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The Role of Sex: An Analysis of U.S. Attitudes Toward Climate Change

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The Role of Sex: An Analysis of U.S. Attitudes Toward Climate Change

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Abstract

This study analyzes the intersection of sex, environmental risk perception of climate change, and feminism. More specifically, with a sample size of 8,280 respondents from the American National Election Studies (ANES) 2020 Times Series Study, this research examines the relationship between pro-environmental attitudes and sympathy for feminism, controlling for sex, as well as if a measure of sympathy for feminism influences pro-environmental attitudes, controlling for demographic (age, education, race, sex, and income) and political preference (political ideology and party affiliation) variables. Previous literature strongly supports a sex gap in risk perception, a pattern known as the White Male Effect (WME) (Flynn, Slovic, and Mertz 1994). I extend the existing literature by expressly testing whether the relationship between pro-environmental attitudes and sympathy for feminism is strongest for women (H1), and whether a measure of sympathy for feminism positively influences pro-environmental attitudes (H2). The results substantiate both hypotheses with evidence that supports a biological sex gap in environmental attitudes (and support for feminism), in addition to an independent effect for feminism on pro-environmental attitudes. These findings demonstrate the complexity of American's gendered attitudes toward climate change: the differences appear to stem from both biological and cultural differences.

Keywords: Sex; gender; environmental risk perception; environmentalism; climate change; risk perception; feminism; White Male Effect; feminist feeling thermometer; public opinion.

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Dedication

To my family, John, Renita, Landon, and Trenton Riggs, and partner, Ty Holt.

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Introduction

To take a walk in another (wo)man's shoes is to gain insight through her perspective. When observing the differences between U.S. men and women, research suggests a sex gap in risk perception; "risks tend to be judged lower by men than by women" (Finucane et al. 2000, 159). The sex gap in risk perception does not reflect differences between the sexes in rationality or education (Finucane et al. 2000). But rather, the sex gap in risk perception is the result of status within the U.S. societal structure.

This phenomenon is known as the White Male Effect (WME). The WME is a widely held theory that finds a group of U.S. White males exhibit low levels of risk perception and are less likely to practice risk-averse behavior (Flynn, Slovic, and Mertz 1994). Applying the WME to risk perception of environmental climate change, sex consistently predicts environmental attitudes, when controlling for political preference through partisanship, ideology, or both (Egan and Mullin 2017). Moreover, "compared with White males, many females and non-White males tend to be in positions of less power and control, benefit less from many technologies and institutions, are more vulnerable to discrimination, and therefore see the world as more dangerous" (Finucane et al. 2000, 170). Thus, the White male and his shoes walk with a privileged step up in status, setting them apart from others in the population.

This research begins with a brief overview of the literature on the intersection of sex/gender, environmental risk perception, and finally, feminism. Then, it steps away from observing the outliers, those exhibiting the WME. Instead, it investigates whether attitudes toward environmentalism are biological by sex, cultural by gendered experiences and resulting beliefs, or both, as well as possible additional influences.

Within the “Hypotheses, Data, and Methods” section, I hypothesize that the relationship between pro-environmental attitudes and sympathy for feminism will be strongest for women (H1). Additionally, I hypothesize that the measure of sympathy for feminism, the feminist feeling thermometer, will positively influence pro-environmental attitudes (H2). To test H1, I examine descriptive statistics and bivariate analyses within the "Descriptive Findings" portion of this study. In the “Multivariate Findings” section, I test H2 with multivariate ordinal least squares regression. Finally, I conclude this research with evidence substantiating both hypotheses.

In short, I find evidence of a biological sex gap in environmental attitudes (and support for feminism), in addition to the measurement used for feminism positively influencing environmentalism. This dual finding speaks to the complexity of gendered American attitudes toward climate change: the differences appear to stem from both biological and cultural differences.

Climate Change Attitudes: The Existing Literature

Over time, the American view of climate change has remained an unclear and distant environmental problem (Nisbet and Myers 2007). Americans maintain the far-off notion of climate change with disbelief, indifference, and low levels of support for the costly policies needed to slow its advance (Egan and Mullin 2017). Because of this, it is unlikely American public opinion on climate change will spur any substantial policy change in the foreseeable future (Egan and Mullin 2017).

