

The Pennsylvania State University

The Graduate School

College of the Liberal Arts

**THE ROLE OF ANTICIPATORY RELATIVE DEPRIVATION AS A BARRIER TO  
ENGAGEMENT IN SOCIAL JUSTICE ACTION**

A Dissertation in

Psychology and Women's Studies

by

Brittany Bloodhart

© 2013 Brittany P. Bloodhart

Submitted in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

May 2013

The dissertation of Brittany Bloodhart was reviewed and approved\* by the following:

Janet K. Swim  
Professor of Psychology  
Dissertation Advisor  
Chair of Committee

Stephanie A. Shields  
Professor of Psychology and Women's Studies

José A. Soto  
Associate Professor of Psychology

Nancy A. Tuana  
Professor of Philosophy and Women's Studies

Melvin Mark  
Professor of Psychology  
Head of the Department of Psychology

\*Signatures are on file in the Graduate School.

## ABSTRACT

An important psychological indicator of whether those with privilege are willing to engage in social action may be the relative amount of deprivation they anticipate feeling by relinquishing that privilege to others. Fear of future personal deprivation could lead to a denial of or refusal to ameliorate social issues. However, if individuals recognize an injustice, recognize that their privilege contributes to the injustice, and expand their scope of justice to those affected, they may not see the request to give up their privileges as a form of deprivation and, as a result, may be more likely to engage in positive social action. The aim of this dissertation work was to 1) explore Anticipatory Relative Deprivation (ARD) as a psychological barrier to willingness to reduce one's own privilege, and 2) test whether ARD can be reduced, therefore increasing subsequent willingness to reduce one's own privilege by engaging in social action. Specifically, people should no longer anticipate feeling relatively deprived and be motivated to engage in social action when they: 1) have expanded their scope of justice to others who are harmed (e.g., people who are impacted by climate change, animals, or the environment); 2) are aware that those within their scope of justice have been harmed; and 3) recognize that their privilege contributes to the harm. Results across three studies indicate that ARD is conversely related to willingness to support a variety of social justice issues, that feelings of anticipated deprivation are relative to those who we compare ourselves with, and that ARD can be reduced by expanding scope of justice and relative comparisons to those with less privilege than the self, increasing willingness to engage in social justice. In addition, the group to whom individuals compare themselves mattered: comparing oneself to animals was generally more likely to reduce ARD and increase willingness to engage in social action than comparing oneself to people in other countries and women in particular. These results may have been due to beliefs about innocence

and culpability in a particular group's circumstances, or may have been impacted by sexist or racist attitudes. Implications for this research include practical considerations for intervention programming and promoting pro-social and pro-environmental change.

## TABLE OF CONTENTS

List of Tables.....	vii
List of Figures.....	viii
Acknowledgements.....	x
I. Introduction.....	1
II. Many Forms of Relative Deprivation.....	6
III. Anticipatory Relative Deprivation.....	12
<i>Anticipation: Contemplating the Future</i> .....	13
<i>Deprivation</i> .....	15
<i>Relativity</i> .....	24
IV. Implications for Reducing Anticipatory Relative Deprivation.....	39
V. Present Research.....	47
VI. Study 1.....	50
VII. Study 2.....	55
VIII. Study 3.....	61
IX. Study 4.....	71
X. General Discussion.....	103
References.....	113
Appendix A: Behaviors/policies measured in Study 1.....	124
Appendix B: Day in the Life of... Vignettes.....	126
Appendix C: Scripts used for Harm Videos.....	128
Appendix D: List of behaviors assessed for: ARD scale; Willingness to do behaviors measure; 1 week follow-up.....	132

Appendix E: Scope of Justice Scale .....	133
Appendix F: Awareness of Harm Questionnaire .....	135
Appendix G: Awareness of Responsibility Questionnaire .....	136

## LIST OF TABLES

Table 1: Categorization of common theories related to relative deprivation.....	6
Table 2: Bivariate correlations between ARD and willingness to engage in or support each of the 15 behaviors/policies.....	54
Table 3: Demographic classification of participants, separated by source, Study 4.....	79

## LIST OF FIGURES

Figure 1: Flow chart of decisions when asked to engage in behavior which will reduce personal privilege.....	48
Figure 2: Predicted mediation and moderation pathways.....	49
Figure 3: Interaction between type of comparison group and discrepancy in privilege between self and others.....	60
Figure 4: First and second charts displayed to participants in the relevant group/less privilege condition, who indicated that they personally used 10 hours of energy per day.....	66
Figure 5: (Non-significant) interaction between type of group and group's privilege level on personal feelings of entitlement.....	68
Figure 6: Effects of type of group and group's privilege level on personal feelings of ARD.....	69
Figure 7: Interaction between scope of justice and type of information for feelings of ARD among subject pool participants.....	89
Figure 8: Interaction between scope of justice and type of information for feelings of ARD among Mturk participants.....	89
Figure 9: Interaction of scope of justice and type of information on behavioral willingness for subject pool participants.....	91
Figure 10: Interaction of scope of justice and type of information on behavioral willingness for MTurk participants.....	91
Figure 11: Interaction between scope of justice and type of information on concern for target group among subject pool participants.....	93
Figure 12: Interaction between scope of justice and type of information on concern for target group among Mturk participants.....	93
Figure 13: Indirect effect of ARD on the relationship between scope of justice X type of information on willingness to engage in social action.....	96



Figure 14: Interaction between scope of justice manipulation and type of information on Mturk participants' willingness to complete the one-week follow-up survey .....

## ACKNOWLEDGEMENTS

Thank you to the members of my dissertation committee for their insightful contributions to this work. It would not have been nearly as inspired without you. Particular thanks to Stephanie Shields, who has been a consistent supportive presence throughout my graduate career and growth as a feminist scientist.

Graduate school is difficult, and perhaps would be impossibly so without the support of graduate student colleagues and dear friends. Matthew Zawadzki, Elizabeth Lee, Jean Lamont, and Joy Hackenbracht have improved my life and career in social psychology in their own unique ways. Thank you for the many hours of late nights, decompression, creativity, struggles, silliness, love, and support, and for making my time at Penn State the most meaningful.

This dissertation, and my entire progress through graduate school, would not have been possible without the guidance of Janet Swim. She is not only one of the most knowledgeable and productive scientists in the field of social psychology, but she approaches the study of social issues with a passion and genuine desire for knowledge I have not seen anywhere else. While most speak of advancing our field, Janet continues to take courses to improve her training, to admit when she doesn't know something, and to listen to and see potential in the ideas of those who might otherwise be considered beneath her. She inspires me for these and many other reasons. She has built me up and gone above and beyond to help me succeed. She has never treated me as anything other than her equal, and because of this I was able to achieve much more than I could have expected of myself. I am so lucky to have her as my advisor and my friend.

## **I. Introduction**

For those who seek to create equality and a better world for current and future generations, animals, and the environment, the study of how and why people psychologically understand, support, or oppose social justice toward these groups or entities is an important endeavor. Although the term “social justice” has largely been applied to the wellbeing and positive, fair treatment of human groups, the word “social” can be defined in terms of a community or collective, and thus could logically be extended to justice toward non-human groups such as animals or the natural environment. Some feel passionate enough about social justice issues to change their own behaviors even when it diminishes their own privilege, whereas others are equally passionate about maintaining and enhancing their privilege. This dissertation concerns one possible barrier to human engagement in social justice action, as well as a theory for how to break down that barrier and facilitate positive social change.

There are multiple, interlocking explanations for different concerns (or lack of concern) about social justice, including variations in personal history with having high status (e.g., Hewstone, Rubin & Willis, 2002), or endorsement of status-enhancing values and ideologies (e.g., O’Brien & Major, 2004). Relationships exist between personality factors, such as openness to new experiences, and support for social and environmental justices (e.g., Carney, Jost, Gosling & Potter, 2008). Research has demonstrated how and when prejudice and discrimination are likely to emerge in different situations (e.g., Gaertner & Dovidio, 1986; Swim, Aikin, Hall, & Hunter, 1995; Tougas, Brown, Beaton, & Joly, 1995) and that certain groups of people are more likely to perpetuate stereotypes and prejudice (e.g., Sidanius & Pratto, 1999; Adorno, Frenkel-Brunswik, Levinson & Sanford, 1950). We also know quite a lot about the negative psychological impacts of social injustice on underprivileged groups (e.g., Swim, Cohen

& Hyers, 1998; Swim, Hyers, Cohen & Ferguson, 2001), and the coping mechanisms used to deter them (e.g., Rugeiro & Taylor, 1995; Branscombe & Ellemers, 1998).

Psychological research on privileged groups – those that have the greater power and ability to change the status quo – has largely focused on why they choose not to take action and instead continue to maintain their own privilege. Social Identity Theory (Tajfel & Turner, 1979) argues that we look after the interests and position of our own social group(s), as their identity contributes to our own positive self identity. Classic theories on stereotyping and prejudice (e.g., Allport, 1954; Devine, 1989) claim that our brain organizes the world into easily identifiable categories, making automatic stereotyping largely inevitable. Similarly, feminist theory focuses on describing the ways in which our thoughts, attitudes, and behaviors are influenced by and designed to perpetuate the status-quo in order to fuel the interests of the privileged, thus further harming marginalized groups in often invisible ways (e.g., Haraway, 2004).

We know less, however, about when and why those in positions of privilege would reject maintaining the status-quo and turn to care about and act toward redressing harms done to others. There are those who would vote for social policies to help others despite the negative effect it might have on themselves or their group (e.g., Affirmative Action policies). There are people who reject prejudice and discrimination, those who vote for social policies that put others first, and those that reduce consumption behaviors in order to curtail harms already occurring to the environment. Psychological research has captured some information about why those who are advantaged are willing to engage in social action. For instance, non-prejudiced individuals have a more universal viewpoint orientation which leads them to attend to similarities rather than differences in others/out-group members (Phillips & Ziller, 1997). We even know that specific attitudes and emotions can lead to certain types of support for social justice, as illustrated by the

research on environmental attitudes (e.g., Dunlap, Van Liere, Mertig & Jones, 2000), White guilt (e.g., Swim & Miller 1999), and heterosexual guilt (Mallet, Huntsinger, Sinclair & Swim, 2008). Yet overall, there is still a need in both psychology and feminist theory to link resistance to social justice action to an examination of when and why the advantaged *are* willing to give up their privilege in the name of social justice. This proposal aims to address both a potential barrier to social justice action and a way to overcome that barrier in order to facilitate positive social change.

One important underlying psychological barrier which this proposal will address is concern about the consequences of behavior change on the self. I propose that if people are asked to give up what they have, whether that is the consumption of carbon fuels, a higher paycheck, or higher status in society, they may anticipate feeling deprived. In other words, people may experience *anticipatory relative deprivation* when they consider having to give up privilege(s) that they currently have. The proposed concept of anticipatory relative deprivation (ARD) draws from a wealth of research on relative deprivation in which individuals make comparisons in order to determine whether they are unfairly lacking something (e.g., Crosby, 1976). When one anticipates feeling deprived in the future, they may anticipate feeling deprived relative to their current state and relative to the social comparison groups they select. Relative deprivation research has also examined the implications of relative deprivation on action (individual or collective) for obtaining or restoring what one (or one's group) believes they are lacking. However, no research has yet assessed the psychological processes involved during the contemplation of giving up privileges that one already has, or the particular effects of this anticipation on changes in individual behavior that contribute to social justice for others and not the self.

Anticipatory relative deprivation is an important process to study because an increase in social justice for those who are disadvantaged often requires a decrease in privileges for those who are advantaged. For example, I propose that ARD could emerge when individuals with access to healthcare consider voting for a bill that would increase healthcare for others but possibly decrease their own access. Similarly, individuals who are able to use large amounts of petroleum-based energy and are asked to cut back may experience ARD, even though cutting back can reduce harm to other people or the environment. Such zero-sum exchanges might not be applicable in all social justice cases in which privilege is unlimited (e.g., the freedom to not be harassed). However, many social issues involve privilege which is limited (e.g., access to natural resources), and many issues which might not appear to involve limited privilege actually do, particularly when referring to privileged preferential treatment or access. For example, there is an unlimited supply of equal treatment, such as in the treatment of women and men, but men have to reduce their *preferential* treatment in order for women to not experience marginalized treatment. Feelings of entitlement for a certain level of privilege and an inability to predict one's outcomes from losing that privilege may contribute to high levels of anticipated relative deprivation and act as a barrier to engagement in these social justice actions. If one anticipates feeling deprived by giving up their privileges and thus refuses to engage in a behavior which would subsequently limit that privilege, injustice for others will continue to be perpetuated. Anticipatory relative deprivation may thus be an important concept for understanding the psychology of social justice because it can define a psychological process that explains resistance to a variety of different forms of social justice and includes privilege that involves social standing and the use of resources (e.g., environmental resources).

The concept of relativity in the understanding of perceived deprivation is important not only for identifying when and how strongly feelings of deprivation are experienced, but also because it provides insight into how feelings of ARD can be decreased, highlighting an opportunity for social change. In other words, if feelings of deprivation are determined by a narrow or broad scope of comparison, then altering this range of comparisons could alter feelings of deprivation and subsequently the extent to which these feelings act as a barrier to engagement in social action. Scope of justice theory (Opotow, 1990) provides a useful model for thinking about such a scope of comparison and ways to expand it in order to influence feelings of ARD. Specifically, if people recognize an injustice (e.g., human suffering and environmental degradation), care about those affected (e.g., other people and the environment), and recognize that their privilege contributes to the injustice (e.g., human behaviors that contribute to global climate change), they may not see the request to give up their privileges as a form of deprivation. As a result, they may be more willing and likely to change their behaviors.

The aim of this dissertation is to 1) explore anticipatory relative deprivation as a psychological barrier to willingness to reduce one's own privilege via engagement in social justice action, and 2) test whether expanding one's scope of justice may reduce anticipated feelings of relative deprivation and, subsequently, increase willingness to reduce one's own privilege. I argue that behavioral change that decreases one's own privilege requires reduction in feelings of anticipatory relative deprivation. I propose that anticipatory relative deprivation can be reduced by: 1) expanding one's scope of justice to those harmed; 2) creating awareness of injustice for those within the expanded scope of justice; and 3) connecting one's privilege with a responsibility for the injustice done towards others.

## II. Many Forms of Relative Deprivation

There is a long history of research on relative deprivation to which ARD can contribute an important theoretical component. Different theories of relative deprivation have considered perceptions of deprivation based on comparisons with privileges others receive in the present or involve comparisons with past levels of privilege (see Table 1). However, no theories have yet considered the psychological processes involved during the anticipation of changes in privileges in the future, or specifically for the anticipation of a loss of privilege that would result in feelings of entitlement and deprivation. Thus, ARD may be a step towards understanding how processes of relative deprivation may be applied toward anticipation of future events. Below I outline the most common theoretical derivatives of relative deprivation theory and discuss how ARD is a separate but related component.

Table 1

*Categorization of common theories related to relative deprivation*

	<b>Temporal dimension of comparison</b>		
<b>Current status</b>	Present	Past to Present	Present to Future
<b>Do not have privilege</b>	<ul style="list-style-type: none"> <li>Relative Deprivation</li> </ul>	<ul style="list-style-type: none"> <li>Temporal Relative Deprivation (J-curve)</li> </ul>	<ul style="list-style-type: none"> <li>Anticipatory Relative Gratification</li> </ul>
<b>Do have privilege</b>	<ul style="list-style-type: none"> <li>Relative Advantage</li> </ul>	<ul style="list-style-type: none"> <li>Temporal Relative Gratification</li> </ul>	<ul style="list-style-type: none"> <li>Anticipatory Relative Deprivation</li> </ul>

### *Present Comparisons*

Relative deprivation (RD) is the desire to have something that one does not currently have but feels they deserve or are entitled to have based upon comparisons with others. Original research which led to the development of RD theory (Stouffer et al., 1949) illustrated an



interesting paradox between two different military groups; the air force, where promotions were plentiful, and the military police, where they were scarce. One would expect that the military police would tend to feel more deprived when thinking about promotional opportunities, but the opposite was actually true: members of the air force tended to feel much more deprived.

Stouffer and colleagues theorized that this was a result of the comparisons members of each military group were making relative to similar others. Military police knew that most people like them were not getting promoted, so did not feel deprived, but members of the air force saw many similar others around them being promoted, compared themselves to these individuals, and as a result felt deprived relative to those similar others. Thus, there are five components typically considered to be necessary to incite feelings of RD: an individual must want something that they do not have (or do not have enough of), compare themselves with similar others, feel entitled to have it, believe it is feasible to get it, and don't blame themselves for not having it (Crosby, 1976)<sup>1</sup>.

Likely due to the strong emphasis in social psychology on intergroup relations, research on relative deprivation quickly expanded into delineations between egoistic (i.e., individual) deprivation and fraternalistic (i.e., group-based) deprivation (Runciman, 1966). Fraternalistic deprivation is essentially an individual's feelings about discrepancies between what their in-group has and what they believe their group deserves to have. Runciman (1966) found that an out-group's standing is much more likely to generate feelings of group-based deprivation than the in-group's absolute standing, particularly when another group is perceived to be in some way similar or relevant to one's own group. Further, fraternalistic deprivation of one's own group is

---

<sup>1</sup> Crosby (1984) later pared down the original definition to only two components: "frustrated wants and violated entitlements" (p. 51). However, after failing to test both the five and two factor model, she contended that these components were better left as a concept than as a model of RD.

often a stronger predictor of group-based prejudice toward other groups than individual feelings of deprivation (e.g., Caplan, 1970; Crawford & Nadich, 1970; Vanneman & Pettigrew, 1977).

Other research related to relative deprivation has illustrated the psychological processes that occur when an individual is *advantaged* relative to others. Research on relative advantage highlights the experiences of the privileged by assessing situations in which advantage can be taken for granted, minimized, or recognized (Leach, Snider & Iyer, 2002). However, it is important to note that the majority of outcomes discussed for relative advantage are a product of advantaged individuals *not* recognizing that they are advantaged: that is, Leach and colleagues (2002) largely discuss how the advantaged protect their privilege by minimizing comparisons with others who are disadvantaged. In other words, the term “relatively advantaged” is defined from the perspective of the researchers on behalf of the individual, while the individual does not perceive their advantage relative to others. Although individuals can perceive that they have more than others, they create justifications for why others having less is *not* relevant to themselves having more. A smaller discussion on relative advantage, however, includes arguments that advantaged individuals recognize and feel guilt, worry, sympathy, or moral outrage for the relative disadvantage of others, which provides support for the notion that expanding one’s scope of comparison can lead to willingness to support social action on behalf of others (Mallett & Swim, 2004).

### ***Past to Present Comparisons***

As concepts such as differential group-based inequities and fluctuations in privileges have emerged in the relative deprivation literature, work has been extended to examine temporal deprivation. Temporal deprivation can include incidents for which people compare current levels of low privilege with past levels of higher privilege. Davies (1969) proposed that as

people's privileges steadily increase over time (e.g., salary, availability of technology), they come to expect such increases and may feel deprived if they do not attain the privileges they expect, what he termed the "J-Curve Hypothesis." Gurr (1970) found a similar occurrence in which lower personal outcomes (e.g., loss of privilege) over time increased anger, which he termed "decremental deprivation". Thus, research on this topic has indicated an association between *current* feelings of relative deprivation and expectations of privileges derived from *past* experiences. However, it is not always clear how changes in privilege over time affect feelings of deprivation. More recent research on J-curve patterns for income distribution in British families documented a case in which the upper class experienced income declines, but no class-based prejudice ensued and no personal or group-based deprivations were reported (Jones et al., 2008). The authors proposed that the economic upturn several years later could explain this lack of effect, despite that most research on relative deprivation assumes more immediate outcomes after changes in privilege or status.

Alternatively, temporal expectations regarding privilege can occur when an individual is *gratified* beyond relevant in-group members. That is, when someone is given an extra privilege, such as a pay increase, beyond what individuals in a similar occupation or role would earn, they experience the phenomena of 'relative gratification' (Vanneman & Pettigrew, 1972; Grofman & Muller, 1973; Guimond &). Research has demonstrated that experiences of relative gratification can lead to support for political violence (Grofman & Muller, 1973) and increased prejudice toward other groups (Guimond & Dambrun, 2002). Reasons for these outcomes have been suggested by Leach and colleagues (2002) to be a product of perceived threat towards privileges which are typically unstable in most studies of relative gratification, although mixed results, such

as prejudice toward groups which are unrelated to the gratified privilege, have led to uncertain conclusions regarding relative gratification.

### ***Present to Future Comparisons***

When individuals anticipate a future change in their level of privilege, they may anticipate feeling deprived or gratified. The present study focuses on decreases in privilege and anticipation of deprivation because of its potential relevance as a barrier to social justice engagement which could be addressed. Additionally, the present research only addresses individual feelings of anticipatory relative deprivation, as opposed to possible fraternal feelings of ARD. It is possible that policies which decrease the privilege of the advantaged (such as many social justice policies) could be seen as decreasing the privilege of one's group and therefore induce feelings of fraternal ARD. However, I believe that feelings of fraternal ARD might produce different outcomes than the egoistic ARD proposed here, and will thus only focus on egoistic deprivation in this dissertation.

ARD is unique from other theoretical models of relative deprivation because it assesses the process and outcomes during the anticipation of a *future* deprived state of privileges, whereas other theories focus either on present states or on comparisons between one's current state and what one experienced in the past. Although temporal theories of deprivation or gratification inevitably involve an aspect of future expectations, such as the assumption that individuals might hope for positive changes in the future or the acknowledgement that expectations about an individual's current state were at one time anticipated, the process of that anticipation is not specifically studied. Rather, the psychological processes and outcomes measured in other temporal theories of deprivation occur at the time of the actual deprivation or gratification. The temporal aspect of previous research comes from differential expectations about what the present

should be like based upon past experiences. In contrast, ARD is not about currently feeling deprived nor is it about how one's past influences one's current feelings. Rather, it regards expectations for how one might feel in the future based upon expectations drawn from current experiences.

Anticipatory relative deprivation differs from temporal theories of relative deprivation/gratification in other ways. For instance, temporal relative deprivation has illustrated the association between current feelings of deprivation and *expectations* of privileges. However, there is a difference between 1) anticipating and feeling entitled to more privilege and not getting it (i.e., temporal deprivation), and 2) feeling entitled to privilege you already have and then anticipating not having it anymore (i.e., ARD). Relative gratification may also appear to share similarities with ARD because in both cases the individual is privileged rather than deprived in absolute standing. However, and importantly, the privilege granted is not only usually temporary in situations of relative gratification, in that the individual does not expect the gratification to be sustained for a lengthy period of time (i.e., typically the gratification lasts for about an hour in an experimental lab setting), but it is also a privilege that the individual does not feel entitled to receive. In opposition, those who experience ARD feel entitled to their privilege and are anticipating feeling deprived in the future of a privilege they believed was permanent rather than gratified in the present of a privilege they did not expect. As such, relative gratification differs from ARD in a number of psychologically significant ways.

Another important difference is that ARD involves both a temporal comparison *and* comparisons with relevant others. Past research in the relative deprivation literature has based models on the assumption that *either* temporal or social comparisons are being made, or assumed that individuals chose *only one* of these two types of comparisons based on which is relevant to

the situation. However, I argue that ARD, a temporal event, involves relative comparisons with others as well as comparisons with one's own current state. That is, individuals anticipate changes in their own personal status relevant to what they currently have and feel entitled to have, and feelings of entitlement are based on comparisons with relevant others. This comparison presents an opportunity for change because if individuals expand their scope of who is considered relevant to those who have less privilege, they will subsequently feel less entitled to the privilege they currently have and no longer anticipate feeling deprivation at the loss of that privilege.

Anticipatory relative deprivation is therefore a distinct theoretical concept from other forms of relative deprivation and has the potential to contribute different and potentially useful insights to this set of literature and to the broader arena of social justice research. I therefore turn to an in-depth discussion of the components, assumptions, and boundaries of the concept of ARD.

### **III. Anticipatory Relative Deprivation**

As its name suggests, ARD involves three important components: 1) anticipation, 2) relativity, and 3) deprivation. Anticipating a change in the future may lead to different outcomes than actually experiencing the change in the present and may present a greater barrier for willingness to change, which can have social consequences for others. Interpreting the loss of privileges such as status, wealth, power, convenience, comfort, time, ability, treatment, or any other positive attribute as a deprivation is derived from feeling entitled to these privileges. Entitlement for a privilege can be derived from relative comparisons to what others have and what one has had in the past. Thus, I describe how anticipation of future events may be a different psychological process than has been previously studied. I then outline how we come to

determine privilege and make relative comparisons by examining first deprivation and then relativity.

***Anticipation: Contemplating the Future***

An apparent hole in the current relative deprivation literature concerns the act of expecting future events of relative deprivation. Theories have examined the psychological processes that occur during the contemplation of current privilege relative to others, as well as present feelings of deprivation relative to past levels of privilege. Thus, temporal theories of relative deprivation have eluded to considerations of future levels of privilege, but these theories have only examined the psychological processes that occur and the feelings of deprivation that are experienced once that level of privilege has been attained (or not). I argue that it is also important to assess the psychological processes that occur during the contemplation of changes in privilege *before* those changes take place.

It could be argued that temporal relative deprivation and ARD produce the same outcomes; that is, anticipating a reduction in the amount of privilege one currently has and feels entitled to have produces the same feelings of deprivation and other outcomes as getting less privilege that one anticipated having and still feels equally entitled to have. However, research on affective forecasting (Wilson & Gilbert, 2003) suggests otherwise. People are notoriously poor at predicting their future feelings for a multitude of reasons, including not imagining multiple future scenarios, not accurately remembering similar past experiences, not accounting for different circumstances than the present, having expectations about the future such as assuming that an experience will be positive or negative, and not accounting for the dissipation of emotion over time. Specifically, this research suggests that people anticipate feeling worse about the loss of something than they actually report feeling once losing it. So while the *amount*

of privilege reduced could be the same for both ARD and temporal relative deprivation, the anticipated or forecasted feelings of deprivation regarding this loss of privilege for ARD might be much stronger when one is not actually yet experiencing the lesser amount of privilege. In turn, because feelings of deprivation might be anticipated to be more severe than they would actually be experienced, anticipation may create a stronger desire to protect those privileges, such as abstaining from or preventing pro-social actions.

The point of this research proposal, though, is not to determine the discrepancy between how bad people believe they will feel and how they will actually feel (or how bad they perceive their situation will be with how bad it will actually be), but rather to examine the inhibitory consequences of believing such feelings or situations will be negative, regardless of how negative they actually turn out to be. Thus, research on affective forecasting and associated outcomes (such as anticipating negative intergroup interactions leading to inhibition for engaging in intergroup settings; e.g., Mallett, Wilson, & Gilbert, 2008) provides support for an anticipation of negative events as a barrier to engagement in pro-social actions. In other words, the addition of anticipation that “things will be bad if I engage in this behavior” is likely to produce extra inhibitory feelings toward that behavior. Affective forecasting plays a role in the anticipatory part of ARD because assuming that feelings of deprivation may be worse in the future than they actually might be creates a stronger barrier to engagement in social action. In other words, anticipation of deprivation alone could lead to refusal to support a social justice issue, and affective forecasting could make this anticipation even more negative or severe. However, affective forecasting does not specifically address deprivation nor does it include considerations of relativity. Additionally, the anticipated feelings of deprivation indicate that anticipated changes in status can be relative to both current personal status and status of others, something



which research on affective forecasting does not include. In sum, (ineffective) affective forecasting may contribute to the severity of feeling deprivation in ARD and help to differentiate conceptualizations between ARD from other work examining relative deprivation, but does not in whole account for the phenomena.

### *Deprivation*

The motivational component of ARD is that of deprivation, or the perception that one will lose privileges that they deserve or need. Deprivation has been measured in a number of ways in the relative deprivation literature, from objectively having less of a specific privilege (e.g., salary) to affective responses such as bitterness, anger, or resentment to objective or perceived differences. However, in all cases, the lesser amount of privilege is considered to be unfair. In other words, deprivation tends to represent a violation of justice. There are privileges or forms of social justice which most would agree that we all deserve and need, such as the right to life, freedom from physical harm, or protection under the law (e.g., see the United Nations universal declaration of human rights, 2011). There are others that we might easily agree everyone deserves, such as freedom of speech, freedom from emotional harms, or education, but which can become contended if we begin to think about cultural values, beliefs, and system-justifying ideologies. Finally, there are many rights which are highly contested, such as a woman's right to abortion or people's rights to utilize and dominate the natural environment, and which are often a product of religious or moral values (e.g., believing that nature was divinely granted to humans for their use, or that nature should be protected and cared for as a product of divinity). Therefore, it is important to consider how we think about which privileges constitute basic rights and should be included in considerations of social justice and which should not, as well as how privileges which are advantages beyond basic rights are perceived as entitlements

(i.e., necessary to have) and enveloped within system-justifying ideologies that serve to maintain social inequalities.

### *Determining Privilege, Rights, and Justice*

Feminist theoretical contributions to social action, anticipatory relative deprivation, and the scope of justice all include theoretical debates of deserved basic human rights, how we conceptualize those rights, and how they might be enforced. For instance, Sen (e.g., 1999) and Nussbaum (e.g., 2000) have debated how to conceptualize rights (freedoms versus capabilities) in order to create laws and policies for a world that equally respects all human rights (see also, Nussbaum & Sen, 1993). These approaches stem from issues on how to avoid infringements and encourage enforcement of rights, agreeing that there are a number of basic human rights that have to be maintained and that cultural views and behaviors cannot be allowed to infringe upon. Such rights might include the freedom of thought or bodily expression, although when one person's expression limits or harms the ability of another person to retain these rights, the issue quickly becomes difficult to navigate. For example, the freedom of a woman to not experience physical harm may be thought to conflict with the freedom of a man to assert his masculinity or control the household by beating her. Thus, one person's freedom must be restricted, and cultural or moral values may dictate which freedoms trump others (Philipose, 2006).

The discussion gets more complicated when it turns to the question of who is responsible for maintaining basic human rights (whether they are conceived of as freedoms or capabilities). At a recent Worldwide Universities Network (2010) talk on global climate change impacts and injustices, attendees discussed questions such as: how do you enforce the right to basic human necessities, such as food and shelter? Who is to blame when people do not receive these necessities? The answer typically turns to laws and government, perhaps because reducing

individual privileges of the advantaged are not seen as making a significant impact for the privileges of the disadvantaged, or because such a reduction is not the most desired solution for those with privilege. However, most people (conference-goers or the general public) would not usually go as far as to claim that the government should provide food and housing for all people all of the time. Rather, it should provide laws that prevent the inability (by the state or by individuals) for citizens to obtain these basic rights: in other words, to reasonably remove obstacles or refrain from their creation.

