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GENDER DIFFERENCES IN THE PERCEPTION OF MOST IMPORTANT ENVIRONMENTAL PROBLEMS

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Abstract: Research to date has suggested that gender differences in concern about environmental issues are more likely to exist for local problems that pose health and safety concerns than for environmental problems that are framed more generally. It has been hypothesized that women are more concerned than men about local environmental problems because they have been socialized to be family nurturers and caregivers. However, beyond the "local versus general" environmental concern distinction, there is little information about whether men and women differ in their concerns about a wider range of environmental issues, and what might account for these differences if they exist. In this study, gender differences were examined along five specific dimensions or sets of environmental issues: 1) resource conservation, 2) nature preservation, 3) pollution, 4) global environmental problems, and 5) neighborhood environmental problems.Women were found to express greater concern than men over most dimensions, although differences were modest.

Keyword:gender, race, environment, environmental justice, environmental movement

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Surprising, however, was the finding of a rather weak association between gender and concern about neighborhood environmental problems, given the contrasting findings of earlier studies. A hypothesis suggested is that gender differences concerning local environmental problems may be more evident when these represent immediate crises, such as the discovery of contamination of the local water supply or plans concerning the construction of a nuclear power plant or waste facility, rather than when these represent generalized concerns about local pollution and environmental health issues. In this paper the interplay between race and gender on environmental concern is also examined.

Women have played a prominent role in environmental justice struggles (Freudenberg and Steinsapir, 1992; Krauss, 1993). Even before attention began to focus on the environmental justice movement, a considerable amount of interest has existed in understanding the environmental concerns of women and how these may be different from those of men (Blocker and Eckberg, 1989; McStay and Dunlap, 1983; Mohai, 1992). Part of the interest has stemmed from a desire to understand what differences exist in the environmental awareness, concerns, and priorities of various groups in society as well as in understanding what factors influence environmental attitudes generally (Mitchell, 1979; Mohai, 1990, 1992; Samdahl and Robertson, 1989; Van Liere and Dunlap, 1980). Also of interest has been understanding what differences exist in the actions and behaviors of groups with differing priorities and varying access to resources and the political process (Mitchell, 1979; McStay and Dunlap, 1983; Mohai, 1990, 1992).

Although results have often been mixed, evidence from surveys has tended to find women expressing greater concern for the environment than men (Blocker and Eckberg, 1989; Davidson and Freudenburg, 1996; Flynn, Slovic, and Mertz, 1994; McStay and Dunlap, 1983; Mohai, 1992). It has been theorized that gender differences in environmental concern exist because women are socialized from childhood onward to be family care-givers and nurturers, while men are socialized to be the "bread winners" and economic providers for the family (Blocker and Eckberg, 1989; McStay and Dunlap, 1983; Mohai, 1992). The socialization of women to be family nurturers may influence environmental attitudes in two ways: 1) In the first way, concerns about pollution in the environment are a result of concern about their potential impact on family members, particularly children. 2) In the second way, nurturing attitudes about family members foster nurturing attitudes about nature as well. Women with children may be particularly influenced by such attitudes. In contrast, men, because of their socialization and the roles they come to occupy, will develop a more utilitarian attitude toward nature and the environment.

Consistent with the above arguments, research has shown that gender differences in concern tend to be pronounced when environmental issues are framed

as local issues posing potential health and safety risks (Blocker and Eckberg, 1989; Mohai, 1992). However, when environmental issues are framed as general (i.e., non-local) issues, findings tend to be mixed. In some cases, women have been found to express greater concern for the environment than men (McStay and Dunlap, 1983; Mohai, 1992); in other cases men have been found to express greater concern than women (Arcury et al., 1987; Arcury and Christensen, 1990); and in still others, no significant differences have been found (Blocker and Eckberg, 1989).

