Sidanians Try to Share Their Values with Others: Threat or Opportunity?

It Depends on Your Own Vulnerabilities

by

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ABSTRACT

In an affordance management approach, stereotypes, prejudices, and discrimination are conceptualized as tools to manage the potential opportunities and threats afforded by others in highly interdependent social living. This approach suggests a distinction between two "kinds" of stereotypes. "Base" stereotypes are relatively factual, stable beliefs about the capacities and inclinations of groups and their members, whereas "affordance stereotypes" are beliefs about potential threats and opportunities posed by groups and their members. Two experiments test the hypothesized implications of this distinction: (1) People may hold identical base stereotypes about a target group but hold very different affordance stereotypes. (2) Affordance stereotypes, but not base stereotypes, are shaped by perceiver goals and felt vulnerabilities. (3) Prejudices and (4) discrimination are more heavily influenced by affordance stereotypes than by base stereotypes. I endeavored to manipulate participants' felt vulnerabilities to measure the predicted corresponding shifts in affordance (but not base) stereotype endorsement, prejudices, and discriminatory inclinations toward a novel target group (Sidanians). In Study 1 ($N = 600$), the manipulation was unsuccessful. In Study 2 ($N = 338$), the manipulation had a partial effect, allowing for preliminary causal tests of the proposed model. In both studies, I predicted and found high endorsement of the base stereotypes that Sidanians try to share their values and actively participate in the community, with low variability. I also predicted and found more variation in affordance (vs. base) stereotype endorsement, which was systematically related to participants' felt vulnerabilities in Study 2. Taken together, these findings support my hypothesized distinction between base stereotypes and affordance stereotypes. Finally, I modeled the

proposed correlational relationships between felt vulnerabilities, base stereotypes,

affordance stereotypes, prejudices, and discriminatory inclinations in the model.

Although these relationships were predominantly significant in the predicted directions,

overall fit of the model was poor. These studies further our critical understanding of the

relationship between stereotypes, prejudices, and discrimination. This has implications

for how we devise interventions to reduce the deleterious effects of such processes on

their targets, perhaps focusing on changing perceiver vulnerabilities and perceived

affordance (rather than base) stereotypes to more effectively reduce prejudices and

discrimination.

TABLE OF CONTENTS

iii

LIST OF TABLES

LIST OF FIGURES

Sidanians Try to Share Their Values with Others: Threat or Opportunity? It Depends on Your Own Vulnerabilities

"I resent Fundamentalist Christians! They're religious extremists who try to control how I live my life." "I appreciate Fundamentalist Christians! They're values-oriented people who help preserve the best parts of our culture." One might reasonably presume that these speakers hold quite different stereotypes about Fundamentalist Christians. Yet, asked to elaborate on their diametrically opposed affordance stereotypes and prejudices, each speaker invokes the *identical* base stereotype: "I resent Fundamentalist Christians because they are *highly religious and try to share their values with others*." "I appreciate Fundamentalist Christians because they are *highly religious and try to share their values with others*."

That the same stereotype can produce quite different prejudices seems counterintuitive and does not emerge organically from many existing frameworks describing stigma and intergroup bias. This prediction does, however, emerge readily from an affordance management approach to understanding stereotypes and prejudice. In an *affordance management approach*, stereotypes, prejudices, and discrimination are conceptualized as tools to manage the potential opportunities and threats afforded by others in highly interdependent social living (e.g., Cottrell & Neuberg, 2005; Schaller & Neuberg, 2012; Williams, Sng, & Neuberg, 2016; for a review, see Sng, Williams, & Neuberg, 2016). An affordance management approach suggests a distinction between two "kinds" of stereotypes, which are confounded in most theorizing and empirical work on intergroup bias. "Base" stereotypes are relatively factual, stable beliefs about the capacities and behavioral inclinations of groups and their members (e.g., "Fundamentalist

1

Christians try to share their values with others"), whereas "affordance stereotypes" are beliefs about the potential threats and opportunities posed by a group and its members ("Fundamentalist Christians pose a values threat [opportunity] to me"). This distinction is unrecognized in the literature but has important implications. I suggest that unconfounding these two types of stereotypes, and appreciating their distinct roles, will provide a better understanding of how stereotypes drive prejudices and discrimination, and the individual differences and situational circumstances that moderate those processes.

That stereotypes take these distinct forms has several interesting implications, which I elaborate on below: (1) People may hold identical base stereotypes about a target group but hold very different affordance stereotypes. (2) Affordance stereotypes, but not base stereotypes, are shaped by perceiver goals and felt vulnerabilities. (3) Prejudices and (4) discrimination are more heavily influenced by affordance stereotypes than by base stereotypes.

I will first overview traditional approaches to studying prejudice as well as previous research on the relationship between threat perception and prejudice. I then describe the affordance management approach and its existing contribution to research on social perception, focusing in particular on its application to stereotypes and prejudices. I then present a new model designed to better articulate the relationships between (base and affordance) stereotypes, prejudices, and discrimination, derive novel implications from the model, and describe two experiments testing these implications.

To the extent that stereotypes contribute to harsh and inappropriate prejudices and acts of discrimination, understanding the distinctions between base and affordance

stereotypes, how they are differentially shaped by the felt vulnerabilities of social perceivers, and how they differentially affect downstream prejudice and discrimination processes will be necessary for designing interventions to mitigate their effects.

Traditional Approaches to Stereotype, Prejudice, and Discrimination Research

Stereotypes, prejudice, and discrimination have long been considered the three components of intergroup bias. Traditionally, research on intergroup bias has followed, to varying degrees, Allport's descriptions of prejudice from his 1954 volume, *The Nature of Prejudice.* He defined prejudice as "an avertive [*sic*] or hostile attitude toward a person who belongs to a group, simply because he belongs to that group, and is therefore presumed to have the objectionable qualities ascribed to that group" (p. 7). Thus, researchers have traditionally characterized stereotypes ("objectionable qualities ascribed to that group") and prejudice ("an avertive or hostile attitude") as inherently intertwined negative constructs ascribed to an individual due to their group membership.

Expanding upon Allport's work, most traditional work on prejudice has defined it as an attitude containing the three critical components of any attitude: "a cognitive component (e.g., beliefs about a target group), an affective component (e.g., dislike), and a conative component (e.g., a behavioral predisposition to behave negatively toward the target group)" (Dovidio, Hewstone, Glick, & Esses, 2010; p. 5). In this work, cognition, affect, and behaviors are interwoven as one construct—prejudice—yet researchers often provide additional, separate descriptions of the cognitive and behavioral components of intergroup bias. Stereotypes (cognition) are defined as beliefs about the (negative) qualities an individual possesses, due to group membership; discrimination includes behaviors or behavioral inclinations that favor the ingroup or hurt the outgroup (Allport,

3

1954; Dovidio, Hewstone, Glick, & Esses, 2010). More recently, definitions of prejudice have narrowed, disambiguating it from the other components. As defined in the *Handbook of Social Psychology,* "prejudice represents a negative (or a less positive) evaluative or affective response, or both, to others in a given context based on their group membership" (Dovidio & Gaertner, 2010, p. 1085).

As definitions of prejudice have combined the cognitive, affective, and behavioral components of intergroup bias, so too have theories blurred the three components together, or explicitly treated them as highly interwoven phenomena: negative beliefs about a group lead to a general negative affect and thus negative behaviors. When research has also considered positive beliefs and positive affect, they are often seen as being directed exclusively at ingroup members, leading to ingroup favoritism. Alternatively, some researchers posit that prejudices in fact produce stereotypes, as justifications (Crandall, Bahns, Warner, & Schaller, 2011; Crandall & Eshleman, 2003; Jost & Banaji, 1994). But again, this perspective describes a relationship in which negative affect always leads to negative beliefs about another group. Despite this pervasive, and intuitively plausible, notion that stereotypes, prejudice, and discrimination form one interwoven construct, meta-analyses have shown that general correlations between these three components tend to be only moderate, at most (Dovidio, Brigham, Johnson, & Gaertner, 1996). These unexpectedly weak relationships have led prominent intergroup bias researchers to call for further clarification of the link between stereotypes, prejudices, and discrimination: "The modest relationships among the various measures of bias suggest the need to refine different conceptions of the elements of bias and further

delineate factors that might moderate the relations among these variables" (Dovidio &

Gaertner, 2010, p. 1108).

Certain relatively recent theories, such as the Stereotype Content Model (Fiske,

Cuddy, Glick, & Xu, 2002), have begun to refine these elements of intergroup bias by

recognizing that stereotype content has a systematic effect on resulting prejudices—

recognizing that certain beliefs about groups lead to *specific* negative (or positive)

emotions. The stereotype content model categorizes stereotype content along two

dimensions: competence and warmth. This accounts for the existence of "mixed"

stereotypes (stereotypes of target groups that are "positive" on one dimension and

"negative" on the other), which can still result in negative prejudices. Further, this model

differentiates prejudices into four distinct emotions, rather than treating prejudice as a

general negative affect. The stereotype content model is an important step in beginning to

differentiate how certain "positive" and "negative" stereotypes can lead to specific

emotions. However, it still leaves unexplained how the same stereotype may lead to

different prejudice emotions in different people. As with the stereotypes and prejudices

directed towards Fundamentalist Christians in the opening example, one stereotype may

lead to several distinct prejudices, depending on each perceiver's needs and

vulnerabilities. *Using an extension of the affordance management framework, one can*

predict when the prejudices associated with a particular stereotype may change (or be

different across perceivers). When the affordance implications (i.e., potential

opportunities or threats) of a certain stereotype change (due to changes in situation or due

to an individual's chronic vulnerabilities), so too do the associated prejudices and

discriminatory inclinations. Therefore, I explore the possibility that the same stereotype

might be seen as "positive" by one perceiver and "negative" by another. To explore this phenomenon, I take an affordance management approach to understanding prejudices as responses to potential threats and opportunities.