Yet issues continue to remain with the conceptualization of rights and their enforcement. For instance, when an individual's right to economic enterprise conflicts with another individual's right to be free from exploitation, which right trumps? Or perhaps, which is viewed as more valuable? Based on the writings of many Marxist theorists, we seem to view the right to capitalistic enterprise as one of the most sacred human rights, despite that it creates harm of economic exploitation for others (e.g., see MacKinnon, 1989). Therefore, capitalism is framed in a way which neutralizes these harms, suggesting that they would otherwise be considered a violation of human rights. In other societies, ethics of community or divinity may outweigh moral ethics based on autonomy, which are instead endorsed in much of the "Western" world (Heine, 2008). For instance, in many "Eastern" communities, the rights of the larger community take precedence over individual rights, such as the right of the community to prosper economically despite that labor practices of individuals may be pushed to the extreme. Alternately, laws prohibiting defamation of religious symbols outweigh the freedom of speech and expression in other parts of the world. Such practices may be perceived as a violation of individual rights to many Americans, but perhaps our view of basic human rights is simply a standpoint based in ethics of autonomy.

If we have difficulty conceptualizing human rights, the picture becomes even more convoluted when we consider the rights of other entities and species. Although feminist theory is based on discussions of marginalization and domination of women and has been extended to marginalization of many human groups, some have also extended feminist theory to discussions of the marginalization of non-human groups. Specifically, ecofeminism proposes that the domination of nature and animals is connected to the domination of groups of people (women in particular), which has been supported through research on the connection of cultural-level values about domination to women's empowerment and environmental degradation at the national level (Bloodhart & Swim, 2010). Thus, the exploitation of non-human groups means that we must consider what non-human, and more generally, biospheric rights deserve to be extended and maintained. While perceptions of justice for humans can be interpreted as the same rights that an individual feels they deserve to have, extending justice to animals, for example, does not likely entail the same list of rights. We may believe that animals deserve the right to life, habitat, and the freedom from pain and suffering, but do not extend to animals the right to education or freedom of speech. Thus, Nussbaum's argument about the conceptualization of rights as capabilities could provide a useful starting point from which to determine and better understand the rights that animals and the natural environment deserve.

Specifying exactly what rights and forms of justice are due to humans and other entities such as animals and the environment/biosphere are perhaps outside the scope of this work. Instead, it is important to acknowledge that there are many issues with the conceptualization of rights and how they might be enforced, and whether my consideration of deprivation in a theory of ARD addresses these rights. Although defining beliefs about justice and privilege as relative in some ways skirts the larger issue, it may be particularly indicative of how individuals can

come to extend those rights which they believe matter, and thus may be quite important psychologically.

### *Outcomes of Feelings of Deprivation*

An assumption of the present research is that individuals do not like to feel deprived, which can lead to the protection of privileges if one is anticipating a loss of that privilege. Although not studied in anticipation of future events, research has demonstrated a number of personal reactions to relative losses or gains in privilege. Outcomes of relative gratification include prejudicial attitudes (Guimond & Dambrun, 2002) and support for civil disobedience and violence (Grofman & Muller, 1973), although these results are not consistent. Social identity theorists have suggested that it is the instability in status, power, or privilege that produces outcomes of prejudice and discrimination towards groups who threaten those privileges, although later work by Guimond and Dambrun (2002) demonstrated that relative gratification can also lead to prejudicial attitudes towards traditionally marginalized but situationally-irrelevant groups (i.e., African Americans). Research on ego-depletion has shown that people who feel deprived of something are more likely to feel justified in over-indulging in it later, presumably in order to restore perceived fairness or balance in the world (Ellard, 1983). However, individuals who were forced to recognize that they were privileged actually expected to lose that privilege, which paints a picture for the potential use of altering these system justifying beliefs in combating social injustice. More generally, anticipated reductions in privilege and subsequent feelings of ARD might be viewed as threats toward status. The possibility of such a threat can result in reducing possible future deprivation by neutralizing what would otherwise be problematic advantages (or disadvantages) by producing system-justifying ideologies which represent the world as a good and fair place and validate the status-quo on behalf of the advantaged.

*Reducing Potential Deprivation: Neutralizing Inequalities to Maintain Privilege and the Status-Quo*

People not only do not want to lose the privileges that they currently possess, but people also want to think of themselves as good individuals who abide by the laws of fairness (e.g., Skitka, 2002). The tendency to justify discriminatory behavior suggests that people desire to make moral and just choices. One does not have to look far back into history to find examples of blatant deprivation of human rights committed in the name of “justice” or the “social good” (e.g., racial segregation in schools or public spaces, capitalism, or ethnic cleansing). Thus, those with power and privilege need social or cultural belief systems that allow them to maintain their privilege but also to do so in a way that allows them to appear or feel morally fair. There are a number of theories in existence that speak to this paradox, including system justification theory (Jost & Benaji, 1994), social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994), and belief in a just world (Lerner, 1980). Ideologies such as the Protestant Work Ethic, just world beliefs, and meritocracy are argued to be the most powerful system justifying ideologies in the United States (O’Brien & Major, 2004). These legitimizing ideologies assert that the world is a fair and just place, that good things will come to good people, and that those who work hard can achieve anything they wish. However, these beliefs also have a backwards way of implying that those who have very little have done nothing to deserve otherwise. This creates the perception that if there are group-based deprivations, they must be justified and legitimizes the system in which these inequalities exist.

Feminist theory has a great deal to say about justifications for disengagement with social justice action and, thus, potential enforcers of feelings of anticipatory relative deprivation.

Specifically, feminist theorists have questioned the lens of “objectivity” in both science and more generally in the way the world is viewed (e.g., Harding, 2004). The feminist empiricism approach argues that our common beliefs, norms, and rationalizations are actually based on subjective experiences, and beliefs about what is “just” is based off of a White, male, heterosexual lens of power and privilege. For instance, in Catherine MacKinnon’s standpoint analysis of rape law, she addresses how law reinforces “existing distributions of power” (MacKinnon, 2004, p. 170) and that those with power have a specific stake in not allowing victims to become credible. Thus, “the standard for criminality lies in the meaning of the act to the assailants,” while the unrecognized harm “lies in the meaning of the act to its victims” (MacKinnon, 2004, p. 173). Feminist political theorist Alyson Cole (2007) has argued that the term “victim,” a political and rhetorical tool for social activism in the 1960s, has since been turned inside out; made into a weakness and defined as a refusal to move on with one’s life. In short, “victimhood” is viewed as a rejection of the golden standard of individualism, and such a change is not accidental. The very method by which activists attempted to recognize systematic injustices is now used to instead reinforce and maintain those systems it was intended to break down. Thus, situations in which individuals or groups such as women might be perceived as deprived of specific rights or justices are instead portrayed as legitimate treatment and further support the hegemonic status-quo.

One common way that we can maintain these paradoxical ideologies is by psychologically creating neutralizations (i.e., justifications) for our thoughts or actions which might otherwise be perceived as unjust, thus protecting us from feelings of guilt or shame. Some have referred to these neutralizations as a protection of self-image (Hoffman, 1976) or a “defense mechanism” (McGregor, 2008, p. 265) and others as a release from the moral bonds of society

(Matza, 1964). Sykes and Matza's (1957) neutralization theory named five "claims" or types of justifications used "in defense of crimes" (p. 666; the five were eventually expanded to thirteen by a number of researchers, e.g., Klockars, 1974; Minor, 1981; Henry & Eaton, 1984; Cromwell & Thurman, 2003), which include statements such as "it's not my fault" (denial of responsibility), "I deserve to behave this way" (claim of entitlement), "they deserve what they got" (denial of victim), and "no one was really hurt" (denial of injury). Research has illustrated, for example, that advantaged individuals who perceive a discrepancy between their group and another tend to minimize group differences or their role in the injustice when possible (e.g., Mikula, 1993; Montada & Schneider, 1989).

#### *Empirically Assessing Deprivation*

Although ARD may derive from different places and produce very different effects from classic relative deprivation, one might assume that deprivation could, in theory, be defined and measured in a similar way to classic relative deprivation by referring to similar cognitive states but adding on a future temporal dimension. That is, like relative deprivation, researchers could refer to beliefs about being deprived but specifically ask about how deprived individuals believe they *would* feel after an anticipated change in privilege relative to a comparison with their current status or relative to others' future status. However, an examination of the relative deprivation literature highlights imprecision in measuring feelings of deprivation, making the extension to ARD less straight forward.

Classic measures of RD have not typically measured how deprived individuals feel or believe themselves to be, but instead have assumed deprivation on the part of their subjects based upon objectively measured discrepancies between the *amount* of a particular privilege (e.g., money) that an individual or group has compared to relevant group members (e.g., Crawford &



Naditch, 1970; Vanneman & Pettigrew, 1972). For example, researchers might measure the number of promotions most employees in the company are getting, compare that figure with the number of promotions a particular employee is getting, and use that discrepancy as the measure of RD of that employee. However, these objective differences do not necessarily match perceived differences, nor do the objective differences necessarily indicate feelings or beliefs about being deprived. For instance, even when studies have measured perceived discrepancies between one's group and other groups, such as whether Whites are doing better than Blacks economically (Vanneman & Pettigrew, 1972), the group differences may be justified or neutralized, and feelings of deprivation rejected. These operational definitions of RD have been criticized in recent years and some researchers have more closely approximated Crosby's original definition by evaluating dissatisfaction with disadvantage (Veilleux & Tougas, 1989), affect and group discontent (Dube & Guimond, 1986), and bitterness and resentment (Crosby, 1982).

Another problem is that few, if any, studies, even those assessing more affective responses to deprivation, have measured deprivation by individual ratings of the actual word "deprived". Reasons for this are not clear, but it is possible to speculate that researchers may believe that 1) individuals will not accurately report feelings of deprivation or that 2) other constructs are reflecting feelings of deprivation. First, I would argue that individuals can accurately respond to items assessing the word "deprived" because it is a common descriptor used by individuals about themselves in everyday conversations. Additionally, people who feel entitled to something that they are therefore deprived of will not feel pressure to underreport this cognitive state due to a sense of social undesirability because it is perceived as a violation of justice rather than as an unsubstantiated complaint. Second, related constructs to deprivation

may not always reflect the concept of deprivation itself. For instance, individuals often perceive more deprivation and are more concerned when procedures (or treatment) are unfair rather than when distribution (or outcomes) of justice are unfair (Lind & Tyler, 1988; Tyler et al., 1997). Dissatisfaction, which is more commonly assessed than “deprivation,” may be related to a number of cognitions about a situation that do not necessarily reflect an unjust disadvantage, such as worry about outcomes (e.g., not being able to pay the next month’s rent). Thus, there is still a need to specifically address cognitive states of deprivation as opposed to other related feelings of discomfort or negativity. I would argue that while deprivation may be referred to as a feeling in common language, it should be defined as a cognition or appraisal that one does not have something they want, need, or feel entitled to have, and can be assessed by straightforward descriptors of “deprived” as well as related cognitions about not having something that one deserves, needs, or is entitled to. Many emotions can result from this appraisal, including anger, sadness, worry, depression, or dissatisfaction, although these are not, in and of themselves, complete definitions of the concept of deprivation.

### ***Relativity***

When people anticipate a loss of privilege, they make assessments about whether that loss will be either unjust (a deprivation) or fair (not a deprivation) relative to some other source of comparison. In other words, anticipated feelings of deprivation arise as a result of what types of comparisons people make. This relativity is what makes the phenomenon of relative deprivation and its derivatives interesting: common sense would tell us that people will feel deprived when they do not have something they feel entitled to have, but it doesn’t explain why, for instance, those surrounded by opportunity might feel more deprived than those who have never been offered a chance. Although individuals can and do choose different sources from

which to compare themselves, it is useful to examine which comparisons typically serve as the ‘default’ both culturally and psychologically. From there we can speculate about other sources of comparison and evaluate models for explaining how one can alter comparisons to reduce anticipatory deprivation and subsequently resistance to change.

### *Normative Information*

As discussed in the previous section on deprivation, there are many cultural or social systems that are meant to uphold a hegemonic status-quo, and these systems emphasize beliefs or value systems which often become the default for the way we think about and view the world. Feminist theory argues that members of dominant groups, such as men and Whites, create laws, beliefs, and norms that serve to maintain their privilege, and that this can be related to fear of or anger at losing dominant status when others “move up” and gain privilege (e.g., Harding, 2004; Jaggar, 1993; 1996). Perhaps the most influential justification created in defense of social hierarchies and exclusion from comparison stem from the social construction of groups of people, such as women, racially or sexually marginalized groups, and even animals or the environment. Certainly there are differences between people, but theorists such as Judith Lorber (e.g., 1994; 2005) argue that the differential characteristics on which we divide individuals into groups, and which we then attach great social meaning, are arbitrary. Thus, social categories such as gender are not natural, inevitable, or necessary for the survival of society. Others, particularly Judith Butler (e.g., 1990; 2004), argue that gender is produced and maintained by constant social enactment (in other words, people “do” gender), which is embedded into the way we understand and interpret our world. Beliefs about the sturdiness and reality of gender are transmitted into our attitudes and value systems, including which type of people we are allowed to love (and not love) in which ways, which types of clothes we are allowed (and not allowed) to

wear, and what things we can do (and not do). Indeed, Lorber argues that conceptualizations of gender tend to ignore diversity among women and men in order to perpetuate the dominant culture on other axes (e.g., race, class), which can lead to an invisibility of the social construction of these categories and legitimize default assumptions about what characteristics are relevant and which are not.

A wealth of more specific research and findings related to default views of the world has been recorded, particularly in the psychological literature on normative assumptions, beliefs, and behaviors. Zarate and Smith (1990) documented biases of the “White male norm” in response times to varying racial and gendered faces. Hegarty, Lemieux, and McQueen (2010) found that information about men or stronger/dominant groups was scientifically graphed and recalled before information about women or weaker/marginalized groups. Similarly, stereotype-congruent information about race or gender tends to go unsaid, while race and gender information that is incongruent with stereotypes is verbally identified (Pratto, Korchmaros, & Hegarty, 2007). Other research has shown that when no social categorical information is given about a target, participants often assume the target to be heterosexual (e.g., McCarl Nielson, Walden & Kunkel, 2000). Research abounds within and outside psychology on the use of language to make invisible the normative default of certain social categories. For instance, we have terms to describe racial minorities in the United States as African Americans, Asian Americans, or even Native Americans, but we do not typically use the term European Americans, because the default assumption is that Americans are of European descent (Devos & Benaji, 2005). Nancy Tuana (1993) has illustrated the ways in which science has normalized the male body in medical language while “othering” the female body and describing biological processes specific to women as weaknesses or inferiorities in order to reflect and uphold social

perceptions of women and men. Thus, system-justifying ideologies consistently disseminate, through a number of mediums, ways of thinking about the world that promote privilege for the advantaged and injustice for the disadvantaged.

#### *How Normative Information Leads to Default Comparisons*

In past theories of relative deprivation, it has been suggested that we make relative comparisons to similar others, and that one individual does not necessarily use the same comparative reference group as another. This would indicate that while social groups such as Whites, males, heterosexuals, or humans are the default in our understanding of what is considered “normal” or “right,” they are not necessarily the groups individuals would compare themselves with when anticipating a loss of privileges. Instead, normative information provides the motives from which we can make decisions about who is relevant. For instance, if gender is an important social reference group, then individuals can make decisions about whether they belong to a normal (male) or marginalized (female) group, make comparisons relevant to that group, and make decisions about whether their current level of privilege is fair or unfair.

Research from the social comparison literature suggests that people choose comparisons based upon their motives (Festinger, 1954). In some situations, if individuals want to feel superior, they choose to compare themselves to those who have less (downward social comparisons), and if they want to set higher goals for themselves, they choose to compare themselves to those that have more (upward social comparison). Thus, members of low-status groups who seek better outcomes are likely making upward social comparisons that result in feelings of (fraternalistic) relative deprivation. Likewise, if individuals wish to justify the privilege they currently have as fair or normal, they will seek out comparisons with others who have about the same amount of privilege as themselves. Specifically, Collins (1996) found that

members of advantaged groups do not compare themselves to disadvantaged groups, and when they do make comparisons, they are with those who have the same or slightly better privileges. Theories related to system-justification discussed previously suggest that individuals who are motivated to see the world and the systems that govern it as fair also wish to view their own outcomes as fair. This may be the reason why women tend to compare their earnings with earnings of other women rather than earnings of men (Bylsma & Major, 1994). Therefore, groups which are normative do not automatically serve as default comparison groups, but rather they inform which characteristics are relevant for creating comparison groups.

#### *How Default Comparisons Lead to Feelings of Deprivation*

Feelings of deprivation arise from perceptions that a situation is unfair. Therefore, default assumptions provide normative information about who and what “counts” and when differences in outcomes (e.g., privileges) are fair or unfair. If comparisons are made with similar others, then privilege is likely to be seen as earned and entitled. Thus, comparisons between what one has and what one will have in the future will produce feelings of deprivation because the current privilege is viewed as an entitlement. However, if comparisons include those with less privilege, it is hard to view one’s relative advantage as fair, unless justifications are created for the differences.

Justifications for differences between groups do not exist as a blanket, but rather justice rules occur based on different situations, violations, and outcomes. These rules have to do with what characteristics warrant justice comparisons in a particular situation. For example, in a work place setting, Americans typically believe that people with a higher education deserve a higher starting salary, but we don’t believe that salary should be determined by height (which is instead a possible characteristic that warrants justice in a different situation, such as ability to go on

certain rides at an amusement park). Thus, when considering whether privileges related to salary are fair, many Americans might choose to make default comparisons with others who are relevant on dimensions of level of education, for instance. In other words, default comparisons which are informed by norms and ideologies are situationally-specific and determine when allocation of privileges are perceived as fair. Alternatively, other Americans might be aware of the myriad barriers to education faced by many marginalized group members, believe that equitable salary distribution will help to address these historical wrongs, and thus oppose using education as a characteristic which warrants justice in this situation. It could be argued, then, that these individuals have broadened their scope of who deserves the privilege of salary allocation to include individuals beyond the characteristic of level of education. Thus, it is important to examine how perceptions of justice rules in different social situations or scenarios play a role in the understanding of one's own privilege, beliefs about entitlement, and anticipated feelings of deprivation.

### *Scope of Justice*

One theoretical model which may be useful for thinking about the broadening of a scope of who should be included in considerations of deservingness of privilege is work on the Scope of Justice (Opotow, 1987; 1990). Considerations of the scope of justice derive from theories on moral inclusion and exclusion; that is, those who are within or “outside the boundary of which moral values, rules, and considerations of fairness apply” (Opotow, 1990, p. 1). This moral boundary can generate good, positive, and equal treatment for those who are morally included, while it can engender physical and mental maltreatment and harm to those who are morally excluded. An individual's scope of justice may be broad in certain contexts (e.g., perceiving that the right to life includes the unborn and those near-death in a coma) and limited in other contexts

(e.g., perceiving that only the wealthy deserve to own a Mercedes). Although scopes of justice can be different for everyone (e.g., vegetarians extend the right to life to all animals whereas meat-eaters do not), they are typically shaped by cultural norms and values (e.g., which animals are considered pets versus food).

Those who are relevant to determining one's own deprivation status can be considered morally included within one's scope of justice because we believe that those within our scope of justice deserve the same rights and freedoms that we do, while those morally excluded outside our scope of justice do not, and are therefore not comparable on characteristics which matter for the giving of rights and freedoms. Therefore, comparisons made to those inside or outside of our scope of justice likely result in different reactions. Determinations that we have more than those *inside* our scope of justice could produce guilt, while determinations that we have more than those *outside* our scope of justice could produce apathy, which is supported by the finding that prejudiced Whites perceive that they have less race-based privilege and feel less White guilt for anti-Black racism than less-prejudiced Whites (Swim & Miller, 1999). These findings could be attributed to the idea that the boundaries of one's scope of justice are produced and upheld by information which tells us which characteristics we believe are important in determining privilege (e.g., race or skin color). If we believe that a characteristic of others grants them privilege or justice, then they are necessarily within our scope of justice. For instance, we may believe that being a sentient creature grants one the privilege to live without pain or deliberate harm from others. In this case, all humans as well as animals would be included in our broad scope of justice for protection from pain and harm. Alternatively, we might believe that only sentient creatures who can take an SAT test deserve to go to college, so our scope of justice is narrowed to only humans relative to the privilege of higher education.



Expanding one's scope of justice may be a particularly effective way of reducing ARD because those who are morally included within the scope of justice are believed to deserve the same associated rights and freedoms as oneself. Opatow (1987) found that individuals are willing to allocate a share of fairness and are willing to make sacrifices to increase others' well-being to those who are morally included in their scope of justice. Thus, if those within the scope of justice have less than the self, then individuals are less likely to continue to view their advantaged levels of privilege as fair. Therefore, when individuals anticipate a loss of privilege, the original level of privilege is no longer viewed as entitled and the change in privilege does not create feelings of deprivation. Additionally, inclusion of others within the scope of justice necessitates a rejection of neutralizations and system-justifying ideologies that justified advantage and excluded those individuals from considerations of fairness in the first place. In other words, to include another person/group (e.g., those with a specific gender or race) within one's scope of justice is to reject the ideologies which described their characteristics as non-deserving of justice.

I should be clear that I am clarifying specific points within the theory of the Scope of Justice in a few subtle ways. First, I believe that Opatow's (1990) definition of the Scope of Justice involves beliefs that the individual perceiver deserves all the rights and freedoms that they extend to others within their scope of justice, however, she does not specifically state that these rights and freedoms are the same as one's own perceptions of what is fair for oneself. Second, Hafer and Olsen's (2003) critique of the definition of the Scope of Justice includes beliefs that the concept should measure *deservingness* of others to be included or excluded, something that Opatow does not specify in the original theory but which I believe she generally

implied in the definition and which I use here.<sup>2</sup> I include both of these definitions in this proposal of how one might engage, modify, or make decisions based on their scope of justice because, as discussed previously, rights and freedoms (i.e., what constitutes “justice”) are not universally agreed upon but rather can vary by individual, community, or culture. The last difference between my definition and the original Scope of Justice theory is that I include the idea of situationally-based justice, something that the original literature does not specifically take into account (although see Deutsch, 1974 for a discussion of moral community being restricted in certain *situations* but not others). As implied by the examples above, we may extend justice to certain individuals or groups in some situations but not others. Thus, it is particularly important to examine which characteristics or groups are considered relevant in the allocation of justice in different social situations or scenarios rather than simply limiting a discussion of the scope of justice to individuals or groups who are either morally included or excluded from one’s overall scope of justice.

#### *Different Forms of Relativity*

*Relativity to the self.* As mentioned previously, theories of relative deprivation typically assert that we either make comparisons with others or comparisons with our past selves. However, I argue that when individuals are anticipating feelings of relative deprivation, they are making comparisons with both the self *and* others. Individuals will anticipate changes in their own personal privilege relevant to what they currently have. The determination of whether this change in privilege constitutes a deprivation, however, is defined by the relevant comparisons

---

<sup>2</sup> This definitional critique on the part of Hafer and Olsen (2003) comes largely from their belief that a theory regarding Scope of Justice should include all forms of justice, including justice beliefs related to vengeance, reparations, and negative outcomes. Therefore, they assert that *deservingness* is an alternate concept being tested by the Scope of Justice literature that is outside the original definition. However, I believe it fits quite well with the original concept of the Scope of Justice if one is to differentiate between justice as vengeance and justice as a socially meaningful outcome based on definitions of basic human rights and well-being (which, I believe, Opatow’s original theory was meant to do).

made with others. If relevant others are chosen who have comparable levels of privilege with one's current privilege, then one's current level of privilege can be perceived as fair and an anticipated reduction in that privilege as a deprivation. Alternately, if relevant others are chosen who have less privilege than one's current privilege, then one's current level of privilege will be perceived as unfair and a reduction in that privilege will not result in feelings of deprivation.

Despite that comparisons with relevant others are what drive feelings of ARD, a history of privilege may decrease our willingness to extend relevant comparisons and expand our scope of justice. Specifically, the longer someone has a certain privilege, the more likely that person is to become used to the privilege, potentially viewing it as a necessity rather than a luxury. This personal history may impede an individual's ability to extend comparisons to those who currently do not have this privilege. Such a trend is apparent in, for example, research illustrating the electrical appliances and technologies that are perceived as necessities versus luxuries (PEW, 2006). In general, things that have been around longer (e.g., cars, clothes washers/dryers, air conditioning) tend to be perceived as more of a necessity than things which are newer (e.g., high speed internet, flat screen TV, iPods), and each object's perceived necessity generally increases over time. Additionally, the greater a family's income, the more items are considered to be a necessity, and the occurrence of owning an object is positively related to claiming that object as a necessity rather than a luxury. Further, research on post-decision making dissonance indicates that people value something once they have it more than they valued it when they did not yet have it (e.g., Brehm, 1956). Therefore, the feeling that certain privileges are necessary may lead individuals to create stronger justifications for why they are entitled to their current privilege and to be less likely to expand their scope of justice to those who have less privilege. In other words, having a long history of advantage may be more likely

to predict feelings of relative deprivation due to a larger difficulty in expanding the scope of justice.

*Relativity to different people.* The question of whether another individual or group is relevant to the perceiver is one that could perhaps be answered by a number of psychological theories which delineate between “insiders” and “outsiders” or “in-group members” and “out-group members.” For example, Social Identity Theory (SIT; Tajfel & Turner, 1979) and Self Categorization Theory (SCT; Turner et al., 1987) focus on how social identities (i.e., social group memberships) feed the desire for a positive self-concept through the creation and building up of positive attributes of the group with which one identifies. Additionally, both SIT and SCT argue that determination of relevant group members (i.e., in-group members) is context-dependent and the plasticity of group membership is illustrated by the minimal group paradigm. Here, individuals are more likely to support and give benefits to others who are arbitrarily and temporarily placed in on their “team” than to individuals with whom they share a strong socially-derived group membership (e.g., race or gender). In other words, we can have a multitude of social groups with whom we identify, and the group(s) which are currently relevant are a product of the situation.

Social Identity Theory can be considered a theory of social change because it works to explain social action on the part of marginalized groups (Hornsey, 2008). Leets (2001) proposed that limits to the scope of justice (presumably among the advantaged) could be a product of issues relating to a limited relational perspective (e.g., Tajfel’s social identification, 1982), but the theory does little to explain why advantaged group members might wish to expand their circles of social identification to those who are disadvantaged. Meanwhile, research on relative deprivation (e.g., Runciman, 1966) has shown that individuals and groups often compare

themselves to those who would, under social identity theories, be considered “out-groups,” but who nonetheless are relevant for making important comparisons about deservingness of privilege. Additionally, SIT/SCT theories may take into account issues of distribution of privilege and status by defining when and why individuals may choose to identify with certain social groups, but they are not as clear in defining when and why privilege and status distributions toward others are perceived to be fair or not fair. Therefore, while both social identity theories and scope of justice involve issues of relativity of other groups to the self, the scope of justice literature may be better suited to a discussion and manipulation of ARD because it more specifically captures and explains justice rules, especially for individuals or groups who are considered “out-groups” within SIT/SCT. Additionally, social identity theories have thus far only been extended to human groups, despite that feelings of deprivation can be impacted by concerns towards other groups such as animals or the environment. One exception is Plous’s (1993; see below) work which does not directly utilize social identity theory but does discuss animals as “out-groups,” although no work has, to my knowledge, ever considered the natural environment as a group with which to socially identify. Thus, a theory that discusses characteristics which warrant justice and the extension of moral inclusion or exclusion, such as the scope of justice, might be better suited for examining and testing perceptions of deservingness, entitlement, and deprivation.

*Relativity to animals and the environment.* A few researchers in recent years have begun to consider justice towards non-human groups and entities. Plous (e.g., 1993, 2003), for example, has extended psychological research on humans to understand the mechanisms which undermine our thoughts, feelings, and actions toward animals. He argues that animals are often perceived as out-groups in much the same way as derogated human groups. For instance, the use

of animals for scientific research or as creatures of burden meant to assist humans in manual labor, or common perceptions that animals experience less pain than humans or enjoy being used, closely parallel the treatment of African American slaves by European Americans in our not-so-distant history. Likewise, principles regarding intergroup relations between humans apply to animals such that out-group members are more likely to be perceived as inferior (Brewer, 1979) and perceived to share more between-group differences than within-group differences (Tajfel & Wilkes, 1963). Yet humans do sometimes identify with animals (or specific animals) and often report caring about animals (Plous, 1993), indicating that our scope of justice can be extended to animals in certain contexts. For example, animals fall outside the scope of justice in the realm of education for those who do not believe animals deserve this privilege, despite that they might care strongly about and identify with animals in other ways. In other cases, we may extend our scope of justice to animals when they share characteristics with humans that we believe warrant privilege or fair treatment.

Perhaps an even further step is extending scope of justice beyond animals to the natural environment. It may sound strange to assert that things which have no living memory, consciousness, or ability to feel emotions, deserve justice. However, work on environmental attitudes and concerns suggests that some perceive the natural environment to deserve certain considerations of justice. For example, people can value nature at a cultural or individual level (Schwartz, 1999; Ros, Schwartz & Surkiss, 1999) feel connected with nature both explicitly (Dutcher, Finley, Luloff & Buttolph Johnson, 2007) and implicitly (Schultz, Shriver, Tabanico & Khazian, 2004), be concerned about the preservation of nature (Milfont & Duckitt, 2006), or be concerned about the impacts of global climate change specifically on the biosphere (Schultz, 2001). Some have argued that anthropomorphism must be rejected and ideals of human liberty

be applied to nature (Nash, 1989) or defined the rights of nature as “the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution” (Revkin, 2008). Further, research has begun to illustrate how system-justifying ideologies can legitimize or make invisible abuses toward the environment and hinder people’s motivations to engage in pro-environmental actions (Feygina, Goldsmith, & Jost, 2008).

