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Models of Justice in the Environmental Debate

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Justice has become important in public and private consideration of the environment, but a number of different ways of operationalizing justice can be seen. Previous literature suggests that principles stressing responsibility and the public good are more common than need and equity in thinking about environmental issues. The results from two questionnaire studies, presented here, confirm that environmental justice—responsibility to other species and to future generations, and the rights of the environment—emerges as the most highly rated consideration in resolving environmental conflicts and that this factor is distinct from traditional procedural and distributive justice factors. Highlighting the individual or the collective makes different justice principles salient but that the effect depends on one's original position.

Justice has become a significant part of the public discourse over environmental issues. Many antienvironmental organizations (classified as such by Greenpeace; Deal, 1993) make explicit reference to justice in their titles: "Institute for Justice," "Fairness to Landowners Committee"; on the other side, the Sierra Club Legal Defense Fund recently changed its name to "Earthjustice Legal Defense Fund." Why has justice become an environmental issue? Three reasons can be identified. First, the relevance of justice depends on the ways in which one thinks about the resource. Justice becomes more salient, for example, under conditions in which a desired resource is scarce (Lerner, 1981). Our increasing consciousness that some resources are not renewable, within a meaningful time frame, has made us more aware of the ways in which those resources are distributed. It is also the case that the environment is a domain invested with moral significance and distinctive values for many, again raising the importance of justice

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concerns (see Kempton, Boster, & Hartley, 1995; Stern & Dietz, 1994; Van Liere & Dunlap, 1978).

Second, distributive justice is highlighted when environmental benefits or hazards are linked to group identities. Along these lines, the racial disparities in exposure to environmental toxins described by the Commission for Racial Justice in 1987 are primarily responsible for introducing the term "environmental justice" to public discourse (see Bullard, 1990; Bullard & Johnson, this issue). United Nations meetings on environmental issues may have contributed to an awareness of national inequities in consumption of environmental resources and in expectations for environmental sacrifices.

Finally, an increased awareness that humans can and do have a serious and lasting impact on the natural environment has led to an increased perception of responsibility and of moral obligations, at least among some segments of the population (Schwartz, 1975).

It is significant that environmental issues are being evaluated in terms of justice. Researchers have begun to find that perceived justice is a good predictor of environmental attitudes, often better than self-interest (e.g., Kals, 1996), and that it is an important factor in the successful resolution of an environmental conflict (e.g., Lofstedt, 1996). There are multiple definitions of justice, however, with room for a number of factors to bias the definition in a self-serving way. Although we tend to assume, when invested in a situation, that one resolution is clearly the best and fairest, other constituents may see an alternative outcome just as clearly as being superior. So there is room for disagreement, and in the minds of the relevant participants this disagreement may be phrased not as "my interests" versus "their interests" but as "the side of right and good" versus "the side of expediency, greed, and immorality." This has obvious consequences for people's willingness to compromise.

The Forms of Environmental Justice

The Justice of the Marketplace

Probably the most familiar way of thinking about distributive justice, at least in the United States, is to frame it in terms of the marketplace, suggesting that the fair way to deal with natural resources is to sell them. This definition of environmental justice is already represented in public policy. The Chicago Board of Trade now includes a market in pollution credits, which can be bought (allowing industrial plants to pollute above a specified level) or sold (by plants that pollute less than their allowed amount; Power & Rauber, 1993). Individuals also participate in marketplace justice, when cities charge them for the number of trash bags they put out to be collected or when they pay significant user fees for access to national parks.

Equality

More recently, environmental justice has been framed in terms of equality. From this perspective, the current state of affairs is unjust because some people and countries consume far more of our environmental resources than others, and some people and countries are affected by environmental pollution to a far greater extent than others. The standard use of the term "environmental justice" in current discourse arose in response to the fact that poor, rural, and Black communities in the United States are disproportionately chosen as sites for the disposal of toxic waste because their lack of political power has made them less likely to mount effective resistance (Bullard, 1990; U.S. General Accounting Office, 1983) and implies the struggle to ensure that no groups, particularly minority groups, suffer disproportionately from the effects of environmental degradation.