Previous Research on Threats and Prejudices

In social psychology, there is a long tradition of research exploring when outgroups are perceived as threats, and the effect of threat on prejudice. Realistic conflict theory describes how perceived threats to ingroup power and resources contribute to stereotypes, prejudices, and discrimination against outgroups (Sherif & Sherif, 1953; LeVine & Campbell, 1972). The Unified Instrumental Model of Group Conflict (Esses, Jackson, & Bennett-AbuAyyash, 2010) suggests that the threat of scarce resources and the presence of another competitive group lead to perceived competition for those resources. Competition leads to general negative attitudes toward the other group and attempts to remove them from the competition through discriminatory behaviors.

Previous research on the sources of such threat perceptions have also examined how individual differences in beliefs about the legitimacy of relative group status positions, and threats to those group positions, can contribute to prejudice. Differences in status-legitimacy beliefs, for example, predict whether Whites will support others who claim anti-White bias. Those high-status participants who feel that their status is threatened will support others who claim there is anti-White bias (Wilkins, Wellman, & Kaiser, 2013). Further, social dominance theory is grounded in the belief that group-based hierarchies form all human societal structures, and that how much an individual feels a general desire for their own group's dominance determines their "social dominance orientation" (Blumer, 1958; Sidanius & Pratto, 2001; Sidanius, Pratto, van

6

Laar, & Levin, 2004). An individual's social dominance orientation, in turn, predicts their endorsement of attitudes, policies, and behaviors that maintain or increase inequality between groups.

Other work specifies how different outgroups' relative capacities contribute to the perception of different types of threats they may pose to the ingroup, which contribute to different prejudices. For example, the stereotype content model describes how perceptions of another group's warmth and competence (or lack thereof) predict the specific prejudice felt toward that group (Fiske, Cuddy, Glick, & Xu, 2002). Specifically, a group that is stereotyped as low in warmth and high in competence is seen as threatening and treated with envy and jealousy, whereas a group that is low in both warmth and competence is seen as threatening in a different way, and treated with anger and resentment. Image theory, on the other hand, focuses on relative status, relative power, and goal compatibility as the three main dimensions predicting intergroup relations (Alexander, Brewer, & Herrmann, 1999). In this theory, individuals evaluate the potential threats due to relative status, power, and goal compatibility of another group compared to their own, and their stereotypes and prejudices serve to motivate and justify the behaviors produced by these threat appraisals (Alexander, Brewer, & Livingston, 2005).

Finally, a small amount of past research takes an affordance management approach to look at how individuals' current perceived vulnerabilities increase perceptions of threat and, in turn, prejudices (Cook, Cottrell, & Webster, 2014; Huang, Sedlovskaya, Ackerman, & Bargh, 2011; Schaller, Park, & Mueller, 2003). Priming resource scarcity, for example, can lead to perceptions of economic threat, which can

increase anxiety and general negative prejudice against Asian Americans, but not African Americans (Butz & Yogeeswaran, 2011).

Intergroup threat theory (ITT) organizes many of these types of threats into a descriptive model incorporating realistic threat, symbolic threat, and intergroup anxiety (Stephan & Stephan, 2000). ITT describes several antecedents (i.e., personality traits and characteristics, attitudes and cognitions, intergroup contact, intergroup relations, and situational factors), which are all associated with threat perceptions, which in turn have emotional, attitudinal, and behavioral consequences (Stephan & Stephan, 2000; Stephan, Ybarra, & Rios Morrison, 2009). A large body of (mostly correlational) empirical evidence supports the descriptive power of the ITT model (Stephan & Stephan, 2016). The next step, then—which my model proposes to do—is to create specificity in predicting which qualitatively different antecedents lead to which qualitatively different types of threats—as well as opportunities—which in turn lead to qualitatively different emotional, cognitive, and behavioral responses.

Through an affordance management approach, I aim to add predictive power to the modelled relationship between qualitatively different threats, prejudices, and related constructs. This model allows more precise predictions about what kinds of threats lead to which kinds of prejudices, and about what kinds of individual differences and base stereotypes lead to which different threats. Further, this model makes predictions about the role of perceived *opportunities* in causing prejudices, and therefore generates novel predictions of when the same base stereotype can lead to qualitatively different prejudices for different individuals.

The Affordance Management Framework

The affordance management view of social perception stems from an ecological approach to perception in general, which emphasizes the visual system's adaptive inclination to focus on the *functional* information (such as potential threats and opportunities) present in the local ecology (Gibson, 1979). Gibson (1979) proposed that a person's visual perception actively seeks out information, but that a person cannot simultaneously perceive all the information in his/her environment. Thus, he posited that perceptual attention would be preferentially drawn toward the objects that afford imminent threats or opportunities (i.e., affordances) for the person, who is then motivated to respond to and *manage these affordances.*

Later, this ecological approach—the affordance management framework—was applied to social perception (McArthur & Baron, 1983). Humans are highly interdependent social animals (Campbell, 1982; Richerson & Boyd, 1995); ultrasocial group living provides many benefits but also potential costs. Since group living has resulted in increased fitness for group members across humans' evolutionary history, living and cooperating in small groups has led to the development of social mechanisms that promote interdependent coalitions, such as group loyalty and conformity (Brewer, 1997; Brewer & Caporael, 1990). On the other hand, group living also brought great costs to human fitness, including competition with other group members for resources, threats to physical safety, and the increased risk of disease while living in close proximity (Alexander, 1974; Campbell, 1982). Therefore, to maximize the opportunities provided by group living yet simultaneously minimize the costs, the development of a social perceptual system that could successfully infer the threats and opportunities posed by

9

others was critical to optimizing reproductive fitness (Zebrowitz & Montepare, 2006). As humans who were better able to manage others' social behaviors had higher reproductive fitness, over time the human species evolved social perception and response mechanisms—affordance management systems—for identifying and addressing the threats and opportunities regularly afforded by others throughout our evolutionary history (Gibson, 1979; McArthur & Baron, 1983; Neuberg, Kenrick, & Schaller, 2010, 2011; Neuberg & Schaller, 2015; Zebrowitz & Montepare, 2006).

Four basic tenets of the affordance management approach to social perception distinguish it from previous views of visual (and social) perception (Zebrowitz & Montepare, 2006). First, the perceiver (not just the target) is a behaving entity: Perception's purpose is to guide the perceiver's subsequent actions. Second, perceivers are most attuned to the types of behavior that would have affected their ancestors' survival (and therefore would have been selected for throughout evolutionary history). Third, throughout evolutionary history, group living has afforded immense benefits, but it has also introduced many costs. Therefore, perceivers are particularly attuned to the threats and opportunities posed by social actors, who are often able to directly influence each other's fitness outcomes. Fourth, different perceivers are attuned to particular types of information about others, in accordance with their own needs and goals. In other words, there is an interaction between each perceiver's goals and the affordances implied by others.

Since potential affordances can have direct implications for a person's outcomes, it follows that people would be more adept at perceiving targets' behavioral affordances than abstract personality traits. Indeed, studies lending support for the behavioral focus of

the affordance management framework have shown that when people are asked to make quick impressions of others, judgments of the potential behavioral affordances of targets are more reliable between perceivers than are judgments of personality traits (Mignon & Mollaret, 2002). While forming quick impressions, perceivers are also able to differentiate among targets' behavioral affordances more than they differentiate among their personality traits (Mignon & Mollaret, 2002). This research shows that social perceivers are not focused on abstract characteristics of a target—they are instead focused on the target's potential implications for the perceiver. In sum, from an affordance management perspective (Gibson, 1979; McArthur & Baron, 1983; Neuberg, Kenrick, & Schaller, 2010; Neuberg & Schaller, 2015), the aim of the social perception system is to identify the potential opportunities and threats others may afford and to then respond in ways that take advantage of the opportunities and minimize the threats.

An Affordance Management Approach to Stereotypes, Prejudice, and Discrimination

Adequately identifying others' threat and opportunity potential—related to their goals, preferred behavioral strategies for reaching them, and ability to implement those strategies—is not often a straightforward process. We cannot directly perceive others' goals or intentions, multiple strategies exist to accomplish most goals, and others may be motivated to mask their intentions. Therefore, we must infer these intentions, using observable behaviors or characteristics that are perceptually salient and heuristically (and imperfectly) linked to actual goals, strategies, and abilities. One characteristic that is often used as a cue to a person's goals and intentions is group membership. From an affordance management perspective, perceivers use beliefs about the capacities and

11

behavioral inclinations of other groups to infer and manage potential threats and opportunities posed by members of those groups. These are stereotypes—beliefs about what members of groups are like—and many of the most prominent stereotypes people have about types of others will be based on the potential threats and opportunities (affordances) they are believed to possess (Cottrell & Neuberg, 2005).

Prejudices, then, are the affective component of this system: emotional reactions to groups, often in response to others' potential affordances. From a functional perspective, emotions are mechanisms for organizing subordinate mental and physiological processes to appropriately react to the presence of certain stimuli, and to then direct us toward appropriate behavioral responses (Tooby & Cosmides, 2008). In this view, individual emotions (e.g., fear, disgust, anger) are functionally distinct. They serve to organize responses to qualitatively distinct eliciting situations (in this case, people characterized by certain stereotypes) and to promote qualitatively distinct behavioral reactions (Cottrell & Neuberg, 2005; Neuberg & Schaller, 2016).

Finally, discrimination is the resulting behavioral mechanism used to mitigate potential threats and take advantage of potential opportunities afforded by others. These behavioral inclinations are qualitatively distinct when responding to qualitatively distinct threats or opportunities in the environment (Neuberg et al., 2011).