Predictors of Climate Change Attitudes. Still, there are patterns in who accepts the science – and potential remedies – and who does not. Demographically, the characteristics of age, education, income, and race have produced mixed results (Egan and Mullin 2017). "Some

research finds more resistance to the concept of climate change among Whites and older Americans, yet in many other studies, these relationships are not evident" (Egan and Mullin 2017, 215). Sex, however, consistently explains attitudes towards climate change when controlling for political preference through partisanship, ideology, or both (Egan and Mullin 2017). Thus, there is both a divide by sex and politics constructing American's views towards climate change.

Regarding sex, women are more likely than men to prioritize addressing climate change (Pew Research Center 2020). More specifically, “women are 16 percentage points more likely than men to say that dealing with global climate change should be a top policy priority (60% vs. 44%)” (Pew Research Center 2020, 12). Partisan polarization appears to be exaggerating this gap. Republicans and Democrats have become increasingly likely to say that prioritizing environmental protection is important (Pew Research Center 2020). However, in reality, of "Republican-leaning independents (just 21% call it a top priority),” while “climate change is near the top of the list of issues among Democrats and Democratic leaners (78% call it a top priority)” (Pew Research Center 2020, 6). Consequently, a previously ambivalent electorate, influenced strongly by elite cues, has adopted a profoundly partisan view of climate change (Brulle, Carmichael, and Jenkins 2012).

Climate Change and the White Male Effect. To better understand the effects of both sex and politics on American public opinion toward climate change, observing the White Male Effect (WME) is necessary. The WME is a widely held theory that finds, most simply, White males are outliers, as compared to the rest of the U.S. population, in their perceptions and attitudes towards risk (Campbell, Bevc, and Picou 2013; Finucane et al. 2000; Flynn, Slovic, and Mertz 1994). The White males exhibiting the WME are typically better educated, have higher

average household incomes, and are politically more conservative (Flynn, Slovic, and Mertz 1994). Additionally, they have very low-risk perception levels (Flynn, Slovic, and Mertz 1994). Combining both their characteristics with their low levels of risk perception, the WME maintains that "the world seems safer and hazardous activities seem more beneficial to White males than to other groups" (Finucane et al. 2000, 170). Thus, the White males' privileged status within American society provides a conveniently limited perception of environmental risk.

A recent survey conducted by the Pew Research Center illustrates the WME within the context of climate change. A portion of the study seeks to measure simple behavioral changes to protect the environment, including reducing food waste, eating less meat, driving less or carpooling, and reducing the amount of water and single-use plastics used. Being the least likely to make these efforts, Republican men are the outliers in the population (Funk and Hefferon 2019). In contrast, "Republican and Democratic women, as well as Democratic men, are about equally likely to make these efforts to protect the environment" (Funk and Hefferon 2019, 14). Most simply, the WME is privileged ambivalence to environmental risk and, generally, risk-averse behavior. Thus, White males exhibiting the WME, so often deemed the standard in American society, in reality, are the oddity.

Observing race and ethnicity further substantiates the basis of the WME, finding White men to have unusually low-risk perception compared to the rest of the U.S. population. The sex gap in risk perception only exists between White men and White women. It does not exist among Black or Hispanic men and women (Kalof et al. 2002). Thus, White women and racial and ethnic minorities of both sexes have more in common with each other than they do with White men regarding how they perceive risk. Additionally, partisan views of climate change do not directly impact racial and ethnic minorities in the same way (Schuldt and Pearson 2016). Thoughts on

climate change for U.S. racial and ethnic minorities are less politically polarized and unchanged by partisan framing of the issue (Schuldt and Pearson 2016).

The Influence of Lived Experience. Environmental risk perception gaps function as varying perceived vulnerability to risk (Bord and O'Connor 1997; Umberson 1993). The differing understandings of risks suggest extreme variation in how life is experienced (Umberson 1993). The lived experience of a particular sex, race/ethnicity, or both within American society make for differing perceived vulnerabilities. Explanations for varying perceived vulnerabilities to risk have developed from overarching structural relationships within American society. The structure perpetuates worldviews and socialization practices dependent upon an individual's demographic characteristics (Kahan et al. 2007; Leiserowitz 2006; McCright 2010).

Further, worldviews and socialization differ for White males compared to everyone else because of their privileged status within society. Thus, White women and racial/ethnic minorities of both sexes are left to perceive heightened levels of risk to survive a society in which they are unfavored by the structure's nature.