Despite that animals and the environment are not normally included as referent groups in analyses of relative deprivation, they can easily be identified as such when using scope of justice theory to assess relativity. Such an inclusion is not even a stretch: Opatow has extended her work on the scope of justice for some time to assess the moral inclusion of animals (e.g., Opatow, 1987; 1993) and nature (e.g., Opatow & Clayton, 1994; Clayton & Opatow, 2003) by humans. Not only do these theoretical arguments contend that animals and the environment deserve specific rights and positive treatment in and of themselves, but injustice towards animals and particularly the environment also have far-reaching impacts on humans both around the world and in the future.

#### *Who’s Standpoint Counts?*

A final consideration on relativity, and one that has particular underpinnings in feminist theory, regards the issue of from whose perspective privilege and justice are defined. There exists a fine line which feminist scientists walk which balances between making assumptions about what is “true” or “right” in the world, and avoiding male, White, heteronormative, and privileged viewpoints which are promulgated to uphold power structures and continue to marginalize other groups. This is a specific critique aimed at the scope of justice theory by Hafer and Olsen (2003): that social justice research is defined by the researcher on behalf of the perpetrators and targets of the supposed injustice; and that the assumed perpetrators, and even

often the targets, do not view the actions or situational characteristics as unjust. On the contrary, they argue that supposed perpetrators (and sometimes even targets) often see their actions as pursuing justice rather than violating it, and such perspectives should be taken into account. So whose perspective is correct?

Feminists such as Sandra Harding (e.g., 2004) have argued through feminist standpoint theory against assumptions of objectivity in science and other disciplines, citing that the predominant production of knowledge in these fields excludes social factors and the lives and knowledges of marginalized groups, therefore perpetuating their marginalization through scientific “truth.” However, that is not to say that scientists should discontinue to study the world or that they cannot arrive at a certain objectivity in their work. Harding and other standpoint theorists argue that we must begin with the experiences of the marginalized in order to produce a broader body of knowledge from which we can then draw a stronger objectivity. Others such as bell hooks (1984) have made even clearer statements claiming that we must look to those who are the most marginalized and oppressed and adopt their perspectives to understand the true nature of the social world. Even Hafer and Olsen contend that researchers should not ignore their own “moral concerns, and a desire to understand and to change what they deem to be objectively unjust acts” (p. 317). This, in addition to considerations about capabilities, may help address how people are able to understand justice towards and speak on behalf of non-human entities such as animals and nature.

Thus, we should not throw away all hope of scientific objectivity or disregard research endeavors in which perspectives and viewpoints may differ. Rather, we should be aware that there are multiple perspectives, particularly in the pursuit of the study of justice, and strive to acknowledge where our research falls. While this dissertation work primarily focuses on



dominant and/or privileged individuals or groups, it hopefully shines a less common light upon their actions which have the potential to help or harm those in lesser positions of power. To posit the advantages and privileges of some in our society as “privileges” rather than “earnings” and to name their beliefs about ownership of those privileges as feelings of “entitlement” rather than “deservingness” is perhaps to take the disadvantaged perspective. While this perspective may not be shared amongst everyone, it at least presents an alternative rhetoric to traditional ‘objective’ views in scientific research and perhaps adds to a broader body of knowledge that feminist theorists strive toward.

#### **IV. Implications for Reducing Anticipatory Relative Deprivation**

Despite the argument proposed here that anticipatory relative deprivation can lead to negative outcomes, one of the benefits of psychological occurrences such as ARD is that the occurrence of the phenomenon is dependent upon who or what is considered a relevant comparison. Although it is not possible to change an individual’s history or current level of privilege, it might be possible to change the amount of entitlement that an individual feels about that privilege by changing their relevant comparisons. This change in comparison could occur by expanding one’s scope of justice. That is, if we are able to expand our scope of justice to those with less privilege, our advantage may become apparent and be perceived as unfair or unjustified. In this way, it will no longer matter if an individual anticipates a reduction from current to future privilege, because such a change will no longer represent a loss of an entitlement and thus will not feel like a deprivation. While it has been presented in myriad ways, research and academic discourse has captured many instances of individual or cultural expansions of the scope of justice and illustrated the resulting willingness to forego personal privilege in order to increase justice for others, which I detail below.

### *Examples of an Expanded Scope of Justice*

Research has demonstrated that advantaged individuals who are aware of a discrepancy in privilege between themselves and someone they perceive is similar to them on some relevant dimension may be motivated to reduce this discrepancy to avoid social or personal condemnation of injustice (Heider, 1958; Exline & Lobel, 1999). Research within the scope of justice has illustrated that pluralism, the willingness to accept that people have different viewpoints and beliefs, helps to deter moral exclusion (Opatow, 1993). More generally, Schwartz and colleagues (1999) have demonstrated that individuals and cultures can hold values which are self-transcendent and motivate enhancement of and protection for the welfare of others around the world, animals, and the environment. Such values have been linked to individual increases in pro-environmental behavior (Steg & Dreijerink, & Abrahamse, 2005; Swim & Becker, 2011; Crompton, 2008) and cultural-level increases in women's equality, pro-environmental behavior (Bloodhart & Swim, 2010), and better protection of children's welfare currently and in the future (Kasser, 2011). At an even broader level, work and discourse in feminist theory is in itself a quintessential representation of the ability to expand the scope of justice and morally include others. That is, the ability and desire of feminists to deconstruct normative assumptions and viewpoints in order to expose injustices towards marginalized groups and create equality results from finding those who are most marginalized in society as relevant to concerns about justice and privilege. Feminists argue that in order to be feminist we need to reflect on the perspectives of others and consequently include those perspectives within our own considerations of what is "fair" and "right" (e.g., self-reflexivity), or, said differently, include them within our scope of justice. Thus, research on ARD is particularly relevant to feminist discourse because it examines an important barrier to feminist ideology: that those with privilege are inclined to maintain that

privilege and do so through a psychological understanding and projection of the world which supports the status-quo.

Research has also demonstrated a number of relevant outcomes for those with an expanded scope of justice and highlights the potential benefit for reducing ARD. For instance, the lack of perceived relative deprivation for oneself can lead to a concern for the perceived relative deprivation on behalf of others (Runciman, 1968). Tougas and Veilleux (1987), for example, measured relative deprivation of men (advantaged group members) after the introduction of an affirmative action policy for women in the workplace. They found that men who did not feel relative deprivation on behalf of their own group were more likely to perceive relative deprivation on behalf of women (the disadvantaged group) and were more likely to support the social action (i.e, the affirmative action policy). This research also suggests support for ARD because the authors propose that men who reject relative deprivation on behalf of others make temporal comparisons between what they had before the affirmative action policy and what they have once it is enacted, although they do not directly hypothesize about or test the effects of anticipating such deprivation before the enactment of the social action policy.

### ***Ways to Expand the Scope of Justice***

Research also suggests that one's scope of justice can be expanded through studies on reducing prejudice and discrimination. For instance, the better you come to know members of a stigmatized group, the less likely you are to hold prejudiced attitudes toward that group, presumably because increased contact helps to break down some of those widely held beliefs (or stereotypes; Allport, 1954). Thus, people seem to be able to reject system-justifying ideologies that they have previously held, at least in relation to the group with which they have made contact, because they can observe evidence to the contrary. Tajfel and Turner's (1979; 1987)

work related to social identity points out that boundaries of who (and what characteristics) are included within one's social identity are situationally-dependent and highly permeable. This indicates that people can (relatively easily) cognitively re-categorize who "counts" and who doesn't in a particular scenario. This was demonstrated in a recent influential field study, in which Paluck (2009) broadcast a radio program in several Rwandan villages depicting intergroup cooperation, friendship, and family connections between two previously adversarial tribes: the Hutu and Tutsi (the targets of the 1994 Rwandan genocide). While one year after the broadcast personal beliefs were unchanged, social norms regarding intergroup marriage, trust, empathy, cooperation, and healing were significantly improved compared to those who heard a different type of broadcast (about HIV/AIDS). As social norms are argued to be an important factor in the development of prejudice and conflict, this study provides encouraging results for an on-going effort to reduce group-based exclusion and ultimately broaden the scope of justice.

To understand what specific components might work to expand the scope of justice, Opatow (1995) has named three antecedents to the scope of justice: utility, similarity, and conflict. In other words, increasing a sense of usefulness and value of others, increasing perceived similarity, and decreasing conflict between groups are predictive of moral inclusion within the scope of justice. Although these three antecedents have only been shown to be correlated with an expanded scope of justice, it is possible that they could be manipulated via methods used in popular prejudice reduction paradigms in order to alter the scope of justice. One such method is empathic perspective taking. Opatow (1995) has suggested that engaging in perspective-taking exercises with those who are morally excluded can help to change perceptions of utility and similarity, and reduce feelings of conflict. Likewise, Batson and colleagues (e.g., 1997) have argued that empathic responses toward out-group members increases favorable

attitudes and decreases prejudice, and have demonstrated that perspective-taking increases empathy; an effect which has been replicated with a number of different groups and social conflicts (e.g., Pettigrew & Tropp, 2008; Hewstone et al., 2004). Specifically, perspective-taking exercises toward a target group have been shown to reduce prejudice among human groups (Galinsky & Moskowitz, 2000), as well as increase environmental attitudes and behaviors when directed toward animals and trees (Berenguer, 2007).

Another method for reducing prejudice is increasing perceived similarity between individuals or groups. Perceived similarity has been argued as important for increasing awareness of “common goals,” “common interests” and “common humanity”, and particularly emphasizes status, authority, and goals (Allport, 1954). Others have specified that becoming aware of similarities with others helps to close the gap of psychological distance and decreases apathy towards the outcomes of others (Brown & Lopez, 2001). For instance, activities which require participants to think about and list similarities between themselves and out-group members have been shown to increase helping behavior (Sole, Marton, & Hornstein, 1975).

Finally, a history of social psychological research has shown intergroup cooperation to increase positive attitudes toward others and decrease prejudice, ostensibly by changing perceptions that people from two groups belong to one common group (Gaertner & Dovidio, 2009). For example, Sherif and Sherif's (1969) classic study at a boy's summer camp found that cooperation, rather than competition, between two arbitrarily-formed groups led to greater liking and respect for others. Similarly, Gaertner and colleagues (1990) found that cooperation led previously divided groups of lab partners to increase feelings of liking and beliefs about honesty and trustworthiness toward out-group members, and importantly, perceive the original two groups as one after the cooperation task.

Therefore, the current studies proposed in this dissertation will adapt useful approaches to prejudice reduction, including perspective-taking, salience of similarities, and inter-group cooperation in order to attempt to influence the antecedents of utility, similarity, and (lack of) conflict. However, it is important to note that efforts to address and reduce prejudice are more often undertaken with members of groups that have the chance to meet in person and interact with one another (at least to some extent) in their everyday lives, and has only more recently been extended to non-contact groups (see, for example, research on extended group contact; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997; and imagined group contact; Turner, Crisp, & Lambert, 2007). Research suggests that psychological distance plays a role in our beliefs, attitudes, motivations, goals, and behaviors (e.g., Miller 1944; Lewin, 1951), and can impact our tendency to judge others (Eyal, Liberman, & Trope, 2008), our emotional intensity and closeness to others (Van Boven, Kane, McGraw, & Dale 2010), and our judgments of fairness (Anderson & Patterson, 2010). Thus, extending scope of justice to groups who are both physically and psychologically distant, such as people in different countries, animals, or the environment, may be particularly challenging and might therefore require the use of several combined approaches to make an impact. Additionally, because of these barriers, effect sizes for changes in scope of justice to those who are physically distant might be smaller than would otherwise be seen in traditional prejudice-reduction paradigms which utilize real life inter-group contact and cooperation tasks.

### ***Additional Components for Reducing ARD***

While necessary, expanding an individual's scope of justice is likely insufficient to reduce feelings of ARD and to motivate action on its own. Additional knowledge on behalf of the individual is needed. First, one must be aware that those who are now morally included in

the scope of justice are experiencing injustice. In other words, people need basic information about the experiences of others in order to feel concern or outrage for their situation. While such a point might appear obvious, it is important to attend to such basic information as people are sometimes unaware that harms toward others are occurring, due to, for instance, the impacts of global climate change (Pugliese & Ray, 2009). However, awareness without expanded scope of justice is not likely to be sufficient either. If one receives information that others are being harmed, but those others continue to be morally excluded from one's scope of justice (i.e., their scope of justice has not been expanded to include those harmed), they will not be motivated to correct the injustice because they don't extend justice or fairness to those individuals or entities. When awareness is raised and scope of justice is expanded, I anticipate that people will care about those harmed and be motivated to help them. However, I anticipate that the immediate solution will be to increase the privileges of those experiencing injustice, rather than to decrease one's own privilege, because individuals are not likely to want to give up their own privilege unless it is the solution to the injustice.

A second factor that needs to be taken into account in order to diminish ARD and increase willingness for the subsequent reduction in one's own privilege is an association between one's privilege and the harm or injustice towards an individual or group one cares about. Psychological research indicates that people are willing to be self-sacrificing and to help others within their scope of justice (i.e., those that they feel deserve the same outcomes as themselves; Opatow, 1987). In specific instances, it is necessary for people to give up their privileges so that others can have justice. For example, Americans' overconsumption of natural resources deprives citizens of other countries equal access and use of resources. Alternately, the privileges of some might decrease different privileges of others. For example, the privilege of

driving a car pollutes the environment and contributes to global climate change, which can impact the privilege of having clean air and water for other people, animals, and the environment. Thus, I anticipate that when individuals perceive a harm towards those that are morally included within their scope of justice *and* recognize that their privilege contributes to that harm, they will no longer feel entitled to their privileges and ARD will be reduced.

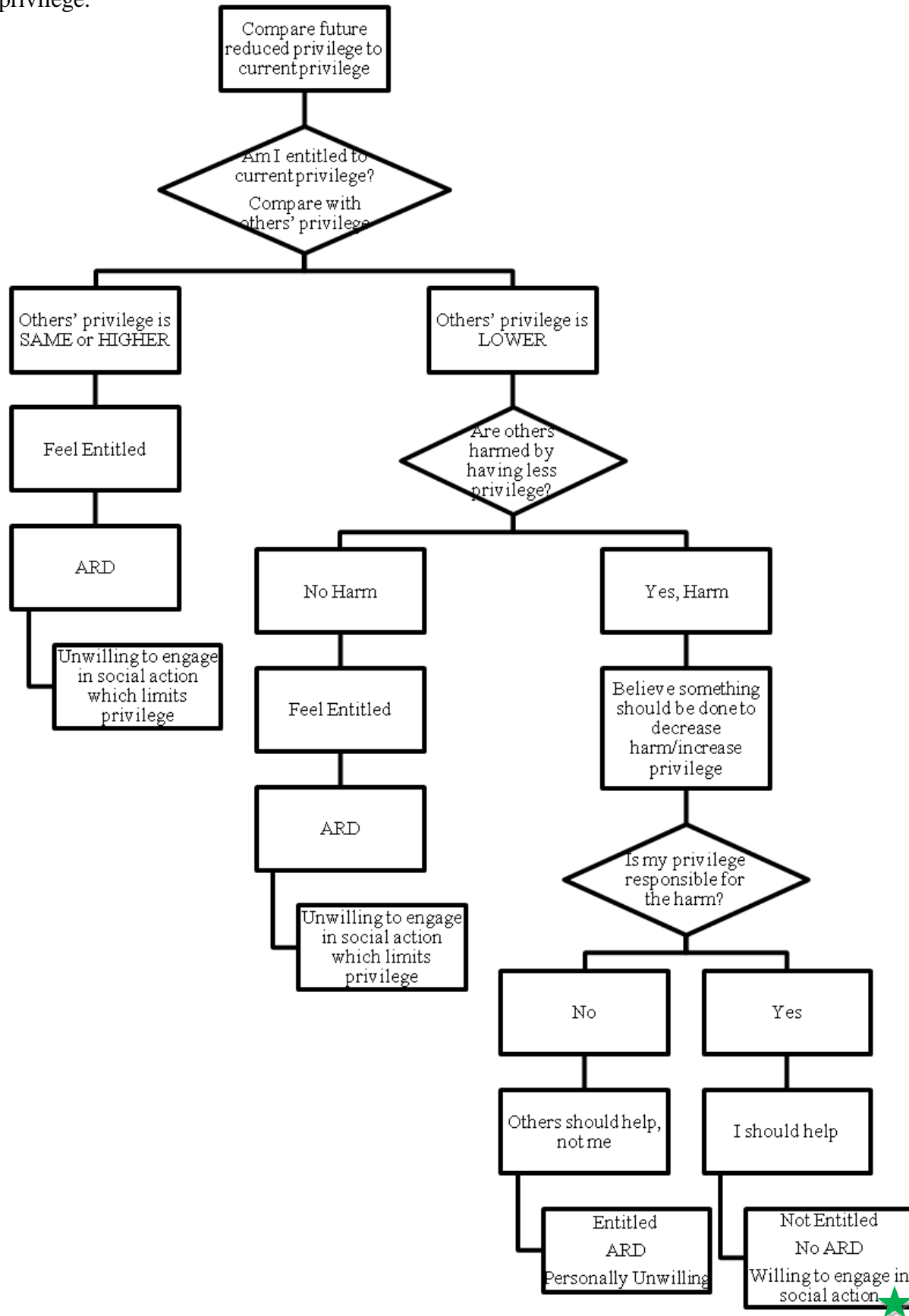
Such antecedents for policy support are specifically supported by research on the value-belief-norm theory (Stern, Dietz, Abel, Guagnano, & Kalof, 1999). These researchers found that accepting the basic values of a movement (i.e., valuing targets which are affected by a movement), believing that valued targets are threatened or harmed, and believing that one's actions can decrease the threat/harm are together predictive of support for environmental movements. Research on group-based guilt also supports the requirement of these criteria for willingness to address group-based differences. Two criteria, awareness of harm and accepting responsibility, have been demonstrated to be important predictors of group-based guilt for differences in privilege which in turn predicts engagement in social activism is supported in research by Mallet and Swim (2007; 2008). This work also points to the importance of perceived lack of justifiability for these group-based differences. One could argue that this lack of justifiability is akin to an inability to maintain a limited scope of justice. Thus, when people recognize that inequalities are based on unfair criteria (such as race or skin color, as opposed to level of intelligence or laziness), this deconstructs the rationales used to deny justice and enables people to see their privilege as unfair. Both research examples strongly support that knowledge of harm and an awareness that one's behavior is connected to the harm, in addition to expanding one's scope of justice or concern for others, leads to positive social change, which I argue is possibly via a reduction in ARD.



## V. Present Research

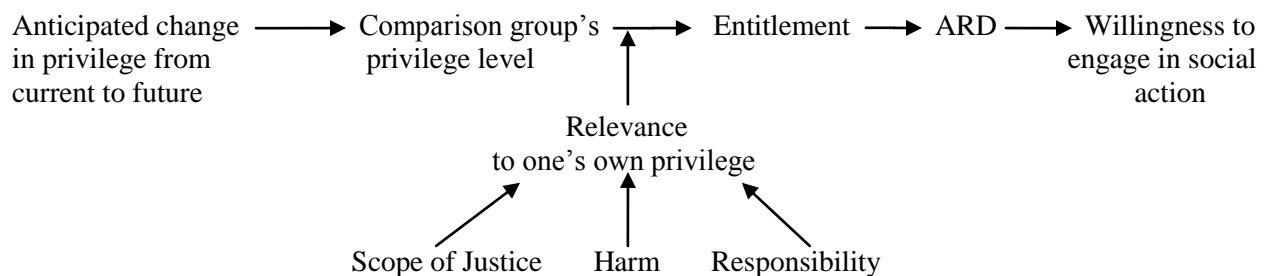
I propose that when individuals are asked to engage in a behavior which will reduce their privilege, they will follow a number of steps to determine whether they are entitled to their current level of privilege (see Figure 1). They will first compare their future reduced privilege to their current privilege, in order to determine if such a reduction is fair. However, they will need additional information about whether they are entitled to their current privilege, which they will obtain by making comparisons with others. If the comparison group has similar or more privilege than the individual, then they will feel entitled to their current privilege. This entitlement will predict feelings of ARD and subsequent willingness to engage in social action which reduces their privilege. If the comparison group has less privilege, then additional information is needed. If the individual does not perceive the group to be harmed, then they will continue to feel entitled, feel ARD, and being unwilling to engage in social action. If they do perceive the group to be harmed, then they will be concerned about the group and want others to help the group (in the absence of responsibility information). If they have information about harm *and* responsibility for their privilege being connected with the harm toward the group, then they will feel less entitled, less ARD, and more willingness to engage in social action which reduces their privilege. In other words, individuals must pick a comparison group with less privilege (via an expanded scope of justice), know about harms to the group, and know that their privilege is connected with harms toward the group, in order to be willing to give up privilege and engage in social justice action. This end goal is illustrated on the bottom right end of the model with a green star.

Figure 1. Flow chart of decisions when asked to engage in behavior which will reduce personal privilege.



The above model is useful in outlining the step by step process proposed in this dissertation, but is not set up in such a manner that illustrates how it would be empirically tested. Thus, a second illustration of this process can be seen in Figure 2. After one anticipates a change in their privilege, they seek out a comparison group to help interpret the change and whether the change represents a deprivation. Although a default comparison group may be people in similar circumstances as oneself, a range of comparison group choices are possible. The effect of a possible comparison group on decisions about whether one is entitled to one's current privilege is a function of whether the comparison group is seen as a relevant group for comparison. The extent to which the group is a relevant comparison group for one's own current level of privilege is a function of whether one's scope of justice is broad enough such that the justice rules applied to oneself are extended to the group, whether one perceives that the group is harmed, and whether one perceives that one's privilege is connected to the harm (i.e., responsibility). Finally, entitlement predicts ARD and experiencing ARD influences one's acceptance of the anticipated reduction in privilege. This acceptance or rejection can take the form of resisting or engaging in social action related to the privilege. Each of the studies that will be conducted assesses different parts of this process.

*Figure 2.* Predicted mediation and moderation pathways.

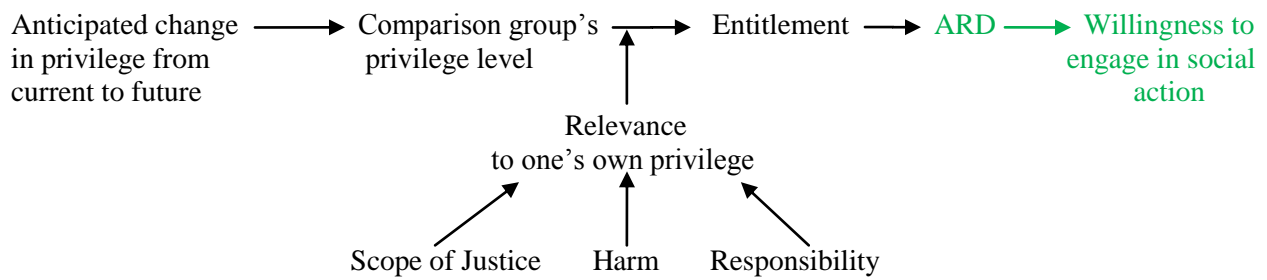


The goal of this dissertation work is to A) explore anticipatory relative deprivation as a psychological barrier to willingness to reduce one’s own privilege (study 1), B) explore how relevance of others affects anticipated feelings of deprivation (studies 2 and 3), and C) test whether expanding one’s scope of justice, increasing knowledge about harm, and increasing knowledge about the connection between one’s own privilege and reducing harm (i.e., responsibility) may reduce anticipated feelings of relative deprivation and, subsequently, increase willingness to reduce one’s own privilege (study 4).

**VI. STUDY 1**

Study 1 examines the correlation between feelings of ARD and willingness to reduce one’s own privilege via supporting policies or changing personal behaviors. More specifically, Study 1 will examine the outcome part of the last two steps of the process: that is, whether feelings of ARD for a specific privilege predict willingness to engage in social action which reduces the specific privilege. A range of topics are examined to test the generalizability of this association across several current social justice issues in the United States.

Study 1:



I predict the following:

H1: There will be a negative correlation between ARD and willingness to engage in social action such that the more an individual feels ARD about a specific privilege, the less they will engage in social actions which reduce that privilege.

I propose to study multiple social justice issues because I argue that ARD can be a barrier to a broad array of social injustices. Advantaged individuals may not always perceive that some issues will directly impact specific privileges, but they may be aware that they would feel deprived of something they value if policies meant to address the social issue were put in place. Likewise, privileges involved in different social justice issues might not be the type of concrete privileges which are easy to identify, but that does not mean they cannot be experienced as a type of privilege. For example, people who think only heterosexual couples should be allowed to get married likely believe that there is a certain sanctity or divine law about marriage that must be upheld, and likely protect the privilege of legal heterosexual marriage because it is associated with a privilege of status, superiority, sanctimony, or religious doctrine that they feel they might otherwise lose if same-sex marriage were to be legalized. On the other hand, universal healthcare might involve the feeling or concern that one would lose “something,” although individuals may not be able to specify what that “something” is. Yet, such an unknown loss of privileges still might produce feelings of ARD when contemplating the implementation of socialized healthcare policies. Therefore, Study 1 tests feelings of ARD and behavioral willingness or support for policies which address a variety of current social justice issues.

## **Method**

### *Overview & Design*

If anticipatory relative deprivation acts as a barrier to engagement in social justice action, then higher levels of ARD for a specific privilege should be related to lower engagement in social actions that limit that specific privilege. This correlational study examined whether ARD is negatively related to engagement in social action for five common social justice issues: global climate change/environmental protection, universal healthcare, same-sex marriage, affirmative

action for women in the workplace and affirmative action for ethnic minorities in college admissions. It assessed feelings of ARD and support for specific behaviors and policies related to each issue.

### *Participants*

Participants were 99 American adults who were recruited and paid for their participation through Mechanical Turk (Mturk; [www.mturk.com](http://www.mturk.com)). Mturk is a crowd sourcing webpage where people can sign up for work for on-line surveys for minimal pay (e.g., around \$0.01 per minute), and is most typically used by people to participate in interesting tasks, combat boredom, or as an alternative to surfing the internet (Buhrmester, Kwang, & Gosling, 2010). Participants were 58 women, 34 men, ages between 18-68 (mean 36 years old), 70% White, 6% Black, 9% Asian, 5% Latina/o, 1% Indian, and 2% mixed. Participants reported being 39% Liberal, 26% Conservative, and 28% non-partisan or not interested in politics, had a mean income between \$25,000- \$60,000, were most likely to have attended some college or received a bachelor's degree, and were most frequently employed full time. Pilot testing indicated that the survey took somewhere between 5-10 minutes to complete, therefore each participant was paid \$0.10 to complete the survey.

### *Procedure*

After consenting to participate in an online survey about opinions and reactions to current social issues, participants were presented with fifteen behaviors or policies to address social issues/injustices (three behaviors or policies per each of the five social issues: reducing climate change; increasing universal healthcare; legalizing same-sex marriage; implementing affirmative action for women in the workplace; and implementing affirmative action for ethnic minorities in all college admissions). The first behavior/policy always asked participants about being required

to donate a small percentage of their paycheck to the social cause. The second and third behaviors/policies were specific to each specific social issue (see Appendix A for all behaviors/policies). Participants filled out the ARD scale as well as a 1 item measure of willingness to engage in each of the behaviors or support each of the policies. Finally, participants were asked to fill out demographic information (age, ethnicity, gender, current state of residence, sexual orientation, religious affiliation, political affiliation, education level, and occupation/income). They were then given a short debriefing about the purpose of the study and a code to receive payment through the Mturk website.

### *Measures*

*Anticipatory Relative Deprivation scale.* Participants were asked to indicate how they anticipate certain feelings or reactions when required to do specific behaviors that contribute to social justice. These feelings were rated on an eleven point scale (0 indicating “not at all” and 10 indicating “very”) and assess items of “unfair”, “like my rights were violated”, “dissatisfied”, “deprived of what I need”, “like I don’t deserve this”, “fortunate to be able to support this cause” (R), “like I benefitted” (R), “uncertain”, “afraid of not having something” and “satisfied” (R). Exploratory factor analyses revealed 3 consistent factors: a deprived factor (including items of “unfair”, “like my rights were violated”, “dissatisfied”, “deprived of what I need”, “like I don’t deserve this”, and “afraid of not having something”), a positive factor<sup>3</sup> (including items of “fortunate to be able to support this cause” (R), “like I benefitted” (R), and “satisfied” (R)), and uncertainty (1 item). Because positive items and uncertainty were separate factors and not

---

<sup>3</sup> It is possible that reverse-scored items did not load on the same factor as forward-scored items because of lack of attention by participants (although some participants were dropped in later studies for not paying attention, these factor loadings were consistent across all studies in this report). However, these reverse-scored (positive) items are arguably relevant to the concept of deprivation and should be explored further.

reverse items of the deprivation factor, the ARD scale was reduced to just those items in the deprivation factor (Cronbach's alpha = .91)<sup>4</sup>.

*Engagement in social issues.* Directly after completing the ARD scale, participants were asked, for each of the 15 behaviors/policies: “How willing would you be to [engage in the behavior/support the policy] listed above?”

## Results

Bivariate correlations were conducted between average ARD scores for each behavior/policy and willingness to engage in or support that behavior/policy. Results indicate that the more participants reported ARD, the less willing they were to do each of the behaviors or support each of the policies (see table 2). These findings represent  $R^2$  values between 30% - 68% of the variance in willingness explained by anticipatory relative deprivation.

## Discussion

Study 1 indicates that, as predicted, anticipating feeling deprived when thinking about having to engage in a behavior or support a policy which promotes social justice is related to less willingness to engage in or support that behavior/policy. Across five social justice issues and among three different behaviors or policies per issue, the evidence suggests that ARD is strongly linked to a decline in willingness to support or engage in social action. Estimates of effect size ranged from moderate to quite large effects being explained among all of the 15 behaviors/policies. This provides good empirical support for the idea of ARD being linked to social action and a solid foundation from which to further explore the mechanisms of ARD in subsequent studies.

---

<sup>4</sup> Analyses were also conducted to test whether the ARD scale was assessing the concept of “deprived” rather than general dissatisfaction by testing the single item “deprived of what I need” as an outcome measure. “Deprived” correlated highly with the overall ARD scale (average  $r = .94, p < .001$ ) and had consistently similar correlations with willingness as the ARD scale (average  $r = .65, p < .01$ ).



Table 2: Bivariate correlations between ARD and willingness to engage in or support each of the 15 behaviors/policies.