Base vs. Affordance Stereotypes, and Their Implications for Prejudices and Discrimination

As noted above, meta-analyses of stereotyping, prejudice, and discrimination research have shown that general correlations between these three components tend to be of only moderate magnitude (Dovidio et al., 1996). These unexpectedly weak

relationships have led researchers to call for further clarification of the link between

stereotypes, prejudices, and discrimination, and I aim to do just that. I suggest that there

exist two qualitatively distinct types of stereotypes, and that only one of these types

directly predicts prejudices and discrimination. This unrecognized distinction may

contribute to the unexpectedly low correlations traditionally measured between

stereotypes and prejudice. I thus propose a novel, coherent theoretical explanation for the

relationship between (base and affordance) stereotypes, prejudice(s), and discrimination

(see Figure 1) that has potentially important implications for intervention.
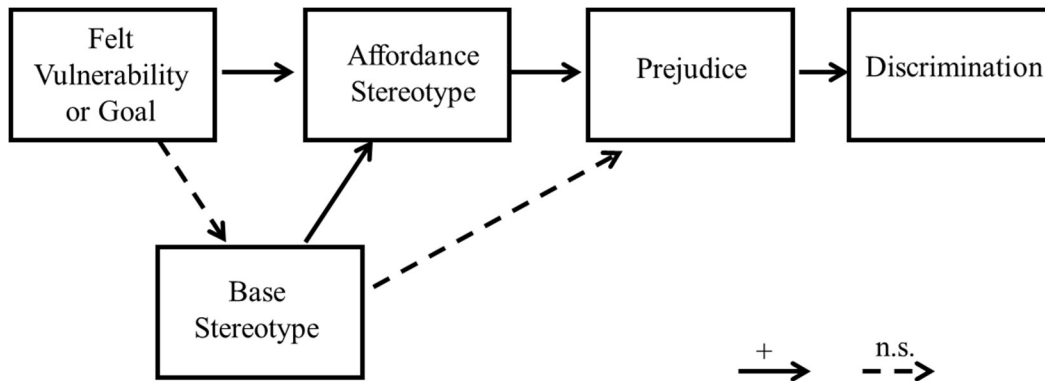
Figure 1. Proposed conceptual model. The proposed conceptual model of the relationship
between base stereotypes, affordance stereotypes, individual goals and vulnerabilities,
prejudices, and discrimination includes hypothesized significant effects (solid arrows)
and theoretically-relevant non-effects (dashed arrows). The model predicts that base
stereotypes are necessary components of affordance stereotypes. However, it is felt
vulnerabilities that predict the content of affordance stereotypes. Further, it is affordance
(not base) stereotypes that predict prejudices, which in turn predict discrimination.

I propose a distinction between "base stereotypes" and "affordance stereotypes."

Base stereotypes are beliefs about the capacities and behavioral inclinations of group

members, and reflect the usefulness of representing others as they are. Affordance

stereotypes are beliefs about the threats and opportunities potentially posed by group

members, and reflect the usefulness of representing others in terms of their implications

13

for perceivers' welfare. I propose that prejudices and discrimination are driven primarily by affordance (rather than base) stereotypes.

Having an accurate view of others' capacities and behavioral inclinations is useful for managing interactions with them and, thereby, for facilitating one's own goals. Base stereotypes aim to capture "what is" about these capacities and inclinations. Of course, by definition, all stereotypes are generalizations and thus contain sources of error (e.g., in their lack of ability to accurately describe all members of a group). That said, relative to affordance stereotypes (below), base stereotypes tend to be relatively objective and commonly held. For example, the base stereotype that "men are more muscular than women," is relatively objective and commonly held. Similarly, the belief that "Fundamentalist Christians try to share their beliefs with others" is also relatively objective, in the sense that it is relatively unbiased by motivational considerations, and commonly held. Consistent with the existing literature (Jussim, 2012; Swim, 1994), our approach assumes that base stereotypes, especially, will be accurate to a nontrivial extent, thereby making them more useful (from a perceiver's perspective) than having no pre-existing information at all. Base stereotypes are shaped by factors that change the perceived "facts" about a group's capacities and behavioral inclinations.

Base stereotypes do not, however, provide direct information about the implications of a group's capacities and motivations—that is, whether these capacities and motivations pose opportunities or threats. This affordance information is especially valuable to social perceivers who need to effectively interact with others in ways that facilitate their own outcomes. There is thus a need for cognitive tools that *do* represent information about the potential threats and opportunities groups may pose. These tools—

affordance stereotypes—require underlying base stereotypes, since base stereotypes represent capacities and inclinations that make certain affordances possible, but are distinct from them. In fact, the same base stereotype can be associated with contradictory affordance stereotypes. For example, the base stereotype that Fundamentalist Christians try to share their beliefs with others can contribute to the affordance stereotype that Fundamentalist Christians pose a threat to personal freedoms *and* the opposing affordance stereotype that Fundamentalist Christians pose an opportunity to promote traditional values. Which affordance stereotype a given perceiver holds is shaped by that perceiver's goals, felt vulnerabilities, and needs, which are the result of chronic individual differences and/or perceptions of immediate situations.

The distinction between base and affordance stereotypes has gone unrecognized in existing theories and has been confounded operationally in empirical investigations. For example, the common-language stereotype that "Jews are cheap" likely combines the base stereotype that "Jews don't spend more than they need to" and the affordance stereotype that "Jews don't pay their fair share and threaten my economic well-being." I suggest that it is the affordance stereotype that drives anti-Jewish prejudices. Also, stereotypes are often presented as base stereotypes with the affordance stereotypes (which are actually driving the prejudices) implied but unstated, such as when White engineering students believe that "Asians are smart" but, left unstated (and thus unstudied), is their affordance stereotype that "Asians raise the curve and harm my grades." Confounding stereotypes in ways such as these muddies the conceptual waters, making it more difficult to understand the processes by which beliefs about groups drive people's prejudices and discriminatory behaviors.

Hypothesis 1: People may hold identical base stereotypes about a target group but hold very different affordance stereotypes. Base stereotypes describe the characteristics of groups—their capacities and behavioral inclinations—and these tend to be founded in "fact" as knowable by social perceivers (e.g., as filtered through media). These characteristics, however, represent potential threats for some but opportunities for others, depending on circumstances: That Fundamentalist Christians are base stereotyped as trying to share their values with others can contribute to a threat stereotype for those whose lifestyles are incompatible with such values, or to an opportunity stereotype for those who share the same types of traditional family values.

Hypothesis 2: Affordance stereotypes, but not base stereotypes, are shaped by a perceiver's goals and the vulnerabilities they feel. What determines whether a particular capacity or behavioral inclination affords an opportunity or threat (or nothing)? As discussed, affordance management theory focuses on the goals, vulnerabilities, and needs of the perceiver. In the case of social perception, these would be vulnerabilities, needs, and goals related to fundamental challenges of sociality—acquiring resources, protecting oneself from those intending or capable of doing harm, finding cooperative partners, etc. (Kenrick, Griskevicius, Neuberg, & Schaller, 2010). These vulnerabilities, needs, and goals emerge from the social perceiver's own capacities and inclinations (e.g., career-driven women are more likely to feel threatened by those who endorse traditional family values that require stay-at-home mothers for proper childcare), immediate situations, and broader circumstances (e.g., leading up to elections, when constituents are being bombarded with religious candidates' strong claims and promises, they are more likely to believe that those holding public office have the ability to greatly impact

16

constituents' daily lives). Note, however, that the perceiver's vulnerability is unlikely to shape their base stereotypes: Fundamentalist Christians are likely to be viewed as advocating for family values whether the social perceiver is a career-driven woman, a gay man, or a Muslim American, because base stereotypes focus on the characteristics of groups and their members rather than on the implications of these characteristics.

Hypotheses 3 (and 4): Prejudices (and discrimination) are more heavily influenced by affordance stereotypes than by base stereotypes. If the aim is to manage potential opportunities and threats, instead of merely detecting these affordances, a person must *act* upon them to enhance his/her outcomes. Prejudices, as a critical component of affordance-managing intergroup psychology (e.g., Cottrell & Neuberg, 2005; for reviews, see Schaller & Neuberg, 2012; Sng et al., 2016), serve the function of organizing and motivating action (here, discrimination) aimed at mitigating the threats and exploiting the opportunities. We would thus predict that affordance stereotypes—and not base stereotypes, alone—primarily drive prejudices and discrimination.

I have conducted two correlational studies that begin to provide preliminary support for a distinction between affordance stereotypes and base stereotypes of Mexican immigrants, Asian immigrants, Muslim Americans, and Fundamentalist Christians. Structural equation modeling analyses of my proposed model (see Figure 1) provide preliminary support for my hypotheses. I find that base stereotypes are strongly and consensually held across participants, and are a necessary component for affordance stereotype endorsement. However, it is a participant's individual felt vulnerabilities that determine the associated affordance stereotype, which in turn mediates the relationship

between base stereotypes and the participant's prejudices and discriminatory inclinations (Pick & Neuberg, 2017a, 2017b, 2017c).

In the current studies, I aimed to move from these correlational tests to an experimental test of my hypotheses to assess causality in the relationships between base stereotypes, affordance stereotypes, felt vulnerabilities, prejudices, and discriminatory inclinations. I intended to experimentally manipulate participants' thoughts, feelings, and behavioral inclinations toward a novel target group, the "Sidanians." In my preliminary work, I assessed people's beliefs and feelings toward real-world target groups. However, because people already hold multiple, varied stereotypes of these real groups, creating a novel target group allows me to make the cleanest test of my hypotheses by avoiding possible confounding effects of competing stereotypes. In the present experiments, I intended to manipulate participants' felt vulnerabilities to measure the predicted corresponding shifts in affordance (but not base) stereotype endorsement, prejudices, and discriminatory inclinations.

A three-condition (induced vulnerability manipulation: values threat, values opportunity, comparison condition), between-subjects design was used. In two studies, participants were randomly assigned to one of three conditions in which they responded to prompts designed to induce a particular vulnerability (elaborated on below). Each distinct vulnerability was predicted to lead to the endorsement of specific affordance stereotypes, and thus prejudices and discriminatory inclinations, toward the novel target group, Sidanians. Once participants were in a particular state of mind, they read a short article providing, among other information, base stereotypes of Sidanians as *trying to share their values with others* and *being highly involved in the community*. These base

18

stereotypes were designed to mimic stereotypes of real-world groups (e.g., Fundamentalist Christians). They are relatively neutral, objective characteristics of a group that nevertheless offer different affordance implications to people who feel vulnerable in different ways. Endorsement of these base stereotypes themselves, however, was not predicted to differ systematically across conditions.