Applying the WME to Sweden reveals this phenomenon to be nontransferable beyond some borders (Olofsson and Rashid 2011). Because Swedish men and women both have equally low-risk perceptions, the White *Male* Effect does not exist in Sweden (Olofsson and Rashid 2011). However, there is a *White* Effect. The *White* Effect demonstrates a difference in risk perception among native Swedes and people with foreign backgrounds (Olofsson and Rashid 2011). For those with foreign backgrounds, the living conditions are not the same. Therefore, they face various risks at a higher probability and perceive them as such (Olofsson and Rashid 2011). Thus, Sweden's *White* Effect is characterized by whiteness as a measure of privilege, much like the U.S.

Comparatively, Swedish men and women have the same opportunities, equating to their shared low levels of risk perception. Equal opportunity among the sexes and the resulting low-risk perception derives largely from Sweden's history of egalitarian gender policy (Olofsson and Rashid 2011). Because Swedish society provides men and women a shared standard of status, sex does not have the same dividing effect as the U.S. Most simply, sex, race/ethnicity, or both are determinants of greater risk and coinciding heightened risk perception in American society.

A Role for Feminism? The U.S. is an industrialized White-wealthy-male-dominated society. The manifestation of that power has contributed to the climate crisis. The issue is even more pressing when considering the consequences of climate change as mechanisms for increasing existing inequalities (Dankelman 2010; Nagel 2015). As noted above, the WME focuses on the relationship between sex, risk perception, and environmental concern (Xiao and McCright 2012). However, the literature overlooks a large portion of the U.S. population by primarily focusing on White men as outliers and the sex gap in risk perception.

For this study, I move beyond the dichotomous variable of sex. Instead, I examine the feminist perspective as it relates to sex/gender regarding risk perception of climate change. I think that feminist ideology is an improved and more encompassing measurement. Rather than the rigidity of the demographic variable sex, it permits a broader measure based on lived experiences and resulting beliefs.

Additionally, it is important to differentiate between sex and gender. Most often, dichotomous measures of sex are widely available and translated into gender. Because of data limitations, I translate sex into gender also. However, it is worth noting that sex is anatomical, while gender is performative. They are not interchangeable. Gender provides for different experiences and thus perceptions about one's relation to others and the world.

The previous research, examining the interrelationships of sex, environmental attitudes, and sympathy for feminism concludes that the strongest predictor of environmentalism is not the same for men and women (Smith 2001). For men, self-reported political ideology is usually the most important predictor of environmentalism (Smith 2001). For women, feminism is always the most important predictor, while self-reported political ideology is rarely a significant predictor of environmentalism (Smith 2001).

However, men and women who support feminism are more likely to have pro-environmental attitudes (Somma and Tolleson-Rinehart 1997). Further, attitudes toward feminism are a more reliable indicator of environmentalism than sex, specifically when government policy and human use of the environment are involved (Smith 2001).

According to a recent Pew Research Center survey, in the U.S. today, about 61% of women say the term 'feminist' describes them well, while 40% of men say the same (Barroso, 2020). Additionally, about 74% of women consider the term 'environmentalist' to describe them well, while about 70% of men say the same (Barroso 2020).

My research contributes to this literature by stepping away from the White males that exhibit the WME. Instead, I observe those who sympathize with a feminist perspective. "Autonomy, the central impulse of feminism…is probably best understood as self-determination, in contrast to the notion of "heteronomy," the condition of being regulated by some other's law" (de Lauretis 1986, 10; Black 1989, 9). Thus, I define feminist ideology as a belief in equal opportunity for all human beings.

Using the American National Election Studies (ANES) 2020 Times Series Study, I observe the relationship between environmentalism and feminism. I expect that the relationship between pro-environmental beliefs and sympathy for feminism will be most pronounced for

women. I make this claim because I think that gendered experiences and the perceptions that coincide contribute to pro-environmental attitudes. In doing so, this research examines whether pro-environmental attitudes and sympathy for feminism are strongest among women or men and "whether a measure of sympathy for feminism and its goals influence pro-environmental attitudes" (Somma and Tolleson-Rinehart 1997, 157).

