result in unacceptable costs or desirable benefits. The power of the norm is a function of the combination of the certainty of obligation and the certainty of sanctions (see Figure 1).

Methods

Data for this analysis comes from three studies conducted in different outdoor recreation settings: a study of littering in urban parks in Columbus, Ohio; a study of cross-country skiing with dogs on ski tracks near Lillehammer, Norway; and a study of warning when passing on a multiple-use trail in Columbus, Ohio. Data from the littering study was collected over the summer of 1999 from users of 10 Columbus Recreation and Parks Department recreation centers (Heywood & Murdock, this issue). A systematic sampling scheme was used to sample users at different centers, on different days of the week. Respondents completed a questionnaire on site during their visit (response rate = 77%). The cross-country skiing data were collected from a convenience sample of skiers using the Sjusjøen-Nordseter-Pellestova skiing center during the winter of 1997 (Heywood & Aas, 1999). Skiers were handed a questionnaire in a postage paid return envelope for completion at home and mail back (response rate = 70%). The multiple-use trail data were collected from a convenience sample of users of the Olentangy Bike Trail over the summer of 1996 (Gao, 1997). Trail users were contacted on site through a stratified sampling plan of days and times of day. Walkers, runners, in-line skaters, and bikers were handed a questionnaire in a postage paid return envelope for completion at home and mail back (response rate = 49%).

Each of the questionnaires contained questions about obligations and sanctions in a standard format. The obligation questions asked about a particular behavior, for example, littering, controlling your dog while skiing, warning when passing slower users, and if the respondent was obliged to behave in a certain way. The response scales were identical and included possible responses of Should Never (litter, control your dog, warn when passing), Maybe Never, No Obligation, Maybe Always, and Should Always. Scores ranged from -2 for Should Never to 2 for Should Always with No Obligation scored zero. The sanction question asked how respondents would feel if they behaved in a way that was consistent or inconsistent with the obligation. The responses were semantic differential scales of shame-pride, guilt-guiltlessness, and embarrassment-admiration. All the semantic differential comparisons were made on seven point scales that ranged from -3 for shame,

guilt, and embarrassment to 3 for pride, guiltlessness, and admiration with a zero neutral point in between.

Crystallization and intensity were determined as describe above. Analysis of variance was used to test for differences in mean obligations, internal sanctions, informal sanctions, and intensities for littering, controlling your dog while skiing, bikers warning, and skaters warning. When significant differences were found Dunnett C post hoc tests were used for pairwise comparisons of mean differences for each behavior condition.

The prevalence and power of the norms were then determined by cross-tabulating obligations by intensities. The proportions of respondents in the cross-tabulation cells show the prevalence of the norms by the norms' power. Following Figure 1, for those with high obligation and high intensity the norm has the most power, for those with high obligation and low intensity or low obligation and high intensity the norm has moderate power, and for those with low obligation and low intensity the norm has low power. For respondents outside the high, moderate or low cells the norm is poorly conceived or irrelevant and has no power. A norm power scale was developed based on obligation and intensity. The highest power was scored four (4), where obligation (2) and intensity (-9) were most extreme. High power was scored three (3), high obligation (2) and high intensity (-5 to -8). Moderate power was scored two (2), high obligation (2) and low intensity (-1 to -4). Low power was scored one (1), low obligation (1) and low to high intensity (-1 to -9), and no power was scored zero (0), no obligation (0) or inappropriate obligation (-1 to -2) and no intensity (0) or inappropriate intensity (1 to 9). Analysis of variance was used to test for differences in mean norm power for littering, controlling your dog while skiing, bikers warning, and skaters warning. When significant differences were found Dunnett C post hoc tests were used for pairwise comparisons of mean norm power differences.

Results

Obligations to never litter (87%), always control your dog while skiing (89%), and for bikers (84%) and skaters (77%) to always warn when passing were all highly crystallized (Table 1). The obligation means were all equal to or greater than 1.7, on a scale from -2 to 2, (Table 2), and were not statistically different ($F = 2.55$, $p \leq 0.06$) (Table 3).