<b>Policy or Behavior</b>	<b>ARD – Willingness Correlation</b>	<b>Alpha for ARD Scale</b>
CC1	-.772**	$\alpha = .933$
CC2	-.750**	$\alpha = .945$
CC3	-.694**	$\alpha = .952$
HC1	-.757**	$\alpha = .945$
HC2	-.747**	$\alpha = .953$
HC3	-.744**	$\alpha = .949$
GM1	-.629**	$\alpha = .925$
GM2	-.827**	$\alpha = .974$
GM3	-.761**	$\alpha = .971$
AAW1	-.724**	$\alpha = .950$
AAW2	-.550**	$\alpha = .921$
AAW3	-.667**	$\alpha = .945$
AAC1	-.702**	$\alpha = .934$
AAC2	-.692**	$\alpha = .936$
AAC3	-.749**	$\alpha = .955$

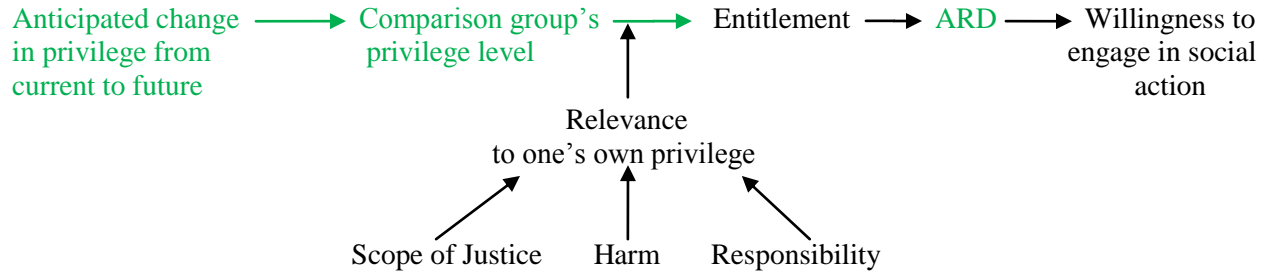
\*\* significant correlation at  $p < .01$

## VII. STUDY 2

The purpose of Study 2 was to assess who individuals naturally or typically select as a comparison to themselves and the implications of the chosen comparison group for personal feelings of ARD. More specifically, it examined the assertion that most individuals' natural default is to pick a comparison group which has similar levels of privilege as they have, which would allow them to justify their current and future possession of those privileges. Additionally, this study examined the hypothesis that the privilege level of an individual's choice of comparison group(s) is subsequently related to their likeliness to feel ARD when considering a specific social justice issue which limits that privilege. That is, feelings of ARD are dependent

upon the amount of privilege a comparison group has with greater privileged comparison groups resulting in more ARD.

Study 2:



I predict that:

H2a: More participants will pick a comparison group that does not have a significantly different amount of privilege from their own privilege than those who will pick a comparison group that has a significantly different amount of privilege from their own privilege.

H2b: Those who pick a comparison group with less privilege than the participant will demonstrate a negative relationship between feelings of ARD and the discrepancy between self and other's privilege, while those who pick a comparison group with the same or more privilege than the participant will report consistently high levels of ARD.

One possible privilege related to the social justice issue of climate change is the over-consumption of fresh/potable water. Although the saving of water in one region of the world does not directly affect the ability for people on the other side of the world to have access to more water, it does help decrease environmental impacts by decreasing the amount of water that must be pumped, recycled, or heated. As such, saving water also helps to save energy, which

more directly impacts climate changes and consequences for other people, animals, and the environment. It also ensures that enough clean water is available in the regions from which it is taken so that we do not consume water faster than it is naturally able to be replenished (e.g., see the Environmental Protection Agency's List of Issues: Water, 2011). Water is used in the current study primarily because it is a resource participants can quantify somewhat easily, and most participants have likely heard is important to conserve (despite whether or not they agree with this assertion).

## **Method**

### *Overview & Design*

This study tested whether the level of comparison group's privilege in relation to one's own privilege predicted feelings of ARD. Participants indicated the amount of water they use and the amount of water they perceive others use. The association between the discrepancy between these two estimates and participants' feelings of ARD in reaction to water-saving policies was assessed. It also asked participants to describe the individuals or group to whom they compared themselves, and assessed whether individuals tended to compare themselves to those with similar vs. dissimilar levels of privilege.

### *Participants*

Participants were 168 college undergraduate students recruited from The Pennsylvania State University psychology department subject pool. Participants were 89 women and 79 men, 72% White, 11% Black, 6% Asian, 6.5% Latina/o, and 2% mixed/other, and ranged in age from 18-29 years old, although most participants were between the ages of 18-20. They signed up for and took an online survey on "personal beliefs and behaviors" for which they received one half hour credit towards a course requirement.

### *Procedure*

After consenting to take part in the study, participants were asked to indicate how many gallons of water they personally use by considering a number of behaviors that consume water (e.g., showers, clothes washers, toilets, faucets). They were given a water calculation tool for this purpose, where they could enter the number of minutes they spent doing various water-consumption activities, which then calculated and displayed for participants their total gallon flow used per day. Next, they were asked to indicate how many gallons of water, on average, they believed others tend to use. Following this, they answered an open-ended question about which “others” they thought of when making their decision, using as specific information as possible. Last, they indicated how deprived they would feel if they were required to engage in three specific water-saving behaviors. At the end of the study, participants were asked to enter demographic information, thanked, and debriefed as to the purpose of the study.

### *Measures*

*Comparison group's water use.* Participants were asked “How much water do others, on average, typically use during a normal day?” and “When you thought about others just now, who did you think of? Please try to think back and be as specific as possible (for example, rather than saying “everyone” say where they were from, what they looked like, whether they were similar or different from you, etc.)”. Research assistants coded open-ended responses for the described comparison group based on whether the individuals or group(s) were perceived to be similar to or different from the participant in terms of water usage (i.e., the comparison groups' water use was either relevant or not relevant to the participant's own water usage). Interrater reliability revealed fairly high consistency among raters,  $r = .808$ , Kappa = .79. The author made the final decision about coding inconsistencies. Responses were coded by the attributes mentioned by

participants in the descriptions of their comparison group, such as gender, race, age, student status, city, state, or country of origin, income level, or other characteristics which are mentioned. These responses were cross-referenced with the participant's own demographic information. The majority of responses described participant's roommates, close friends, or family members.

*ARD scale.* The finalized version of the ARD scale from Study 1 was used (specifically, the six items were “unfair”, “like my rights were violated”, “dissatisfied”, “deprived of what I need”, “like I don't deserve this”, and “afraid of not having something”, Chronbach's alpha = .94).

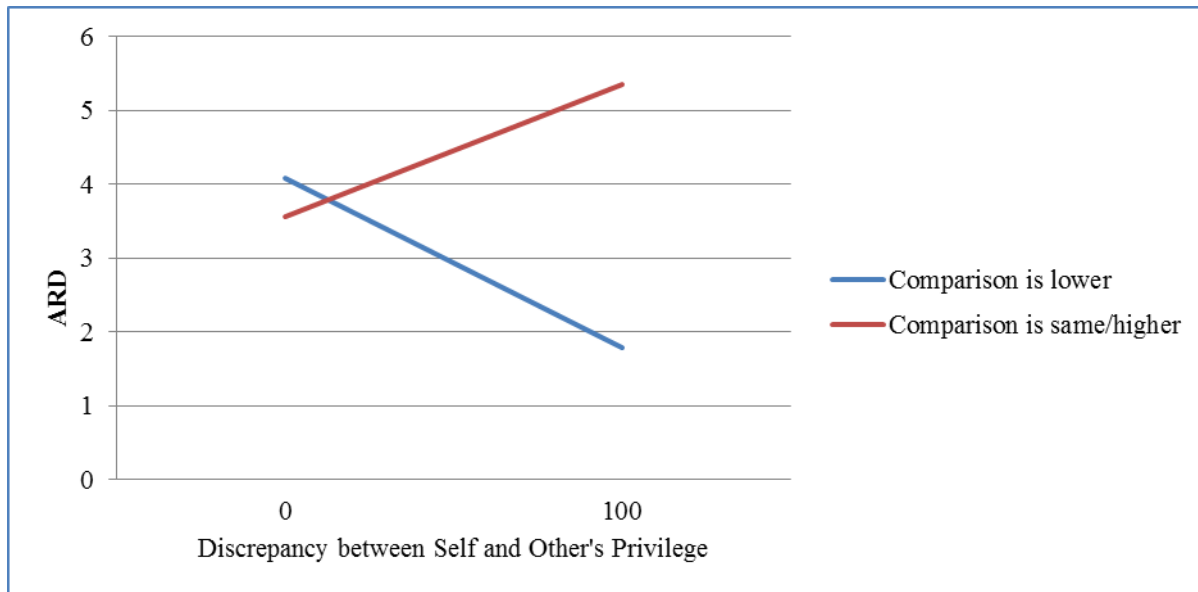
## Results

First, in order to test Hypothesis 2a, a t-test was used to analyze whether individuals, on average, chose a comparison group with significantly different or similar levels of privilege to their own. Participants did not estimate that “others” used statistically different amounts of water than they used themselves,  $t(167) = 1.11, p = .29$ . Additionally, 72.4% of participants described their comparison group's water as being no more than 1 standard deviation away from their own water usage. Participants were twice as likely to choose a comparison group which was similar (66.9%) rather than different from themselves (32.9%).

Next, in order to test Hypothesis 2b, participants who had chosen a relevant (i.e., similar) comparison group were selected, and ratings of ARD were regressed upon the discrepancy between the participant's reported water usage and the estimated water usage of their comparison group, whether the comparison group used the same or more versus less water than the participant. The interaction between these variables was entered in a second step in the regression. Results indicated that the greater the discrepancy, the greater ARD became for those

who chose comparison groups who used more water, and the less ARD became for those who chose comparison groups who used less water than themselves,  $F$  Change (1, 83) = 5.46,  $p < .05$ ,  $R^2$  Change = .06 (see Figure 3).

Figure 3: Interaction between type of comparison group and discrepancy in privilege between self and others.



### Discussion

Study 2 provides support for the idea that the discrepancy between one's own privilege and the privilege of others who are chosen as a comparison group impacts anticipated feelings of deprivation when having to consider giving up personal privilege. This effect is moderated by whether or not the comparison group chosen is believed to use less energy than oneself or the same/more energy. Specifically, the results of Study 2 support the hypothesis that having to give up personal privilege may be seen as a deprivation when others get to use more privilege than the self, and less of a deprivation when others already have less. Although I did not hypothesize the linear increase in ARD as comparison groups were estimated to have increasing amounts of

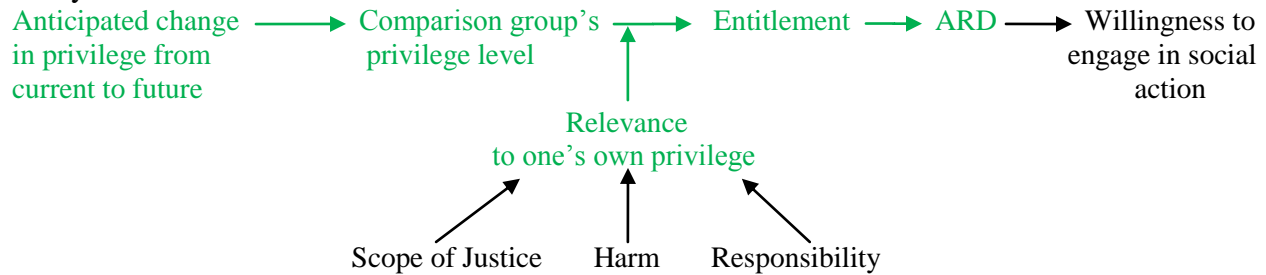
privilege beyond what the participant has, it is not necessarily a departure from the proposed theory of ARD. On the contrary, it makes theoretical sense that individuals may feel even more deprived the larger a difference they perceive there to be from what they would have in the future to what they believe others would have (and what they hypothetically believe they themselves should also have).

One limitation to this study is that individuals chose their own comparison group (and thus in effect chose the amount of privilege they believed their comparison group to have). Therefore, it is not clear whether other factors may have influenced whether or not groups chosen were likely to have more or less privilege than the participant or the amount of discrepancy between the participant's and their comparison group's privilege. One alternative explanation could be that people who care more about environmental issues or saving water might perceive others to use much more than them, but because they themselves are already using relatively small amounts of water, their limited ability to reduce even more water might have made them feel more deprived. However, I cannot find an alternative explanation for the decrease in ARD for comparison groups who used much less water than the self beyond the proposed theory. Thus, the purpose of Study 3 was to experimentally manipulate a comparison group's relevance and amount of privilege, controlling for potentially influential variables in Study 2.

### **VIII. STUDY 3**

Study 3 examined the role of relevance in ARD by testing a) relevance of a given comparison group's effect on personal entitlement and b) personal entitlement's effect on ARD.

### Study 3:



Participants were asked to compare their privilege to another group that 1) has either the same levels of privilege as the participant's current level of privilege or less than the participant's privilege, and that 2) is either a relevant or non-relevant reference group. Relevant comparison groups should have more impact on personal entitlement than non-relevant groups. If the comparison group has the same amount of privilege, then an anticipated reduction would make the participant have less than the comparison group. If the comparison group has less privilege than the participant, then the anticipated reduction in the participant's privilege should make them more similar to the comparison group. I predict that:

H3a: There will be an interaction between relevance of the comparison group and amount of privilege that the comparison group has relative to the participant on entitlement such that personal entitlement for current privilege will only decrease when the comparison group is relevant and has less privilege. In all other conditions, feelings of deprivation will be high and willingness to engage in the action will be low.

Entitlement should affect ARD based on how large the difference is between the level of privilege an individual feels entitled to and the amount of privilege they anticipate having in the future. That is, if one feels entitled to their current level of privilege, they will feel ARD when contemplating reducing their current privilege in the future. However, if one feels entitled to less privilege than they currently have, they will feel less ARD because there is less of a discrepancy



between what they feel entitled to and what they anticipate having in the future. Thus, I predict that:

H3b: The amount of entitlement one feels above what they would have after giving up privilege will predict ARD, such that the larger the discrepancy, the greater the feelings of ARD.

Although not likely a typical real world scenario, this study gave participants a comparison group with which to compare their own privilege. This was done in order to experimentally manipulate the amount of privilege a comparison group has and the relevance of the comparison to the participants. Based on pilot testing among undergraduate students from the same population as the study sample, undergraduate students living in the same type of housing (either on or off campus) were used as a relevant comparison group, while Americans with the same favorite color were used as the non-relevant group. This made theoretical as well as statistical sense because characteristics such as age, student status, and type of housing should likely have more impact on levels of energy use than the characteristic of sharing a favorite color, something which most people would likely assume does not influence energy use. Personal energy use was chosen as the privilege in Study 3 because it is a resource which is related to social justice issues, can be reduced by participants, could be estimated by students, and could reasonably be believed to vary among other groups of people.

## **Method**

### *Overview & Design*

Study 3 assessed whether beliefs about personal entitlement and feelings of ARD were influenced by the relevance and amount of privilege of a comparison group. Personal entitlement to a certain privilege is hypothesized to be related to a relevant group's amount of

privilege, but unrelated to a non-relevant group's amount of privilege. The amount of personal entitlement felt for a privilege should impact feelings of ARD such that the more individuals feel entitled to a certain amount of privilege above what they are being asked to have in the future, the more they should anticipate feeling deprived when asked to decrease their current level of privilege. When a non-relevant group is given, personal entitlement to a privilege should be related to the amount of self privilege. The design is a 2 (type of reference group: relevant or non-relevant) X 2 (amount of privilege: same privilege as participant or 30% less privilege than participant) between-subjects design.

### *Participants*

Participants were 130 college undergraduates recruited from The Pennsylvania State University psychology department subject pool. Demographic information indicated that there were 73 women and 52 men (5 did not identify gender), ranged in age from 18-32 (although most students were between 18-21), were 77% White, 6% Black, 10% Asian, 3% Latina/o, 1.5% Native American, and .8% other. Participants signed up for and took an online survey on "personal beliefs and behaviors" for which they received one half hour credit towards a course requirement.

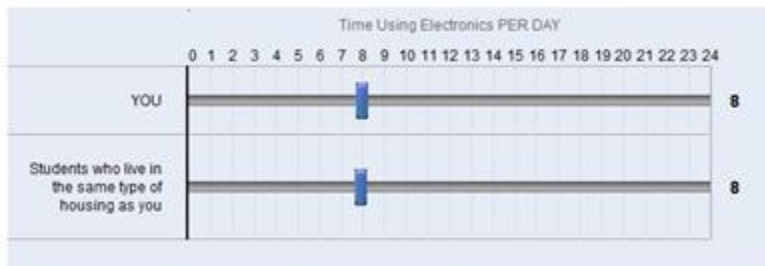
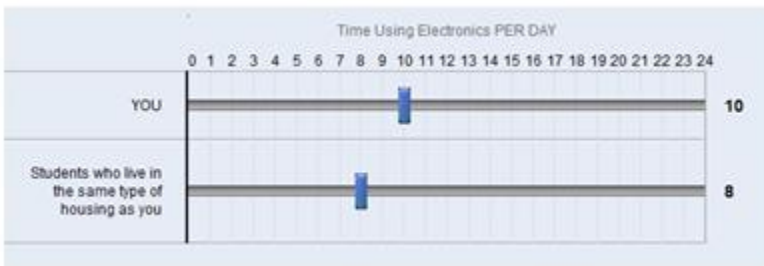
### *Procedure*

After consenting to participate, all participants were directed through the use of an energy-use calculator, which provided participants places to insert the total number of hours and minutes they use various electronic devices for entertainment purposes (e.g., talking to friends, listening to music, watching movies, or playing games). The calculator then helped participants to tally the total number of hours (rounded up to the nearest hour) they spend using energy for entertainment purposes on average each day. Relevant or non-relevant groups were inserted into

the survey based upon the participant's response to the question of whether they lived on or off campus, or what their favorite color was, which was asked after personal energy use was calculated. Based on this number, participants were told that either a relevant (i.e., other students living in the same type of housing) or non-relevant (Americans with the same favorite color) group used either the same number of hours of energy, on average, as the participant per day, or two hours less per day. This was displayed both in writing and with a chart (please see Figure 4 for an example). Participants were then asked how much energy they believed they *should* use on a daily basis.

Next, participants were told to think about a situation in which their university was asking them to reduce their energy use by two hours per day in order to help reduce impacts on the environment, reduce energy costs, and to help distribute energy more evenly among students. This reduction in energy was depicted in a second chart, which showed the participant either having to use the same amount of energy as their comparison group (for those in the less privilege condition) or less energy than their comparison group (for those in the same privilege condition). Based on this scenario, participants were asked to describe their feelings of ARD. In addition, participants also filled out questions to ascertain whether the relevant and non-relevant groups were perceived to be similar or dissimilar, respectively, and how much they cared about the comparison group's energy use. Finally, participants responded to demographic questions and were debriefed about the study, where they were specifically told that information provided was not true data and was created for the purposes of the study, and thanked.

Figure 4: First and second charts displayed to participants in the relevant group / less privilege condition, who indicated that they personally used 10 hours of energy per day.



### Measures

*Entitlement.* Participants were asked “How many hours of energy do you think you *should* use per day?” They were told that they should not mark how much they wish they could use or what would be ideal, but rather, what is a reasonable and socially acceptable amount of energy in hours that they deserve to be able to use. An entitlement score was calculated by subtracting the discrepancy between the participant’s current energy use and their response for how much energy they believed they should be able to use. Therefore, a personal entitlement score of 0 equals no difference between energy use and perceived entitled energy use. A positive score indicates a feeling of entitlement to greater energy than the participant currently uses, and a negative score indicates a feeling of entitlement to less energy than the participant currently uses.

*ARD scale.* The finalized version of the ARD scale from Study 1 was used (included the items “unfair”, “like my rights were violated”, “dissatisfied”, “deprived of what I need”, “like I don’t deserve this”, and “afraid of not having something”, Chronbach’s alpha = .92).

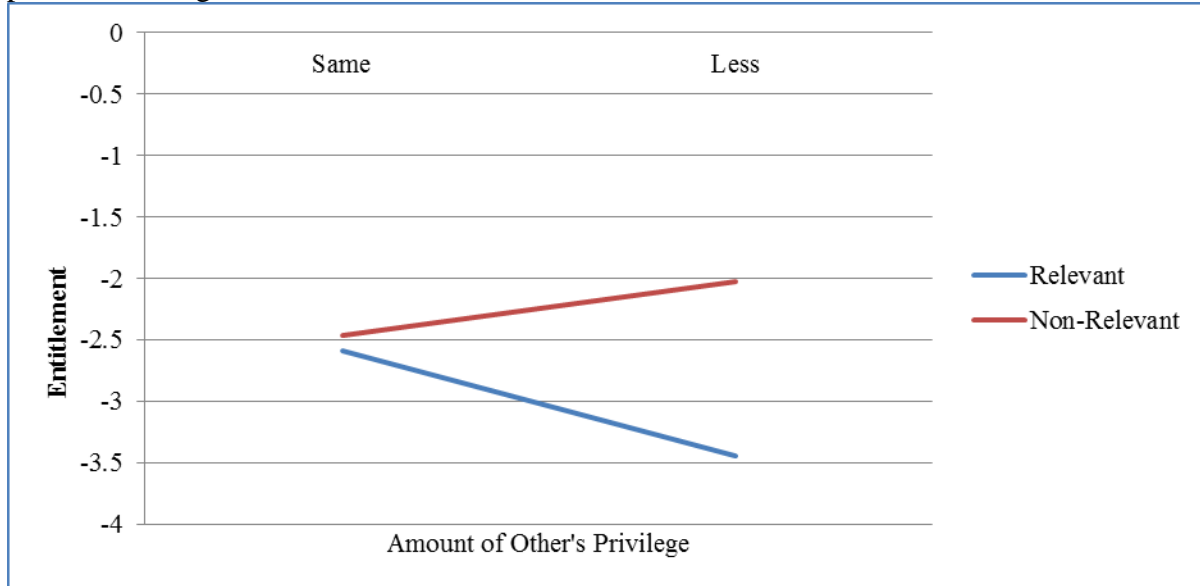
*Manipulation check.* Participants rated “How similar do you think your energy use is to other people who also [live in the same type of housing as you / have the same favorite color]?” and “How much would you care if other people who also [live in the same type of housing as you / have the same favorite color] used a different amount of energy than you?”. Almost all participants indicated that they would not care how much others used (either in the relevant or non-relevant group condition), so this question was subsequently dropped as a manipulation check item.

## Results

In order to check the manipulation of relevant versus non-relevant groups, responses to the question “How similar do you think your energy use is to other people who also [live in the same type of housing as you / have the same favorite color]?” were split based on response, such that those who responded with “no idea”, “dissimilar”, or “a little similar” were coded as non-relevant and those who responded with “somewhat similar”, “quite similar” and “very similar” were coded as relevant. These responses were cross-matched with condition, and participants who rated the relevant group as dissimilar and the non-relevant group as similar were subsequently dropped from analyses. This resulted in a total of 85 participants (65% of the original sample; 43 in the relevant condition and 42 in the non-relevant condition).

Next, in order to test Hypothesis 3a, entitlement scores were submitted to a comparison group (relevant or non-relevant) by amount of privilege (same or lower) univariate analysis of variance (ANOVA). Although results generally reflected the hypothesized pattern (see Figure 5), neither the interaction nor main effects were significant,  $F(1, 83) = 2.31, p = .13, \eta_p^2 = .008$ .

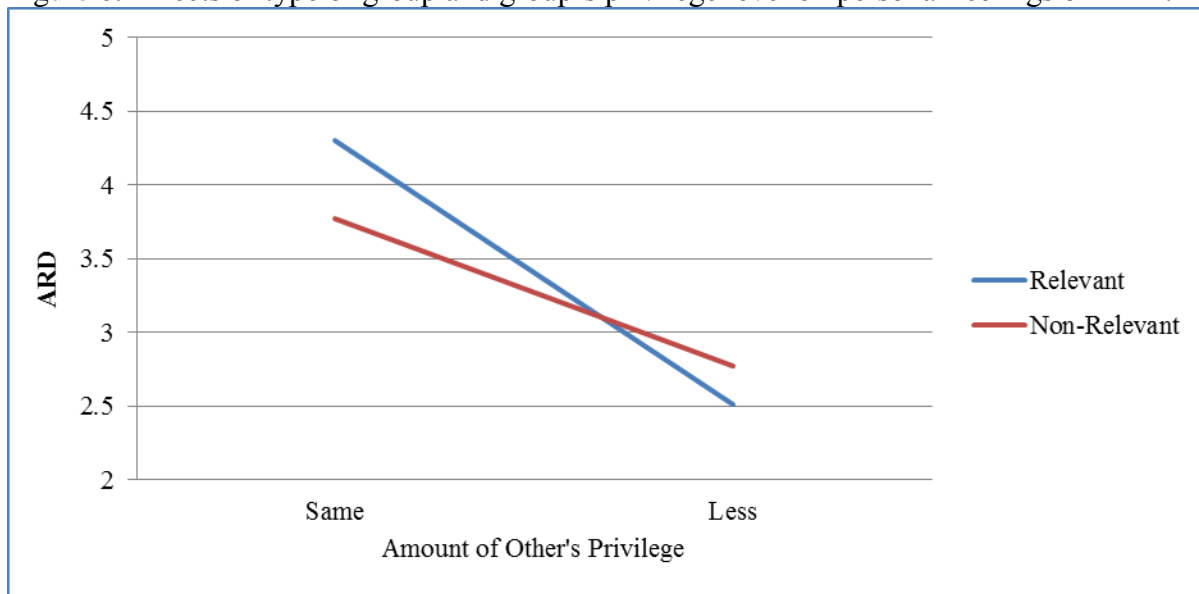
Figure 5: (Non-significant) interaction between type of group and group's privilege level on personal feelings of entitlement.



### ARD

In order to test Hypothesis 3b, average ARD scores were regressed upon entitlement scores. Results revealed that entitlement was not a significant predictor of ARD,  $\beta = .07$ ,  $p = .54$ . Therefore, mediation analyses were not conducted. Average ARD scores were also submitted to a comparison group (relevant or non-relevant) by amount of privilege (same or lower) univariate analysis of variance (ANOVA). Results indicated that when others were described as having less privilege, participants' feelings of ARD decreased relative to when others had the same amount of privilege,  $F(1, 85) = 7.50$ ,  $p < .01$ , but this effect did not significantly interact with relevance of the group (see Figure 6).

Figure 6: Effects of type of group and group's privilege level on personal feelings of ARD.



### Discussion

Results from Study 3 did not fully support predictions. Although perceived entitlement followed the general pattern of predictions and mirrored significant effects found in Study 2, entitlement was not affected by relevance and amount of privilege of a comparison group in Study 3. It is notable, however, that average entitlement ratings were below zero in all conditions, indicating that no matter who participants compare themselves to, they generally felt that they should be using less energy than they currently use. This may be a result of awareness or concern about environmental issues or there may have been some response bias because participants were likely aware that the study was about environmental issues. Additionally, the amount of others' privilege affected personal feelings of ARD, but this did not interact with relevance of comparison group, as predicted.

Although many groups were pilot tested for relevance, giving participants information about relevant and non-relevant groups (or perhaps *more* or *less* relevant groups) did not influence feelings of ARD. This may have been because giving information about any kind of

group may have influenced the perceived relevance of that group. For example, research on the minimal group paradigm (Tajfel, 1982) shows that individuals can be placed into random, arbitrary, or unreal groups which they then incorporate into their social identity and actively work to promote. Further, using pronouns which signify an ingroup are more likely to increase positive emotions, while using pronouns which signify outgroups tend to increase negative emotions (Purdue, Dovidio, Gurtman, & Tyler, 1990), signifying that the wording of comparing the participant to another group of people in Study 3 may have activated identification with that group. This may likely have happened in the non-relevant group condition, where participants were informed about other Americans who shared a similar trait to them (albeit a minimalistic trait in beliefs about energy use). Further, the fact that participants were participating in a scientific study which was giving them information about an otherwise non-relevant group may have signaled to participants that they should consider the group to be more relevant than they otherwise might have believed them to be in a real-world scenario.

A second reason why the results did not match predictions may have been due to the lack of manipulation of harm and responsibility, which were proposed as key factors in making a comparison group's level of privilege be relevant to an individual's consideration of whether they are entitled to their own current privilege and whether reducing that privilege would be a deprivation in the future. Relevance of groups in Study 3 were chosen so that they were either within or outside of the average participant's scope of justice in terms of energy use (i.e., student status and living arrangements should be relevant considerations in whether one's energy use is fair, while favorite color should not be). The study was then designed so as to build in harm and responsibility. In other words, participants were told that giving up two hours a day of energy would help to not only reduce their impact on the environment and help save the university



money, but would also help to equalize the amount of energy all students on campus could use. However, it is not clear that this was effective in creating knowledge of harm or responsibility or whether the participants understood it as such. Open-ended responses at the end of the study support this possibility to some extent: when asked whether the study worked properly or if the participant came across any glitches in the system, a small number of students reported that when the graph depicted their own energy use going down, it failed to also show other students' energy going down by two hours. This is some indication that at least a few students understood the procedure to mean that everyone would have to reduce their privilege equally, rather than thinking that giving up their own privilege would positively affect others. In addition, there was not a direct connection mentioned in the study for how reducing one's privilege would impact the non-relevant group (Americans with the same favorite color) in any way. Study 4 was designed to manipulate all three components of proposed relevance, although it does not compare these variations in relevant to a manipulated non-relevant group. Reviewing the limitations of Study 3, I suggest that testing the effects of a completely non-relevant group may be unlikely in an experimental setting.

## **IX. STUDY 4**

Because the concept of ARD applies to barriers to engagement in social justice issues broadly, there are a number of social justice issues that can be used as relevant constructs for the empirical examination of ARD. Two that may be particularly important and relevant to current social concerns are gender inequity and climate change. Much has been done to research social injustices based on gender (Swim & Hyers, 2009), yet regrettably, sexism continues to function in subtle and hidden ways (see, for example, Swim, Mallet, & Stangor, 2004). Global climate change is a much newer concern within social justice debates. However, its potential impacts

(and even existence) are of little concern to many average Americans (Maibach, Roser-Renouf & Leiserowitz, 2009; Swim, Markowitz, & Bloodhart, 2011), despite that threats are numerable for humans, animals, and the environment. Study 4 will examine the topic of climate change, which is an important social issue that is affecting many human and non-human groups around the world. It is therefore an appropriate scenario from which to frame injustices done to others. It also provides common and easily identifiable behaviors that individuals can engage in which will reduce their own privilege but which can also have important outcomes for reducing harms toward others. There are many groups impacted by climate change, but marginalized racial groups, women, those from non-industrialized or developing countries, and other species/entities have been highlighted (Swim, et al., 2011). Knowledge about harm toward any of these groups could lead advantaged individuals to become more aware of climate change impacts.