Hypotheses, Data, and Methods

Moreover, I hypothesize that the relationship between pro-environmental attitudes and sympathy for feminism will be strongest for women (H1). To test this hypothesis, I examine whether the overlap of pro-environmental attitudes and sympathy for feminism is strongest among women or men. Additionally, I hypothesize that the measure of sympathy for feminism, the feminist feeling thermometer, will positively influence pro-environmental attitudes (H2). To test this hypothesis, I examine the feminist feeling thermometer's effect on environmentalism.

Using the ANES 2020 survey data permits a direct examination of the relationship between environmentalism and feminism with a sample size of 8,280 respondents. I selected two dependent variables measuring environmentalism through the perceived importance of climate change and the effect of climate change on severe weather/temperatures in the U.S. The primary independent variable is the feminist feeling thermometer, measuring sympathy for feminism, with controls for demographic variables (age, education, race, sex, and income) and political preferences (political ideology and party affiliation).

Previous research measuring attitudes toward climate change employs varying operationalizations. Most commonly, environmental indices are used when surveying respondents. While the questions included within environmental indices may vary vastly, the

measures all attempt to grasp the respondent's perception toward a particular area of the issue of climate change.

For this study, the dependent variables measure environmentalism by asking the respondent to answer the questions: “How important is the issue of climate change?” and “How much is climate change affecting severe weather/temperatures in the U.S.?” on a 5-point Likert type scale with 1 denoting not at all important and 5 denoting extremely important (2020 Time Series Study, 470, 471). I chose these measures of environmentalism because they were made available by the ANES, and I think the simplicity permits a more general measure of respondents' attitudes toward climate change. Finally, I run two models to distinguish the difference between the dependent variables. Although both dependent variables observe the broad issue of climate change, there is a clear distinction between perceived importance and perceived effect.

The primary independent variable measures feminism with a feminist feeling thermometer, asking respondents to rate their feelings towards feminists on a scale of 0-100. The respondent is instructed that “ratings between 0 degrees and 49 degrees mean that you don’t feel favorable toward the group and that you don’t care too much for that group” (2020 Time Series Study, 391). “Ratings between 51 degrees and 100 degrees mean that you feel favorable and warm toward the group” (2020 Time Series Study, 391). The 50-degree mark is neutral. I chose this measure of feminism based on previous research regarding environmentalism and feminism. The article “Tracking the Elusive Green Women: Sex, Environmentalism, and Feminism in the United States and Europe” uses the ANES 1992 feminist feeling thermometer as an indicator of sympathy for feminism (Somma and Tolleson-Rinehart 1997).

Descriptive Findings

Observing the descriptive statistics at large before conducting the analyses permits an illuminating overview of broad patterns in American attitudes about climate change. As previously mentioned, both dependent variables, measuring the perceived importance and the perceived effect of climate change on severe weather/temperatures in the U.S., are coded 1-5, with 1 signifying not at all important and 5 signifying extremely important.

Table 1: Descriptive Statistics	N	Mean	St. Dev.	Min	Max
Climate Important	7,383	3.341	1.351	1	5
Climate Affect	7,381	3.572	1.359	1	5
Feminist Feeling Thermometer	7,326	58.895	26.798	0	100
Age	7,932	51.585	17.207	18	80
Education	8,149	3.387	1.110	1	5
Race	6,689	1.110	0.310	1	2
Sex	8,213	1.542	0.498	1	2
Income	7,664	11.750	6.752	1	22
Ideology	7,056	4.091	1.669	1	7
Party	7,955	1.958	0.822	1	3

As shown in Table 1, the mean of the perceived importance of the issue of climate change is 3.3, meaning moderately important. The mean of the perceived effect of climate change on severe weather/temperatures, 3 indicating a moderate amount and 4 indicating a lot, is 3.6. The average rating of the feminist feeling thermometer is 58.9. Also mentioned above, feminist feeling thermometer ratings between 0-49 degrees mean the respondent does not feel favorable toward the group (2020 Time Series Study). Ratings between 51-100 degrees mean that the respondent feels favorable and warm toward the group (2020 Time Series Study). The 50-degree mark is neutral. Thus, a rating of 58.9 depicts a slight favor for feminism. Of the dependent and primary independent variables, the sample means are largely neutral.