In studies that have examined gender differences in general environmental concern, the tendency has been to aggregate multiple issues into a general environmental concern indicator. Such omnibus indicators may thus obscure and camouflage specific environmental issues about which gender differences may indeed exist and thus may be the cause of the mixed findings. It is not only possible that there may be environmental issues other than local, health-related issues about which women are especially concerned, but it may be possible that there are specific environmental issues about which men are more concerned than women. Distinguishing between the specific environmental issues of particular concern to men and women and identifying what may account for these differences are the objectives of this paper. Also examined is the interplay between race and gender.

Data and Methods

Data for this study are taken from the University of Michigan's 1990 Detroit Area Study. Information was obtained from 793 face-to-face interviews of residents in Macomb, Oakland, and Wayne Counties, Michigan. Respondents for the study were selected using probability sampling techniques. Because of the aims of the 1990 study, residents living within 1.5 miles of a commercial hazardous waste facility were oversampled. However, for all the analyses in this paper, the sample was appropriately weighted to correct for the oversample. Thus, all results reported in this paper are representative of the Detroit metropolitan area population as a whole. The unweighted numbers of men and women in the study are 309 and 482, respectively (gender information was missing for two of the interviews). The overall response rate for the study was 69%.

Results in this study are based on statistical analyses of both open-ended and closed-ended questions. The purpose of the open-ended question was to assess differences between men and women in their perceptions about what are the most important environmental problems facing the country without biasing answers by providing a pre-determined list of issues. The question that was asked of all respondents was: "In your opinion, what are the most important environmental problems facing this country?" All respondents were probed for up to 3 mentions and a maximum of 3 mentions for each respondent were coded for analyses.

Respondents were free to mention whatever issue they considered to be an "environmental problem."

The issues mentioned were classified into distinct categories in our analyses. These categories were constructed to reflect the various distinct focal points of concern as the environmental movement has evolved over time and on what appear to represent coherent subsets of issues. Both historical accounts of the environmental movement and media sources were relied upon to derive these categories (see, e.g., Dana and Fairfax, 1980; and Kraft, 1996). The categories included: 1) general *pollution* issues that have implications for human health (e.g., air pollution); 2) *nature appreciation/preservation* issues (such as loss of wildlife); 3) resource conservation issues (such as the need to conserve energy); 4) *neighborhood environmental problems* (such as too much trash/litter in neighborhoods, too much noise); and 5*) global environmental problems* (such as global warming). Table 1 indicates the complete list of major categories and subcategories. "Running out of landfill and the need for recycling" was originally coded as a subcategory of "resource conservation." However, because of the striking number of respondents who mentioned this issue as the most important environmental problem facing the country, it is presented as a separate category.

Information from the closed-ended questions was used to confirm results obtained from the analysis of the open-ended question. Use of the closed-ended questions allowed for an assessment of differences regarding what kinds of environmental issues men and women are concerned about in which both groups were faced with a similar list of issues. Also, the use of the closed-ended questions allowed for an assessment of the differences in *degree* of concern between men and women about these issues. Subsequent multivariate analyses were also applied to the closed-ended questions (see "Results" section below).

First, respondents were asked to rate the seriousness of 9 environmental issues: "Now I'm going to read you a list of environmental issues that are in the news these days. Some people think these are serious problems, while other people think these are not really problems at all. I'd like to know what you think. The first item is the *pollution of drinking water.* Would you say that this is a very serious problem, a somewhat serious problem, not a very serious problem, or not a problem at all. . . " For the analysis, response categories where coded (rated) "4," "3," "2," "1," respectively. Table 2 indicates the complete list of the 9 issues.

In a second question, respondents were asked to rate the seriousness of 7 neighborhood environmental problems: "Please tell me how serious a problem you feel each of the following is in your neighborhood. . . would you say that *traffic congestion* is a very serious problem, a somewhat serious problem, not a very serious problem, or not a problem at all. . . " Response categories where coded

Table 1. **Percent of Men and Percent of Women in the Detroit Metropolitan Area Indicating Specific Environmental Problems to Be One of the Most Important Facing the Country**