Advantaged individuals might also be able to identify with these groups and thereby expand their scope of justice and reduce their feelings of ARD related to climate change depending on the type of group that is impacted. Therefore, the target groups focused on in this study will include a variety of different groups impacted by climate change: people in other countries (a man living in Africa), women (a woman living in India), and animals (a Koala bear).

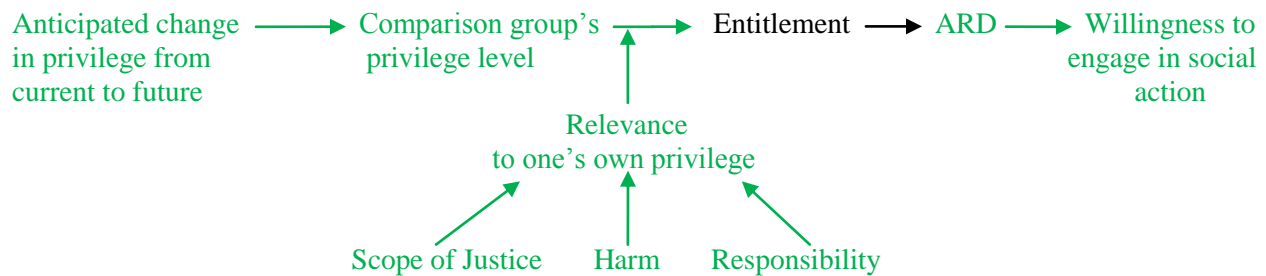
Additionally, the intersecting constructs of gender and climate change represent an even greater detriment for those impacted by both forms of social injustice. Some women are solely dependent on clean water supply and food production in their immediate area, while the wealth or education of other women allows them to bypass some climate change impacts by getting food and water from sources further away from home. Thus, the risk of climate change may be higher for someone more connected with nature (either physically or psychologically). Such a construction regarding the importance of gender and other social identities has very real

consequences for women's experiences of climate change. Terry (2009) illustrates how rural women are often more dependent on natural resources and do most of the agricultural work, while poor women are most likely to bear the brunt of health problems due to less access to education and healthcare. Gender imbalances exist in mortality rates due to disproportionate socio-economic status, as women's access to capital is often restricted or limited compared to men's and can be more severely reduced based on other social identities such as race or age. Women can also be impacted based on expectations about behavior and the value of women's lives such as in cultures where women receive less food than men when there is a food shortage (Nelson, Meadows, Cannon, Morton & Martin, 2002), and may fear leaving the house for fear of being beaten during severe climate-related catastrophes such as hurricanes or tsunamis.

In other words, different women may be pushed to extreme margins based on intersecting identities and experience profound discrimination or other consequences. It is therefore important that policies meant to address mitigation to climate change issues make varying identities relevant for considerations of justice and privilege. For example, while the "global" community (i.e., the Northern, wealthy, and industrialized community; the UN) has agreed that a 2 degree Celsius change in global temperature is acceptable, this threshold is not supported by scientific rationale. As Seager (2009) argues, "for whom is 2 degrees acceptable?" Climate change is creating negative impacts *now* for many people in the global South, women, animals, and the environment, and will only get worse as the climate continues to warm. It is obvious, then, that decisions and policies meant to mitigate climate change impacts must be made by including the relevant perspectives of those who are most strongly impacted within our scope of justice.

Study 4 examined whether the interaction between expansion of the scope of justice, information about harm, and information about responsibility decrease feelings of ARD and subsequently increase willingness to engage in climate change mitigation behaviors or support climate change mitigation policies. This is a potentially important demonstration that relevant comparison groups can be influenced to include others who are harmed by real world social issues for individuals who might otherwise choose comparison groups which only have similar levels of privilege.

#### Study 4:



In order to manipulate relevance, participants engaged in an activity which led them to expand their scope of justice to others (women, people in the Global South, animals, or none/control). Participants then viewed information about one of these groups which indicated the group is being harmed by climate change and that the participant's privilege contributes to that harm and reductions in privilege can reduce harm. Finally, all participants were asked to anticipate engaging in behaviors which limit their privilege but helps reduce their impact on global climate change (i.e., a pro-environmental behavior which is potentially related to the relevant group, harm toward that group, and implicates personal responsibility to reduce privilege).

As illustrated in Figure 1, having an expanded scope of justice and knowing about a harm will not lead to reduced feelings of deprivation and a willingness to give up one's privilege unless there is an awareness that one's privilege is responsible for the harm occurring. Expanded scope of justice and knowledge of harm should, however, still lead to concern about the group's welfare and a desire for others to help the group. Thus, I predict the following:

H4a: There will be an interaction between expanded scope of justice and type of information on concern for welfare of the target group and desire for others to help the target group such that:

1. If scope of justice is not expanded, then participants will be less concerned for the welfare of the target group and have less desire for others to help the target group than those for whom scope of justice is expanded. There will be no effect of information about harm and responsibility in this condition.
2. If scope of justice is expanded, then participants will be more concerned for the welfare of the target group when information about harm and/or responsibility is given than no information, and more desire for others to help the target group when they receive information about harm than no information or information about harm without information about responsibility.

However, it should take the presence of all three factors (expanded scope of justice, harm and responsibility) in order to reduce personal feelings of ARD and a desire to personally help the target group by reducing one's own privilege via willingness to engage in social justice action.

Therefore:

H4b: There will be an interaction between expanded of scope of justice and type of information on feelings of ARD and personal willingness to engage in social action such that:

3. If scope of justice is not expanded, then participants will feel more ARD and be less willing to engage in social action than those for whom scope of justice is expanded. There will be no effect of information about harm and responsibility in this condition.
4. If scope of justice is expanded, then participants will feel less ARD and be more willing to engage in social action when they receive information about harm *and* responsibility than those receive either of the other two information conditions or those for whom scope of justice is not expanded.

I do not have specific predictions about whether the type of reference group (people in other countries, women, or animals) within an expanded scope of justice will have an effect on reduced feelings of ARD or willingness to engage in social action. Individuals may more easily expand their scope of justice to groups which they are more familiar with or more commonly interact with, indicating that the effect might be strongest for those who are asked to expand their scope of justice to women, then people in other countries. Further, they may more easily include humans in their scope of justice due to the ability to contemplate connections with one's own species. Alternately, it is possible that individuals might have an easier time extending a scope of justice to animals who are perceived as defenseless and less to blame for problems of climate change than human groups. This might instead lead to lower ARD and greater engagement in social action when one's scope of justice is expanded toward animals.

## Method

### *Overview & Design*

The purpose of Study 4 was to demonstrate the effect of scope of justice, knowledge of harm, and responsibility for harm on ARD, and ARD's resulting effect on engagement in social justice action. Therefore, this study attempted to manipulate participants' feelings of anticipatory relative deprivation by broadening their scope of justice toward one of several marginalized groups, increasing their knowledge of harms toward that group (harm), and increasing their awareness of how their privilege contributes toward that harm (responsibility).

The study design was a 3 (comparison group: people in other countries, women, or animals) X 2 (expanded scope of justice: Y or N) X 3 (information: none, harm, or harm + responsibility) between-subjects design. The dependent variables measured were anticipatory relative deprivation and willingness to engage in social justice action, as well as concern for the target group and a desire for the self and others to help the target group. Additionally, manipulation checks were performed for expanded scope of justice, awareness of harm, and knowledge of responsibility for harm. Participants also completed a 1 week follow-up where the frequencies of pro-environmental behaviors were assessed along with a reassessment of the previously mentioned dependent variables.

### *Participants*

Participants were 431 American adults recruited from Mechanical Turk and 245 college undergraduate students recruited from Penn State's psychology subject pool; a total of 676 participants. One round of participants was dropped from the analysis based on not paying attention to the questions (i.e., not answering correctly to the question "if you are paying attention, please answer "2" to all questions on this page") or watching less than 90% of any of

the videos. This removed 133 participants (19%) from the analysis (16% from Mturk and 26% from the subject pool). A second round of participants was dropped for not putting any concentrated effort into responding to the scope of justice open-ended questions (i.e., not answering at all, answering with nonsensical words, or giving responses such as “I don’t know”). This removed an additional 52 participants (8%) from the analyses (8% from Mturk and 6.5% from the subject pool) and left the total of remaining participants at 491 (73% of the original data set; 326 Mturk participants and 165 subject pool participants)<sup>5</sup>.

Participants in the final data set were composed of 335 women and 144 men (12 did not give an answer for their gender), ranged in age from 18-79 (mean age was 31.2), were 85% White, 5% Black, 4.5% Asian, 3% Latina/o, and less than 2% Indian, Middle Eastern, or Pacific Islander, and mostly identified as heterosexual (90%). The majority of participants were employed full time or full-time students and were educated with some college or a bachelor’s degree, although the average income for non-students was \$25,000 a year or less. Approximately 41% of participants identified as politically liberal, 21% as conservative, and over 30% were non-partisan or not interested in politics, while about 66% of participants described themselves as religious. Please see table 3 for a breakdown by source. They completed an online study about “attitudes and opinions on current news topics” and received \$0.71 for their participation on Mturk or 1 hour of credit toward a course requirement for their participation in the subject pool.

Participants were invited to take a follow-up survey 1 week after completing the initial study. In total, 132 participants completed the survey (approximately 20% response rate), 111

---

<sup>5</sup> There were no significant differences between participants who were dropped vs. remained in the sample on gender, age, race, sexuality, religion, or income. There was a marginal effect of political party,  $F(2, 488) = 2.97, p < .055, \eta_p^2 = .02$ , such that liberals were more likely to be dropped from the analyses than conservatives, and a marginal effect of education,  $F(2, 488) = 2.96, p < .055, \eta_p^2 = .02$ , such that those who were dropped tended to be more highly educated than those who remained in the sample.



from Mturk and 21 from the subject pool. Participants were entered into a drawing for a \$25 Amazon.com gift certificate for their participation.

Table 3: Demographic classification of participants, separated by source.

	<b>Mturk</b>	<b>Subject Pool</b>	<b>Total</b>
<b>Gender</b>	199 women 116 men 11 did not answer	136 women 28 men 1 did not answer	335 women 144 men 12 did not answer
<b>Age</b>	Range 19-79 Mean 37.1	Range 18-39 Mean 19.7	Range 18-79 Mean 31.2
<b>Race</b>	84.6% White 6.1% Black 4.9% Asian 3.1% Latina/o 2.1% Indian, Pacific Islander, Middle Eastern	90.3% White 4.2% Black 3.6% Asian 3.6% Latina/o 1.8% Indian, Pacific Islander, Middle Eastern	85% White 5% Black 4.5% Asian 3% Latina/o >2% Indian, Pacific Islander, Middle Eastern
<b>Sexual Orientation</b>	87.4% Heterosexual 4.9% Homosexual 7.7% Other	95.2% Heterosexual 2.4% Homosexual 2.4% Other	90% Heterosexual 8% Homosexual 2% Other/did not answer
<b>Education</b>	Mean = Bachelor's degree Median = Associate's degree	Did not answer	
<b>Religion</b>	61.7% religious 35.6% not	78.8% religious 20% not	74% religious 30.3% not
<b>Political Affiliation</b>	47.5% Liberal 20.2% Conservative 29% Nonpartisan/not interested	30.9% Liberal 23.6% Conservative 44.8% Nonpartisan/not interested	41% Liberal 21% Conservative 37% Nonpartisan/ not interested

### *Procedure*

After completing an informed consent, participants were told that they were participating in a study meant to assess the clarity of different mediums and messages related to different stories or current news topics. Participants were randomly assigned to one of the scope of justice conditions: expanded or not expanded, and one of the three comparison group conditions: animals, people in the Global South, or women. For those in the expanded scope of justice

conditions, they read a “day in the life of...” story about a person or animal from their comparison target group. Participants then completed 3 exercises intended to increase their scope of justice for the person or animal depicted in the vignettes. First, they were asked to write down similarities they observed between the person/animal and themselves, and then asked to write a short excerpt about a similar experience they have had to the person/animal described in the story. Second, they were asked to describe a task that they could work on with the person or animal depicted in the story, and describe what the person or animal could bring to the situation and what positive outcomes they could anticipate coming out of the task. To facilitate the cover story, all participants were asked to indicate how clearly the story was written and what their subjective opinion was about the quality of the story. Those in the no expanded scope of justice/control group did not read a story or complete any of the other activities meant to manipulate scope of justice described above.

Next, participants were randomly assigned to one of three information conditions. Those in the harm condition viewed a five minute video describing how climate change is negatively affecting the target group they have been assigned. Those in the harm and responsibility condition viewed the same five minute video about harms plus a ten minute video on how common, everyday personal behaviors for people living in the US contribute to global climate changes. In all cases, the video manipulating type of information involved the same target group that the participant read about in the expanded scope of justice condition. If the participant did not receive a scope of justice manipulation, they were randomly assigned to one of the target groups for the harm video. The responsibility video did not specifically mention any target group. Participants in the no information condition did not view any videos.

After watching the videos, participants were asked about their concern for the comparison target group, their belief in whether they themselves or others should do something to help the target group, and manipulation checks for scope of justice, harm, and responsibility. They then reported feelings of ARD and willingness to engage in social action related to climate change. Finally, all participants were asked to enter demographic information (age, ethnicity, gender, sexual orientation, religious affiliation, and political affiliation, as well as income, education, job status, or year in school) and asked whether they were willing to be contacted by the researchers again for participation in a future study. They were then given the opportunity to give feedback about the survey and thanked for their participation.

For those who answered “yes” to the future contact question, they were sent an email survey one week after the date they completed the study which reassessed engagement in pro-environmental behaviors, levels of ARD related to these behaviors, and their overall concern about each of the three target groups and beliefs about whether they or others should help the target groups.

### *Materials*

*Day in the Life of...Stories.* There were three short vignettes similar to a "day in the life of..." magazine or newspaper article, which were about 350-400 words and included the same basic information across all target groups. The stories were meant to reflect information that average participants could easily identify with or relate to, particularly in the animal condition. Please see Appendix B for the full materials. Vignettes were used in combination with three exercises meant to help participants think about the ways they would be psychologically connected to members of the target group. These exercises asked participants to respond to the following: a) “Often people have common emotions, needs and goals. Describe as many

similarities as you can between yourself and [target]”, b) “Please write about a similar experience you and [target] have had, a time when you shared a common goal or interest, and/or positive feelings that [target’s] experience evoked in yourself”, and c) “Imagine that you were paired with [target] to work on a community service project. You need to put together an after-school program to motivate kids, focus their creative energy, and help them to recognize their own potential. Please describe some of the ways you and [target] could work together to create a positive experience. What could [target] potentially help bring to the project? What are some of the positive outcomes you might get out of this experience?”

*Information Videos.* There were three separate harm videos, all approximately five and half minutes in length, which focused on harms toward women, people in the Global South, or animals. These videos were created by the author and follow one of the scripts listed in Appendix C. They were accompanied by images of the target group impacted. Although each video generally attempted to be similar in length, type of information given, number of harms listed, and extremity of harms, they necessarily differed because the harms of climate change impact each target group in different ways. The videos can be accessed at:

<http://www.youtube.com/watch?v=02rH8ZcLhxc> (harms against women),

<http://www.youtube.com/watch?v=xEQbng8Vwtg> (harms against those in the Global South),

and <http://www.youtube.com/watch?v=0eNhjtg2V14> (harms against animals).

The video about personal responsibility for harms of climate change was partially adapted from the WPSU and Rock Ethics video “Human Contributions to Climate Change”: (<http://www.youtube.com/watch?v=3pbhIs-JzOQ>) and was combined with new filming done by the author. The video highlighted a number of different pro-environmental behaviors which participants could do themselves, such as taking public transportation instead of their car, using

re-useable water bottles or coffee mugs instead of disposable, or taking shorter showers/turning off the water faucet. It then explained how climate changes are related to energy and carbon burning emissions, and how personal behaviors can influence the amount of emissions which contribute to climate change. This video can be accessed at:

[http://www.youtube.com/watch?v=pfEVSq-\\_Kd8&feature=youtu.be](http://www.youtube.com/watch?v=pfEVSq-_Kd8&feature=youtu.be).

### *Dependent Measures*

*ARD scale.* The finalized version of the ARD scale from Study 1 was used (specifically, the six items were “unfair”, “like my rights were violated”, “dissatisfied”, “deprived of what I need”, “like I don’t deserve this”, and “afraid of not having something”). The ARD scale was assessed for 17 pro-environmental behaviors (please refer to Appendix D for a list of items). An individual ARD score was calculated for each of the 17 behaviors, and all ARD items were averaged together across all 17 behaviors to form an Overall ARD scale. Chronbach’s alpha for overall ARD scale,  $\alpha = .99$ .

*Willingness to do Pro-environmental Behaviors.* This one item measure assessed willingness to do the same pro-environmental behaviors listed for the ARD scale (see also Appendix D).

*Concern for target group.* A one item measure for concern assessed “how concerned are you about things that are impacting [target group]?” along a sliding scale bar from 0 (not at all) to 100 (extremely). Those in the no information/no scope of justice condition rated their concern for all three target groups as a baseline measure, while those in all of the other conditions rated concern for the target group they were given only.

*Desired to help target group.* Desire to help the target group was assessed by asking the participant to rate along a sliding scale bar from 0 (nothing) to 100 (everything they possibly

can) the extent to which they believe “me”, “other people”, “the government” or “corporations” should be doing to help the target group. Those in the no information/no scope of justice condition rated their desire to personally help and to have others help all three target groups as a baseline measure, while those in all of the other conditions rated desire for personal and collective helping for the target group they were given only. Responses for “me” were used as the personal desire score, while responses for “other people”, “the government”, and “corporations” were averaged together to form a collective desire score.

### *Manipulation Checks*

*Scope of Justice.* The Scope of justice scale measured beliefs about deservingness of justice. Because we have different scopes of justice for different target groups (particularly for animal vs. human groups) scales differed between the animal and human conditions. This scale included a range of possible forms of justice that participants likely believe they themselves deserve or are entitled to (Chronbach’s alpha’s for animals  $\alpha = .82$ , for Global South  $\alpha = .90$ , and for women  $\alpha = .91$ ). Because an expanded scope of justice should lead to increased perceived relevance of the comparison group, a second scale measured similarity and connection with the target group. Items were taken from Leach et al.’s (2008) In-group Identification scale (Chronbach’s alpha’s for animals  $\alpha = .93$ , for Global South  $\alpha = .90$ , and for women  $\alpha = .89$ ). See Appendix E for a list of all scope of justice items.

*Awareness of Harm.* This measure assessed whether participants were aware of harms done to the target group they were assigned in both an open-ended and close-ended format. Participants were first given an open response box and asked to think about different impacts towards women, people in the Global South, and animals. On a separate page, participants were asked to check from a list a number of possible impacts that they feel groups listed in the

previous measure experience. These included physical harms, ability to access basic human rights, freedom of expression, economic harms, and psychological harms. See Appendix F for a complete list. Number of correct responses were averaged together to form an awareness of harm score.

*Awareness of Responsibility.* This measure listed a number of non-environmental behaviors (privileges) and asked participants to estimate how much they would impact climate change and increase global warming if they did each behavior every day for the next year, from 0 (no impact at all) to 10 (severe impact). Please see Appendix G for a list of behaviors/privileges. An awareness of responsibility score was calculated by summing the total amount participants believed each behavior would contribute to climate change.

#### *One Week Follow-up Questionnaire*

The follow-up questionnaire re-assessed participants' ratings of scope of justice, anticipatory relative deprivation, and deprivation of target group(s). It also included a measure of pro-environmental behavior engagement during the past week. Specifically, participants were asked to check off the pro-environmental behaviors that they have participated in, and for behaviors checked, to indicate how often they performed the behavior. Behaviors listed were the same used in the assessment of ARD above.

## **Results**

### *Preliminary Analyses*

Initial examination of the data revealed that there were different patterns of results across almost all of the dependent variables for the source of participants; whether they came from Mturk or the university subject pool. Therefore, all analyses reported hereafter were analyzed by splitting the data file between these two groups. In addition, demographic variables of age,

gender, race, religion, political affiliation, and sexual orientation were included as covariates in all analyses unless otherwise noted.

### *Manipulation Checks*

Scope of justice scale scores were submitted to a one-way ANOVA with scope of justice expansion as the independent variable. The scope of justice manipulation did not influence reported scope of justice beliefs for either Mturk participants,  $F(1, 255) = 0.18, p = .68, \eta_p^2 < .01$ , or subject pool participants,  $F(1, 133) = 0.19, p = .67, \eta_p^2 < .01$ .<sup>6</sup> However, although marginally significant, Mturk participants in the scope of justice manipulation were more likely to include the target group within their ingroup identity ( $M = 5.08, SE = .11$ ) than those who did not receive the manipulation ( $M = 4.84, SE = .10$ ),  $F(1, 255) = 2.67, p < .1, \eta_p^2 = .01$ . This was not the case for subject pool participants, although the pattern of results followed in the same direction as that of Mturk participants,  $F(1, 133) = 0.38, p = .54, \eta_p^2 < .01$ . ( $M$  expanded = 4.71,  $SE = .14$ ,  $M$  not expanded = 4.58,  $SE = .15$ ).

Awareness of harm scores were submitted to a one-way ANOVA with type of information as the independent variable. Type of information significantly impacted reported awareness of harm for both Mturk participants,  $F(2, 245) = 7.33, p < .01, \eta_p^2 = .06$ , and subject pool participants,  $F(2, 131) = 5.70, p < .01, \eta_p^2 = .08$ . However, the direction of effects differed by group. Mturk participants were more likely to report awareness of harm in the harm only condition ( $M = 15.46, SE = .53$ ) than in the harm + responsibility condition ( $M = 13.97, SE = .65$ ) or the no information condition ( $M = 11.47, SE = .91$ ). On the other hand, subject pool participants were more likely to report awareness of harm in the harm + responsibility condition ( $M = 17.62, SE = .86$ ) than in the harm only ( $M = 14.88, SE = .073$ ) or no information ( $M = 13.34, SE = 1.01$ ) conditions.

---

<sup>6</sup> This was the case when analyzing Mturk and Subject Pool participants together or separately.



Awareness of responsibility scores were also submitted to a one-way ANOVA with type of information as the independent variable. Type of information significantly impacted reported awareness of responsibility for Mturk participants,  $F(2, 310) = 4.58, p < .05, \eta_p^2 = .03$ , but not subject pool participants,  $F(2, 160) = 0.63, p = .53, \eta_p^2 < .01$ . The pattern of results fit predictions: Mturk participants were more likely to report awareness of responsibility in the harm + responsibility condition ( $M = 6.43, SE = .47$ ) than in the harm only ( $M = 5.61, SE = .22$ ) or no information ( $M = 5.38, SE = .24$ ) conditions.

### *Dependent Variables*

Dependent variables were initially submitted individually to a 2 (scope of justice expansion: yes or no) X 3 (type of information: no information, harm, or harm + responsibility) x 3 (target group: animals, Global South, or women) univariate ANOVA. Planned comparisons were used to interpret significant effects.

It became clear throughout the analyses that scope of justice did not significantly affect any of the dependent measures for Mturk participants, although there was a consistent finding of main effects of type of information for most of these variables. Therefore, for Mturk participants, the scope of justice manipulation check measure was substituted as a predictor variable and all dependent measures were regressed upon the scope of justice scale and type of information. Type of information was dummy coded for each of the three type of information conditions, and two of the three dummy coded variables plus the scope of justice scale were entered on the first step of the regression and the interaction between the scope of justice scale and each dummy coded type of information variable were entered on the second step. This process was repeated three times leaving out one condition of type of information in order to test for the individual effects of that condition. Results for all dependent measures below, then, are

reported based on ANOVAs for subject pool participants using the scope of justice manipulation, and based on regressions for Mturk participants using the mean centered scope of justice measured scale as a continuous measure.

*ARD.* Consistent with predictions, subject pool participants in the expanded scope of justice condition anticipated feeling less deprived when they were given information about harm + responsibility relative to no information, but harm information alone did not differ from either of these two conditions (see figure 7). In contrast, the pattern of ARD indicated that those who did not have an expanded scope of justice felt more deprived when they were given information about harm + responsibility than in the other two information conditions, although these conditions did not statistically differ (scope of justice x type of information interaction,  $F(2, 160) = 2.96, p < .055, \eta_p^2 = .04$ ).

Consistent with predictions, Mturk participants anticipated feeling less ARD as scope of justice increased and when they had received harm + responsibility information,  $\beta = -.76, p < .001$ . Scope of justice did not reduce ARD when no information was given,  $\beta = -.17, p = .33$ , and when harm information only was given,  $\beta = -.12, p = .18$  (scope of justice and type of information interaction,  $\Delta F(2, 261) = 4.11, \Delta R^2 = .03, p < .05$ ; see figure 8).

The above effects were not qualified by target group (animals, Global South, or women) (three way interactions: subject pool participants,  $F(2, 160) = 0.01, p = .98$ , Mturk participants,  $F(2, 310) = 0.09, p = .91$ ). Target group did, however, significantly impact feelings of ARD independent of scope of justice and type of information for subject pool participants,  $F(2, 160) = 4.05, p < .05, \eta_p^2 = .06$ ; participants who were given information about women ( $M = 1.77, SE = .26$ ) were more likely to anticipate feeling deprived than those given information about animals ( $M = 1.17, SE = .23$ ) or the Global South ( $M = 0.99, SE = .22$ ).

Figure 7: Interaction between scope of justice and type of information for feelings of ARD among subject pool participants

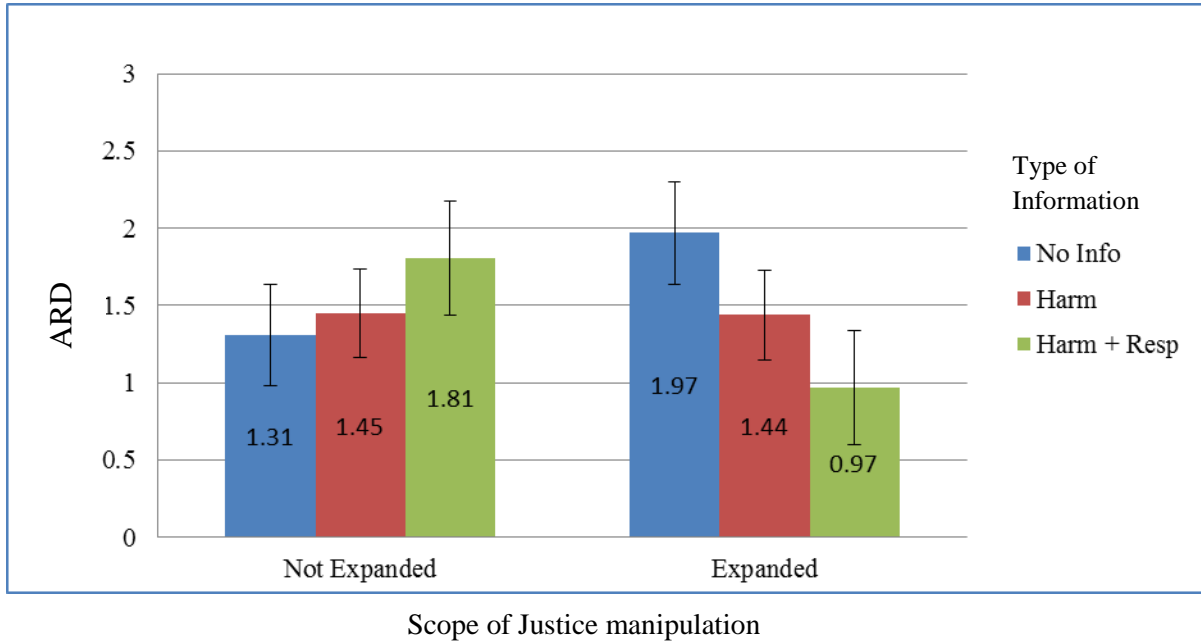
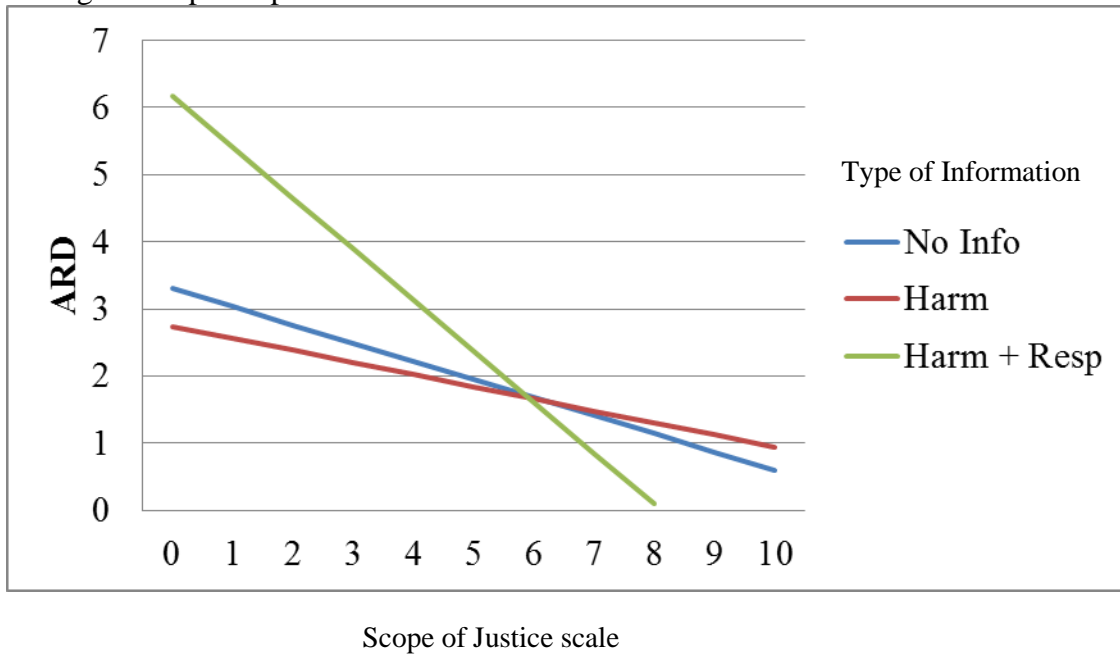


Figure 8: Interaction between scope of justice and type of information for feelings of ARD among Mturk participants



*Willingness.* Consistent with predictions, for subject pool participants whose scope of justice was expanded, willingness to take action increased from when harm + responsibility

information was given relative to no information, although being given harm only information did not impact willingness relative to the other two conditions. When scope of justice was not expanded, willingness decreased when harm + responsibility information was given relative to harm only and no information (scope of justice x type of information interaction,  $F(2, 160) = 4.90, p < .01, \eta_p^2 = .06$ ; see figure 9).