With respect to the other variables, the average respondent is 51.6 years old. The mean for educational attainment is 3.4, indicating the average respondent's level of education is some post-high school. 1.1 represents the average respondent's choice regarding race, meaning the sample is largely White. The actual sample makeup by race is 5,963 Whites and 726 non-Whites (89% vs. 11%). The mean sex is 1.5, with an actual sample breakdown of 3,763 male and 4,450 female respondents (46% vs. 54%). The mean income is 11.8, indicating the average respondent answered between 11, denoting $60,000-$64,999, and 12, denoting $65,000-$69,999. The average respondent chose 4, indicating moderate ideologically, and Independent, regarding party affiliation.

To begin examining whether the relationship between pro-environmental attitudes and feminist sympathy is strongest among women or men, I first cross-tabulate the perceived importance of climate change and sex and the perceived impact of climate change on severe weather/temperatures in the U.S. and sex. I then run bivariate analyses. Models 1 and 2 are bivariate analyses of the measures of environmentalism and sex. If my hypothesis that the relationship between pro-environmental beliefs and feminist sympathy will be strongest among women is correct, environmental measures alone should illustrate a sex gap. Below are the results of the cross-tabulations.

Table 2: Cross Tabulations of Climate Variables and Sex

How important is the issue of climate change?	Male	Female
Not at all important	500 (13%)	438 (10%)
A little important	566 (15%)	558 (13%)
Moderately important	756 (20%)	950 (21%)
Very important	726 (19%)	908 (20%)
Extremely important	798 (21%)	1134 (26%)
How much is climate change affecting severe weather/temperatures in the U.S.?	**Male**	**Female**
Not at all	371 (10%)	315 (7%)
A little	611 (16%)	509 (11%)
A moderate amount	660 (18%)	871 (20%)
A lot	602 (16%)	702 (16%)
A great deal	1103 (29%)	1588 (36%)

From the cross-tabulations, it is evident that there is a sex gap in attitudes toward climate change. First, examining the results of the dependent variable measuring the importance of the issue of climate change and sex, nearly a third of male respondents (28%) assert that climate change is not at all important (13%) or a little important (15%). Further, the issue of climate change is moderately important as indicated by 20% of men surveyed. Of the remaining male respondents (40%) signified it is very important (19%) or extremely important (21%). In contrast, 46% of the females surveyed chose very important (20%) or extremely important (26%) when responding to the question: “How important is the issue of climate change?” Moderately important was chosen by 21% of women. The remaining 23% of female respondents indicated not at all important (10%) or a little important (13%).

Observing the cross-tabulation of the dependent variable measuring the impact of climate change on severe weather/temperatures in the U.S. and sex reveals a wider gap in beliefs regarding climate change. Nearly a third of male respondents (26%) chose not at all (10%) or a little (16%). Followed by 18% of males choosing the neutral position, a moderate amount. With 45% of males indicating a lot (16%) or a great deal (29%) when asked, "How much is climate change affecting severe weather/temperatures in the U.S.?" Over half of female respondents (52%), in comparison, indicated a lot (16%) or a great deal (36%) regarding the impact of climate change on severe weather/temperatures in the U.S.

Running bivariate analyses of the environmental measures and sex illustrates a sex gap in Models 1 and 2. Examining Model 1, the importance of climate change and sex, sex is statistically significant ($p<0.01$). The estimated correlation coefficient is 0.179, meaning for a 1 unit increase in sex (X), with 1 denoting male and 2 denoting female, the respondent's belief in the importance of climate change (Y) increases by 0.179.

Observing Model 2, the bivariate analysis of the effect of climate change on severe weather/temperatures in the U.S. and sex, sex is statistically significant ($p<0.01$). The relationship is interpreted as a 1 unit increase in sex (X), results in a 0.189 increase in the respondent's perception of the effects of climate change on severe weather/temperatures in the U.S. (Y).

These descriptive findings reiterate the different understandings between the sexes regarding their attitudes towards climate change. This lack of overlap maintains a sex gap spanning double, and even triple digit differences in respondent responses.

With the sex gap in environmentalism presented in both this study and previous research, before pressing forward with the broadened measure of the feminist feeling thermometer, it is

important to take a more in-depth look at the sample's response to the measure. As previously mentioned, the feminist feeling thermometer measures sympathy for feminism by asking the respondent to rate how they feel toward the group. Ratings between 0-49 degrees mean the respondent does not feel favorable toward the group (2020 Time Series Study). Ratings between 51-100 degrees mean that the respondent feels favorable and warm toward the group (2020 Time Series Study). The 50-degree mark is neutral. Shown in the table below is the cross tabulation of the feminist feeling thermometer and sex.