Hypothesis 1: Across conditions, participants will hold identical base stereotypes about Sidanians (e.g., try to share values with others) but hold very different affordance stereotypes (e.g., values threat vs. values opportunity).

Hypothesis 2: Affordance stereotypes, but not base stereotypes, are shaped by the vulnerability a perceiver feels (e.g., a threat to personal freedoms vs. a stabilizing force in the community).

Hypotheses 3 (and 4): Prejudices (and discriminatory inclinations) are more heavily influenced by affordance stereotypes than by base stereotypes.

Study 1 Methods

Participants

604 participants completed the experiment on Amazon's Mechanical Turk (MTurk; Buhrmester, Kwang, & Gosling, 2011) to have sufficient power to detect our hypothesized effects within each condition and to detect between-condition effects. Participants were recruited via MTurk to sample a population that is relatively diverse in age, religiosity, and SES. Diversity along these dimensions is valuable for generalizability, but also enables a better test of my hypotheses. This study's manipulation aimed to temporarily induce participants to feel particularly vulnerable in ways related to societal values, religious beliefs, or policy beliefs, so it was important to

include participants with a wide pre-existing range of these beliefs. Since concerns about policy and societal issues may also differ across participant age and SES, variability in these dimensions was important for generalizability of findings. Participants were all at least 18 years of age, currently reside in the United States, and have spoken English for six or more years.

Four participants who completed the survey in under 3 minutes were removed from the data set (final $N = 600$), as this is insufficient time to read all survey materials and complete the manipulation prompts. Participants' median age fell within the "26 to 35 years old" age bracket, and 263 participants were male. There were a total of 215 participants in the comparison condition, 197 participants in the values threat condition, and 188 participants in the values opportunity condition (elaborated on below).

Because this study involved a (fictional) religious target group, we aimed to include participants that varied in religiosity. The majority of participants were non-Catholic Christian ($n = 178$), Catholic ($n = 75$), agnostic ($n = 96$), atheist ($n = 88$), or "other" ($n = 44$), with 7 participants or fewer of each of the following: Jewish, Muslim, Buddhist, Hindu, or Native American. On average, those participants who endorsed a religion (i.e., not "agnostic" or "atheist") tended to agree with the statement "I try hard to live all my life according to my religious beliefs" ($M = 4.87$, $SD = 1.80$, $n = 310$; 1-Strongly disagree, 7-Strongly agree).

Procedure and Materials

After accessing the study via MTurk and providing informed consent (see Appendix B), participants answered a short list of demographic items. In addition to

several distractor items, such as age and sex, they reported which State they live in.[1]

Participants then read a cover story indicating that the researchers were conducting a study on how memories are formed and on whether different techniques are more or less effective at helping people remember new information (see prompt below). In the cover story, participants were told that they would recall and answer questions about a remembered experience. Then they would read and answer memory questions about a current news article (the Sidanian article). The cover story and instructions read:

> *We are conducting a study about memory formation to examine whether different techniques are more or less effective at helping us remember information. In this study, you will perform two tasks. In the first, you will be asked to remember a past experience and then recall how it made you feel. Next, you will read a brief current news article and form the most accurate impression you can of the group described in the article. You will then answer a series of memory questions, including what you remember about this group and how you feel about its members.*

All participants were first randomly assigned to one of three conditions of our manipulation. They responded to a series of prompts on either their personal values (values threat condition), community stability (values opportunity condition), or financial situation (comparison condition). Stimuli were pilot tested to ensure comparable levels of induced feelings of anxiety (F (2, 22) = 1.694, p = .207). These prompts (see Appendices D – F for full text) were intended to change the participants' current felt needs or vulnerabilities without directly referring to the target group, Sidanians, or either base stereotype of the target group.

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[1] The participant's State was used to filter the name of his or her United States geographic region into the title and body of the Sidanian news article he or she would be shown later in the study (see Appendix G for an example article). Specifying geographic region was intended to make the contents of the article feel particularly relevant to each reader.

Values threat (i.e., personal values) condition. The three prompts in this condition were designed to make the participant feel a threat to their values–specifically, to feel threatened by restrictions on their personal freedoms. These participants were asked to think of values that were important to them, recall a time when someone or society prevented them from living their life according to these values, and remember how that made them feel. Participants read, for example, the following excerpt (see Appendix D for full series of prompts):

> *Now, please think back to a time when you felt that someone or something in society was preventing you from living according to your values, or from living your life the way you felt you should. When did this occur and how did it come about? Please write several sentences describing this experience of not being able to live according to your values.*

Sidanians are described as being highly involved in their communities and trying to share their values with others. Therefore, I predicted that because participants in this condition would feel vulnerable to losing their personal freedoms, they would spontaneously form values-threat affordance stereotypes of the Sidanian target group as a threat to personal freedoms. This would in turn lead to anger and resentment prejudices, as well as discriminatory inclinations to vote against Sidanians in local school elections, and to prevent the participant's children from interacting with Sidanians.

Values opportunity (i.e., community stability) condition. The three prompts in this condition were designed to make the participant feel vulnerable to growing instability and lack of support in their community, and to be sensitive to opportunities to increase order in the community. These participants were asked to think of ways they feel stability and support in their community, then recall a time when that sense of community felt like

it was unravelling and remember how that unravelling made them feel. Participants read, for example, the following excerpt (see Appendix E for full series of prompts):

> *Now, please think back to a time when you felt like society was beginning to unravel around you, or when it seemed that people had stopped supporting others in your community. When did this occur and how did it come about? Please write several sentences describing this experience of instability and lack of support in your community.*

Again, Sidanians are described as being highly involved in the community and trying to share their values with others. Therefore, in this condition I predicted that because participants would feel vulnerable to the growing disorder in their communities, they would spontaneously form values-opportunity affordance stereotypes of the Sidanian target group as a stabilizing force in the community. This would in turn lead to appreciation and admiration prejudices, and positive behavioral inclinations to vote for Sidanians in local government roles and to support organizations run by Sidanians.

Comparison (i.e., financial situation) condition. The prompts in the conditions of interest (values threat and values opportunity) induce a degree of anxiety and negative affect in participants that could putatively account for some of the effects on prejudice and discriminatory inclinations towards Sidanians. To be able to detect any such baseline effects of anxiety causing general prejudice toward an outgroup, the third condition was used as a comparison condition. The parallel prompts in this condition asked participants to think of ways people are able to achieve financial security, then recall a time when they were financially unable to meet their needs or desires, and remember how that made them feel. Participants read, for example, the following excerpt (see Appendix F for full series of prompts):

Now, please think back to a time when you felt that you did not have the money you needed to pay for something you needed or strongly desired. When did this occur and why did it come about? Please write several sentences describing this experience of not being able to afford something that was necessary or that you strongly desired.

This condition was pilot-tested to induce an equivalent level of anxiety in participants, yet I predicted that it would not cause participants to *systematically* endorse the affordance stereotypes caused by either of the conditions of interest, because financial concerns are not related to personal values or community stability. In addition, I planned to use comparisons among participants within this condition to measure the relationships between affordance stereotype endorsement and natural variations in participants' chronic feelings of vulnerability to loss of personal freedoms or to disorder in their communities.

Next, participants all read the previously mentioned short article about our novel target group, the Sidanians. The vulnerability manipulation was presented before this description of Sidanians. Thus, I intended for participants to be in a certain frame of mind as they formed their impression of Sidanians and began to infer potential affordance implications of the group. The aim of this article, which was presented as a Pew Foundation Report, was to provide details that would lead participants to form base stereotypes about the group. These base stereotypes would suggest that the group's activities could potentially have different implications (i.e., affordances) for the participants' own lives, depending on the vulnerabilities they feel. The intended base stereotypes were that *Sidanians try to share their values with others*, and that *Sidanians are highly involved in their communities*. Appendix G contains a fabricated screenshot

showing the following news article text as if it were featured on the Pew Foundation website:

"Southwestern[2] Religious Group Rapidly Growing in Numbers and Influence"

Recent surveys show that the Sidanians, a small but rapidly growing sect of a religious group that has been around for centuries, are gaining influence in metropolitan areas of the Southwest region of the United States. Sidanians, respected and law-abiding community members, are joining school boards and being elected to local government offices. Sidanian teachings focus on the importance of community involvement and social coordination, and on the importance of civic participation and actively sharing these values with non-members. Instead of transforming society through proselytizing, they are more focused on "improving society by placing Sidanian believers in powerful positions in all sectors of society."

Immediately following the article about Sidanians, participants answered a short series of questions serving both as a reading comprehension check and to reinforce the information they had just read. This comprehension check was followed by questions measuring participants' felt vulnerabilities, which also served to reinforce and subtly remind participants of the initial vulnerability manipulation. Participants then answered questions measuring the main dependent variables of the study: base stereotypes, affordance stereotypes, prejudices, and discriminatory inclinations. The items assessing each of these constructs were presented in randomized order. Items were similar to those used in my preliminary work on real target groups and were all assessed on 7-point Likert-type scales (see Appendix G for a full list of demographic, comprehension/manipulation check, and other survey items).

Vulnerabilities. Participants responded to questions to assess their felt vulnerabilities, which also served as a manipulation check and a booster to remind them

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[2] In the title and body of the short article, participants were shown the name of the appropriate geographic region given the State they reported residing in at the beginning of the survey.

of the vulnerability manipulation prompts they initially responded to. All participants

responded to the same set of questions, which included items pertaining to the threats

described in each condition as well as several additional distractor items. Items were

assessed on a scale from 1 (Strongly disagree) to 7 (Strongly agree) and presented in a

randomized order.

Items related to the values threat condition included, "Religion has a positive

influence on public policy," "Religion has a negative influence on public policy," and

"Religion should have an influence on public policy decisions." I expected that

participants in the values threat manipulation condition would most strongly believe that

religion's influence on public policy in the U.S. is negative and that this should not be the

case. Consequently, I expected that their base stereotypes of Sidanians' high community

involvement and desire to share their values would feed into this vulnerability and make

Sidanians seem threatening to participants' values.