Consistent with predictions, Mturk participants felt more willingness to engage in social action as scope of justice increased and when they had received harm + responsibility information,  $\beta = .51, p < .001$ , and when they had received harm only information, although less so,  $\beta = .28, p < .001$ . Scope of justice did not reduce ARD when no information was given,  $\beta = .18, p = .29$  (scope of justice and type of information interaction,  $\Delta F(2, 261) = 3.39, \Delta R^2 = .02, p < .05$ ; see figure 10).

The above effects were not qualified by target group (three way interactions: subject pool participants,  $F(2, 160) = 0.89, p = .41$ , Mturk participants,  $F(2, 310) = 0.22, p = .81$ ). Target group did, however, significantly impact willingness to engage in social action independent of scope of justice and type of information for subject pool participants,  $F(2, 160) = 3.73, p < .05, \eta_p^2 = .05$ ; participants who were given information about women ( $M = 6.20, SE = .31$ ) were less likely to be willing to engage in action than those given information about animals ( $M = 7.15, SE = .27$ ), while neither group differed significantly from those given information about the Global South ( $M = 6.67, SE = .26$ ).

Figure 9: Interaction of scope of justice and type of information on behavioral willingness for subject pool participants

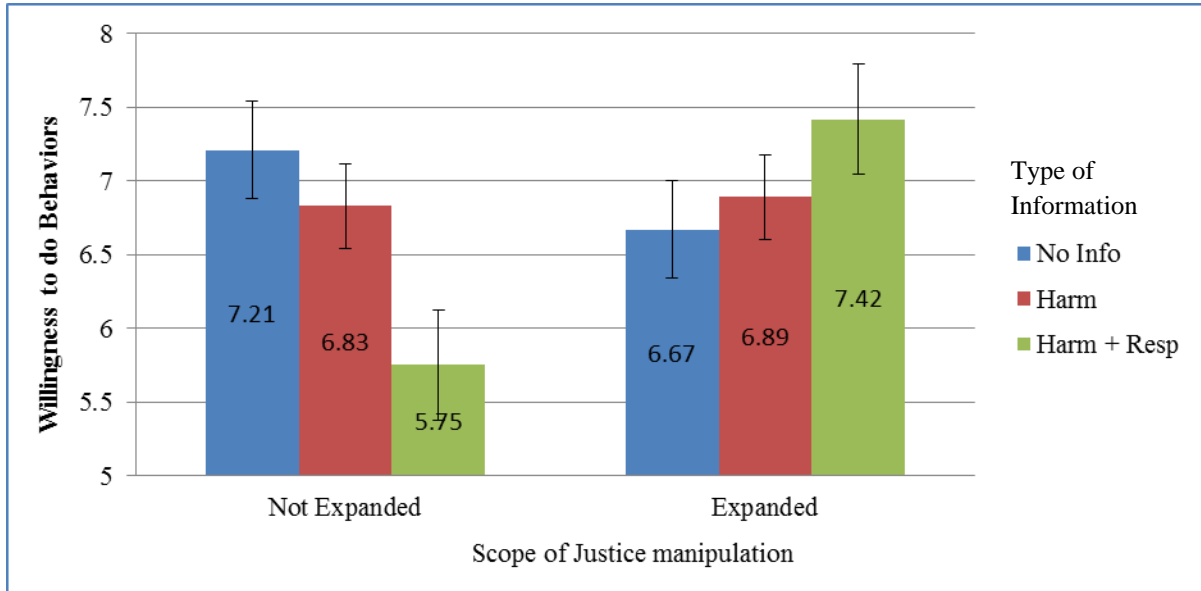
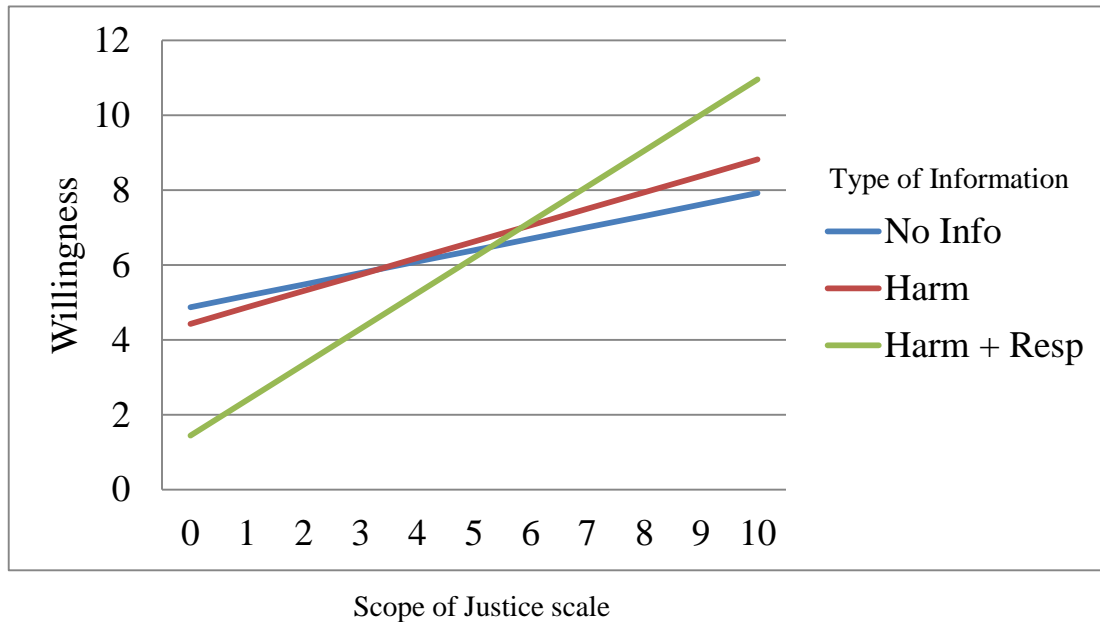


Figure 10: Interaction of scope of justice and type of information on behavioral willingness for MTurk participants



*Concern.* Following predictions, effects for concern were stronger when subject pool participants were in the expanded scope of justice condition and were given information about harm or harm + responsibility than in any of the other conditions,  $F(2, 152) = 2.04, p < .05, \eta_p^2 =$

.05. However, differences were only marginally different between the expanded scope of justice with harm information condition and the non-expanded no information condition (see figure 11).

Also consistent with predictions, Mturk participants were more likely to be concerned about the target group when scope of justice increased and when given either harm + responsibility information,  $\beta = .61, p < .001$ , or harm information,  $\beta = .30, p < .01$ . Scope of justice did not affect concern when participants were given no information,  $\beta = .04, p = .79$  (scope of justice and type of information interaction,  $\Delta F(2, 259) = 5.01, \Delta R^2 = .03, p < .01$ ; see figure 12).

The above effects were not qualified by target group (three way interactions: subject pool participants,  $F(2, 152) = 0.16, p = .86$ , Mturk participants,  $F(2, 308) = 0.33, p = .72$ ). Target group did, however, significantly impact concern independent of scope of justice and type of information for both subject pool,  $F(2, 152) = 6.09, p < .01, \eta_p^2 = .08$ , and Mturk participants,  $F(2, 308) = 3.40, p < .05, \eta_p^2 = .02$ . Subject pool participants were most concerned when given information about animals ( $M = 72.34, SE = 3.24$ ) compared to being given information about the Global South ( $M = 62.87, SE = 3.12$ ) or women ( $M = 57.17, SE = 3.63$ ). Mturk participants were more concerned about animals ( $M = 73.41, SE = 2.56$ ) than the Global South ( $M = 65.17, SE = 2.94$ ), but those given information about women did not differ significantly from either group ( $M = 69.42, SE = 2.36$ ).

Figure 11: Interaction between scope of justice and type of information on concern for target group among subject pool participants

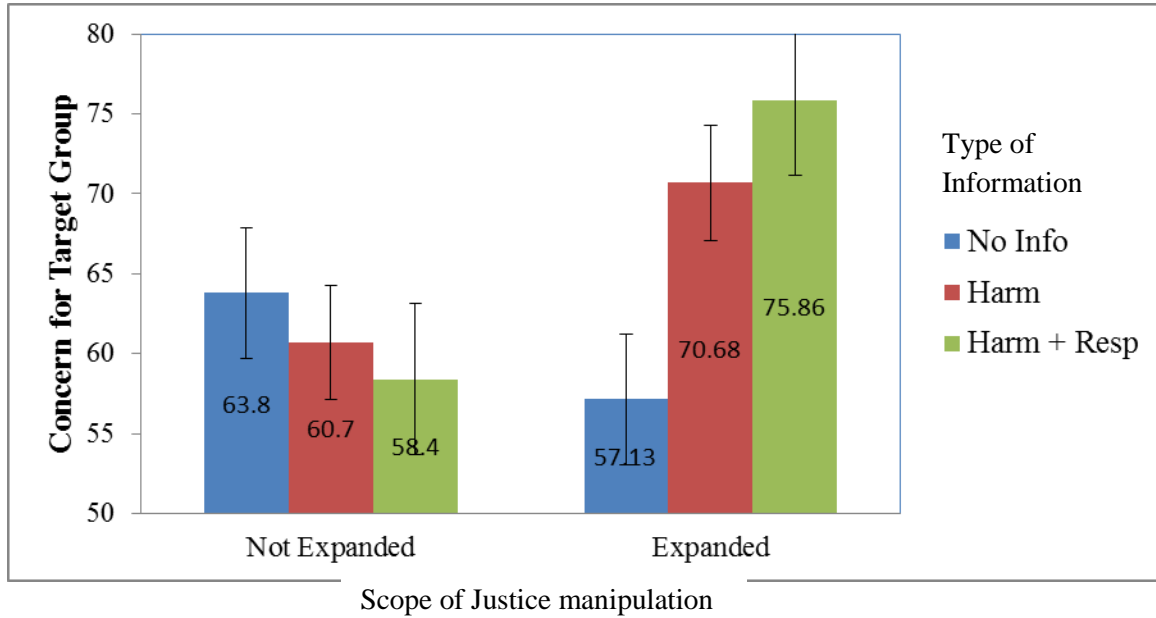
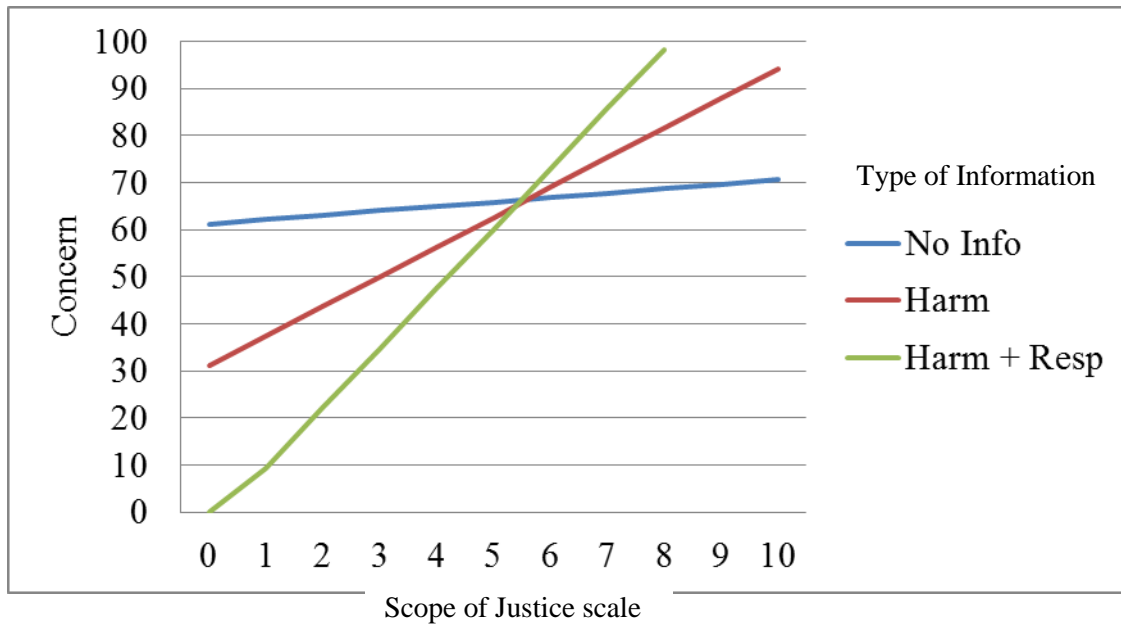


Figure 12: Interaction between scope of justice and type of information on concern for target group among Mturk participants



*Personal desire to help target group.* The pattern of results for personal desire to help the target group among subject pool participants followed the same pattern as feelings of ARD,  $F$

(2, 160) = 9.43,  $p < .001$ ,  $\eta_p^2 = .11$ . Consistent with predictions, subject pool participants in the expanded scope of justice condition felt the most desire to personally help when given harm + responsibility information ( $M = 67.58$ ,  $SE = 5.35$ ) than just harm information ( $M = 57.59$ ,  $SE = 5.53$ ), and more desire for others to help with given harm only over no information ( $M = 36.88$ ,  $SE = 4.64$ ). Those in the non-expanded condition felt less desire to personally help when given harm + responsibility information ( $M = 42.33$ ,  $SE = 5.56$ ) than just harm information ( $M = 54.81$ ,  $SE = 4.15$ ) or no information ( $M = 55.97$ ,  $SE = 4.95$ ).

In contrast, regression analyses for Mturk participants revealed that desire to personally help the target group was not influenced by an interaction between scope of justice and type of information,  $\Delta F(2, 261) = 1.10$ ,  $\Delta R^2 = .01$ ,  $p = .34$ . However, Mturk participants were more likely to want to personally help the target group when given harm + responsibility information ( $M = 62.60$ ,  $SE = 3.14$ ) than just harm information ( $M = 55.79$ ,  $SE = 2.59$ ) or no information ( $M = 49.01$ ,  $SE = 2.81$ ), irrespective of scope of justice,  $F(2, 310) = 5.22$ ,  $p < .01$ ,  $\eta_p^2 = .03$ .

The above effects were not qualified by target group (three way interactions: subject pool participants,  $F(2, 160) = 0.09$ ,  $p = .91$ , Mturk participants,  $F(2, 310) = 0.87$ ,  $p = .42$ ). Target group did, however, significantly impact personal desire to help independent of scope of justice and type of information for both subject pool,  $F(2, 160) = 3.28$ ,  $p < .05$ ,  $\eta_p^2 = .05$ , and Mturk participants,  $F(2, 310) = 7.02$ ,  $p < .01$ ,  $\eta_p^2 = .05$ . Subject pool participants were more likely to want to personally help animals ( $M = 56.47$ ,  $SE = 3.89$ ) or the Global South ( $M = 53.99$ ,  $SE = 3.72$ ) over women ( $M = 43.05$ ,  $SE = 4.44$ ). Mturk participants were more likely to want to personally help animals ( $M = 64.87$ ,  $SE = 3.08$ ) over women ( $M = 53.69$ ,  $SE = 2.84$ ) or the Global South ( $M = 49.78$ ,  $SE = 3.55$ ).



*Collective desire to help target group.* The pattern of results for desire for others to help the target group reflected the same pattern as personal desire to help among subject pool participants,  $F(2, 160) = 4.36, p < .05, \eta_p^2 = .06$ . Subject pool participants in the expanded scope of justice condition felt the most desire for others to help when given harm + responsibility information ( $M = 75.07, SE = 5.03$ ) than when just given harm information ( $M = 64.76, SE = 5.20$ ), and more desire for others to help with given harm only over no information ( $M = 55.08, SE = 4.36$ ). Those in the non-expanded condition felt less desire to personally help when given harm + responsibility information ( $M = 55.36, SE = 5.23$ ) than just harm information ( $M = 63.76, SE = 3.90$ ) or no information ( $M = 63.61, SE = 4.65$ ).

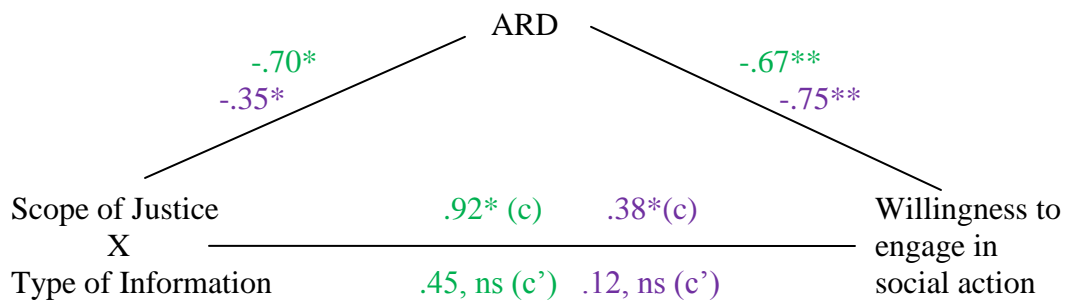
Mturk participants were more likely to desire others to help the target group as their scope of justice increased,  $\beta = .51, p < .001$ , although the strength of this likelihood was marginally dependent upon type of information,  $\Delta F(2, 261) = 2.97, \Delta R^2 = .02, p < .055$ . Specifically, scope of justice increased desire for others to help most when participants were given harm + responsibility information,  $\beta = .71, p < .001$ , as opposed to harm only,  $\beta = .50, p < .001$ , or no information,  $\beta = .45, p < .01$ .

The above effects were not qualified by target group (three way interactions: subject pool participants,  $F(2, 160) = 0.31, p = .74$ , Mturk participants,  $F(2, 310) = 0.30, p = .74$ ). Target group did, however, significantly impact personal desire to help independent of scope of justice and type of information for Mturk participants only,  $F(2, 310) = 3.83, p < .05, \eta_p^2 = .03$ . Mturk participants were more likely to believe that others should be helping animals ( $M = 73.03, SE = 2.77$ ) over the Global South ( $M = 65.33, SE = 3.20$ ) or women ( $M = 64.03, SE = 2.56$ ).

*Mediation Analyses*

Mediation analyses were conducted in order to test whether ARD mediates the relationship between the interaction of scope of justice and type of information on willingness to engage in social action. Bootstrapping procedures using 2000 samples and 95% bias-corrected confidence intervals were used to test the mediating role of ARD on the relationship between the scope of justice manipulation and type of information (using dummy coded contrasts separately for each of the three conditions) on willingness for subject pool participants, and the relationship between the scope of justice manipulation check scale (i.e., individual scope of justice) and type of information (again using dummy codes) on willingness for Mturk participants. Results revealed that ARD had a large, significant indirect effect on this relationship for both subject pool participants,  $B = .47, SE = .23, p < .05, F(4, 160) = 21.51, p < .001, R^2 = .35$ , and Mturk participants,  $B = .26, SE = .23, p < .05, F(4, 262) = 88.54, p < .001, R^2 = .57$ . Please refer to figure 13.

Figure 13: Indirect effect of ARD on the relationship between scope of justice X type of information on willingness to engage in social action

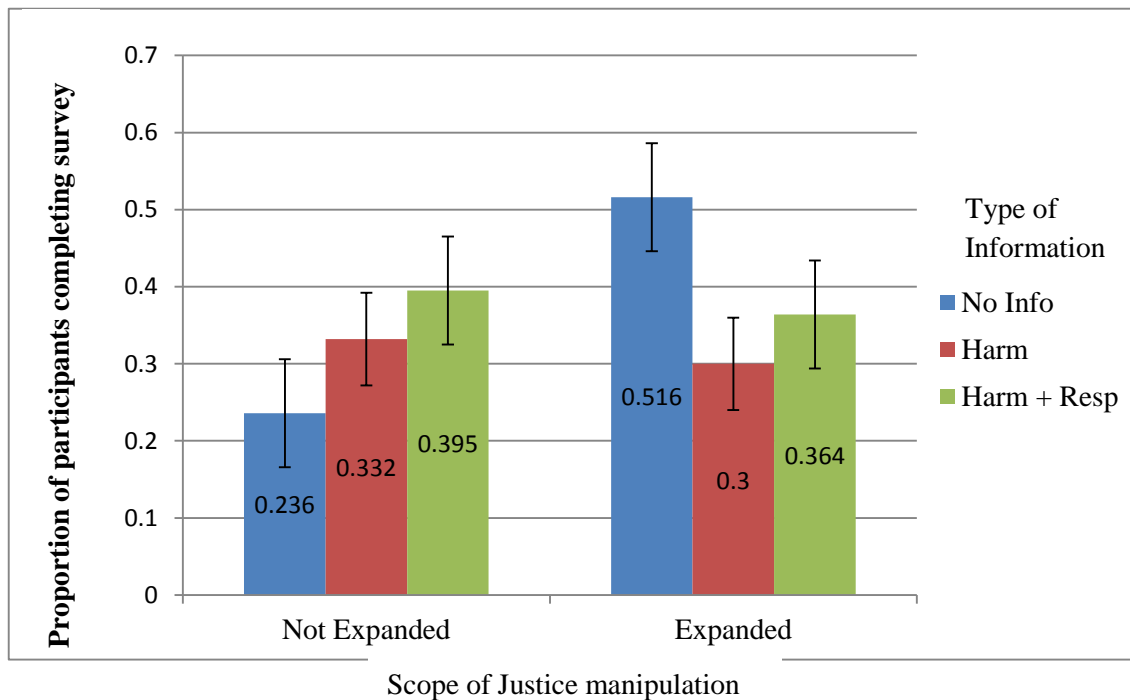


Subject Pool = green, Mturk = purple  
 \*  $p < .05$ , \*\*  $p < .01$

### One Week Follow-up Questionnaire

First, all one-week follow-up survey dependent variables were individually submitted to a 2 (scope of justice) X 2 (type of information) univariate ANOVA. Effects of target group were not analyzed for the one-week follow-up survey since there were not any interactions with target group for outcomes in the original study. The manipulation of scope of justice and type of information did not affect subject pool participants' willingness to complete the survey, but it did affect willingness for Mturk participants,  $F(2, 310) = 3.61, p < .05, \eta_p^2 = .02$ . Those who received the scope of justice expansion but not any information about harm or responsibility were significantly more likely to complete the follow-up survey than any of the other groups (although there was only a marginal difference between this group and those who were given harm + responsibility information but not the scope of justice expansion; see figure 14).

Figure 14: Interaction between scope of justice manipulation and type of information on Mturk participants' willingness to complete the one-week follow-up survey



There were no significant effects among either subject pool or Mturk participants for any other depended variables measured in the one week follow-up survey. Most patterns of results reflected this non-significant finding. However, the inability to detect the effect of ARD one week later may have been due to the relatively small sample size among subject pool participants ( $N = 21$ ),  $F(2, 20) = 1.81$ ,  $p = .21$ ,  $\eta_p^2 = .25$ .

### **Discussion**

Results supported hypotheses that expanding individuals' scope of justice, creating awareness of harm toward expanded groups, and creating awareness of responsibility for one's own actions regarding harms toward those groups impacts feelings ARD and concern for those impacted, willingness to decrease privilege and engage in social action, and desire for the self and others to help the target group. Findings indicate that the scope of justice manipulation coupled with information about harm and responsibility were effective for college students, while individual variation in scope of justice, independent of the effects of the manipulation, coupled with information about harm and responsibility were effective for adults. In addition, ARD explained the relationship between a scope of justice and type of information interaction and willingness to engage in social action.

Hypothesis 4a was supported in that individuals were more concerned about a target group when their scope of justice had been expanded to include that group and they were given information about harm or harm and responsibility than when given no information or when their scope of justice had not been expanded.

Hypothesis 4a was also mostly supported for desire for others to help the target group, but this interaction occurred slightly differently from predictions. Expanded scope of justice was more likely to influence higher desire for others to help in the harm + responsibility condition

over other conditions, but did not influence desire for others to help in the harm only condition, as predicted. Additionally, when individuals did not have an expanded scope of justice, this influenced a lesser desire for others to help in the harm + responsibility condition over other information conditions, which could possibly be explained by backlash against wanting to help a group who is not within one's scope of justice.

Hypothesis 4b was mostly supported for predictions regarding anticipatory relative deprivation. The manipulation of scope of justice for college students and the scope of justice scale for adult participants indicated that when individuals had an expanded scope of justice, being given information about harm + responsibility was most likely to reduce feelings of ARD compared to other forms of information. In contrast, getting more information created the opposite (non-significant) pattern for those without an expanded scope of justice: those in the no information condition reported lower levels of ARD, followed by harm only, and reported higher levels of ARD when given harm + responsibility information. I speculate that this may be due to a type of psychological resistance or reactance. In other words, individuals with a narrow scope of justice which does not include those who are being harmed may resent being told the group is harmed and further resent that their actions may be implicated in that harm or want to deny they have responsibility (e.g., avoiding feelings of guilt). This may be particularly relevant when considering previous assertions that individuals with privilege compare themselves to similar others and come to feel entitled to their privilege. Without an expanded scope of justice, being given information about harm or responsibility toward others may contribute to feelings of resentment and greater entrenchment of beliefs about entitlement.

Willingness to engage in social action and desire to personally help the target group followed the opposite pattern as ARD, in accordance with the theory proposed herein. In other

words, the combination of expanded scope of justice and harm + responsibility information led to the greatest willingness to engage in social action and desire to personally help, although expanded scope of justice individuals were still willing to engage in social action or personally help (although less so) when they received information about harm only. Again, there was a tendency toward a reactance among individuals whose scope of justice was not expanded as information increased from no information to harm only to harm + responsibility.

One limitation of the study was the inability to detect subtle differentiation between proposed outcomes. Specifically, it was proposed that an expanded scope of justice plus harm information should lead to concern and a desire for other people to help, while an expanded scope of justice plus harm plus responsibility information should lead to the belief that individuals should personally help, decreased ARD, and willingness to engage in social action which reduces privilege. Instead, all five of these outcome variables were highly related to each other (with ARD being inversely related in all cases), and followed a similar pattern: when scope of justice was expanded, each increased (or, in the case of ARD, decreased) as information increased from no information, to harm, to harm + responsibility, whereas when scope of justice was not expanded, each variable decreased (or ARD increased) as information was added. Study 4 was limited in its ability to detect the reason for these results. It is possible that participants were already somewhat aware that their behaviors are related to climate change impacts and therefore responsibility for harm, impacting the reported pattern of results personal desire, ARD, and willingness (i.e., this may be the reason for the finding (for Mturk participants; and the consistent non-significant pattern for subject pool participants) of harm information increasing levels of these variables over no information, although these conditions were predicted to lead to the same outcomes). Participants who received harm + responsibility information, then, may

have simply been given slightly more information than they already knew, or their knowledge about responsibility could have been temporarily reinforced. Likewise, this may have been the reason that concern and collective desire were stronger in the harm + responsibility condition than in the harm information condition alone. It is also possible, given the inconsistency in manipulation check measures, that reported awareness of harm and responsibility were less accurate measures of actual awareness of these two concepts but instead may have been influenced by participants' desire to acknowledge harm or responsibility toward target groups or psychological neutralization or backlash against feeling personally responsible for harms toward others.

The results of the one-week follow-up survey suggest that largely the effects of the study do not continue to influence participants after one week. Although completion of the study was influenced by the scope of justice manipulation and type of information among adult participants (despite that the scope of justice manipulation did not result in significant effects for this population during the initial study), it was not influenced by these factors for college students. Instead, college students showed a trend in an encouraging direction: there was a moderate effect of those in the expanded scope of justice group who received information about harm on feelings of ARD one week later. It is not clear why participants who received the harm only information would be more likely than those who received the harm + responsibility information to feel stronger feelings of ARD one week later. One possibility is that a time lapse of one week from having one's scope of justice expanded to the present, coupled with information that one's behaviors are responsible for that harm, may have again created a reactance effect. That is, receiving information about responsibility immediately after expanding one's scope of justice might decrease perceived entitlement to one's privileges, but as scope of justice wears off and

comparisons are made to other people with similar levels of privilege for another week, individuals might come to resent or reject the notion that they have a responsibility for harms done to others.

Effects of the target group (women, people from the Global South, and animals) seem to indicate that, irrespective of an individual's scope of justice and the type of information they receive, animals were most likely to influence positive outcomes (increased willingness to engage in social action, concern, and personal and collective desire to help, compared to other target groups). Women, on the other hand, usually received less positive outcomes (increased ARD and decreased willingness to engage in social action, concern, and personal and collective desire to help, compared to other target groups). People from the Global South tended to be somewhere in the middle of the other two groups, depending upon the outcome measure. Animals receiving the most positive outcomes is not a particularly surprising finding for a number of reasons: most people consider themselves to be animal lovers (Plous, 1993), the animal harm video purposely differed from the human harm videos in a number of ways, the animals depicted in the video were cute and cuddly, and people are relatively used to hearing about how climate change is harming animals, which may have made them more receptive to the messages. This last reason may have also been somewhat responsible for the moderate effect of the Global South; that is, individuals may be used to hearing about harms toward people in Africa (whether due to climate change or, more likely, other forms of social problems) and were willing to accept information about how climate change is affecting that population. Women and gendered impacts for women, on the other hand, are largely invisible both in terms of climate change and other global problems to American media and individuals, and many Americans believe that discrimination toward women is not a problem and do not support policies designed



to help women (Swim, Aiken, Hall, & Hunter, 1995). Being presented with a request to give up personal privilege for women, a group that one does not believe is being harmed in the first place, may have created a reactance effect in which participants were less concerned, less willing to help and engage in action, and therefore participants anticipated feeling more deprived

It is not clear why the manipulation of expanding scope of justice did not work for the adult population but was effective for the college student population (although beyond the effectiveness of the manipulation, both groups tended to respond similarly on all outcome measures). Possible reasons for this difference may be that college students put more effort into the scope of justice exercises because the study was related to a college course for which they received credit, because college students were more persuaded by a scientific research study, or because college students may be more open to shifts in belief and identity (see, for example, Dolby, 2000). Although age was controlled for in the analyses, the act of currently attending college and being engaged in academic discourse may have created a greater willingness among college students to shift their thinking regarding scope of justice.