Procedural Issues

Procedural justice places the focus on the fairness of the process by which goods are allocated and decisions made and particularly emphasizes the opportunity for all interested parties to participate in the decision process (Lind & Tyler, 1988). A common complaint from all parties is that environmental regulations are developed unfairly, without giving opposing sides the opportunity to participate. The environmental movement has specific procedural criticisms. One is that the rules that are on the books are not being enforced. Another is that big companies exert disproportionate influence on policymaking. A third procedural criticism relates to the idea of "environmental justice" and charges that various involved parties, usually those without much social power, have been excluded from participation in decisions about environmental matters that will affect them. Anti-environmental arguments also include procedural criticisms, generally that environmental policies are formulated by elitists and exclude the voices of the ordinary citizen.

Rights

Many environmental conflicts are framed in terms of rights. Rural landowners, along with timber and mining companies, have been filing lawsuits based on the idea that their "property rights" have been violated by environmental restrictions on the ways in which private property can be used. Environmental organizations have also focused on rights in an attempt to expand the concept, for example, by establishing environmental protection as a basic human right (Parker, 1991) or by allocating rights to entities that normally might not be considered: future generations, for example, or nonhuman entities (animals, species, ecosystems).

Responsibility

A last way of thinking about environmental justice invokes responsibility, which Schwartz (1975) has described as implicated in "the justice of need." Individuals are admonished to recognize the obligation to care for someone or something else. This argument is often seen in the environmental literature and particularly in the writings of Wendell Berry (1981). Berry takes seriously the idea that humans are meant to be stewards over the earth and argues that this means taking care of natural resources rather than taking them for granted. Similarly, the preface to the Sierra Club handbook for environment activists states that "each person must become ecologically responsible" (Mitchell & Stallings, 1970, p. 12). The appeal to responsibility can also be seen on the other side when environmental policies are criticized for an inattention to, or lack of concern over, the cost to people and communities whose jobs and ways of life are threatened.

Evaluating the Models

My research and that of others has addressed the question of what justice principles are preferred in resolving environmental conflicts. With some exceptions, unsurprising given the differences in domain as well as subject pool, we have found similar results. The highest ratings are given to specifically environmental concerns, like the rights of nature and concerns for future generations. Procedural justice and societal concerns like managing natural resources for the public good and the rights of the public to environmental resources also receive high ratings. Distributive principles like need and equity are rated lowest, with an economic model in which people pay for what they use consistently receiving among the lowest ratings of all (Clayton, 1996; McCreddin, Syme, Nancarrow, & George, 1997; Syme & Fenton, 1993; Syme & Nancarrow, 1992).

A slightly different question is whether particular models of justice are more congenial to different sides of the argument over environmental policy. Appeals to responsibility seem more successful in an environmental domain than in the service of other arguments (Clayton, 1994), and principles of responsibility have been articulated by citizens discussing international pollution (Linneroth-Bayer & Fitzgerald, 1996), but this is likely to vary according to the direct responsibility of the person answering the question. Opotow and Clayton (1998) recently surveyed material from antienvironmental organizations and found three principles to predominate: First, property rights are paramount. Second, regulations are unfairly imposed by government, encouraged by environmental extremists, that work to the detriment of the powerless average American. This makes reference to the concept of procedural justice. Third, market mechanisms are the fairest way to protect the environment. The types of justice referred to by these antienvironmental groups reflect a philosophy of individualism rather than interdependence, of rights rather than responsibility.

In contrast are the findings from an earlier analysis of fund-raising letters from environmental organizations (Clayton, 1991). Here, a principal emphasis was on the need to enforce existing standards or laws and thus ensure procedural justice. Another, less common theme was the need to expand our moral community (to include nature or future generations). Some unusual examples of "rights" were cited, including the "right of future generations to marvel at the Arctic National Wildlife Refuge" and the "right to a clean, safe, and healthy environment." A number of organizations made implicit or explicit appeals to responsibility.