Items related to the values opportunity condition included, for example, "The

political climate in the U.S. today is highly unstable." I expected that participants in the

values opportunity condition would most strongly believe that U.S. society is becoming

increasingly unstable. Consequently, I expected that their base stereotypes of Sidanians'

high community involvement and desire to share their values would be seen as a potential

opportunity to stabilize society.

Items related to the comparison condition included, "Americans should be

concerned about the level of national debt," and "The level of national debt has

consequences for everyday Americans." I expected that participants in the comparison

condition would most strongly believe that the U.S. financial situation is worrisome. I did

not expect this vulnerability to build on their base stereotype of Sidanians to form affordance stereotypes, because community involvement and values are unrelated to the financial concerns.

Base stereotypes. Participants' base stereotypes of Sidanians were assessed. These questions allowed me to ensure that participants had formed an impression of Sidanians, and allowed a strong test of the hypothesis that base stereotypes would not be affected by perceivers' felt vulnerabilities. Items were assessed on a scale from 1 (Not at all) to 7 (Extremely) and were presented in randomized order. Items included: "In general, how much do Sidanians, as a group try to share their values with others?" and "…actively participate in the community?" as well as distractor items.

Affordance stereotypes. Items assessed participants' affordance stereotypes of the potential implications of Sidanians' motivations and their capacities/abilities. Item scales ranged from 1 (Strongly disagree) to 7 (Strongly agree) and were presented in randomized order. I expected participants' endorsement of these items to vary systematically across conditions. I expected that participants in the values threat condition would endorse items such as, "Sidanians [try to/are able to] limit the personal freedoms of people like me," and "Sidanians [try to/are able to] impose their values on people like me." I expected participants in the values opportunity condition to endorse items such as, "Sidanians [try to/are able to] improve communities for people like me," and "Sidanians [try to/are able to] stabilize communities through local involvement." I didn't expect participants in the comparison condition to endorse any of these items or the distractor items.

27

Prejudices. Participants' prejudices toward Sidanians were assessed using both traditional general prejudice items as well as emotion items, as indicated by a functional approach to understanding emotion. Item scales ranged from 1 (Not at all) to 7 (Extremely). Examples of traditional items included: "In general, how much do you like Sidanians, as a group?" and "…how negative do you feel toward Sidanians, as a group?" Examples of functional emotion items included: "In general, how much do you resent Sidanians, as a group?" and "…how much do you appreciate Sidanians, as a group?" as well as distractor items such as: "In general, how physically disgusted are you by Sidanians, as a group?" I predicted that participants in the values threat condition would resent and be angry toward Sidanians, whereas those in the values opportunity condition would appreciate and admire Sidanians.

Discriminatory inclinations. Participants' discriminatory inclinations (including relevant and distractor items) were assessed on a scale from 1 (Extremely unlikely) to 7 (Extremely likely). Example policy-related items included: "In general, how likely would you be to vote for a Sidanian to serve on the local school board?" and "…vote for a Sidanian to become a local judge?" Example behavioral-inclination items included: "In general, how likely would you be to hire a Sidanian to take care of your children?" and "…approve of your sibling marrying a Sidanian?" I expected participants in the values threat condition to rate these items as "extremely unlikely," participants in the values opportunity condition to rate them as "extremely likely," and participants in the comparison condition to be neutral.

Finally, participants were asked a series of demographic items that were not covered at the beginning of the study, including SES, ethnicity, religion, religiosity, and

political views. They were also asked to complete the Motivation to Respond Without Prejudice (MTRWP) scale (see Appendix H; Plant & Devine, 1998). These items were measured as potential factors that may change the way a participant responded to the vulnerability manipulations (e.g., highly religious, conservative participants may not see Sidanians as a values threat in either condition if they believe Sidanians are trying to spread the traditional values that the participants themselves hold). Or, certain participants may systematically respond differently to the dependent variable items (e.g., those with high scores on the MTRWP scale, who feel highly motivated to hide prejudices, may not endorse any stereotype or prejudice items). In conclusion, participants then read the debriefing and were asked to express any comments or concerns they had about the study (see Appendix I).

Study 1 Results

Sidanian Reading Comprehension Check

Of 600 total participants, 503 answered all three comprehension check questions about the Sidanian article correctly. These questions assessed whether participants read the article carefully enough to understand basic points, including the Sidanian base stereotypes. For participants who did not read and remember the information about Sidanians, further analyses would be uninterpretable. Therefore, participants who didn't answer all three comprehension check questions correctly were excluded from the rest of the analyses. Approximately equal numbers of participants were excluded from each condition (31 out of the original 197 participants (15.7%) were excluded from the values threat condition, 30 of 188 participants (16.0%) were excluded from the values

opportunity condition, and 36 of 215 participants (16.7%) were excluded from the comparison condition).

Measures

      Participant vulnerabilities. Each manipulation condition was designed to induce a specific vulnerability, and participants responded to vulnerability items as a manipulation check to assess the effectiveness of the manipulation prompts. Composite vulnerability variables were created from the items that were hypothesized to be affected by each manipulation condition.

      Values threat vulnerabilities. I expected that participants in the values threat manipulation condition would most strongly believe that religion's influence on public policy in the U.S. is negative, and that religion should not have an influence on public policy. Highly correlated scores on the "Religion has a positive influence on public policy" item and "Religion should have an influence on public policy decisions" (1-Strongly disagree, 7-Strongly agree) were reverse coded and averaged with the "negative influence" item to form a personal freedoms vulnerability composite variable ($M = 4.65$, $SD = 1.73$, Cronbach's alpha = .88).

      Values opportunity vulnerabilities. I expected that participants in the values opportunity condition would most strongly believe that U.S. society is highly unstable. The item, "The political climate in the U.S. today is highly unstable" was used as a community instability vulnerability variable ($M = 5.65$, $SD = 1.37$).

      Comparison condition vulnerabilities. I expected that participants in the comparison condition would most strongly believe that the U.S. financial situation is worrisome. Highly correlated scores on the "Americans should be concerned about the

level of national debt" and the "The level of national debt has consequences for everyday Americans" items were averaged together to form a financial threat vulnerability composite item ($M = 5.60$, $SD = 1.30$, Cronbach's alpha = .87).

Base stereotypes of Sidanians. As hypothesized, participants highly endorsed base stereotypes of Sidanians, with low variability. A base stereotype composite was formed from the average of the following items: "In general, how much do Sidanians, as a group, try to share their values with others?", "…share their values with others?", "…actively participate in the community?", and "In general, how important is civic participation to Sidanians, as a group?" ($M = 6.088$, $SD = .947$, Cronbach's alpha = .86; 1-Not at all, 7-Extremely). As predicted, this base stereotype composite of Sidanians is strongly endorsed (an average of 6 on a 7-point scale) with low variability. This is not surprising, given that participants were provided with base stereotypes about Sidanians. However, this is important to verify, as this endorsement serves as another reading comprehension check, and to ensure that base stereotypes in this study follow the same pattern as they do in my past models of real-world target groups.

Affordance stereotypes of Sidanians. Composites were formed to assess affordance stereotypes that participants were predicted to spontaneously form about Sidanians, given their felt vulnerabilities.

Values threat affordance stereotypes. Participants who felt that religion's influence on public policy is negative, and that religion shouldn't have an influence on public policy, were predicted to see Sidanians as a values threat—a religious group threatening to restrict participants' freedoms. Scores on values threat affordance stereotype items were averaged together to form a values threat composite. Items

31

included, for example: "In general, Sidanians try to limit the personal freedoms of people like me," and "…try to move society away from the values that people like me cherish" (M = 3.334, SD = 1.315, Cronbach's alpha = .87, 1-Strongly disagree, 7-Strongly agree).

Values opportunity affordance stereotypes. Participants who felt that the current political climate is highly unstable were predicted to see Sidanians as a values opportunity—a civic-minded group trying to stabilize communities. Scores on values opportunity affordance stereotype items were averaged together to form a values opportunity composite. Items included, for example: "In general, Sidanians try to improve communities for people like me," and "…try to stabilize communities through local involvement" (M = 5.144, SD = 1.209, Cronbach's alpha = .82, 1-Strongly disagree, 7-Strongly agree).

Prejudices toward Sidanians. Composites were formed to assess prejudices that participants were predicted to spontaneously form toward Sidanians, given their affordance stereotypes.

Resentment prejudice. Participants who see Sidanians as a values threat were predicted to feel a resentment prejudice toward them. A composite resentment prejudice item was formed by averaging together responses to: "In general, how much do you resent Sidanians, as a group?" and "…how bitter are you toward Sidanians, as a group?" (M = 2.187, SD = 1.474, Cronbach's alpha = .86, 1-Not at all, 7-Extremely).

Appreciation prejudice. Participants who see Sidanians as a values opportunity were predicted to feel appreciation towards them. A composite appreciation "prejudice" item was formed by averaging together responses to: "In general, how much do you

32

appreciate Sidanians, as a group?" and "…how much do you admire Sidanians, as a group? (M = 4.019, SD = 1.536, Cronbach's alpha = .88, 1-Not at all, 7-Extremely).

Discriminatory inclinations toward Sidanians. Composites were formed to assess discriminatory inclinations that participants were predicted to spontaneously form toward Sidanians, given their affordance stereotypes and prejudices.

Values threat discriminatory inclination. Participants who see Sidanians as a values threat and resent them were predicted to not want their children and siblings exposed to Sidanians and their values. Scores on values-related discriminatory inclination items were averaged together to form a values discrimination composite. Items included, for example: "In general, how likely would you be to hire a Sidanian to take care of your children?" (reverse coded) and "…prevent your child from reading books written by Sidanians?" (M = 3.292, SD = 1.342, Cronbach's alpha = .85, 1-Extremely unlikely, 7-Extremely likely).