Failure to meet the obligations not to litter, and control your dog while skiing resulted in most respondents self-reporting feelings of shame (87% litterers, 78% skiers), guilt (88% litterers, 84% skiers) and embarrassment (85% litterers, 77% skiers) (Table 1). For bikers and skaters failing to warn when passing, majorities reported they would feel guilty (53% bikers, 65% skaters), but would neither feel ashamed nor proud (54% bikers, 61% skaters) and neither embarrassed nor admired (bikers 56%, skaters 54%) (Table 1). For all of the behaviors there was a tendency for more self-reports of guilt than there were for shame and embarrassment, especially for bikers and skaters failing to warn when passing.

Internalization of the obligation, defined as the sum of shame plus guilt, did vary among the several behaviors considered in this analysis. Littering (mean = -4.25) and controlling your dog while skiing (mean = -3.59) were more strongly internalized than bikers (mean = -1.24) or skaters (mean = -1.39) warning when passing (Table 2). The differences in the internalization of the obligations were significant ($F = 26.62$, $p \leq 0.00$) (Table 3). Dunnett C post hoc tests showed that internalization of obligations to never litter and to always control your dog while skiing were not significantly different, but both were significantly more internalized than bikers or skaters internalization of an obligation to warn when passing (Table 2, superscripts a, b show significant differences).

Feeling embarrassed because others have observed or are aware of inappropriate behavior also varied among the several behaviors studied (Table 2). Litterers would feel most

TABLE 1 Crystallization of Obligations and Self-Reports of Shame, Guilt, and Embarrassment for Littering, Failing to Control Your Dog While Cross Country Skiing, and Not Warning When Passing on a Multiple-Use Trail

Cognitive component	Percent respondents for behaviors (n)			
	Littering (189)	Control dog (193)	Bikers warn (60)	Skaters warn (34)
Obligation				
Should never	87	0	1	1
Maybe never	5	1	0	1
No opinion	6	4	1	1
Maybe always	0.5	7	14	20
Should always	0.5	87	83	77
Emotional Components				
Internal sanction				
Ashamed ¹	87	78	39	33
Neither ²	9	17	54	61
Guilty ¹	88	84	53	65
Neither ³	5	9	36	29
Informal sanction				
Embarrassed ¹	85	77	37	39
Neither ⁴	11	16	56	54

¹Percent -1 to -3.

²Percent 0, neither ashamed nor proud.

³Percent 0, neither guilty nor guiltless.

⁴Percent 0, neither embarrassed nor admired.

TABLE 2 Comparisons of Means for Obligations, Internalizations, Informal Sanctions, and Intensities for Littering, Cross Country Skiing with Dogs, and Warning When Passing on a Multiple-Use Trail

Behaviors	Cognitive component				Emotional components			
	Obligation (-2 to 2)	Internalization (Shame + Guilt) (-6 to 6)	Informal sanction (Embarrassment) (-3 to 3)	Intensity (S + G + E) (-9 to 9)	Mean	SD	Mean	SD
Littering	1.78 ¹	0.63	-4.25 ^a	2.48	-2.10 ^a	1.31	-6.44 ^a	3.63
Control dog	1.83	0.50	-3.59 ^b	2.73	-1.64 ^{a,b}	1.43	-5.24 ^{a,b}	4.11
Bikers warn	1.83	0.46	-1.24 ^{a,b}	2.37	-0.56 ^{a,b}	1.38	-1.79 ^{a,b}	3.63
Skaters warn	1.69	0.73	-1.39 ^{a,b}	2.13	-0.64 ^{a,b}	1.14	-2.03 ^{a,b}	3.21

¹The obligation mean for littering was reversed (multiplied by -1) for statistical comparisons.

Note: Superscripts *a* and *b* indicate significant differences, $p \leq 0.05$, in means (Dunnett C post hoc tests).