Cvetkovich and Earle (1994), in a field study of an environmental conflict, reported that supporters of a wildlife protection ordinance were more likely than opponents to make reference to themes of equality or communal sharing. Dunlap and Van Liere (1984) found that support for private property rights was strongly and negatively associated with environmental concern. In an earlier laboratory study (Clayton, 1994), I found that although arguments based on procedure received equal agreement in an environmental and an antienvironmental condition, arguments based on responsibility or equality of suffering received significantly higher levels of agreement in the environmental than in the antienvironmental case.

In sum, research is accumulating to suggest that marketplace justice is more likely to represent the antienvironmental position and that themes of equality and responsibility are more common in environmental arguments. Rights and procedural issues are popular with both sides, though they are likely to be conceptualized differently. One way of describing the distinction between different models of justice is whether they are concerned with justice for the individual (microjustice) or justice for the larger society (macrojustice). Environmental groups seem more likely to utilize arguments based on macrojustice principles, whereas antienvironmental organizations find microjustice principles more compatible. (I have discussed the philosophical reasons for this elsewhere; see Clayton, 1994, 1996, 1998.)

In an attempt to strengthen the evidence for the preference for particular models of justice in evaluating environmental issues, as well as to explore further the link between a group orientation and environmentalism, I conducted two studies. In the first, students completed a group identification scale; in the second, an experimental manipulation was used to induce a high or low level of group identification. In both studies, participants read descriptions of environmental conflicts and then rated the importance of a number of justice principles in resolving each conflict. Information about gender and environmental attitudes was also recorded.

Study 1

Method

Participants and procedure. Data were collected from 93 college students: 33 men, 56 women and 4 who did not specify their sex. Each student read two scenarios describing environmental conflicts from either a proenvironmental or an

antienvironmental perspective. The order of the scenarios and the condition of each scenario were both varied independently. After each scenario the students were asked to rate the importance of 12 justice principles in resolving the conflict. Finally they were asked to complete a group identification scale and the Environmental Attitudes Scale (EAS). The EAS was developed by Thompson and Barton (1994) to distinguish among different attitudes toward the environment: ecocentric, or a valuing of nature for its own sake; anthropocentric, or a valuing of nature for the benefits it can provide people; and apathetic. Upon completing all the materials students were carefully debriefed. The debriefing emphasized the fact that environmental issues could be looked at from a number of perspectives and that participants should not consider the position expressed in the materials they read to be definitive. Students received course credit for their participation.

Materials. One of the scenarios concerned the ability of the government to restrict private land use, and the other concerned logging of old-growth forests. The proenvironmental and antienvironmental perspectives were written in as similar a way as possible. Each scenario made reference to the opposing position, so that students' responses would reflect one position's being more salient than another rather than ignorance of the other position.

Results

Although the pattern of findings was largely the same for both scenarios, there were a number of effects that were significant only for one of the two. Since my interest was in finding ways of thinking about environmental issues that were general, effects will only be discussed if they were significant for one scenario and at least approached significance for the other.

Ranking of principles. Table 1 displays the justice principles in rank order according to mean rating of importance for each scenario. Note that collectivist or societal ideals and environmental principles were ranked very high, with procedural principles only slightly lower. Traditional principles of distributive justice, such as merit or economic principles, were ranked fairly low. This is consistent with the research indicating that environmentalism is very popular and that the rule of the marketplace is considered inappropriate for environmental issues. The ranking of principles was very similar across the two scenarios, suggesting consistency in the way justice is viewed for different environmental conflicts.

Factor analysis. To see if the 12 principles rated could be reduced to a smaller number of factors, each set of 12 ratings (those following the property scenario and those following the logging scenario) was subjected to a principal-components analysis. In each case, four factors with an eigenvalue greater than 1 were

identified. Correlations between the factor scores for the two scenarios confirmed that three of the factors were substantially similar (with correlations of .55–.69, all significant at $p < .001$) across scenarios. The fourth factor varied between scenarios and was not examined further.