Table 3: Cross Tabulations of the Feminist Feeling Thermometer and Sex

How would you rate: Feminists?	Male	Female
0-49 Degrees	955 (29%)	833 (21%)
50 Degrees	889 (27%)	823 (21%)
51-100 Degrees	1,480 (45%)	2,304 (58%)

As noted above, the sample mean of the feminist feeling thermometer is 58.9, depicting a slight favor for feminism. However, distinguishing the respondents by sex reveals a similar gap. This time, rather than a sex gap in environmentalism, a sex gap in sympathy for feminism is illustrated. Suggesting they do not feel favorable toward feminism, 29% of male respondents indicated ratings between 0-49 degrees. The neutral rating of 50 was chosen by 27% of male respondents. Finally, signifying they feel favorable and warm toward the group, 45% of male respondents indicated a rating between 51-100. For female respondents, 21% chose ratings of 0-49, disfavor for the group, and 21% chose 50, the neutral position. Of the remaining female respondents, over half (58%) indicated a rating between 51-100 in favor of feminism.

The descriptive findings are supportive of my hypothesis regarding the relationship between pro-environmental attitudes and feminism being strongest among women and are in

keeping with the previous literature on climate change and sex. I argue that this relationship is evident in this research and the previous literature because of the WME. As previously mentioned, I think sex is anatomical, while gender is a performative tool that shapes an individual's perceptions and resulting beliefs. If the dichotomous sex/gender variable is anatomical/performative, then an individual's gender, to some extent, shapes their perceptions and resulting beliefs. Within this research, this idea is supported by the White males exhibiting the WME and maintaining a privileged status within American society, as is shown in their differing attitudes toward climate change.

For this reason, they do not perceive risk in the same way that everyone else does. This lack of risk perception includes the risk of climate change, and their lack of urgency is present in the data. At the same time, but in direct contrast, the molding mechanism that is sex/gender presents evidence of women being more likely to have a strengthened understanding of the importance of the issue of climate change and the impact it is having on severe weather/temperatures in the U.S. Thus, this research, like the literature before it, finds a biological sex gap in environmental attitudes toward climate change.

This portion of my research illustrates the sex gap in environmentalism from a biological standpoint. The next portion steps away from the anatomical makeup that is sex. Using the feminist feeling thermometer as the primary independent variable, I remove the rigidity of the current dichotomy of sex measures. Instead of the biological variable of sex, I observe the cultural variable of a feminist worldview alongside other important influences, including demographics (age, education, race, sex, and income) and political preferences (political ideology and party affiliation).

Multivariate Analyses

I run multivariate analyses to test “whether a measure of sympathy for feminism and its goals influence pro-environmental attitudes” (Somma and Tolleson-Rinehart 1997, 157). In doing so, I differentiate between respective influences on environmental attitudes. Model 3 regresses the dependent variable, measuring the importance of the issue of climate change, on the primary independent variable, the feminist feeling thermometer, as well as the basic demographic variables (age, education, race, sex, and income), and political preference variables (political ideology and party affiliation). Model 4 regresses the dependent variable, measuring beliefs about climate change's impact on severe weather/temperatures in the U.S. on all 8 of the independent variables mentioned.

Running multivariate analyses to test "whether a measure of sympathy for feminism and its goals influence pro-environmental attitudes" results in p-values indicating the independent variables of age, education, sex, and the feminist feeling thermometer are highly statistically significant ($p<0.01$) in Model 3 and Model 4 (Somma and Tolleson-Rinehart 1997, 157). Shown in Table 4 below are the outputs for Models 3 and 4.

Table 4: Multivariate Analyses

	Dependent variable(s):	
	How important is the issue of climate change?	How much is climate change affecting severe weather/temperatures in the U.S.?
	(Model 3)	(Model 4)
Age	0.005***	0.006***
	(0.002)	(0.002)
Income	0.007	0.006
	(0.004)	(0.004)
Education	0.187***	0.197***
	(0.028)	(0.028)
Sex	0.125***	0.127***
	(0.041)	(0.042)
Race	0.058	0.158
	(0.113)	(0.116)
Ideology	-0.001	-0.001
	(0.001)	(0.001)
Party	-0.064**	-0.071**
	(0.029)	(0.030)
Feminist Feeling Thermometer	0.025***	0.026***
	(0.001)	(0.001)
Constant	0.014	0.117
	(0.166)	(0.170)
Observations	6,689	6,689
Adjusted R^2	0.199	0.194
Residual Std. Error (df = 6680)	2.777	2.848
F Statistic (df = 8; 6680)	208.289***	202.147***
Note:		*p<0.1; **p<0.05; ***p<0.01