TABLE 3 Analyses of Variance of Obligations, Internalizations, Informal Sanctions, and Intensities for Littering, Cross Country Skiing with Dogs, and Warning When Passing on a Multiple-Use Trail

Variables	Source	Sum of squares	Degrees of freedom	Mean-square	F-ratio	Probability
Obligation	Sample	2.39	3	0.79	2.55	≤0.06
	Error	236.27	757	0.31		
Internalization (Shame + Guilt)	Sample	513.33	3	171.11	26.62	<0.001
	Error	2571.48	400	6.43		
Informal sanction (Embarrassment)	Sample	174.26	3	58.09	33.54	<0.001
	Error	704.91	407	1.73		
Intensity (S + G + E)	Sample	1193.16	3	397.72	27.77	<0.001
	Error	5656.84	395	14.32		

embarrassed (mean = -2.10) followed by skiers who failed to control their dogs (mean -1.64), skaters who didn't warn when passing (mean -0.64), and bikers who didn't warn when passing (mean -0.56). Embarrassment was significantly different for these inappropriate behaviors ($F = 33.54$, $p \leq 0.001$) (Table 3). Dunnett C post hoc tests showed that litterers would be significantly more embarrassed than skiers, and both would be significantly more embarrassed than skaters or bikers (Table 2, superscripts a, b).

Norm intensity, reported as the sum of shame plus guilt plus embarrassment, was highest for littering (mean = -6.44), next highest for controlling your dog while skiing (mean = -5.24), next highest for skaters warning when passing (mean = -2.03), and lowest for bikers warning when passing (mean = -1.79) (Table 2). The differences in intensity were statistically significant ($F = 27.77$, $p \leq 0.001$) (Table 3). Dunnett C post hoc tests showed that intensity for littering was significantly higher than for failing to control your dog while skiing and for bikers and skaters failing to warn when passing (Table 2, superscripts a, b). Informal sanction for failing to control your dog while skiing was also higher than bikers and skaters failing to warn when passing (Table 2, superscripts a, b).

Consistent with the previous findings, the most prevalent and most powerful norm was for littering (Table 4). A majority (52%) held the norm at its highest level, and nearly three quarters (74%) at a high or the highest level. The mean power of the littering norm was 3.0 (Table 4), on a scale from zero to four, and was significantly more powerful than any of the other norms (Table 5 and Table 4, superscripts a, b). The next most prevalent and powerful norm was to control your dog while skiing, with a majority (58%) holding the norm at a high or the highest level. The mean power of the control dog norm (2.5) was significantly greater than the warning norms for bikers and skaters (Table 5 and Table 4, superscripts a, b). Bikers and skaters warning when passing were the least prevalent and least powerful norms. Skaters warning were more prevalent (24%) and powerful (1.67) than bikers warning (prevalence = 17%, power = 1.28), although not significantly so (Table 4). For most skaters (42%) the warning norm was moderately powerful, while for most bikers (46%) the warning norm had no power.

Discussion

The obligations to behave in particular ways were all highly crystallized and had similar mean levels of support for the behaviors considered in this analysis. This indicates that obligation serves an important role as a cognitive standard against which the appropriateness

TABLE 4 Descriptive Statistics for Norm Prevalence by Norm Power Comparing Norms for Littering, Controlling Your Dog While Skiing, and Bikers and Skaters Warning When Passing

Behaviors (n)	Percents for norm prevalence by norm power (obligation by intensity) ¹					Norm power	
	Highest (4)	High (3)	Moderate (2)	Low (1)	None (0)	Mean ²	Std. Dev.
Littering (189)	52	22	12	2	12	3.00 ^a	1.34
Controlling dog (193)	38	20	18	4	20	2.52 ^{a,b}	1.51
Bikers warning (60)	13	4	28	9	46	1.28 ^{a,b}	1.42
Skaters warning (34)	6	18	42	3	30	1.67 ^{a,b}	1.27

¹Highest (4): Obligation (O) = 2, Intensity (I) = -9; High (3): O = 2, I = -8 to -5; Moderate (2): O = 2, I = -1 to -4; Low (1): O = 1, I = -9 to -1; None (0): O = -1 to 0, I = 0 to 9.