Among the three retained factors, one loaded primarily on the following items: "Allowing people to continue to use resources they have been using," "Making sure people get what they need," and "Making sure people get what they have

Table 1. Ranking and Factor Loadings for Justice Principles, Study 1

Justice principle[a]	Factor loadings[b] Distributive	Environmental	Procedural
Logging scenario			
Responsibility to future generations		.65	
The rights of the environment		.80	
The chance for everyone to have a say			.86
Allocating the resources so that they will be used efficiently			
Responsibility to other species		.87	
Managing natural resources for the public good		.43	
The equal treatment of all groups			.84
The rights of the public to enjoy the environment	.42	.50	
Making sure people get what they have worked for	.70		
Making sure people get what they need	.78		
Making sure people pay for what they use			
Allowing people to continue to use resources they have been using	.73		
Private land scenario			
Responsibility to future generations		.45	
Responsibility to other species		.89	
The chance for everyone to have a say			.65
The rights of the environment		.87	
Allocating the resources so that they will be used efficiently			
The equal treatment of all groups			.89
Managing natural resources for the public good			
The rights of the public to enjoy the environment			.52
Making sure people get what they have worked for	.81		
Making sure people get what they need	.69		
Making sure people pay for what they use	.73		
Allowing people to continue to use resources they have been using	.68		

[a]Principles are listed in order of rated importance, from most to least important.
[b]Only factor loadings of .40 or greater are listed.

worked for." I called this the distributive justice factor, since it specifies who should receive what resources.

A second factor loaded principally on two items: "The rights of the environment" and "Responsibility to other species," with a substantial loading also on "Responsibility to future generations." I called this the environmental justice factor.

The third factor loaded on "The equal treatment of all groups" and "The chance for everyone to have a say." I called this the procedural justice factor. Factor loadings are included in Table 1.

Main effects. Simply presenting the conflict from a proenvironmental or an antienvironmental perspective had no effect. Ecocentrism predicted weight given to the environmental justice factor (rs = .42 and .52 for the two scenarios; ps < .001) Environmental apathy predicted less weight to the environmental justice factor (r = –.40, p < .001, for both scenarios) and more weight to the distributive justice factor (rs = .24, p < .05, and .30, p < .01, respectively). Anthropocentrism predicted a slight increase in support for distributive justice (significant only for the logging scenario, rs = .22 and .16). There were no consistent effects of gender or level of group identification on the factor scores.

Interaction effects. To allow for an examination of the interaction between subject variables and the independent variable, the former were dichotomized according to a median split. The environmental principles showed an interaction between experimental condition and group identification: In the nonenvironmental condition, people high in group identification rated these principles as more important than did people low in group identification, but in the environmental condition low group-identified people rated them higher than did high group-identified people. Means are shown in Table 2. In general, experimental condition made more of a difference in the ratings of people low in group identification than in those of people high in group identification. It may be that environmentalism has become part of the collective ideology to such an extent that high group-identified people show less variability in their endorsement of these principles than do those low in group identification.

Table 2. Mean Ratings of Environmental Justice Factor by Condition and Level of Group Identification, Study 1

	Group Identification	
Logging scenario	Low	High
Proenvironment condition	.43 (17)	–.02 (26)
Antienvironment condition	–.27 (28)	–.06 (18)
Parks scenario	Low	High
Proenvironment condition	.32 (25)	–.27 (18)
Antienvironment condition	–.30 (19)	.03 (26)

Note. Cell ns are listed in parentheses after each mean.

There were no other significant interactions with either experimental condition or group identification.

There was a similar pattern of interactions between participant sex and each of the environmental attitude dimensions on the environmental justice factor: The interactions between sex and environmental apathy, sex and anthropocentrism, and sex and ecocentrism were all significant. Means are shown in Table 3. People higher in apathy or anthropocentrism or lower in ecocentrism tended to have lower ratings of environmental justice, but the difference due to this attitudinal classification was greater for men than for women. Environmental attitudes generally are stronger for women than for men (see Zelezny, this issue), and this was true in the present study: Women were significantly lower than men in environmental apathy and higher in ecocentrism at a level approaching significance ($p < .10$). Thus women's tendency to refer to environmental justice principles may be less dependent on other factors than is the case for men.