	Men	Women	Diff.
Unweighted N=	309	482	
Weighted N=	333	459	
Pollution	76% [a]	69%	7%*
Air pollution	48	43	5
Water pollution	40	32	8*
Hazardous wastes	20	18	2
Other toxic substances	8	6	2
Other unspecified pollution	1	9	2
Nature Preservation	31%	33%	-2%
Loss of or harm to trees/plants	7	10	3
Loss of or harm to fish/wildlife	4	5	-1
Loss of or harm to lakes, rivers, streams	14	12	2
Oil spills	9	6	3
Loss of or harm to wetlands	3	2	1
Harm to shore/coast lines and oceans	1	1	0
Loss of or harm to parks/open space	1	1	0
Running out of Landfill/Need for Recycling	35%	42%	-7%
Running out of landfill	22	21	1
Too much waste/garbage being produced	10	12	-2
Need for recycling	9	14	-5*
Resource Conservation	4%	4%	0%
Need to conserve energy	0	1	-1
Need to conserve water supply	1	1	0
Other	2	2	0
Neighorhood Environmental Problems	8%	12	-4%
Too much trash/litter in neighborhood	2	7	-5**
Too much noise	2	1	1
Too many abandoned houses	0	1	-1
Too many household or neighborhood pests (e.g., rats, roaches, other insects)	1	0	1
Too much growth/overcrowding	2	4	-2
Global Environmental Problems	17%	18%	-1%
Global warming	3	3	0
Acid rain	4	2	2
Depletion of ozone layer	10	13	-3
Destruction of rain forests	3	3	0
Other Environemtnal Prolbems	%	5%	1%

* $p < .05$ ** $p < .01$ *** $p < .001$

[a] Percent represents the proportion of all men who mentioned at least one of the subcategories of POLLUTION (e.g., air pollution, water pollution, hazardous wastes, etc.). If a respondent mentioned several of the subcategories, he/she nevertheless was still counted only once in computing the percentage for the aggregate category (POLLUTION). Percentages for the other aggregate categories were computed in the same way.

(rated) "4," "3," "2," "1," respectively. Table 3 indicates the complete list of the 7 issues.

Finally, respondents were asked to rate the quality of 4 neighborhood environmental attributes: "For each of the following, I would like you to tell me whether you would rate your neighborhood as excellent, good, adequate, poor, or very poor." Response categories where coded (rated) "5," "4," "3," "2," "1," respectively. Table 3 indicates the list of 4 attributes.

The respondent's gender was determined from interview observations. Other socio-demographic variables in the analysis, included age, education, income, political liberalism, size of place of residence, homemaker and parental statuses, and race. Age was determined from the respondent's birth date. Education was measured by recording the number of years of schooling (including college) completed. Income was recorded in 23 categories ranging from "$0-$2,999" to "$90,000 and over." The midpoint of each of the categories was used to designate the respondents' income. For the $90,000 and over" category, $100,000 was used. Political liberalism was measured through self-identification, in which respondents placed themselves on a 7-point scale ranging from "extremely conservative" to "extremely liberal". For the analysis, the former was coded as 1 and the latter as 7. In determining the size of place of the respondents' residence, respondents were asked which category came closest to describing the type of place where they lived. The following codes were used for the categories: 1 - open country or farm; 2 - a small city, town or township under 50,000; 3- a medium size city or township of 50,000 to 250,000; 4 - a large city over 250,000 but not Detroit; 5 - the city of Detroit (a city of approximately 1 million). Respondents indicating themselves to be homemakers were coded 1; all others were coded 0. Respondents with children 12 years or younger were coded 1; all others were coded 0. Race was determined by asking respondents: "Do you consider yourself to be white, black, African American, Asian, or some other race?" For purposes of analysis, respondents who indicated "black" or "African American" were combined in a single category.