²Superscripts *a* and *b* indicate significant differences, $p \leq 0.05$, in means (Dunnett C post hoc tests).

or inappropriateness of one's own and others' behavior can be judged. This is consistent with Cialdini, Reno, and Kallgren's (1990) approach based on cognitive priming. Cognitive priming holds that similar concepts are linked in memory and can be activated by focusing an individual's attention on a related concept. They found that evidence or message, or both, that remind individuals of similar behavioral obligations (in their conception injunctive norms) are sufficient to focus attention on a particular obligation even when the evidence or message is not specific to that obligation. For example, in a study of littering, flyers reminding subjects of an obligation to recycle or turn out lights were littered less often than flyers reminding subjects of an obligation to vote. Hence obligation can be viewed as a cognitive construct that applies to many behaviors in general, as well as to specific behaviors in particular. In a given context or situation, for example, what to do with waste, what to do when skiing with a dog, what to do when passing slower trail users, there can be a general recognition that one has an obligation and a specific recognition that one must behave in a particular manner.

For all of the behaviors considered here, internalization was found to be the certainty of shame and guilt for behaving inappropriately. The shame and guilt for littering and not controlling your dog while skiing were much higher than for bikers or skaters not warning when passing. Internal sanction is important because, when considering the costs or benefits of a particular behavior, the individual can know with certainty whether he or she would feel ashamed and guilty, or proud and guiltless, because they themselves are the punishing or rewarding agent (Grasmick & Bursik, 1990). Grasmick and Bursik (1990) called their internal sanction variable "shame" but measured it using a single question about feelings

TABLE 5 Analysis of Variance of Norm Power for Littering, Controlling Your Dog While Skiing, and Bikers and Skaters Warning When Passing

Source	Sums of squares	Deg. freedom	Mean-square	F-ratio	Probability
Factor ¹	143.60	3	47.87	23.99	<0.001
Error	787.87	395	1.99		

¹Factor: 1 = Littering; 2 = Controlling dog; 3 = Bikers warning; 4 = Skaters warning.

of “guilt.” In the studies considered here, shame and guilt were measured as separate items, but guilt was found to be a more likely internal sanction than shame, especially for the weaker norms of bikers and skaters warning when passing. These findings pose questions for future research concerning the measurement of internal sanction, further consideration of the link between guilt and shame, and whether guilt is a sufficient indicator of internal sanction.

The social stigma for behaving inappropriately was found to be the certainty of feeling embarrassed. The pattern of embarrassment findings was similar to the pattern for shame and guilt, with litterers and skiers reporting the highest levels of embarrassment and bikers and skaters reporting the lowest. Both littering in the United States and controlling your dog while skiing in Norway have relatively long histories and are linked to societal and cultural standards that have strong moral components. Multiple use trails, on the other hand, are relatively new recreation settings for which links to societal or cultural standards have not been clearly established. In the United States littering has been an important societal issue since the 1960s. For example, Keep America Beautiful (KAB) has developed and implemented national, state, and local antilittering campaigns for the past 40 years (Keep America Beautiful, 2001). KAB’s strongest moral appeal was its initial “crying Indian” national media campaign, that was reprised in 1998, showing a tear falling from the eye of Iron Eyes Cody as he contemplated how litter was hurting America, and was every individual’s responsibility. In Norway cultural traditions, *allemansretten*—everyone’s right of access to uncultivated land—and law, *Friluftsloven*—the right of access to private lands for recreation—place great emphasis on responsibilities to leave areas as found and not to impinge on others’ enjoyment. Other laws specifically concern the control of dogs when outdoors, and together with the moral and legal connotations of the *allemansretten* and the *Friluftsloven*, provide a strong basis for the obligation to control dogs in all situations (Heywood & Aas, 1999). Similar traditions and moral appeals do not exist concerning the issue of warning when passing on a multiple use trail.