Discussion

This study seemed to confirm the existence of a distinct "environmental justice" defined not so much by a particular philosophical perspective (e.g., equality or rights, individual or group level) as by the inclusion of remote entities, such as the environment or future generations, in one's consideration of a just

Table 3. Mean Ratings of Environmental Justice Factor by Participant Sex and Environmental Attitudes, Study 1

	Male	Female
Logging scenario		
Ecocentrism		
Low	–.69 (18)	–.06 (24)
High	.33 (15)	.22 (32)
Anthropocentrism		
Low	.31 (14)	–.04 (31)
High	–.62 (19)	.17 (25)
Environmental apathy		
Low	.60 (11)	.26 (37)
High	–.65 (22)	–.21 (19)
Parks scenario		
Ecocentrism		
Low	–.75 (18)	–.31 (24)
High	.72 (15)	.26 (31)
Anthropocentrism		
Low	.54 (14)	.06 (30)
High	–.54 (19)	–.05 (25)
Environmental apathy		
Low	.89 (11)	.25 (36)
High	–.56 (22)	–.44 (19)

Note. Cell *n*s are listed in parentheses after each mean.

resolution to a conflict. Results also supported the hypothesis that macrojustice principles are seen as more relevant than microjustice to an environmental issue.

The group identification scale did not demonstrate the expected pattern of results. It was not consistently related to preference for any particular type of justice principle, not even those principles that stressed the public good or public rights. It may be that the effect of group identification as tapped by this measure was not, as I had predicted, to lead to a greater valuing of group welfare, but rather to lead to a more consistent endorsement of those values that are part of the group ideology, namely, environmentalism. To examine the possible impact of group identification further, I designed a second study in which it would be manipulated as an independent variable.

Study 2

Method

Participants and procedure. Sixty-six undergraduate students (38 women, 28 men) participated in the study in return for extra credit in psychology or sociology courses. Each participant was arbitrarily assigned to either the low ($n = 34$) or the high ($n = 32$) group identity condition. In the low–group id condition, participants were told,

> We are interested in exploring the attitudes and opinions of different individuals toward environmental issues. To help us in understanding your responses, please take a few minutes to think of all the ways in which you are unique or distinctive among other College of Wooster students. This may include different background characteristics, beliefs, values, or interests. List these distinctive features below.

Participants in the high–group id condition were told,

> We are interested in exploring the attitudes and opinions of College of Wooster students toward environmental issues. To help us in understanding your responses, please take a few minutes to think of all the ways in which you are similar to other College of Wooster students. This may include similar background characteristics, beliefs, values, and interests. List these commonalities below.

This manipulation was adapted from Trafimow, Triandis, and Goto (1991). Following this task, participants read two scenarios describing environmental conflicts. The order in which these scenarios appeared was counterbalanced. After each scenario, participants were asked to rate the importance of 13 justice principles in solving the conflict. (The list of principles is similar, but not identical, to that in Study 1.) Finally, participants completed the EAS.

Materials. Participants each read two scenarios. One concerned the ability of the government to place restrictions on the way private landowners may develop their land. The second involved whether national parks should be made accessible to the public or left in their natural state. In each scenario, both pro- and anti-environmental positions were presented in a neutral manner.

Results

Rating of principles. The ranking of the 13 justice principles is shown in Table 4. As can be seen, the most important principles again were the ones protecting the interests of what can be called "environmental" constituents: future generations, other species, and the environment in general. The next most important principle was procedure, the chance for everyone to have a say. Fairly close were some macrojustice principles, the equal treatment of all people and managing resources for the public good, but individual rights were also rated at about this level. Responsibility to other people came in a little lower, as did public rights to the use of the environment. The least important principles were distributive ones: allocating resources on the basis of need or work, or equally, with the principle that people should pay for what they receive obtaining the lowest ratings in both scenarios.