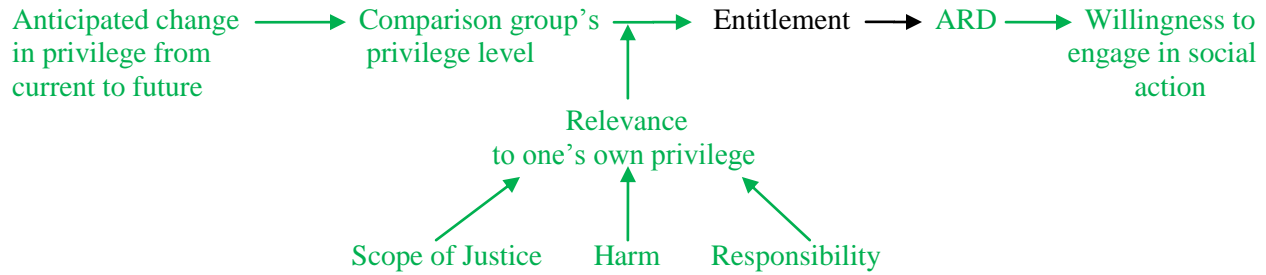
## **X. General Discussion**

The results across four studies substantiate the theory that anticipatory relative deprivation acts a barrier to getting individuals to engage in social justice action. Further, consistent with the proposed model, expanding an individual's scope of justice to those who are harmed by one's privilege, coupled with information about harm and responsibility, can decrease ARD and subsequently increase willingness to take action on behalf of others.

Study 1 showed that feelings of ARD for a variety of specific social justice issues are highly related to unwillingness to engage in actions to support those issues. Study 2 illustrated that, in general, the default is to compare oneself to others who have similar levels of privilege,

and that feelings of ARD are relative to the amount of privilege the comparison group has. Specifically, when a comparison group has the same or more privilege, ARD increases as the comparison group's privilege increases, and when a comparison group has less privilege, ARD decreases as the comparison group's privilege decreases. Study 3 was successful in experimentally manipulating levels of a comparison group's privilege and illustrating that the amount of others' privilege influences personal feelings of ARD. However, Study 3 was not successful in manipulating relevance of the comparison group, which may be difficult to change in an experimental/laboratory setting. Study 3 might also have failed to manipulate relevance because participants may not have been aware of harm or responsibility toward the comparison group, two requirements in the model for reducing ARD. Study 4, however, showed that expanding scope of justice toward groups that are harmed by an excess of privilege for advantaged individuals, in addition to recognition that those individuals are responsible for the harm, can lead to decreased feelings of ARD and increased willingness to engage in social justice action.

Thus, all parts of the proposed model were supported except for entitlement, which was only tested in Study 3. Therefore, it is not clear whether entitlement is a necessary component to the model. I would argue that entitlement *is* a critical and necessary component to the model because believing that one deserves or is entitled to have privilege is what leads to beliefs that giving up privilege is unfair, thus anticipated feelings of deprivation. Future studies should verify this claim.



One important finding from Study 4 is that information about climate change harms to women was less influential in terms of reducing ARD and increasing willingness, concern, and personal and collective desire to help compared to information about animals or people from the Global South generally. This is a troubling, yet not altogether surprising, finding. Research on gender and climate change indicates that women are largely unrecognized in the climate change debate, both in terms of impacts for women and recognition of their voices and viewpoints in mitigation strategies. Animals, and to some degree people in Africa and coastal regions of the South Eastern Pacific, are more typically shown as the victims of climate change. This more constant media exposure may make it easier for Americans to feel concerned about the harms happening to these groups due to climate change or to more easily understand how their own actions affect these groups.

However, harm and inequality for women is largely invisible not just in the climate change debate but across many other contexts, such as equality in the workforce or domestic spheres (consider, for example, the GOP's current dismissal of scientific research which shows that women make only 77% of the wages of men in the same occupations; e.g., NewsBusters). Such invisibility of sexism in the United States is promoted through a number of means, including androcentric language, valuing of male-dominated occupations and traits, and biological essentialism which characterizes gender differences as innate and justifies the inequitable treatment of women. This disparity may be even more exaggerated in other cultures

with stronger hegemonic values (Bloodhart & Swim, 2011). In addition, patriarchal beliefs that men should or will take care of women and children (e.g., Glick & Fiske, 1996) or perhaps the alternate view that women could change their situation if they tried hard enough (e.g., O'Brien & Major, 2004) may dissipate concern about climate change impacts specific to women. Thus, cultural beliefs about gender may have influenced how seriously information about climate change harms to women was taken. However, as the information videos emphasize, women's marginalized social position and lack of economic resources make them more vulnerable than men to climate change impacts and allow them less of a say in ways to mitigate the problem (e.g., see Denton, 2002). Studies on the psychology of gender and climate change need to continue examining strategies to specifically break through traditional and essentialist beliefs about gender when promoting climate change solutions.

### *Limitations*

The most significant limitation to the current studies is that relevance of comparison groups could not be experimentally manipulated in Study 3. As argued previously, it may be quite difficult to give participants information about other groups in an experimental setting without creating the illusion that information being given about those groups *should* somehow be relevant to the participant. However, it may be possible to give this information to participants in a more surreptitious way so that participants do not consider it to be important to the researchers (e.g., making an off-handed comment about another group's level of privilege in the supposed context of a different study), and future studies should examine this possibility. It can be argued, though, that relevance of the comparison group was manipulated in Study 4 by expanding or not expanding scope of justice toward a comparison group, which did impact ARD as predicted. In addition, future studies should also explore whether expanding scope of justice

reduces feelings of entitlement as well as ARD, and whether entitlement mediates the relationship between scope of justice (with harm and responsibility information) and ARD.

A second limitation was the inability to detect subtle differentiation between proposed outcomes in Study 4. Although the overall model including ARD and willingness was supported, the more specified flow chart which shows differential reactions when the complete relevance is expanded (i.e., when scope of justice, harm, and responsibility are given) was not completely supported. Specifically, it was proposed that an expanded scope of justice plus harm information should lead to concern and a desire for other people to help, while an expanded scope of justice plus harm plus responsibility information should lead to decreased ARD, the belief that individuals should personally help, and willingness to engage in social action which reduces privilege. Instead, all five of these outcome variables were highly related to each other (with ARD being inversely related in all cases). This may have been due to preexisting awareness about climate change harms and responsibility, particularly in respect to target group such as animals, or the ability of the manipulation check measure to detect actual awareness and not a response bias., It would be helpful for future studies to clarify this inconsistency by assessing awareness of harm and responsibility in a less obvious measure or outside of the context of a social justice study in which participants would be required to engage in behaviors or support policies which would affect their current privilege.

Some might argue that the studies are limited in their ability to employ feminist methodology. Feminist methodology asserts that the knowledge and agency of those who are being studied is incorporated into the theoretical inquiry of the study and the outcomes proposed from its findings. For example, participatory action calls upon researchers to include their research subjects as active participants in the research process who help to shape the way that

research is conducted. This helps to ensure that the right kinds of questions can be asked to highlight the experiences of participants and that findings and proposals for change can be useful to those participants in their own cultural and situational contexts. On one hand, it may appear that the knowledge and perspective of the subjects of this dissertation were not included, and that the studies do not attempt to research the experiences of marginalized groups.

On the other hand, the intention of exploring ARD as a barrier to engagement in social justice action *is*, in many ways, coming from a marginalized perspective by naming the privilege explored herein as an advantage or excess, and those who have it as privileged relative to many people in the world. To say that individuals who are experiencing ARD are deprived because they feel entitled to more privilege than they actual deserve intentionally ignores the assumed standpoint of those individuals: that their privilege is normal and deserved. Such a standpoint, from a feminist perspective, is only considered normative, however, because those with power and privilege frame it as such, in order to justify inequality over others. Instead, this work is meant to highlight and explore marginalized perspectives of those with power and privilege as this is often the “invisible” experience and thus ignored as normative. That is, the foundation of inquiry from which this dissertation is based is intentionally anti-androcentric and anti-normative. It is meant to challenge dominant ideologies which uphold systems of power and break down the hierarchical status-quo and such foundations would not have been observed outside of a deliberately feminist perspective.

I should be clear, however, that I do not intend to speak for all marginalized individuals. As a relatively wealthy, highly educated U.S. citizen, I believe that those with the kind of privilege I am afforded *must* necessarily decrease their privilege in order to create equality, but I cannot say that many marginalized individuals would agree with this assertion. Indeed, system

justifying ideologies may heavily influence many marginalized individuals, both within and outside the United States, to adhere to the notion that affluence and power is something to be aspired to, that those who have it have earned it, and that all individuals can attain it if they work hard enough (e.g., Jost, Banaji, & Nosek, 2004). As such, many low-power groups may continue to support ideas, policies, and laws which benefit the wealthy and further marginalize themselves. In addition, although I can say that my experience as a woman has given me a valid perspective about the marginalization of women, I cannot say that my perspective about ways to change this marginalization is a suitable or agreed-upon solution for women of different races, classes, sexual orientations, educations, or an array of other social group-based identities. Thus, the argument proposed herein, that the privilege of the advantaged must be decreased in order to create equality for marginalized groups, is influenced by my own situated knowledge and standpoint. I would argue, however, that this argument attempts to both acknowledge the standpoints of marginalized groups while also evaluating social disparity and the availability of privilege from a theoretical, psychological, and feminist perspective.

### *Future Directions*

The most obvious direction from which to continue this work is to develop an intervention program in which expansion of scope of justice, and giving information about harm and responsibility, can promote willingness to engage in social justice by decreasing ARD. Particularly, I would like to explore whether the one-week follow up study showing a non-significant but moderate effect of decreasing ARD for subject pool participants can be replicated as significant with a larger sample size. In addition, further studies could examine whether adding additional components to an intervention program could help to maintain effects (such as reminders or receiving information gradually over time). It would also be interesting to know

whether the effects of Study 4 would be replicated when highlighting the harms of other current social issues and whether it might be easier or more difficult to decrease ARD in these other contexts relative to a climate change context. I would argue that, depending upon the social issue, it might be easier to decrease feelings of ARD compared to the context of impacts from climate change. For one, climate change is psychologically distant from the participants in the studies, both spatially and temporally, which has been shown to decrease perceptions of risk and concern about the issue (e.g., Bord, Fisher, & O'Connor, 1998; Weber, 2006), while the harms associated with other types of social issues might be more apparent, or their impacts more visible. For another, there are multiple ways in which people psychologically deny or justify harms associated with other forms of social injustice, but most of these issues are arguably not denied to be occurring at all, in the same way as the existence of climate change. In other words, it might be harder for members of advantaged groups to deny that their privilege is linked to the harms others experience from other forms of social injustice in the same way they might be able to do with climate change.

Another future extension of this work would be to examine how ARD functions in other contexts outside of social justice (in, for example, interpersonal interactions) and whether anticipating feeling relatively deprived is worse, or stronger, than the actual experience of being deprived once one loses privilege. This possibility is supported in other types of research. For example, Mallet, Wilson & Gilbert (2008) found that White participants' intergroup interactions with Black participants were more positive than expected, although their positive expectations increased when they focused on the similarities between groups (arguably much like the scope of justice expansion used here). Although it is not necessary for ARD to be stronger than actual experiences of RD to act as a barrier to engaging in a behavior which would result in a loss, it



might be a useful tool for helping to reduce ARD. In other words, if people are aware that they will not feel as deprived as they fear they will, this might help to reduce the barrier that the anticipation presents.

### *Conclusion*

I arrived at the concept of ARD by thinking about the psychological processes that occur during the vehement and sometimes violent protection of the status-quo. Feminist theory argues that members of dominant groups create laws, beliefs, and norms that serve to maintain their privilege, and that this can be related to fear of or anger at losing dominant status when others “move up” and gain privilege. This research is particularly relevant to feminist concerns in that it examines an important theoretical basis of feminism: that those with status, power and advantage are inclined to maintain that advantage and do so through a psychological understanding and projection of the world which supports the status-quo. One specific way this happens is by advantaged individuals comparing their own privilege with similar others’ privilege, which creates beliefs about entitlement to privilege and creates anticipatory relative deprivation at the thought of losing that privilege, acting as a barrier to engagement in actions which would help others. However, many members of advantaged groups *do* engage in social action, feel strongly committed to the welfare of marginalized groups, and recognize that it will take action on behalf of those in power to rectify social injustices. The current group of experimental studies support that this is due to an expanded scope of justice toward disadvantaged groups, a realization that these groups are harmed, and the recognition that one’s own privilege is responsible for the harm. Thus, this dissertation does not simply address one specific instance of social injustice toward women or the environment, rather it addresses a broader psychological barrier to engagement in social justice action which may impact women in addition to many other

marginalized groups or those with intersecting identities (e.g., race, sexual orientation, age, class).

## References

- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. M. (1950). *The Authoritarian Personality*. New York: Harper.
- Allport, G. W. (1954). *The Nature of Prejudice*. Reading, MA: Addison-Wesley.
- Anderson, W. D. & Patterson, M. (2010). The role of psychological distance in the formation of fairness judgments. *Journal of Applied Social Psychology, 40*, 2888-2903.
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Berenguer, J. (2007). The effect of empathy in proenvironmental attitudes and behaviors. *Environment and Behavior, 39*, 269-283.
- Bloodhart, B. & Swim, J. K. (2010). Equality, harmony, and the environment: An ecofeminist approach to understanding the role of cultural values on the treatment of women and nature. *Ecopsychology, 2*, 187-194.
- Bord, R. J., Fisher, A., & O'Connor, R. E. (1998). Public perceptions of global warming: United States and international perspectives. *Climate Research, 11*, 75-84.
- Branscombe, N. R. & Ellemers, N. (1998). Coping with group-based discrimination: Individualistic versus group-level strategies. In J. K. Swim and C. Stangor (Eds.) *Prejudice: The Target's Perspective*, p. 243-266. San Diego: Academic Press.
- Brehm, J. W. (1956). Postdecision changes in the desirability of alternatives. *The Journal of Abnormal and Social Psychology, 52*, 384-389.
- Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin, 86*, 301-324.
- Brown, L. M. & Lopez, G. E. (2001). Political contrasts: Analyzing the role of similarity in theories of prejudice. *Political Psychology, 22*, 279-292.
- Buhrmester, M. D., Kwang, T. & Gosling, S. D. (in press). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*.
- Butler, J. (1990). *Gender Trouble*. New York: Routledge.
- Butler, J. (2004). *Undoing Gender*. New York: Routledge.

- Bylsma, W. H. & Major, B. (1994). Social comparisons and contentment: Exploring the psychological costs of the gender wage gap. *Psychology of Women Quarterly*, 18, 241-249.
- Caplan, N. (1970). The new ghetto man: A review of recent empirical studies. *Journal of Social Issues*, 26, 59-73.
- Carney, D. R., Jost, J. T., Gosling, S. D. & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology*, 29, 807-840.
- Clayton, S. & Opatow, S. (2003). *Identity and the Natural Environment*. Cambridge, MA: MIT Press.
- Cole, A. (2007). *The cult of true victimhood*. California: Stanford University Press.
- Collins, R. L. (1996). For better or worse: The impact of upward social comparison on self-evaluations. *Psychological Bulletin*, 119, 51-69.
- Crawford, J. T. & Naditch, M. (1970). Relative deprivation, powerlessness, and militancy: The psychology of social protest. *Psychiatry: Journal for the Study of Interpersonal Processes*, 33, 208-223.
- Crompton, T. (2008). *Weathercocks and Signposts: The environment movement at a crossroads*. Godalming, Surrey: World Wild life Foundation - UK.
- Cromwell, P. & Thurman, Q. (2003). The devil made me do it: Use of neutralizations by shoplifters. *Deviant Behavior*, 24, 535-50.
- Crosby, F. (1976). A model of egoistical relative deprivation. *Psychological Review*, 83, 85-113.
- Crosby, F. (1982). *Relative Deprivation and Working Women*. New York: Oxford University Press.
- Crosby, F. (1984). Relative deprivation in organizational settings. *Research in Organizational Behavior*, 6, 51-93.
- Davies, J. C. (1969). The J-curve of rising and declining satisfactions as a cause of some great revolutions and a contained rebellion. In H. T. Graham and T. R. Gurr (Eds.) *The History of Violence in America: Historical and Comparative Perspectives*, p. 670-730. New York, Praeger.
- Denton, F. (2002). Climate change vulnerability, impacts, and adaptation: Why does gender matter? *Gender and Development*, 10, 10-20.
- Deutsch, M. (1974). Awakening the sense of injustice. In M. Lerner and M. Ross (Eds.),

*The Quest for Justice, Myth, reality, ideal: Proceedings of a conference held at the University of Waterloo, May, 1972*, pp. 19-42.

- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled responses. *Journal of Personality and Social Psychology*, 56, 5-18.
- Devos, T. & Benaji, M. R. (2005). American = White? *Journal of Personality and Social Psychology*, 88, 447-466.
- Dolby, N. (2000). The shifting ground of race: The role of taste in youth's production of identities. *Race, Ethnicity and Education* 3, 7-23.
- Dube, L. & Guimond, S. (1986). Relative deprivation and social protest: The personal-group issue. In J. M. Olsen, C. P. Herman & M. P. Zanna (Eds.), *Relative Deprivation and Social Comparison: The Ontario Symposium* (Vol. 4, p. 201-216). Hillsdale, NJ: Lawrence Erlbaum.
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. (2000). Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues*, 56, 425-442.
- Dutcher, D., Finley, J., Luloff, A.E. & Buttolph Johnson, J. (2007). Connectivity with nature as a measure of environmental values. *Environment and Behavior*, 39, 474-493.
- Ellard, J. M. (1983). An exploratory study of the "Existential Charade." Unpublished MA thesis, University of Waterloo, Waterloo, Ontario, Canada.
- Environmental Protection Agency (2011). Learn the Issues: Water. Retrieved on June 1, 2011 from <http://www.epa.gov/gateway/learn/water.html>
- Exline, J. J. & Lobel, M. (1999). The perils of outperformance: Sensitivity about being the target of a threatening upward comparison. *Psychology Bulletin*, 125, 307-333.
- Eyal, T., Liberman, N., & Trope, Y. (2008). Judging near and distant virtue and vice. *Journal of Experimental Social Psychology*, 4, 1204-1209.
- Feygina, I., Goldsmith, R. & Jost, J. (2008). System justification and the disruption of environmental goal-setting: A self-regulatory perspective. In R. R. Hassin, K. Ochsner, & Y. Trope (Eds.), *Social Cognitive and Neuroscientific Approaches to Self-Control*. [Social Cognition and Social Neuroscience Series.] New York: Oxford University Press.
- Gaertner, S. L. & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio and S. L. Gaertner (Eds.) *Prejudice, Discrimination, and Racism*, p. 61-86. Orlando: Academic Press.
- Gaertner, S. L., Mann, J. A., Dovidio, J. F., Murrell, A. J., & Pomare, M. (1990). How does

- cooperation reduce intergroup bias? *Journal of Personality and Social Psychology*, 59, 692-704.
- Gaertner, S. L. & Dovidio, J. F. (2009). A common ingroup identity: A categorization-based approach for reducing intergroup bias. In T. D. Nelson (Ed.) *Handbook of Prejudice, Stereotyping, and Discrimination*, p. 489-502. New York: Psychology Press.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality & Social Psychology*, 78, 708-724.
- Glick, P. & Fiske, S. T. (1996). The ambivalent sexism inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70, 491-512.
- Grofman, B. N. & Muller, E. N. (1973). The strange case of relative gratification and potential for political violence: The V-curve hypothesis. *American Political Science Review*, 67, 514-539.
- Guimond, S. & Dambrun, M. (2002). When prosperity breeds intergroup hostility: The effects of relative deprivation and relative gratification on privilege. *Personality and Social Psychology Bulletin*, 28, 900-912.
- Gurr, T. (1970). *Why Men Rebel*. Princeton NJ: Princeton University Press.
- Hafer, C. L. & Olsen, J. M. (2003). An analysis of empirical research on the scope of justice. *Personality and Social Psychology Review*, 7, 311-323.
- Haraway, D. (2004). Situated knowledges: The science question in feminism and the privilege of partial perspective. In S. Harding (Ed.) *The Feminist Standpoint Theory Reader*, p. 81-102. New York: Routledge.
- Harding, S. (2004). Rethinking standpoint epistemology: What is "strong objectivity"? In S. Harding (Ed.) *The Feminist Standpoint Theory Reader*, p. 127-140. New York: Routledge.
- Hegarty, P., Lemieux, A. F. & McQueen, G. (2010). Graphing the order of the sexes: Constructing, recalling, interpreting, and putting the self in gender difference graphs. *Journal of Personality and Social Psychology*, 98, 375-391.
- Heider, F. (1958). *The Psychology of Interpersonal Relations*. New York: John Wiley.
- Heine, S. J. (2008). *Cultural Psychology*. New York: Norton.
- Henry, S. & Eaton, R. (1999). *Degrees of deviance: Student accounts of their deviant behaviour*. Salem, WI: Sheffield.

- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology*, *53*, 575–604.
- Hornsey, M. J. (2008). Social identity theory and social categorization theory: A historical review. *Social and Personality Psychology Compass*, *2/1*, 204-222.
- Jaggar, A. M. (1993). Moral justification, philosophy and critical social theory. *Monthly Review*, *45*, 17-27.
- Jaggar, A. M. (1996). Gender, race and difference: Individual consideration vs. group-based affirmative action in admissions to higher education. *Southern Journal of Philosophy*, *XXXV Supplement*.
- Jones, F., Annan, D. & Shah, S. (2008). The distribution of household income 1977 to 2006/07. *Economic and Labor Market Review*, *2*, 18-31.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system justification and the production of false consciousness. *British Journal of Social Psychology*, *33*, 1–27.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, *25*, 881–919.
- Kasser, T. (2011). Cultural values and the well-being of future generations: A cross-national study. *Journal of Cross-Cultural Psychology*, *42*, 206-215.
- Klockars, C. K. (1974). *The professional fence*. New York: Free Press.
- Leach, C. W., Snider, N. & Iyer, A. (2002). ‘Poisoning the consciences of the fortunate’: The experience of relative advantage and support for social equality. In I. Walker & H. Smith (Eds.), *Relative Deprivation: Specification, Development, and Intergration*, p. 136-163. Cambridge: Cambridge University Press.
- Leets, L. (2001). Interrupting the cycle of moral exclusion: A communication contribution to social justice research. *Journal of Applied Social Psychology*, *31*, 1859-1891.
- Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion*. New York: Plenum.
- Lind, E. A. & Tyler, T. R. (1988). *The Social Psychology of Procedural Justice*. New York: Plenum.
- Lorber, J. (1994). *Paradoxes of Gender*. New Haven, CT: Yale University Press.
- Lorber, J. (2005). *Breaking the Bowls: Degendering and Feminist Change*. New York, NY: W. W. Norton & Company, Inc.

- MacKinnon, C. A. (1989). *Toward a Feminist Theory of the State*. Cambridge: Harvard University Press, 1989
- MacKinnon, C. A. (2004). Feminism, Marxism, method, and the state: toward feminist jurisprudence. In S. Harding (Ed.), *The feminist standpoint theory reader: intellectual and political controversies* (pp. 169-193). New York: Routledge.
- Mallet, R. K. & Swim, J. K. (2004). Collective guilt in the United States: Predicting support for social policies that alleviate social injustice. In N. R. Branscombe & B. Doosje (Eds.) *Collective Guilt: International Perspectives*, p. 56-74. New York: Cambridge University Press.
- Mallett, R. K., Wilson, T. D., & Gilbert, D. T. (2008). Expect the unexpected: Failure to anticipate similarities leads to an intergroup forecasting error. *Journal of Personality and Social Psychology*, *94*, 265–277.
- Mallet, R. K. & Swim, J. K. (2007). The influence of inequality, responsibility and justifiability on reports of group-based guilt for ingroup privilege. *Group Processes and Intergroup Relations*, *10*, 57-69.
- Mallet, R. K., Huntsinger, J. R., Sinclair, S. & Swim, J. K. (2008). Seeing through their eyes: When majority members take collective action on behalf of an outgroup. *Group Processes and Intergroup Relations*, *11*, 451-470.
- Matza, D. (1964). *Delinquency and Drift*. New York: John Wiley & Son.
- McCarl N. J., Walden, G. & Kunkel, C. A. (2000). Gendered heteronormativity: Empirical illustrations in everyday life. *The Sociological Quarterly*, *41*, 283-296.
- McGregor, S. L. T. (2008). Conceptualizing immoral and unethical consumption using neutralization theory. *Family and Consumer Sciences Research Journal*, *36*, 261-276.
- Mikula, G. (1993). On the experience of injustice. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology*, *4*, 223-244.
- Milfont, T. L., & Duckitt, J. (2006). Preservation and utilization: Understanding the structure of environmental attitudes. *Medio Ambiente y Comportamiento Humano*, *7*, 29-50.
- Minor, W. (1981). Techniques of neutralization: A reconceptualization and empirical examination. *Journal of Research in Crime and Delinquency*, *18*, 295-318.
- Montada, L. & Schneider, A. (1989). Justice and emotional reactions to the disadvantaged. *Social Justice Research*, *3*, 313-344.



- Nash, R. F. (1989). *The Rights of Nature: A History of Environmental Ethics (History of American Thought and Culture)*. Madison, Wisconsin: University of Wisconsin Press.
- Newsbusters (2012). Retrieved May 3, 2012 from: <http://m.newsbusters.org/blogs/jack-coleman/2012/05/01/equal-pay-equal-work-msnbc-liberal-network-refuses-say>.
- Nussbaum, M. (2000). *Women and Human Development: The Capabilities Approach*. New York: Cambridge University Press.
- Nussbaum M. & Sen, A. (1993). *The Quality of Life*. Oxford: Clarendon Press.
- O'Brien, L. T. & Major, B. (2004). Group status and feelings of personal entitlement: The roles of social comparison and system-justifying beliefs. In J. T. Jost, A. C. Kay, & H. Thorisdottir (Eds.) *Social and Psychological Bases of Ideology and System Justification*. New York: Oxford.
- Opatow, S. (1987). Limits of fairness: An experimental examination of antecedents of the scope of justice. *Dissertation Abstracts International*, 48 (08B), 2500. (University Microfilms No. 87-24072).
- Opatow, S. (1990). Moral exclusion and injustice: An overview. *Journal of Social Issues*, 46, 1-20.
- Opatow, S. (1993). Animals and the scope of justice. *Journal of Social Issues*, 49, 71-85.
- Opatow, S. (1994). Predicting protection: Scope of justice and the natural world. *Journal of Social Issues*, 50, 49-63.
- Opatow, S. & Clayton, S. (1994). Green justice: Conceptions of fairness and the natural world. *Journal of Social Issues*, 50, 1 - 11.
- Paluck, E. L. (2009). Reducing intergroup prejudice and conflict using the media: A field experiment in Rwanda. *Journal of Personality and Social Psychology*, 96, 574-587.
- Perdue, C. W., Dovidio, J. F., Gurtman, M. B., & Tyler, R. B. (1990). Us and them: Social categorization and the process of intergroup bias. *Journal of Personality & Social Psychology*, 59, 475-486.
- Pew Research Center. (2006). Luxury or necessity? Things we can't live without: The list has grown in recent decades. Retrieved February 15, 2011 from <http://pewsocialtrends.org/pubs/323/luxury-or-necessity>.
- Philipose, P. (2006). How free can we possibly ever be? Op-Ed Article Retrieved February 20, 2011 from [http://www.binaagarwal.com/popular%20writings/BookRelease%20&%20Sen-Nussbaum%20debate\\_IndianExpress\\_27Mar06.pdf](http://www.binaagarwal.com/popular%20writings/BookRelease%20&%20Sen-Nussbaum%20debate_IndianExpress_27Mar06.pdf).

- Phillips, S. T. & Ziller, R. C. (1997). Toward a theory and measure of the nature of nonprejudice. *Journal of Personality and Social Psychology, 72*, 420-434.
- Plous, S. (1993). Psychological mechanisms in the human use of animals. *Journal of Social Issues, 49*, 11-52.
- Plous, S. (2003). Is there such a thing as prejudice toward animals? *Understanding Prejudice and discrimination* (pp. 509-523). New York, NY: McGraw-Hill Higher Education.
- Pratto, F., Sidanius, L. M., Stallworth, J. & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology, 67*, 741-763.
- Pratto, F., Korchmaros, J. D. & Hegarty, P. (2007). When race and gender go without saying. *Social Cognition, 25*, 221-247.
- Pugliese, A. & Ray, J. (2009). *Awareness of climate change and threat vary by region*. Gallup.
- Revkin, A. (2008). Ecuador Constitution Grants Rights to Nature. Op-Ed: *The New York Times*. Retrieved on May 12, 2011 from <http://dotearth.blogs.nytimes.com/2008/09/29/ecuador-constitution-grants-nature-rights/>.
- Ros, M., Schwartz, S. H. & Surkiss, S. (1999). Basic individual values, work values, and the meaning of work. *Applied Psychology: An International Review, 48*, 49-71.
- Ruggeiro, K. & Taylor, D. M. (1995). Coping with discrimination: How disadvantaged group members perceive the discrimination that confronts them. *Journal of Personality and Social Psychology, 68*, 826-838.
- Runciman, W. G. (1966). *Relative Deprivation and Social Justice. A Study of Attitudes to Social Inequality in Twentieth Century England*. London: Routledge.
- Runciman, W. G. (1968). Problems of research on relative deprivation. In H. H. Hyman & E. Singer (Eds.), *Readings in Reference Group Theory and Research*, (p. 69-76). New York: Free Press.
- Schultz, P. W. (2001). The structure of environmental concern: Concern for self, other people, and the biosphere. *Journal of Environmental Psychology, 21*, 327-339.
- Schultz, P. W., Shriver, C., Tabanico, J. J. & Khazian, A. M. (2004). Implicit connections with nature. *Journal of Environmental Psychology, 24*, 31-42.
- Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology: An International Review, 48*.