Values opportunity discriminatory inclination. Participants who see Sidanians as a values opportunity and appreciate them were predicted to want to support Sidanians for local government positions and support organizations run by Sidanians. Scores on community-related discriminatory inclination items were averaged together to form a community discrimination composite. Items included, for example: "In general, how likely would you be to vote for a Sidanian to serve on the local school board?" (reverse coded) and "…support the creating of organizations run by Sidanians?" (reverse coded; M = 3.896, SD = 1.560, Cronbach's alpha = .91, 1-Extremely unlikely, 7-Extremely likely). Participants who see Sidanians as a values opportunity were predicted to score low on this composite.

33

Effects of Manipulation

To assess the effects of the manipulation on participant vulnerabilities, I conducted a one-way Multivariate Analysis of Variance (MANOVA). There was not a statistically significant difference in the participants' vulnerabilities based on manipulation condition (F (6, 996) = 1.39, p = .215; *Wilk's* Λ = 0.983, *partial* η^2 = .008). Further, t-tests comparing mean levels of each dependent variable for participants in its condition of interest against the means for the other two conditions combined were all non-significant (see Table 1 for means, standard deviations, and significance tests for all dependent variables; see Table 2 for correlations). For example, mean levels of personal freedom vulnerability for participants in the values threat condition compared to values opportunity and comparison conditions were not significantly different (t (501) = -1.75, p = .08). Likewise, the t-test comparing mean levels of community instability vulnerability between the values opportunity condition and the combined values threat and comparison conditions was not significant (t (501) = -.33, p = .74).

Table 1

Study 1 Mean Variable Levels in Condition of Interest Compared to Other Conditions

Dependent Variable	Comparison	M	SD	t (df)	p
Personal freedom vulnerability	Values threat condition	4.46	1.72	-1.75 (501)	**.08**
	Values opp. & comparison conditions	4.75	1.73		
Community instability vulnerability	Values opportunity condition	5.62	1.44	-.33 (501)	.74
	Values threat & comparison conditions	5.66	1.33		
Values threat affordance stereotype	Values threat condition	3.38	1.37	.50 (501)	.62
	Values opp. & comparison conditions	3.31	1.29		
Values opportunity affordance stereotype	Values opportunity condition	5.13	1.19	-.13 (501)	.90
	Values threat & comparison conditions	5.15	1.22		
Resentment prejudice	Values threat condition	2.30	1.48	1.16 (501)	.25
	Values opp. & comparison conditions	2.13	1.50		
Appreciation prejudice	Values opportunity condition	4.12	1.53	.97 (501)	.33
	Values threat & comparison conditions	3.97	1.54		
Values threat discriminatory inclination	Values threat condition	3.30	1.32	.039 (500)	.97
	Values opp. & comparison conditions	3.29	1.35		
Values opportunity discriminatory inclination	Values opportunity condition	3.30	1.32	-.72 (500)	.47
	Values threat & comparison conditions	3.29	1.35		

Note. T-tests comparing the mean endorsement of each dependent variable by participants in its corresponding condition of interest compared to participants in the other two conditions, combined. Significant or marginally significant *p* values are bold.

Table 2

Study 1 Correlations

Variable	1	2	3	4	5	6	7	8	9
1. Base stereotype	–								
2. Personal freedom vulnerability	.04	–							
3. Community instability vulnerability	.32***	.26***	–						
4. Values threat affordance stereotype	-.16***	.07	-.02	–					
5. Values opportunity affordance stereotype	.44***	-.18***	.15**	-.45***	–				
6. Resentment prejudice	-.29***	.08^	-.07	.61***	-.45***	–			
7. Appreciation prejudice	.16***	-.27***	.07	-.43***	.59***	-.36***	–		
8. Values threat discriminatory inclination	-.27***	-.10*	-.09*	.46***	-.48***	.48***	-.55***	–	
9. Values opportunity discriminatory inclination	-.18***	.13**	-.04	.45***	-.54***	.39***	-.76***	.72***	–

$^\wedge p < .08$; $*p < .05$; $**p < .01$; $***p < .001$

Because there were no significant effects of the manipulation, I aggregated participants across conditions to test my conceptual hypotheses correlationally.

Path Model Analyses of Relationships between Constructs

My hypothesized path model is described graphically in Figure 2. Although the experimental manipulation of this study did not have the intended effect, I explored the hypothesized model correlationally to see if these data replicated the predicted correlational relationships that I have found in past studies of real-world target groups. That is, I tested the hypothesis that natural individual variability in felt vulnerabilities would predict affordance stereotypes, but not base stereotypes, of the target group. Further, I tested the hypothesis that it is those affordance stereotypes (not base stereotypes) that then predict downstream prejudices and discriminatory inclinations toward the target group.
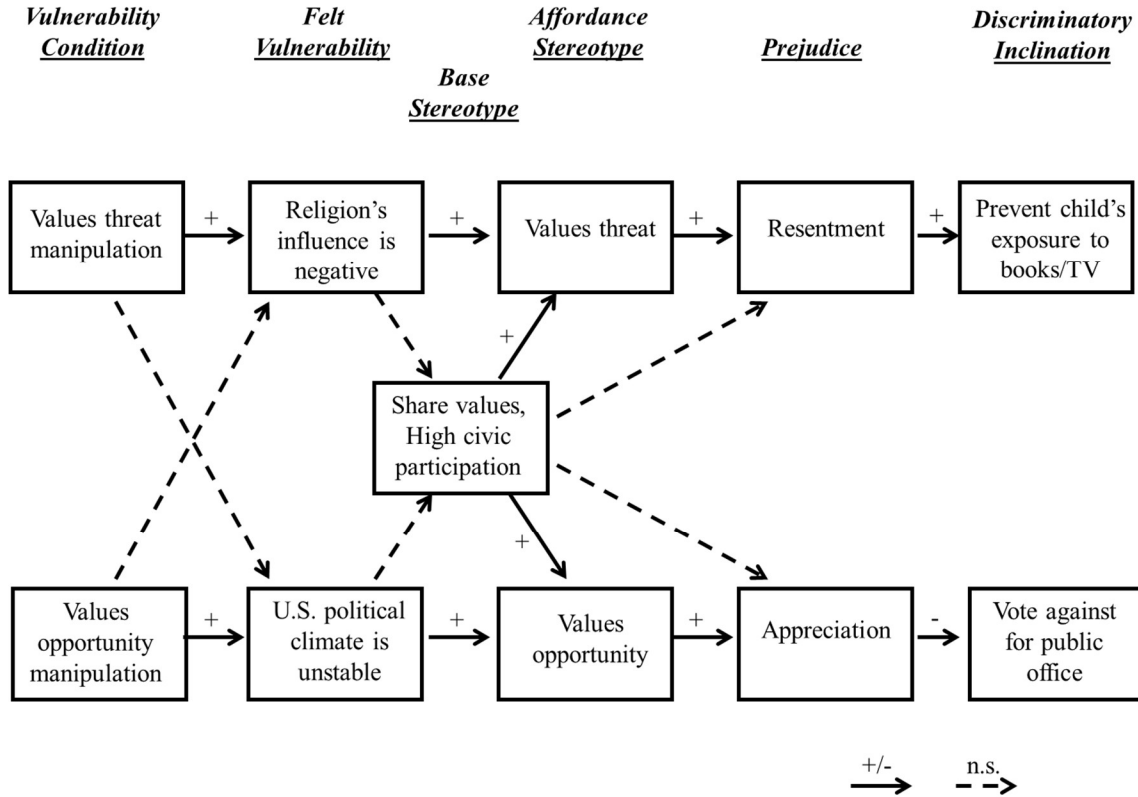
Figure 2. Study 1 hypothesized path model. This hypothesized path model predicts that the vulnerability manipulation condition that a participant is in will predict their felt vulnerability, which will in turn predict their affordance stereotype (but not base stereotype) toward the target group. This affordance stereotype (rather than the base stereotype) will predict their prejudice, which will predict their discriminatory inclinations toward the target group. Solid lines are predicted to be significant paths (in the indicated direction), and dashed lines are theoretically-relevant predicted non-significant paths.

I performed a path model analysis with MPlus Version 7 using maximum likelihood parameter estimation. I tested the hypothesized model, excluding manipulation variables (see Figure 3). Rectangles represent measured variables. This model fits the data better than multiple alternative models, but model fit indices show that it does not fit as well as hypothesized (RMSEA = .163, TLI = .689, CFI = .823).[3]

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[3] Guidelines recommend an RMSEA < .06, TLI > .95, and CFI > .95 for acceptable model fit (West, Taylor, & Wu, 2012). These model fit indices were chosen per recommendations in Schreiber, Nora, Stage, Barlow, & King (2006).

Felt
Vulnerability

Affordance
Stereotype

Prejudice

Discriminatory
Inclination

Base
Stereotype

1.68(.11)   1.28(.09)   1.42(.09)

Religion's influence is negative   -.014   Values threat   .645***   Resentment   .317***   Prevent child's exposure to books/TV

.002   -.046

-.200**   -.313***

Communities are unstable, disordered   .178***   Share values, High civic participation   .75(.05)   -.602***   -.026   .706***

.207***   .134***   .495***   -.192**

U.S. political climate is unstable   .022   Values opportunity   .812***   Appreciation   -.581***   Vote against for public office

1.16(.07)   1.51(.10)   1.12(.08)

**p < .01
***p < .001

Figure 3. Study 1 analyzed path model. The above path model fits the data better than the alternatives. As hypothesized, this model shows that base stereotypes significantly predict affordance stereotypes, affordance stereotypes significantly predict prejudices, and prejudices significantly predict discriminatory inclinations. The relationship between base stereotypes and prejudices is significantly partially mediated by affordance stereotypes. However, the relationships between vulnerabilities and base and affordance stereotypes were not as hypothesized.

As hypothesized, this model shows that base stereotype endorsement significantly predicts both threat and opportunity affordance stereotype endorsement. Threat affordance stereotype endorsement significantly predicts resentment prejudice, which significantly predicts discriminatory inclinations. Opportunity affordance stereotypes significantly predict appreciation, which significantly negatively predicts discriminatory inclinations. I hypothesized that affordance stereotypes would mediate the relationship between base stereotypes and prejudices, and I find significant partial mediation.