Table 4. Ranking and Factor Loadings for Justice Principles, Study 2

Justice principle[a]	Factor loading[b] Distributive	Environmental	Procedural
Private land scenario			
Responsibility to future generations		.71	
The rights of the environment		.52	
Responsibility to other species		.82	
The chance for everyone to have a say			.83
Individual rights			
Managing natural resources for the public good			
The equal treatment of all people			.44
Responsibility to other people			
Making sure people get what they have worked for	.65		
The rights of the public to the use and enjoyment of environmental resources			
Making sure people get what they need	.62		
Making sure costs or sacrifices are equally distributed	.46		
Making sure people pay for what they use	.75		
Parks scenario			
The rights of the environment		.80	
Responsibility to future generations		.76	
Responsibility to other species		.75	
The chance for everyone to have a say			.80
Managing natural resources for the public good			
The equal treatment of all people			
The rights of the public to the use and enjoyment of environmental resources			
Individual rights			
Responsibility to other people			
Making sure people get what they have worked for	.67		
Making sure costs or sacrifices are equally distributed			
Making sure people get what they need	.40		
Making sure people pay for what they use	.79		

[a]Principles are listed in order of rated importance, from most to least important.
[b]Only factor loadings of .40 or greater are listed.

Factor analysis. The ratings of the 13 principles for both scenarios were entered into a principal-components analysis. Eight factors were obtained with eigenvalues greater than 1.0, but both a scree test and interpretability suggested retaining four factors (which together explained 56% of the variance). Three of the factors were similar across scenarios; a fourth, which could be called humanistic or person-centered, was fairly specific to the second scenario, and so is not of much interest in terms of discovering general principles of justice (it may relate specifically to attention to the needs of the disabled). Factor loadings for the three general factors are shown in Table 4. The first factor has the highest loading on the environmental principles. The second loads on the distributive principles. The third is almost entirely focused on the procedural justice principle, the chance for everyone to have a say.

Main effects. Again, women showed more environmental attitudes: There was a significant gender difference in ecocentrism, with women ($M = 52$) scoring higher than men ($M = 48.7$), and a tendency ($p < .10$) toward a parallel difference in environmental apathy, with men ($M = 19.3$) scoring higher than women ($M = 16.6$). There were no gender differences in any of the factor scores.

Ecocentrism was significantly correlated with the environmental factor ($r = .42$, $p < .01$) and with none of the other factors. Apathy was negatively correlated with the same factor ($r = -.45$, $p < .01$) and with no other factor.

There were no main effects of condition on any of the retained factor scores.

Interaction effects. Ecocentrism, anthropocentrism, and apathy were subjected to a median split and the resulting categories were used in analyses of variance to see whether they interacted with experimental condition. There were significant interactions between ecocentrism and experimental condition for the procedural justice factor and a trend toward an interaction for the distributive justice factor ($p = .10$). Means are shown in Table 5. People high in ecocentrism gave more importance to the procedural justice variable in the high–group id condition than in the low–group id condition, whereas the reverse was true for people low in ecocentrism; the opposite pattern was true for the distributive justice variable.

There was a similar interaction between experimental condition and subject gender on the distributive justice factor and a trend toward such an effect for the procedural justice factor ($p = .11$). Table 5 shows the means. Men rated distributive justice as being more important in the high–group id condition than the low–group id condition, whereas women showed the opposite pattern. The reverse was true for the procedural justice factor.

Table 5. Means for Interaction Effects on Distributive and Procedural Justice Factors, Study 2

	Ecocentrism		Sex	
Factor	Low	High	Men	Women
Distributive justice				
Experimental condition				
Low group id	–.17 (15)	.11 (17)	–.35 (11)	.30 (21)
High group id	.32 (17)	–.22 (17)	.47 (17)	–.20 (17)
Procedural justice				
Experimental condition				
Low group id	.19 (15)	–.40 (17)	.08 (11)	–.29 (21)
High group id	–.11 (17)	.30 (17)	–.19 (17)	.26 (17)

Note. Cell *n*s are listed in parentheses after each mean.

Discussion

There is further evidence here for an environmental justice factor. The factor analysis showed that this factor is distinct from the procedural and distributive concerns; the rankings of the different principles show that this factor is considered to be important in resolving environmental conflicts.

The experimental manipulation of collective orientation was influential in two ways. The first was an interaction between experimental condition and participant sex on the distributive justice factor and marginally on the procedural justice factor. The second was an interaction between experimental condition and ecocentrism on the procedural justice factor and marginally on the distributive factor. Since the pattern was the same for women and people high in ecocentrism as compared to men and people low in ecocentrism, and since women were higher in ecocentrism than men, the two variables may be tapping the same underlying dimension. I hypothesize that this dimension may reflect some level of group identification or moral community.