The norms guiding the behaviors in this analysis varied considerably in their intensities showing the importance of the emotional component of sanctions to the norm construct. The norms’ intensity depends on the feelings, emotions and/or physiological states that result from the internal sanctions by one’s self and the informal sanctions by others. Jackson’s (1975) conception of intensity relied solely on informal sanction, “. . . the strength of potential sanctions by others for actor’s conduct in a given situation” (p. 244). The findings here, and from studies of sanction by criminologists (Grasmick & Bursik, 1990; Grasmick, Bursik, & Kinsey, 1991; Petee, Milner, & Welch, 1994), indicate that Jackson’s conception does not address the equally important role of internal sanction in determining the intensity of a norm.

By cross-tabulating the cognitive component (obligation) by the emotional component (intensity) the power and prevalence of the norms were determined. Not surprisingly, the same relationships were found for norm power as for norm intensity. Littering was the most powerful norm (mean = 3.0) and was significantly more powerful than any of the other norms. The power of the littering norm derived from the high proportion of respondents (74%) who had the highest scores for both obligation and intensity. The weakest norm was for bikers warning (mean = 1.3), although it was not significantly weaker than skaters warning (mean = 1.7) or skiers controlling their dog (mean = 2.5). The data on prevalence indicates that this kind of information could be very useful for designing and developing interventions aimed at strengthening norms. For littering, the 12% with no norm power may represent a hard core that is unreachable. In Cialdini and colleagues’ (1990) littering study, 10% of the do not litter flyers were littered. In a study of an antilittering campaign based on moral appeals rather than threats of sanctions, however, Grasmick and others (1991)

found that respondents were significantly less likely to litter two years after the campaign (31% in 1989) than five years before the campaign (39% in 1982). Scores for shame and embarrassment were significantly higher in 1989 than in 1982. For the weakest norms in this study, bikers and skaters warning, the findings of Grasmick and others (1991) indicate that large proportions of bikers and skaters might be persuaded to warn through moral appeals.

The results from this analysis provide strong support for the necessity to measure the emotional components of internal and informal sanctions to determine the intensity, power, and prevalence of behavioral norms. The problem of measuring sanctions in the structural and evaluative norm approaches, however, remains unresolved. A way to resolve the problem could be to adapt the internal and informal behavioral sanction measures to the structural and/or evaluative norm format. In the structural/evaluative format respondents are asked to indicate or choose a social or environmental condition that is preferred or meets an evaluative benchmark (Manning, Valliere, Wang, & Jacobi, 1999). Immediately following this they could be asked whether they would feel any personal costs or benefits, for example, shame or pride, guilt or guiltlessness, and whether they would feel any social costs or benefits, for example, embarrassment or admiration, if they were responsible for violating or exceeding their preference or evaluative benchmark. Standard procedures could then be used to determine the crystallization of an obligation or standard and, following the analyses described here, its intensity as the sum of the reported internal and informal sanctions.

Note

1. Theories of reasoning and decision making often hold that the behavior or decision is the product of two or more rational considerations. For example, in the theory of reasoned action, Ajzen and Fishbein (1980) define the subjective norm as the product of normative beliefs times motivations to comply. To understand the decision to commit a crime, expected utility theory holds that criminal behavior is the product of the severity of punishment times the certainty (probability) of punishment (Carroll, 1982; Grasmick & Bursik, 1990). Here, intensity is assumed to be the sum of internal and informal sanctions because only the certainty of the sanction is being considered. No measurements of motivations to comply or severities of punishments or rewards were made. Findings by Carroll (1982) support adding the elements within a dimension. He found that when the complex situation of a crime opportunity was simplified, subjects, "... adopted simple, additive, and even unidimensional strategies" (p. 60).

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