Contrary to my hypotheses, however, I find that financial and community instability vulnerabilities predict base stereotype endorsement. Further, community

38

instability vulnerability does not directly predict values opportunity affordance stereotypes, and freedom vulnerability does not directly predict values threat affordance stereotypes. I believe that the vulnerability measures in this experiment failed to adequately capture the appropriate vulnerabilities that would affect affordance stereotypes of Sidanian targets. However, in Study 1, I did see support for the hypothesized correlational relationships between base and affordance stereotypes, prejudices, and discriminatory inclinations.

In sum, Study 1 did not accomplish its primary goal—to effectively manipulate perceiver vulnerabilities and thereby enable a causal test of my hypotheses.

Study 2 Methods

In light of the unsuccessful manipulation in Study 1, I used a different sample—undergraduate participants—for Study 2. I expected undergraduate students to pay more attention throughout the course of the study, and thus be more engaged in the tasks and manipulation prompts. Undergraduate participants expect to participate in studies lasting approximately 60 minutes, compared to MTurk workers who often complete multiple, short "HITs" (surveys and other online tasks) back-to-back for money, perhaps rushing through each HIT and engaging only superficially. Therefore, I expected the experimental manipulation to be more effective with undergraduate participants.

Participants

396 undergraduate participants were recruited from Arizona State University. Each student participated in exchange for 1 research credit in his or her Introduction to Psychology course. Participants were all at least 18 years old, with a mean age of 19.4 years old ($SD = 2.3$); 189 participants were male. There were 132 participants randomly

assigned to the values threat condition, 133 in the values opportunity condition, and 131 in the comparison condition.

Because this study involved a (fictional) religious target group, the ideal sample includes participants that vary in religiosity. The majority of participants in this sample were Catholic (n = 97), non-Catholic Christian (n = 96), agnostic (n = 58), atheist (n = 49), or "other" (n = 58), with 16 participants or fewer of each of the following: Buddhist, Jewish, Muslim, Mormon, Hindu, or Native American. On average, those participants who endorsed a religion (i.e., not "agnostic" or "atheist") tended to agree with the statement "I try hard to live all my life according to my religious beliefs" (M = 4.04, SD = 1.68, n = 297; 1-Strongly disagree, 7-Strongly agree).

Procedures and Materials

Procedures and materials in Study 2 were very similar to those in Study 1. However, in addition to using an undergraduate sample instead of an MTurk sample, the following major changes were made to the procedures and materials in Study 2: (1) Immediately following the prompts for each condition (values threat, values opportunity, or values comparison), each participant answered a short series of questions about their current affective state; (2) because all participants attend a university in the U.S. Southwest, they were all shown the "Southwest" version of the Sidanian news article; and, most important, (3) more specific and applicable vulnerability items were added to more accurately assess each participant's current felt vulnerabilities.

As in Study 1, Study 2 undergraduate participants began by giving informed consent and reading the cover story and instructions describing the researchers' interest in memory formation and techniques. Next, participants were randomly assigned to respond

to the same series of three prompts meant to induce a particular vulnerability: a threat to their personal values (values threat), growing community instability (values opportunity), or a dire financial situation (comparison condition). Unlike in Study 1, they then responded to a short series of questions about how they feel right now, on a 7-point Likert scale from 1-Not at all to 7-Extremely. Example items include, "How anxious do you feel?" and "How appreciative do you feel?" These questions allowed me to test whether the comparison condition manipulation had approximately equivalent effects on participant anxiety compared to the other two conditions, thereby ensuring that any effects on dependent variables in the conditions of interest were not simply due to increased anxiety.

Participants then read the short news article on the novel target group, the Sidanians, who were described as located in the Southwestern region of the United States. After responding to a short series of questions serving both to check reading comprehension and to reinforce the base stereotypes provided in the article, participants responded to items to assess current felt vulnerabilities. In Study 2, these items included a new set of questions intended to more accurately measure participants' vulnerabilities, on a 7-point Likert scale from 1 (Strongly disagree) to 7 (Strongly agree; see Appendix G for a full list of items). Examples of items meant to assess vulnerability in the "values threat" condition include, "Public policy often infringes on the personal freedoms of people like me," and "Society often limits individuals' personal freedoms." Examples of new items meant to assess vulnerability in the "values opportunity" condition include, "Communities like mine are highly unstable today," and "Many people like me lack community support today." Examples of items meant to assess vulnerability in the

"comparison" condition include, "Economic hardship is a difficult burden that many people like me live with," and "Many people like me struggle financially at some point."

Next, participants responded to the same Study 1 items assessing their base stereotypes, affordance stereotypes, and discriminatory inclinations toward Sidanians. After answering demographic items, they responded to the Motivation to Respond Without Prejudice scale. Finally, they read the debriefing and provided any comments.

Study 2 Results

Sidanian Reading Comprehension Check

Of 396 total participants, 338 answered all three comprehension check questions about the Sidanian article correctly. As in Study 1, participants in Study 2 who didn't answer all three comprehension check questions correctly were excluded from the rest of the analyses. Approximately equal numbers of participants were excluded from each condition (20 out of the original 132 participants (15.2%) were excluded from the values threat condition, 18 of 133 participants (13.5%) were excluded from the values opportunity condition, and 20 of 131 participants (15.3%) were excluded from the comparison condition).

Measures

Participant vulnerabilities. Each manipulation condition was designed to induce a specific vulnerability, and participants responded to vulnerability items as a manipulation check to assess the effectiveness of the manipulation prompts. Composite vulnerability variables were created from the items that were hypothesized to be affected by each manipulation condition. New vulnerability items were included in Study 2 to more accurately assess each participant's current felt vulnerabilities. Items were more

specifically tailored to each affordance that Sidanians might be perceived to pose. Items were developed to assess both more general perceived vulnerabilities (e.g., "Public policy often infringes on individuals' personal freedoms") and more individually-felt vulnerabilities (e.g., "Public policy often infringes on the personal freedoms *of people like me*").

Values threat vulnerabilities. I expected that participants in the values threat manipulation condition would most strongly believe that society and public policy are able to restrict individuals' personal freedoms. Example personal freedoms vulnerability items included, "Society is often able to prevent people like me from living according to their values," and "Society often limits individuals' personal freedoms" (1-Strongly disagree, 7-Strongly agree). Highly correlated scores on personal freedoms vulnerability items were averaged to form a composite (8 items, $M = 3.914$, $SD = 1.176$, Cronbach's alpha = .90).

Values opportunity vulnerabilities. I expected that participants in the values opportunity condition would most strongly believe that U.S. communities are highly unstable and low in support. Example community instability vulnerability items included, "Communities like mine are highly unstable today," and "American communities are becoming increasingly unstable and chaotic" (1-Strongly disagree, 7-Strongly agree). Highly correlated scores on community instability vulnerability items were averaged to form a composite (8 items, $M = 3.844$, $SD = 1.053$, Cronbach's alpha = .87).

Comparison condition vulnerabilities. I expected that participants in the comparison condition would most strongly believe that many people are struggling financially. Example financial vulnerability items included, "Many people like me are

living under difficult financial circumstances," and "Economic hardship is a difficult burden that many live with" (1-Strongly disagree, 7-Strongly agree). Highly correlated scores on financial vulnerability items were averaged to form a composite (6 items, $M = 4.995$, $SD = 1.079$, Cronbach's alpha = .83).

Base stereotypes of Sidanians. As hypothesized, participants highly endorsed base stereotypes of Sidanians, with low variability. The same base stereotype composite as in Study 1 was formed from the average of the base stereotype items (e.g., share values, active community participation; $M = 5.85$, $SD = 1.02$, Cronbach's alpha = .77; 1-Not at all, 7-Extremely). As predicted, this base stereotype composite of Sidanians is strongly endorsed (an average of nearly 6 on a 7-point scale) with low variability.

Affordance stereotypes of Sidanians. As in Study 1, composites were formed to assess affordance stereotypes that participants were predicted to spontaneously form about Sidanians, given their felt vulnerabilities.

Values threat affordance stereotypes. Participants who felt that society and public policy often restrict individuals' personal freedoms were predicted to see Sidanians as a values threat—a civic-minded group threatening to restrict participants' freedoms. Scores on values threat affordance stereotype items (e.g., limit personal freedoms) were averaged together to form a values threat composite ($M = 3.386$, $SD = 1.028$, Cronbach's alpha = .76, 1-Strongly disagree, 7-Strongly agree).

Values opportunity affordance stereotypes. Participants who felt that U.S. communities are unstable and lack support were predicted to see Sidanians as a values opportunity—a civic-minded group trying to stabilize communities. Scores on values opportunity affordance stereotype items (e.g., try to stabilize communities) were

averaged together to form a values opportunity composite ($M = 5.011$, $SD = 1.146$, Cronbach's alpha = .78, 1-Strongly disagree, 7-Strongly agree).

Prejudices toward Sidanians. As in Study 1, composites were formed to assess prejudices that participants were predicted to spontaneously form about Sidanians, given their affordance stereotypes.

Resentment prejudice. Participants who see Sidanians as a values threat were predicted to feel a resentment prejudice towards them. Scores on resentment prejudice items (i.e., resent, bitter) were averaged to form a composite resentment prejudice item ($M = 2.137$, $SD = 1.330$, Cronbach's alpha = .84, 1-Not at all, 7-Extremely).

Appreciation prejudice. Participants who see Sidanians as a values opportunity were predicted to feel appreciation towards them. Scores on appreciation "prejudice" items (i.e., appreciate, admire) were averaged to form a composite appreciation item ($M = 3.676$, $SD = 1.481$, Cronbach's alpha = .85, 1-Not at all, 7-Extremely).

Discriminatory inclinations toward Sidanians. As in Study 1, composites were formed to assess discriminatory inclinations that participants were predicted to spontaneously form about Sidanians, given their affordance stereotypes and prejudices.