Results

Gender and Environmental Concern

As can be seen in Table 1, few differences were found between men and women in their likelihood of mentioning specific environmental issues as being among the country's most important. A statistically significantly greater proportion of men than women mentioned a pollution issue, but the difference was relatively small. No other *categories* (dimensions) of environmental concern yielded statistically significant differences between men and women, although women were

Table 2. Gender Differences in the Rating of the Seriousness of Environmental Problems (in General)

	Men	Women	Diff.
Air pollution	3.57[a]	3.65	-.08
Pollution of drinking water	3.43	3.49	-.06
Safely getting rid of hazardous wastes	3.77	3.86	-.09**
Pollution issues overall	3.59	3.66	-.07*
Oil spills	3.68	3.78	-.10**
The loss of natural places for fish and wildlife to live	3.42	3.63	-.21***
Loss of natural scenic areas	3.02	3.18	-.16**
Nature preservation issues overall	3.37	3.53	-.16***
Acid rain	3.28	3.39	-.11*
Depletion of the ozone layer	3.43	3.57	-.14*
Global warming or the greenhouse effect	3.14	3.23	-.09
Global environmental issues overall	3.29	3.39	-.10*
Environmental issues overall (Average of all of the above)	3.42	3.54	-.12***

* $p < .05$ ** $p < .01$ *** $p < .001$

[a] Average rating of the seriousness of environmental problems by men and women, where 4=very serious problem, 3=somewhat serious problem, 2=not a very serious problem, and 1=not a problem at all.

Table 3. Gender Differences in the Rating of Neighborhood Environmental Problems

Rating of *Seriousness* of Neighborhood Environmental Problems:

	Men	Women	Diff.
The noise level in the neighborhood	2.25[a]	2.11	.14*
Abandoned or boarded up houses	1.47	1.57	-.10
Litter or garbage in the neighborhood	1.77	1.83	-.06
Rats, mice, or roaches	1.47	1.55	-08
Exposure to lead	1.39	1.36	.03
Traffic congestion	2.47	2.48	-.01
Too much new construction	1.71	1.74	-.03
Average of all of the above	1.79	1.81	-.02

Rating of *Quality* of Neighborhood Environmental Attributes:

	Men	Women	Diff.
The number of available recreation or play areas nearby	2.50[b]	2.69	-.19*
The general upkeep of the neighborhood	2.13	2.15	-.02
The quality of the air	2.52	2.62	-.10
The quality of drinking water	2.35	2.57	-.22***
Average of all of the above	2.39	2.51	.12*

* $p < .05$ ** $p < .01$ *** $p < .001$

[a] Average rating of the seriousness of neighborhood problems by men and women, where 4=very serious problem, 3=somewhat serious problem, 2=not a very serious problem, and 1=not a problem at all.

[b] Average rating of neighborhood attributes by men and women, where 5=very poor, 4=poor, 3=adequate, 2=good, and 1=excellent.

somewhat more likely to mention "need for recycling" and "too much trash/litter in neighborhoods" as being specific issues among the country's most important.

Regarding the closed-ended questions, it is striking that for nearly every issue under the "pollution," "nature preservation," and "global environmental problem" categories women were more likely than men to rate it as a serious problem (see Table 2). Particularly striking is that the differences between women and men are greatest for the nature preservation issues, and not the pollution issues that involve greater human health risks. Even more surprising, in light of studies to the contrary, is the lack of statistically significant differences between men and women in rating the seriousness of various specific neighborhood environmental problems (Table 3). However, there are several notable exceptions. Men were statistically significantly more likely to mention noise in the neighborhood as a serious problem. Women, on the other hand, were significantly more likely to give a lower rating to the quality of their drinking water as well as to the availability of nearby recreation and play areas. Even though differences did not reach statistical significance, women were also somewhat more likely to see abandoned houses, rats, mice and roaches, and the quality of the local air as a problem.

Results in Table 4 express the differences between women and men as a correlation. Positive coefficients mean men are more concerned, negative coefficients mean women are more concerned. The results are consistent with those obtained in Tables 1 to 3 which compared men and women on an item-by-item basis: women express greater concern for the environment than men along all dimensions. As before, differences appear to be greater for nature appreciation/preservation issues than for the pollution and neighborhood issues which imply more direct health and safety consequences. Nevertheless, all these correlations represent rather modest associations, a finding consistent with the results from a national survey employed in an earlier study (Mohai, 1992). Moreover, controlling for background variables, including homemaker and parental (men and women with children 12 years old or younger) status, alters the associations very little. The magnitudes of the coefficients are barely affected, although only in the case of nature preservation does the correlation remain statistically significant.