First, the primary independent variable, the feminist feeling thermometer, reveals positive correlations in both Models 3 and 4. A 1 unit increase in the feminist feeling thermometer (X) in Model 3 results in a 0.025 increase in the importance of climate change as an issue (Y), and Model 4, a 0.026 increase in the effects of climate change on severe weather/temperatures (Y).

This relationship can be interpreted as sympathy for feminism positively correlates to pro-environmental attitudes regarding climate change and the extent to which climate change impacts severe weather/temperatures in the U.S. This finding substantiates previous research concluding that men and women who support feminism are more likely to have a pro-environmental attitude and that the feminist feeling thermometer will positively influence pro-environmental attitudes (H2) (Somma and Tolleson-Rinehart 1997).

The control variables, including demographics (age, income, education, sex, and race) and political preference variables (political ideology and party affiliation) preform in the expected ways.

Conclusion

This research concludes with evidence of a sex gap in risk perception, supporting the WME. Furthermore, the sex gap in risk perception of environmental climate change substantiates that the relationship between pro-environmental beliefs and sympathy for feminism is most pronounced for women (H1). Additionally, this research provides evidence indicating a measure of sympathy for feminism, and its goals influence pro-environmental attitudes (H2).

I conclude that there is strong evidence supporting the WME with a sex gap in risk perception of environmental climate change. Beyond the biological, culturally performative aspects of sex/gender (sympathy or lack thereof for feminism) influences environmental attitudes.

This research can be improved in many ways, but I believe the most considerable advances would result from a different sample, improved measures, or both. First, I suggest analyzing a different sample. A more representative sample has the potential to yield differing results. As previously mentioned, varying environmental indices are very popular in the previous

literature regarding American attitudes towards climate change. This is also true for the few studies that have attempted to measure feminism. I believe the measures could improve by using environmental indices, feminist indices, or both. In doing so, it would be possible to examine and generalize more types of behavior falling under the umbrellas of environmentalism, feminism and determine existing overlap or lack thereof.

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Appendix

Respondent Age

1. 80. Age 80 or older
2. 18-79. Actual value

Respondent 5 category Level of Education

1. Less than high school credential
2. High school credential
3. Some post-high school, no bachelor's degree
4. Bachelor's degree
5. Graduate degree

R Self-Identified Race/Ethnicity

1. White
2. Non-White

What is your (R) sex?

1. Male
2. Female

Total (Family) Income

1. Under 9,999
2. $10,000-14,999
3. $15,000-19,999
4. $20,000-24,999
5. $25,000-29,999
6. $30,000-34,999
7. $35,000-39,999
8. $40,000-44,999
9. $45,000-49,999
10. $50,000-59,999
11. $60,000-64,999
12. $65,000-69,999
13. $70,000-$74,999
14. $75,000-79,999
15. $80,000-89,999
16. $90,000-99,999
17. $100,000-109,999
18. $110,000-124,999
19. $125,000-149,999
20. $150,000-174,999
21. $175,000-249,999
22. $250,000 or more

7-Point Scale Liberal-Conservative Self-Placement - Where would you place yourself on this scale, or haven't you thought much about this?

1. Extremely conservative
2. Conservative
3. Slightly conservative
4. Moderate
5. Slightly liberal
6. Liberal
7. Extremely liberal

Does R think of self as Democrat, Republican, or Independent?

1. Republican
2. Independent
3. Democrat

How much, if at all, do you think climate change is currently affecting severe weather events or temperature patterns in the United States?

1. Not at all
2. A little
3. A moderate amount
4. A lot
5. A great deal

How important is issue of climate change to you personally?

1. Not at all important
2. A little important
3. Moderately important
4. Very important
5. Extremely important

Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward the person and that you don't care too much for that person. You would rate the person at the 50 degree mark if you don't feel particularly warm or cold toward the person.

How would you rate: Feminists

1. 0-49. Actual value
2. 50. Actual value
3. 51-100. Actual value