- Seager, J. (2009). Death by degrees: Taking a feminist hard look at the 2 degrees climate policy. *Kvinder, Kon & Forskning (Denmark) -- Women, Gender & Research*, 18, 11-22.
- Sen, A. (1999). *Development as Freedom*. Oxford: Oxford University Press.
- Sherif, M. & Sherif, C. W. (1969). *Social Psychology*. New York: Harper.
- Sidanius, J. & Pratto, F. (1999). *Social Dominance: An Intergroup Theory of Social Hierarchy and Oppression*. Cambridge: Cambridge University Press.
- Skitka, L. J. (2002). Do the means always justify the ends, or do the ends sometimes justify the means? A value protection model of justice reasoning. *Personality and Social Psychology Bulletin*, 28, 588-597.
- Sole, K., Marton, J & Hornstein, H. A. (1975) Opinion similarity and helping: Three field experiments investigating the bases of promotive tension. *Journal of Experimental Social Psychology*, 11, 1-13.
- Steg, L., Dreijerink, L., & Abrahamse, W. (2005). Factors influencing the acceptability of energy policies: A test of VBN theory. *Journal of Environmental Psychology*, 25, 415-425.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A. & Kalof, L. (1999). A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism. *Research in Human Ecology*, 6, 81-97.
- Stouffer, S. A., Suchman, E. A., DeVinney, L. C., Star, S. A. & Williams, R. M. (1949). *The American Soldier: Adjustment during Army Life*, Vol. 1. Princeton, NJ: University Press.
- Swim, J. K., Aikin, K. J., Hall, W. S. & Hunter, B. A. (1995). Sexism and racism: Old fashioned and modern prejudices. *Journal of Personality and Social Psychology*, 68, 199-214.
- Swim, J. K., Cohen, L. L. & Hyers, L. L. (1998). Experiencing everyday prejudice and discrimination. In J. K. Swim and C. Stangor (Eds.) *Prejudice: The Target's Perspective*, p. 37-60. San Diego: Academic Press.
- Swim, J. K. & Miller, D. L. (1999). White guilt: Its antecedents and consequences for attitudes toward affirmative action. *Personality and Social Psychology Bulletin*, 25, 500-514.
- Swim, J. K., Hyers, L. L., Cohen, L. L. & Ferguson, M. J. (2001). Everyday sexism: Evidence for its incidence, nature, and psychological impact from three daily diary studies. *Journal of Social Issues*, 57, 31-53.
- Swim, J. K., Mallett, R. & Stangor, C. (2004). Understanding subtle sexism: Detection and use of sexist language. *Sex Roles*, 51, 117-128

- Swim, J. K. & Hyers, L. L. (2009). Sexism. In T. D. Nelson (Ed.) *Handbook of Prejudice, Stereotyping, and Discrimination*, p. 407-424. New York: Psychology Press.
- Swim, J. K., & Becker, J. (2011). Country contexts and individuals' climate change mitigating behaviors: A comparison of U.S. versus German individuals' efforts to reduce energy use. *Journal of Social Issues*.
- Swim, J. K., Markowitz, E. M. & Bloodhart, B. (in press). Psychology and climate change: Beliefs, impacts, and human contributions. To appear in S. Clayton (Ed.) *The Oxford Handbook of Environmental and Conservation Psychology*. Oxford UK: Oxford University Press.
- Sykes, G. M. & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review*, 22, 664-670.
- Tajfel, H. & Turner, J. C. (1979). An integrated theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (p. 33-47). Monterey, CA: Brooks/Cole.
- Tajfel, H., & Wilkes, A. L. (1963). Classification and quantitative judgement. *British Journal of Psychology*, 54, 101-114.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1-39.
- Terry, G. (2009). No climate justice without gender justice: An overview of the issues. *Gender and Development*, 17, 5-18.
- Tougas, F. & Veilleux, F. (1990). The response of men to affirmative action strategies for women: The study of a predictive model. *Canadian Journal of Behavioural Sciences*, 22, 424-432.
- Tougas, F., Brown, R., Beaton, A. & Joly, S. (1995). Neo-sexism: Plus ca change, plus c'est pareil. *Personality and Social Psychology Bulletin*, 21, 842-849.
- Tuana, N. (1993). *The Less Noble Sex: Scientific, Religious, and Philosophical Conceptions of Woman's Nature. (Race, Gender, and Science)*. Indianapolis: Indiana University Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D. & Wetherell, M. S. (1987). *Rediscovering the Social Group: A Self-Categorization Theory*. New York: Blackwell.
- Turner, R. N., Crisp, R. J., & Lambert, E. (2007). Imagining intergroup contact can improve intergroup attitudes. *Group Processes & Intergroup Relations*, 10, 427-441.
- Tyler, T. R., Boekmann, R. J., Smith, H. J. & Huo, Y. J. (1997). *Social Justice in a Diverse Society*. Boulder, CO: Westview.

- United Nations (2011). Universal declaration of human rights. Retrieved May 24, 2011 from <http://www.un.org/en/documents/udhr/>
- Van Boven, L., Kane, J., McGraw, A. P. & Dale, J. (2010). Feeling close: Emotional intensity reduces perceived psychological distance. *Journal of Personality and Social Psychology*, 98, 872-885.
- Vanneman, R. D., & Pettigrew, T. F. (1972). Race and relative deprivation in the urban United States. *Race Class*, 13, 461-486.
- Vanneman, R. D. & Pettigrew, T. (1977). Race and relative deprivation in the urban United States. *Race*, 13, 461-486.
- Veilleux, F. & Tougas, F. (1989). Male acceptance of affirmative action programs for women: The result of altruistic or egoistical motives? *International Journal of Psychology*, 24, 485-496.
- Weber, E. (2006). Experience-based and description-based perceptions of long-term risk: Why global warming does not scare us (yet). *Climatic Change*, 77, 103-120.
- Wilson, T. D. & Gilbert, D. T. (2003). Affective forecasting. *Advances in Experimental Social Psychology*, 35, 345-410.
- Worldwide Universities Network Global Challenge Workshop (May 22-25, 2010). Adapting to Climate Change. Personal communication.
- Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology*, 73, 73-90.
- Zarate, M. A. & Smith, E. R. (1990). Person categorization and stereotyping. *Social Cognition*, 8, 161-185.

## Appendix A

### *Behaviors/policies measured in Study :*

(CC1) How would you feel if you were required to donate a small amount of your paycheck to a reputable organization that supports improving climate change impacts or reducing harms done to the environment?

(CC2) How would you feel if you were required to reduce the amount that you use personal electronics or other devices that consume electricity (such as TVs, computers, video game consoles, or lights) in order to impact climate change or harms done to the environment?

(CC3) How would you feel if you were required to turn down the thermostat in the winter or turned it up in the summer in your home in order to reduce energy consumption to impact climate change or harms done to the environment?

(HC1) How would you feel if you were required to donate a small amount of your paycheck to a reputable organization that facilitates universal healthcare?

(HC2) How would you feel if you were required to wait longer for services such as surgery for a non-life threatening problem so that all citizens can have access to the same services?

(HC3) How would you feel if you were required to pay slightly more for prescription drugs according to your means so that those with less economic ability can afford prescription drugs?

(GM1) How would you feel if you were required to donate a small amount of your paycheck to a reputable organization that promotes same-sex marriage equality?

(GM2) How would you feel if a policy was about to be implemented which meant you were to lose the privilege and sanctity of heterosexual marriage so that everyone would have the right to get married?

(GM3) How would you feel if you were required to give up (or reduce) the tax breaks given to heterosexual married couples so that everyone can receive an equal tax reduction no matter their marital status?

(AAW1) How would you feel if you were required to donate a small amount of your paycheck to a reputable organization that promotes affirmative action policies for women in the workplace?

(AAW2) How would you feel if a policy was enacted that a woman should be given a position over a man if all their qualifications are exactly the same?

(AAW3) How would you feel if a policy was enacted that, in order to repair gender inequalities, companies should adopt a policy to attempt to fill 45% of high-power positions with women over the next 5 years?

(AAC1) How would you feel if you were required to donate a small amount of your paycheck to a reputable organization that promotes affirmative action policies for ethnic minorities in college admissions?

(AAC2) How would you feel if a policy was enacted that 35% of college admissions must go to ethnic minorities regardless of comparative grades or test scores to White students?

(AAC3) How would you feel if a policy was enacted that scholarships for non-ethnic minority (White) students needed to be slightly reduced so that scholarships could be created for greater ethnic minority attrition to college?

## Appendix B

### *Day in the Life of... Vignettes:*

#### **Others Like You and Me: Spotlight on Australia**

The morning sun comes a little early as Jack tends to prefer nighttime to daytime. When he is awake, Jack loves to be around his family and friends. It is very important to Jack to know that his family and friends are always safe. He communicates with them every day around meals to check-in and see how their days are going. Jack loves his native home among the eucalyptus trees: that's because Jack is an Australian koala bear.

Jack and his family live in a specific eucalyptus tree in their "home range", an area covered by trees which enables a community of koalas to live. Koalas are very social and are in constant contact with other koalas. This is why Jack, his family, and friends, require large areas of suitable eucalypt forest to support their population. Uprooting a koala community is problematic because they become comfortable in one home and do not like to move again. Koalas will not move into any vacant territory for lengthy periods of time where a koala has died. Scientists speculate that this is a way that koalas mourn and show respect for the dead.

When Jack was young he remained close to his mother until his next sibling was born which was about a year later. When koalas are born they are only 2 centimeters long, which is about the same as a jellybean! As a young koala, Jack could be a bit clumsy, but was naturally a strong swimmer. Opposable thumbs and toes allow for a tight grip when climbing, eating, or doing other important tasks. Koalas have fingerprints, that when looked at under the microscope, are nearly indistinguishable from human fingerprints. Jack can be a bit picky about which foods he eats; having a large nose with sensitive hairs enables Jack to detect differences in smell between different eucalyptus leaves, ensuring that his leaves consists of only the best of the bunch. On hot days, in an effort to keep cool, Jack and his family lie still for most of the time. In colder times they curl up in a ball to conserve body heat. Jack, like other koalas, loves to be around others, is close to his family, and is attached to his home.

#### **Others Like You and Me: Spotlight on Africa**

The morning sun comes a little early as Jamal awakens and gets ready for the day. When he is awake, Jamal loves to be around his family and friends. It is very important to Jamal to know that his family and friends are always safe. He communicates with them every day around meals to check-in and see how their days are going. Jamal loves his native home among the dry grasslands in his town of Machakos, Kenya.

Jamal and his family live in a close knit community, about 45 kilometers (27.9 miles) outside of the capital city of Nairobi. Others in Jamal's community are very social and are often in contact with other community members to exchange help, friendship, or just the latest local news. Jamal and his family settled in Machakos several years ago, have become comfortable there, and do not wish to move again.

Jamal has remained close with his family since he was young. He was a bit clumsy as a child but took up swimming early and became an instant natural. He still enjoys swimming, climbing trees, and partaking in other activities with children in the community. Jamal cares strongly about helping others and volunteers to help others in need. African culture emphasizes the philosophy of "ubuntu". This means that all people should be treated with respect and



dignity, because a person becomes a person through other people. During the day, Jamal works at a local pharmacy, helping with daily operations.

Although Jamal is generally happy, he sometimes worries about his future, not knowing exactly where he wants to go in life. He has many dreams and aspirations, but feels that he needs to decide who he really is before he pursues further university study. He knows that being away from family and friends for extended periods of time will lead to some loneliness, but ultimately knows that he will eventually make good friends in the places that he goes.

### **Others Like You and Me: Spotlight on India**

The morning sun comes a little early as Sara awakens and gets ready for the day. When she is awake, Sara loves to be around her family and friends. It is very important to Sara to know that her family and friends are always safe. She communicates with them every day around meals to check-in and see how their days are going. Sara loves her native home among the sunshine and rice fields in her town of Hapur, India.

Sara and her family live in a close knit community, about 25 miles outside of the capital city of Delhi. Others in Sara's community are very social and are often in contact with other community members to exchange help, friendship, or just the latest local news. Sara and her family settled in Hapur several years ago, have become comfortable there, and do not wish to move again.

Sara has remained close with her family since she was young. She was a bit clumsy as a child but took up swimming early and became an instant natural. She still enjoys swimming, climbing trees, and partaking in other activities with children in the community. Sara cares strongly about helping others and volunteers to help others in need. During the day, Sara works at a local pharmacy, helping with daily operations.

Although Sara is generally happy, she sometimes worries about her future, not knowing exactly where she wants to go in life. She has many dreams and aspirations, but feels that she needs to decide who she really is before she pursues further university study. She knows that being away from family and friends for extended periods of time will lead to some loneliness, but ultimately knows that she will eventually make good friends in the places that she goes.

## Appendix C

### *Scripts used for Harm Videos:*

#### **Harms against Women**

Climate change is one of the most serious problems we face today. One of the direct results of climate change is the increased frequency of floods, droughts, extreme temperatures, hurricanes, mudslides, and landslides. You've probably heard about some of this before, but have you ever stopped to think that it's women who suffer the most from the consequences of climate change?

. In the first place, it's always the people with the least resources who are the most defenseless whenever disaster strikes. And women are the majority of poor people in the world today. But in addition, women have different responsibilities, different needs, and face different types of limitations than men.

#### *Domestic work/income:*

The division of labor opportunities between women and men in many parts of the world is unequal, which gives women less access to economic resources in terms of income and property ownership. This inequality leaves women more vulnerable to the effects of climate change, which hit them harder and in very specific ways. When climate changes impact the availability of jobs, men are more likely to retain wage-earning work. After climate disasters, women are responsible for taking care of the household, care for elderly, and community building, while men return to wage-earning work. This limits women's ability to generate income, which, when coupled with the rising medical costs associated with family illness, heightens their level of poverty.

#### *Water:*

In many areas of the world, women are responsible for collecting water to fulfill tasks like cooking, washing, livestock raising, and taking care of crops planted to grow food. In numerous parts of the region, drought is causing women to have to travel farther distances, and devote much more time to fetching water. On top of this, in some areas, the imminent melting of glaciers will cause an even greater shortage of water over time. The shortage of water poses a threat to farming and food supplies. In addition, being faced with the burden of caring for dependents while being obliged to travel further for water makes women and girls prone to stress-related illnesses and exhaustion.

#### *Food:*

Beliefs about women's inferiority in many cultures can play a key role in food sovereignty. When there are food shortages, women and girls are often expected to eat after men and boys, which means that they receive not enough or less nutritious food. Female children are less valued than male children, meaning that shortages in resources greater affect them in terms of food, medical attention, and education.

#### *Disease:*

It has been widely recognized that the rising water levels and slightly higher temperatures will lead to an increase in water borne diseases, especially malaria. Women are primarily responsible

for getting medical help for themselves and their children. Other likely health consequences of climate change include increases in heat-related mortality and morbidity, and increased respiratory disease. Children under five are the main victims of sanitation-related illnesses, and – along with the elderly – are most affected by heat stress. Women and girls face barriers to accessing healthcare services due to a lack of economic assets to pay for healthcare, as well as cultural restrictions on their mobility which may prohibit them from travelling to seek healthcare.

*Movement:*

Restrictions on women's movement increases their vulnerability to climate-related disasters in other ways. When the tsunami hit Southeast Asia in 2004, many women were afraid to leave their coastal homes for fear of being beaten to death. This led to a disproportionate amount of women being injured or killed in the disaster.

*Ending:*

International leaders on climate change have agreed that we must stem our emissions to not go beyond a two degree increase in global temperature. But, for whom is even two degrees acceptable? Climate change is creating negative impacts *now* for women around the world and these impacts will only get worse as the climate continues to warm.

### **Harms against People in the Global South**

Climate change is one of the most serious problems we face today. One of the direct results of climate change is the increased frequency of floods, droughts, extreme temperatures, hurricanes, mudslides, and landslides. You've probably heard about some of this before, but have you ever stopped to think that it's people in the Global South who suffer the most from the consequences of climate change?

In the first place, it's always the people with the least resources who are the most defenseless whenever disaster strikes. And the Global South makes up the majority of poor people in the world today. But in addition, people living in these regions have different responsibilities, different needs, and face different types of limitations than people in Northern, industrialized countries.

*Domestic work/income:*

Labor opportunities in many parts of the Southern world are already scarce, which results in restricted economic resources in terms of income and property ownership. This leaves people more vulnerable to the effects of climate change, which hit them harder and in specific ways. Because many people earn a living through farming, climate changes impact the availability of jobs and potential to generate income. After climate disasters there are additional responsibilities, such as taking care of the household, caring for elderly, and community building. When the ability to generate income is scarce, the ability to adapt to disasters is diminished, and when coupled with the rising medical costs associated with family illness, poverty levels increase exponentially.

*Water:*

In many areas of the world, individuals must travel to collect water for tasks like cooking, washing, livestock raising, and taking care of crops planted to grow food. In numerous parts of

the Africa, drought is causing families to have to travel farther distances, and devote much more time to fetching water. On top of this, in some areas, the imminent melting of glaciers will cause an even greater shortage of water over time. Scientists have measured that the Sahara Desert is expanding by 865 acres a year, while Lake Chad, the largest fresh water source in Africa, is now only 1/15<sup>th</sup> of its original size. The shortage of water poses a threat to farming and food supplies. In addition, being faced with the burden of caring for dependents while being obliged to travel further for water increases stress-related illnesses and exhaustion. Climate change also plays a key role in food sovereignty. When there are water shortages, families often do not have enough food or must make due with less nutritious food. Children are particularly affected by shortages in resources, leading to decreased nutrition, medical attention, and education.

*Disease:*

It has been widely recognized that the rising water levels and slightly higher temperatures will lead to an increase in water borne diseases, especially malaria. Temperature increases are more drastic in Africa than in other parts of the world even today. Other likely health consequences of climate change include increases in heat-related mortality and morbidity, and increased respiratory disease. Children under five are the main victims of sanitation-related illnesses, and – along with the elderly – are most affected by heat stress. Climate changes increase barriers to accessing healthcare services due to a lack of economic assets to pay for healthcare, as well as restricted mobility which may prohibit them from travelling to seek healthcare.

*Movement:*

Due to the death of most crops and livestock, many farmers are forced to move to cramped refugee camps. In one camp near the Kenya-Somalia border, about 20 people live in cramped spaces no bigger than an average American living room. The wage they earn at the camps covers their stay and food, but little is left families back home.

*Ending:*

International leaders on climate change have agreed that we must stem our emissions to not go beyond a two degree increase in global temperature. But, for whom is even two degrees acceptable? Climate change is creating negative impacts *now* for people in the Global South and these impacts will only get worse as the climate continues to warm.

## **Harms against Animals**

Climate change is one of the most serious problems we face today. One of the direct results of climate change is the increased frequency of floods, droughts, extreme temperatures, hurricanes, mudslides, and landslides. You've probably heard about some of this before, but have you ever stopped to think that it's animals who suffer the most from the consequences of climate change?

In the first place, it's always those with the least resources who are the most defenseless whenever disaster strikes. And the Global South makes up the majority of poor people in the world today. But in addition, people living in these regions have different responsibilities, different needs, and face different types of limitations than people in Northern, industrialized countries.

Global climate change is impacting animals around the world, often in catastrophic ways. In the Arctic, hundreds of baby seals will face the possibility of starvation because food sources have become scarce due to rising temperatures in the Baltic Sea. Additionally, the seals may not be able to survive in the warming temperatures. When baby seals are born, their mothers dig nest holes for the babies to live in for the first part of their lives. The time the seals spend in these holes allows them to grow and prepare for their life in the chilling temperatures. However, with the rising temperatures, the holes are melting too quickly, which does not give the baby seals enough time to develop. The seals are also too young at this point to defend themselves against predators such as foxes and eagles.

Ice formation in the Baltic region is at its lowest in the past 300 years. Normally the entire region is covered with snow and ice but with the increase in climate temperatures, only the most northern regions stay cold enough year-round to allow this. With the changing climate, the number of seals in the Baltic Sea has dropped significantly and placed these seals on the endangered species list.

Despite their depiction as strong and resilient creatures, polar bears in the Arctic also face endangerment due to climate changes. With the melting ice caps and less snowfall throughout the year, their habitat is slowly melting away. They have to spend more time swimming in order to travel, and can drown from exhaustion. Declining populations of seals and other animals means decreased food sources, which increases polar bears' likelihood of having to swim farther to find food or drown in the process.

In other parts of the globe, kangaroos and koalas native to Australia have been strongly impacted by the effects of global climate change. Australian wildfires, triggered by extensive droughts, are becoming more serious and are killing thousands of animals and destroying habitats. Kangaroos have an instinctual behavior of circling back to their home, which often leads them to unsafe areas. In early 2009, thousands of kangaroos were seen scattered across the open landscape, dead from a major wildfire. After the fire, rescue veterinarians reported incidents of baby kangaroos suffering extensive burns.

Many of the kangaroos and koalas that were not killed suffered severe burns on their feet and paws as they travelled across the smoldering landscape. Many koalas came down out of their tree habitats to seek shelter inside garages and sheds, and some were even seen approaching rescue workers or passersby for water. One such example of a furry survivor is "Sam", who was found moving gingerly on scorched paws by a fire patrol. Firefighter David Tree offered the animal a bottle of water, which she eagerly accepted, holding Tree's hand as he poured water into her mouth — a moment captured in a photograph seen around the world. Animals who aren't directly impacted by the fire still suffer from heat-stroke, illness, and loss of food sources. Estimates report that over 1 million total animals died in the 2009 blaze and countless other animals were left without food, shelter, or water to drink in the heat.

*Ending:*

International leaders on climate change have agreed that we must stem our emissions to not go beyond a two degree increase in global temperature. But, for whom is even two degrees acceptable? Climate change is creating negative impacts *now* for animals around the world and these impacts will only get worse as the climate continues to warm.

## Appendix D

*List of behaviors assessed for:*

*ARD scale*

*Willingness to do behaviors measure*

*1 week follow-up*

1. Take the stairs rather than the elevator
2. Take shorter showers
3. Turn off water while brushing teeth
4. Take the bus instead of a car
5. Take a bike or walked instead of a car
6. Recycle
7. Turn off lights when not in use
8. Use TV for a maximum of 3.5 hours per day
9. Turn off computers when not in use
10. Buy organic produce
11. Talk to someone about climate change issues
12. Write to a congressperson about climate change/environmental concerns
13. Participate in a group or activity to support environmental action
14. Use a re-useable water bottle
15. Change the thermostat by 2 degrees (warmer in summer, cooler in winter)
16. Use re-useable shopping bags rather than plastic
17. Buy/install CLF light bulbs

## Appendix E

### *Scope of Justice Scale:*

- \*1. I believe that [group] deserve the right to life, freedom, and happiness.
- \*2. I believe that [group] deserve the same privileges and rights that I have.
- \*3. I believe that [group] deserve the same access to clean water, food, and basic necessities that I have.
- 4. I believe that [group] deserve to make the same amount of money that I make.
- 5. I believe that [group] deserve to have the same amenities and luxuries that I have.
- 6. I believe that [group] deserve to have the same education that I have/had.
- 7. I believe that [group] deserve to have the same healthcare that I have.
- 8. I believe that [group] deserve to have the same legal protections and rights as I have
- 9. I believe that [group] deserve to have the same job opportunities that I have

\*Items 1-3 were used for animals, items 1-9 were used for women and Global South target groups

### *Relevance Scale:*

- 1. I feel a bond with [group].
- 2. I think that [group] have a lot to be proud of.
- 3. The fact that I am [overall group] is an important part of my identity.
- 4. I have a lot in common with the average [group].
- 5. I am similar to the average [group] person.
- 6. I see myself as [overall group].
- 7. I identify with other [group].
- 8. I feel (personally) implicated when [group] are criticized.
- 9. [group] are an important group to me.
- 10. I have a lot of respect for [group].

\*Adapted from Leach et al.'s (2008) In-group Identification Scale

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Not Sure	Somewhat Agree	Agree	Strongly Agree

### Groups listed:

- Animals (overall group = “an animal”, “animals and humans”, “members of the animal kingdom”)

- People around the world (overall group = “a member of the global community”, “members of the global community”)
- Women (overall group = “supporter of women’s rights”, “people regardless of gender”)



## Appendix F

*Awareness of Harm Questionnaire:*

Which of the following impacts do you think that different groups currently experience in today's world? We are looking for your opinion rather than "facts", so there are no right or wrong answers.

Please list as many impacts as you can think of.

How is the Environment impacted by global climate change?

How are Animals impacted by global climate change?

How are People in Africa impacted by global climate change?

How are Women impacted by global climate change?

Closed-ended Questionnaire:

Please check from the following list which of the impacts you think [the Environment/ animals/people in Africa/women] is/are experiencing due to global climate change:

- |                                                                       |                                                                               |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Hunger                                       | <input type="checkbox"/> Decreased Ability to Provide Economically for Family |
| <input type="checkbox"/> Loss of Life                                 | <input type="checkbox"/> Anger                                                |
| <input type="checkbox"/> Decreased Quality of Life                    | <input type="checkbox"/> Loss of Livelihood(s)                                |
| <input type="checkbox"/> Loss of Freedom of Expression                | <input type="checkbox"/> Loss of Basic Human Needs (food, water, shelter)     |
| <input type="checkbox"/> Decreased Freedom of Expression              | <input type="checkbox"/> Loss of Fertility/Life Expectancy                    |
| <input type="checkbox"/> Loss of Homes or Habitat                     | <input type="checkbox"/> Loss of Family Members                               |
| <input type="checkbox"/> Loss of Ability to Work                      | <input type="checkbox"/> Increased Maltreatment of Animals by Humans          |
| <input type="checkbox"/> Increased Illness and Disease                | <input type="checkbox"/> Forced to Migrate/Move                               |
| <input type="checkbox"/> Anxiety                                      | <input type="checkbox"/> Increased Crime and Violence                         |
| <input type="checkbox"/> Depression                                   | <input type="checkbox"/> Decreased ability to reproduce                       |
| <input type="checkbox"/> Loss of Self-Esteem                          |                                                                               |
| <input type="checkbox"/> Inability to Provide Economically for Family |                                                                               |
| <input type="checkbox"/> Unhappiness                                  |                                                                               |

## Appendix G

*Awareness of Responsibility Questionnaire (of privilege on Climate Change harms):*

How much would you impact climate change and increase global warming if you did the following behavior every day for the next year?

0	1	2	3	4	5	6	7	8	9	10
No impact at all			A little impact				A lot of impact			Severe impact

1. Ride the elevator alone for 10 floors
2. Take a 20 minute shower
3. Leave the water running while brushing your teeth
4. Drive a car 100 miles
5. Throw trash into the trash instead of recycle
6. Leave 1 regular light bulb on for 20 hours
7. Leave a TV on for 10 hours
8. Leave a video game console (X-Box, Playstation, Wii) on for 5 hours
9. Leave computers on all night long
10. Eat 1 pound of meat
11. Buy 5 pounds of products produced in other continents
12. Use 25 disposable cups instead of 1 plastic water bottle or coffee mug
13. Use 25 plastic shopping bags instead of re-usable shopping bags
14. Leave electronics plugged in (not turned on) for 24 hours
15. Setting the thermostat always above 72 in the winter and below 68 in the summer

# BRITTANY BLOODHART

## VITA

### EDUCATION

**Doctor of Philosophy**, Social Psychology & Women's Studies, The Pennsylvania State University, University Park, PA. Spring 2013. Advisor: Janet K. Swim, Ph.D.

**Master of Science**, Social Psychology & Women's Studies, The Pennsylvania State University, University Park, PA. Summer 2009. Advisor: Janet K. Swim, Ph.D.

*Thesis*: The subtle exploitation and patronization of women in masculine domains.

**Bachelor of Arts**, Psychology, University of Kansas, Lawrence, KS. May 2005.

### Publications

Swim, J. K., Markowitz, E. M. & Bloodhart, B. (in press). Psychology and climate change: Beliefs, impacts, and human contributions. To appear in S. Clayton (Ed.) *The Oxford Handbook of Environmental and Conservation Psychology*. Oxford UK: Oxford University Press.

Bloodhart, B. & Swim, J. K. (2010). Equality, harmony, and the environment: An ecofeminist approach to understanding the role of cultural values on the treatment of women and nature. *Ecopsychology*, 2, 187-194.

Vescio, T. K., & Bloodhart, B. (2010). Discrimination. In J. Levine and M. Hogg (Eds.), *Encyclopedia of Group Processes and Intergroup Relations*. Thousand Oaks, CA: Sage.

Vescio, T. K., Gervais, S. J., Heipheez, L. & Bloodhart, B. (2009). The stereotypic behaviors of the powerful and their effect on the relatively powerless. In Todd D. Nelson (Ed.), *Handbook of Prejudice, Stereotyping, and Discrimination* (247-261). New York: Psychology Press.

### TEACHING EXPERIENCE

#### Instructor

Introduction to Social Psychology (PSY 221, online), The Pennsylvania State University, Summer 2012  
Psychology of Gender (PSY 479), The Pennsylvania State University, Spring 2012

Introduction to Elementary Statistics (PSY 200, online), The Pennsylvania State University World Campus, Fall 2011

Psychology as a Science and Profession (PSY 105, online), The Pennsylvania State University World Campus, Summer 2010, Spring 2011, Summer 2011

### PROFESSIONAL MEMBERSHIPS

Society for Personality and Social Psychology, APA Division 8

Society for the Psychological Study of Social Issues (SPSSI), APA Division 9

Society for Environmental, Population and Conservation Psychology, APA Division 34

Society for the Psychology of Women, APA Division 35

### HONORS & AWARDS

Harold K. Schilling Dean's Graduate Scholarship: 2012, The Pennsylvania State University, \$2500

RGSO Dissertation Support Award: 2011, The Pennsylvania State University, \$1000

Geis Memorial Dissertation Award Finalist: 2011, APA Division 35

Hyde Graduate Student Research Grant for Feminist Psychology, Honorable Mention: 2011, APA Division 35

Precourt Energy Efficiency Center Student Fellowship: 2011, BECC Conference, \$375

Psi Chi Teaching Assistant of the Year: 2010, The Pennsylvania State University

Carolyn Wood Sherif Research Award: 2008, 2009, 2010, 2011, The Pennsylvania State University, \$700

Graduate Research and Travel Award: 2008, 2009, 2010, 2011, The Pennsylvania State University, \$700