Race and Gender

The modest differences in degree of concern between men and women over a wide range of environmental issues stands in contrast to the more notable racial differences in environmental concern found in a detailed analysis by Mohai and Bryant (1996). Although Mohai and Bryant found striking similarities between African Americans and whites over a range of issues, including nature preservation issues, they, nevertheless, found African Americans to express significantly greater

Table 4. Correlation between Gender and Various Dimensions of Environmental Concern Controlling for Age, Political Liberalism, Education, Income, Size of Place of Residence, and Homemaker and Parental Status.

		Gender	
Pollution	-.09*[a]	-.08*[b]	-.07[c]
Nature Preservation	-.17***	-.13***	-.15***
Global Environmental Problems	-.08*	-.07	-.07
Seriousness of Neighborhood Environmental Problems	-.02	.05	.05
Rating of Neighborhood Environmental Attributes	-.08*	.00	.01

* $p < .05$ ** $p < .01$ *** $p < .001$

[a] [b] Bivariate (Pearson) correlation between gender and the indicated dimension of environmental concern. Standardized regression coefficient for gender in multiple linear regression where the dependent variable is the indicated dimension of environmental concern and other independent variables are age, political liberalism, education, income, and size of place of residence.

[c] Standardized regression coefficient for gender in multiple linear regression where the dependent variable is the indicated dimension of environmental concern and other independent variables are age, political liberalism, education, income, and size of place of residence plus homemaker and parental status.

concern than whites about pollution, particularly at the neighborhood level. Mohai and Bryant argue that this finding is consistent with the proposition that African Americans are more heavily burdened than whites with pollution in the first place and that it is this disproportionate burden that leads to greater concerns than whites about pollution. The notion that greater exposure to pollution leads to greater concern about it has been referred to as the "environmental deprivation" explanation (Mohai and Bryant, 1996; Van Liere and Dunlap, 1980).

Given the significance of racial differences in environmental concern, particularly over pollution issues, and the relatively modest differences in concern found in this paper by gender, gender differences in environmental concern were further analyzed by racial categories. Specifically, gender differences in concern were examined for whites and African Americans in the Detroit metropolitan area (see Tables 5-7). Table 5 indicates the percentages of white men and women and

African American men and women who mentioned specific environmental issues in response to the question "In your opinion, what are the most important environmental problems facing this country?"

Some interesting patterns are found in this table. Although white men are statistically significantly more likely than white women to mention a pollution issue as one of the most important environmental problems facing the country, there are no statistically significant differences between African American men and women in mentioning a pollution issue. In contrast, there are no statistically significant differences between white men and women in the likelihood of mentioning "running out of landfill/need for recycling", but African American men are significantly less likely than African American women to mention this. Although there are no statistically significant gender differences for either race in the likelihood of mentioning neighborhood environmental problems, clearly African Americans of either gender are more likely than whites of either gender to mention these as among the most important environmental problems facing the country. Similarly, although no gender differences exist for either race concerning the mention of global environmental problems, whites as a whole are clearly more likely to mention these than African Americans as a whole, particularly regarding the issue of ozone depletion.

When attention is turned to responses to the closed ended questions, the patterns are more striking and revealing. Note that white women are more likely than white men to rate pollution, nature preservation, and global environmental problems as serious (Table 6). Differences are statistically significant for 6 of 9 specific issues. Furthermore, differences are statistically significant when the composite measures for pollution, nature preservation, and environmental concern overall are examined. In contrast, gender differences in environmental concern are not at all significant for African Americans. Note that for 4 out of the 9 issues (air pollution, pollution of drinking water, oil spills, and acid rain), African American men are more likely to rate these as serious problems than African American women (although, once again, the differences are not statistically significant). In one case (places for fish and wildlife to live), scores are virtually identical (3.56 versus 3.60). At the same time that gender differences in environmental concern are less significant for African Americans than white Americans, African Americans tend to express greater concern than whites about pollution issues, but less concern than whites about global environmental problems (although once again, most of the difference appears to be related to differing views about the seriousness of ozone depletion).