Distributive justice principles were rated as less important in the high–group id condition, as would be expected if the group id manipulation made macrojustice more salient, but only by women. It may be that men gave higher ratings to these principles in the high–group id condition because, for them, collective consciousness means thinking about other members of a group as individuals and so a proportional distribution is the best outcome. When they are thinking about themselves as distinctive they may be less thoughtful about outcomes to others overall. This interpretation is supported by the fact that men gave lower ratings than women for 19 of the 26 principles (usually *ns*), nonsignificantly higher in only 3, and about equal in the remaining 4.

For the procedural justice factor, the reverse pattern was obtained. People high in ecocentrism place more emphasis on procedural issues in the high–group id condition. This may be a function of the (environmental) type of scenario. When

people high in ecocentrism are encouraged to think about the group while considering an environmental conflict, they may be more concerned with inclusion of other people, and hence procedure, but when they are thinking of themselves as distinctive they are more focused on nonhuman interests. For those low in ecocentrism, when they are thinking of themselves as distinctive they may be afraid that their own voices and the voices of people like them will not be included in environmental conflict resolution. For this reason they give procedural justice concerns more importance than when they are thinking about similarities with the group.

General Discussion

How can we achieve justice in environmental conflicts? Clearly, there are multiple justices to consider. This may mean that it is impossible to satisfy all justice concerns simultaneously. However, environmental policies should at least show awareness of the competing fairness issues. In the absence of open discussion, each justice argument may be compelling to those who have not thought about the complexity of the issue, and those whose concerns are not addressed will feel as if they have been excluded from the community of those relevant to the decision outcome. Public consideration of different arguments may increase the understanding of opposing positions and the legitimacy and ultimate acceptability of the proposed solution. An awareness of new factors, like the decreased availability of resources, or a shift to a long-term rather than a short-term perspective, may lead people to change their original position and arrive at a new acceptance of other people's perspective.

Both these studies support the idea of a distinct "environmental justice" emerging as an issue in resolving environmental conflicts. This may be sufficiently novel that not everyone will spontaneously consider its relevance but sufficiently popular that most will concede its legitimacy. Alternatively, some may reject the idea that nonhuman entities deserve moral standing or even that justice is relevant to environmental issues.

Perhaps the most important or the most overarching question with regard to environmental justice is the issue of justice for whom: How is the moral community defined? Do we include other species, future generations, fuzzy concepts like ecosystems? Do individual concerns automatically get overridden by the needs of the larger society or is there a way to preserve justice at both levels? The limits of the relevant community will affect the determination of all other issues, including distribution, procedure, rights, and responsibilities.

Ultimately, much of the discourse on environmental issues is about identity. The impact of participant sex in the above studies indicates that group identity matters. The perceived fairness of an environmental policy will depend on who is defined as a relevant member of the justice community: who is entitled to have his

or her interests considered (cf. Opotow, 1990, 1994; Opotow & Weiss, this issue; see also Bullard & Johnson; Dunlap, Van Liere, Mertig, & Jones; and Schultz, all in this issue). Encouraging people to think at a collective level, though useful in bringing relevant aspects of environmental issues into perspective, will have a different impact depending on the groups of which they feel themselves to be members. Some people feel connected to the natural environment and may merely need to be reminded of the need to take responsibility for it. Others may be alienated from the environment and most successfully won over by arguments about the human benefits of environmental policies. A third group seems to exist who feel actively hostile to the efforts of environmentalists; for them, collective thinking may serve to highlight a sense of intergroup tensions between environmentalists and themselves.

Exploring the level of inclusion could be useful for both researchers and decision makers. One outcome of research into environmental justice could be further refinements in our definitions of what counts as full inclusion and whose interests need to be included, at least by proxy. The more voices included in the decision process, the more researchers can see the competing definitions of environmental justice that emerge. We should neither hope nor expect that social scientists can resolve the different concepts of justice into a single, "true" definition, but through awareness of the different definitions, both a justice theory and a reality that are more encompassing of different perspectives may be achieved.

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