The patterns in Table 7 mostly duplicate the patterns found in Table 6. Although in most cases gender differences in responses are not statistically significant for either whites or African Americans, African Americans, as before,

Table 5. Percent of Men and Percent of Women in the Detroit Metropolitan Area Indicating Specific Environmental Problems to Be One of the Most Important Facing the Country by Race

	Whites		Afric. Amers.	
	Men	Women	Men	W o m e n
Unweighted N=	242	333	50	129
Weighted N=	279	350	39	91
Pollution	76%	66%**	73%	79%
Air pollution	46	37 *	55	59
Water pollution	40	32 *	47	31
Hazardous wastes	22	18	9	17
Other toxic substances	8	6	2	7
Other unspecified pollution	12	10	5	8
Nature Preservation	32%	35%	31%	31%
Loss of or harm to trees/plants	8	12	2	2
Loss of or harm to fish/wildlife	4	5	5	1
Loss of or harm to lakes, rivers,streams	14	13	15	14
Oil spills	9	5 *	10	12
Loss of or harm to wetlands	3	2	1	0
Harm to shore/coast lines and oceans	1	1	0	2
Loss of or harm to parks/open space	2	1	0	2
Running out of Land fill / Need for Recycling	38%	46%	12%	32%*
Running out of landfill	24	23	3	14
Too much waste/garbage being produced	10	12	9	12
Need for recycling	10	16 *	1	7
Resource Conservation	4%	4%	0%	2%
Need to conserve energy	0	1	0	0
Need to conserve water supply	2	1	0	0
Other	2	2	0	2
Neighborhood Env. Prolems	5%	9%	33	25%
Too much trash/litter in neighborhood	1	4 *	13	17
Too much noise	1	0	11	5
Too many abandoned houses	0	0	0	4
Too many household or neighborhood pests	0	0	9	0 **
Too much growth/overcrowding	3	5	0	1
Global Environmental Problems	18%	21%	3%	5%
Global warming	3	4	0	2
Acid rain	4	2	0	1
Depletion of ozone layer	10	15	3	2
Destruction of rain forests	4	4	0	1
Other Environmental Problems	5%	5%	6%	3%

$p < .05$, ** $p < .01$, *** $p < .001$ indicate gender differences are statistically significant.

Table 6. Gender Differences in the Rating of the Seriousness of Environmental Problems (in General) by Race

	Whites		Afric. Amers.	
	Men	Women	Men	Women
Air pollution	3.54[a]	3.61	3.85	3.76
Pollution of drinking water	3.36	3.44	3.84	3.67
Safely getting rid of hazardous wastes	3.78	3.87 **	3.71	3.84
Pollution issues overall	3.56	3.64 *	3.80	3.75
Oil spills	3.67	3.81 ***	3.74	3.66
The loss of natural places for fish and wildlife to live	3.41	3.64 ***	3.56	3.60
Loss of natural scenic areas	3.03	3.18 **	3.03	3.13
Nature preservation issues overall	3.37	3.54 ***	3.44	3.48
Acid rain	3.28	3.39 *	3.36	3.31
Depletion of the ozone layer	3.49	3.62 *	3.01	3.31
Global warming or the greenhouse effect	3.18	3.25	3.03	3.15
Global environmental issues overall	3.33	3.42	3.08	3.24
Environmental issues overall (Average of all of the above)	3.43	3.55 **	3.42	3.50

* $p < .05$ ** $p < .01$ *** $p < .001$

[a] Average rating of the seriousness of environmental problems, where 4=very serious problem, 3=somewhat serious problem, 2=not a very serious problem, and 1=not a problem at all.

Table 7. Gender Differences in the Rating of Neighborhood Environmental Problems by Race

Rating of *Seriousness* of Neighborhood Environmental Problems:

	Whites		Afric. Amers.	
	Men	Women	Men	Women
The noise level in the neighborhood	2.20[a]	2.00 **	2.57	2.59
Abandoned or boarded up houses	1.32	1.30	2.56	2.34
Litter or garbage in the neighborhood	1.66	1.60	2.61	2.55
Rats, mice, or roaches	1.34	1.29	2.42	2.42
Exposure to lead	1.32	1.23 *	1.86	1.82
Traffic congestion	2.48	2.52	2.41	2.40
Too much new construction	1.74	1.85	1.45	1.34
Average of all of the above	1.72	1.69	2.28	2.21

Rating of *Quality* of Neighborhood Environmental Attributes:

	Whites		Afric. Amers.	
	Men	Women	Men	Women
The number of available recreation or play areas nearby	2.37[b]	2.40	3.58	3.64
The general upkeep of the neighborhood	2.04	1.99	2.75	2.63
The quality of the air	2.41	2.48	3.32	3.07
The quality of drinking water	2.23	2.37 *	3.24	3.24
Average of all of the above	2.27	2.31	3.24	3.14

* $p < .05$ ** $p < .01$ *** $p < .001$

[a] Average rating of the seriousness of neighborhood problems, where 4=very serious problem, 3=somewhat serious problem, 2=not a very serious problem, and 1=not a problem at all.

[b] Average rating of neighborhood attributes, where 5=very poor, 4=poor, 3=adequate, 2=good, and 1=excellent.

are more likely to rate environmental problems (this time neighborhood problems) as more serious than whites (see Mohai and Bryant, 1996, for results of statistical tests comparing the environmental concerns of African Americans and whites overall).

The overall patterns are then clear. Gender differences in environmental concern are modest to begin with. To the extent that they exist, they are more important in the case of white Americans than African Americans. Generally, racial differences in concern are more important than gender differences in concern. This is especially so in regard to pollution issues, particularly at the neighborhood level.

Conclusions

As concluded in earlier studies (e.g., Blocker and Eckberg, 1989; McStay and Dunlap, 1983; Mohai, 1992), although gender differences in concern about general (i.e., non-local) environmental concern are evident, they remain, at best, modest - even when different dimensions of environmental concern are distinguished. Furthermore, background characteristics, including homemaker and parental status, appear to have little, if any, effect on these differences. This suggests that, to the extent that gender differences in environmental concern do exist, the differing socialization experiences of men and women may account for the differences, rather than the roles they occupy or other structural factors. These findings and conclusions were made in earlier papers and are bolstered by other recent studies (Blocker and Eckberg, 1995; Flynn, Slovic, and Mertz, 1994).

Surprising, however, is the finding of a weak association between gender and neighborhood pollution dimensions of concern, as this appears in contrast with prior studies indicating women to be especially concerned about environmental health and safety risks. A possible reason for the variance in findings is that at the time the 1990 Detroit Area Study was conducted, no especially salient local environmental problem or crisis existed.

The studies which have tended to find the most striking differences between men and women have analyzed citizen reactions to an immediate local environmental crisis, such as the discovery of contamination of the local water supply (Hamilton, 1985a, 1985b) or plans concerning the construction of a nuclear power plant or waste facility (Brody, 1984; George and Southwell, 1986; Nelkins, 1981; Passino and Lounsbury, 1976; Solomon et al., 1989). That it is local and immediate environmental *crises,* rather than generalized concerns about local pollution and environmental health issues, where the gender gap in environmentalism is most pronounced is a hypothesis that needs further exploration.

Finally, separating white Americans from African Americans in the analyses reveals that racial differences in environmental concern appear to be more important than gender differences, especially in regard to pollution issues at the neighborhood level. This finding, coupled with those of Mohai and Bryant (1992, 1996) suggest that exposure to pollution may ultimately be more salient than socialization or cultural factors in affecting people's attitudes about the environment. Nevertheless, that gender differences have been found, however modest, in this and other studies suggests that socialization influences cannot be ruled out.

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