Values threat discriminatory inclination. Participants who see Sidanians as a values threat and resent them were predicted to not want their children and siblings exposed to Sidanians and their values. Scores on values-related discriminatory inclination items (e.g., allow Sidanians to care for children (reverse coded), allow children to read books by Sidanians (reverse coded)) were averaged together to form a values discrimination composite ($M = 3.356$, $SD = 1.192$, Cronbach's alpha = .82, 1-Extremely unlikely, 7-Extremely likely).

Values opportunity discriminatory inclination. Participants who see Sidanians as a values opportunity and appreciate them were predicted to want to support Sidanians for local government positions and support organizations run by Sidanians. Scores on community-related discriminatory inclination items (e.g., vote for a Sidanian (reverse), support Sidanian organizations (reverse)) were averaged together to form a community discrimination composite ($M = 4.058$, $SD = 1.294$, Cronbach's alpha = .87, 1-Extremely unlikely, 7-Extremely likely).

Effects of Manipulation

As predicted, participants' felt anxiety across conditions did not significantly differ. Anxiety did not significantly differ in the values threat vs. opportunity conditions ($\beta = -.151$, $t (334) = -.653$, $p = .514$), nor did it significantly differ between the comparison condition and the conditions of interest ($\beta = -.137$, $t (334) = -1.013$, $p = .312$). To assess the effect of the manipulation on participant vulnerabilities, I conducted a one-way Multivariate Analysis of Variance (MANOVA). There was a statistically significant difference in the participants' vulnerabilities based on the manipulation condition they were in ($F (6, 662) = 4.51$, $p < .001$; Wilk's $\Lambda = 0.923$, partial $\eta^2 = .039$). Follow-up t-test comparisons showed a significant difference between the mean felt personal freedoms vulnerability for participants in the values threat condition compared to participants in the other two conditions ($t (334) = -2.187$, $p = .029$). However, t-tests comparing mean levels of the other values threat dependent variables for participants in the values threat condition against those in the other two conditions combined were all non-significant (see Table 3 for means, standard deviations, and significance tests for all dependent variables; see Table 4 for correlations). Further, there was no significant

46

difference between the mean felt community instability vulnerabilities for participants in the values opportunity condition compared to participants in the other two conditions (t (334) = -1.533, p = .126). However, further t-tests showed a significantly higher mean level of appreciation endorsed by the participants in the values opportunity condition compared to participants in the other two conditions (t (334) = 2.07, p = .039), and a marginally significantly lower level of values opportunity discriminatory inclination endorsed by participants in the values opportunity condition compared to the other two conditions (t (334) = -1.91, p = .057).

Table 3

Study 2 Mean Variable Levels in Condition of Interest Compared to Other Conditions

Dependent Variable	Comparison	M	SD	t (df)	p
Personal freedom vulnerability	Values threat condition	4.11	1.21	2.19 (334)	**.029**
	Values opp. & comparison conditions	3.82	1.15		
Community instability vulnerability	Values opportunity condition	3.97	1.16	1.53 (334)	.126
	Values threat & comparison conditions	3.78	.99		
Values threat affordance stereotype	Values threat condition	3.49	1.07	1.34 (334)	.18
	Values opp. & comparison conditions	3.33	1.00		
Values opportunity affordance stereotype	Values opportunity condition	5.07	1.10	.73 (334)	.47
	Values threat & comparison conditions	4.98	1.17		
Resentment prejudice	Values threat condition	2.13	1.36	-.072 (334)	.94
	Values opp. & comparison conditions	2.14	1.32		
Appreciation prejudice	Values opportunity condition	3.91	1.42	2.07 (334)	**.039**
	Values threat & comparison conditions	3.56	1.50		
Values threat discriminatory inclination	Values threat condition	3.32	1.24	-.38 (334)	.71
	Values opp. & comparison conditions	3.37	1.69		
Values opportunity discriminatory inclination	Values opportunity condition	3.87	1.20	-1.91 (334)	**.057**
	Values threat & comparison conditions	4.15	1.33		

Note. T-tests comparing the mean endorsement of each dependent variable by participants in its corresponding condition of interest compared to participants in the other two conditions, combined. Significant or marginally significant *p* values are bold.

Table 4

Study 2 Correlations

Variable	1	2	3	4	5	6	7	8	9
1. Base stereotype	–								
2. Personal freedom vulnerability	.02	–							
3. Community instability vulnerability	-.01	.60***	–						
4. Values threat affordance stereotype	-.09	.30***	.19***	–					
5. Values opportunity affordance stereotype	.52***	.002	.04	-.19***	–				
6. Resentment prejudice	-.36***	.16**	.16**	.48***	-.34***	–			
7. Appreciation prejudice	.16***	.00	.05	-.15***	.41***	-.13*	–		
8. Values threat discriminatory inclination	-.34***	.02	.02	.31***	-.39***	.49***	-.36***	–	
9. Values opportunity discriminatory inclination	-.24***	-.12*	-.09	.24***	-.43***	.30***	-.53***	.67***	–

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

In Study 2, I did see a small effect of the values threat manipulation on felt personal freedoms vulnerability (but not on the other values threat dependent variables). I also saw a small effect of the values opportunity condition on the appreciation prejudice and the values opportunity discriminatory inclination (but not on the other values opportunity dependent variables). Because there were only partial significant effects of the manipulations in this study, I again tested my conceptual hypotheses correlationally, first including condition variables and then aggregating participants across conditions to analyze relationships between varying individual vulnerabilities and the other dependent variables.

Path Model Analyses of Relationships between Constructs

My original hypothesized path model is again described graphically, in Figure 4. Although the experimental manipulation did not have the full intended effect, I first

analyzed the originally-hypothesized path model. That is, I tested the hypotheses that

manipulating participants' vulnerabilities will cause them to spontaneously form either

affordance threat or affordance opportunity stereotypes about the target group. Further,

manipulated vulnerabilities should not affect base stereotype endorsement. It is

affordance stereotypes (not base stereotypes) that are then predicted to cause prejudices

toward the target group, and prejudices lead to discriminatory inclinations.
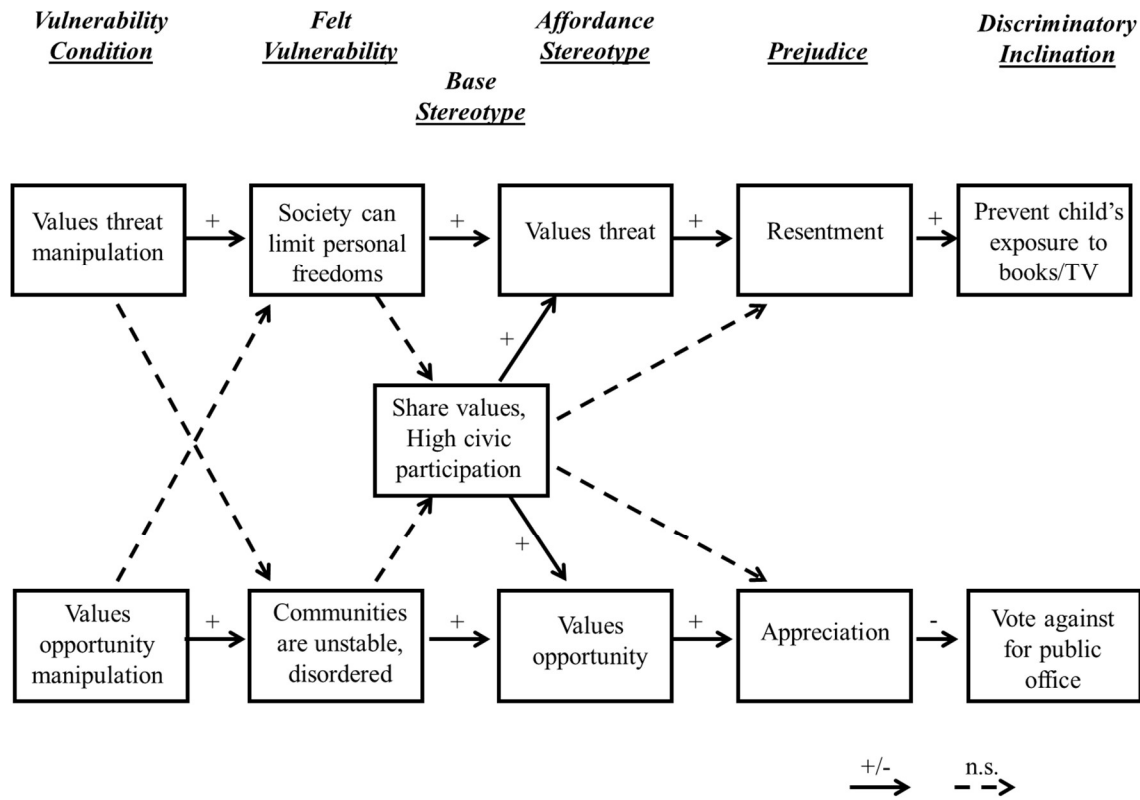
Figure 4. Study 2 hypothesized path model. This hypothesized path model includes updated felt vulnerabilities to reflect changes in the vulnerability composites in Study 2. This model predicts that the vulnerability manipulation condition that a participant is in will predict their felt vulnerability, which will in turn predict their affordance stereotype (but not base stereotype) toward the target group. This affordance stereotype (rather than the base stereotype) will predict their prejudice, which will predict their discriminatory inclinations toward the target group. Solid lines are predicted to be significant paths (in the indicated direction), and dashed lines are theoretically-relevant predicted non-significant paths.

I performed a path model analysis with MPlus Version 7 using maximum likelihood parameter estimation. I tested the hypothesized model, including dummy-coded manipulation condition variables (see Figure 5). Rectangles represent measured variables. This model fits the data better than several alternative models, but model fit indices show that it does not fit as well as hypothesized (RMSEA = .143, TLI = .604, CFI = .714).

Figure 5. Study 2 analyzed path model with manipulations. This path model fits the data better than several equivalent alternative models. As hypothesized, this model shows a significant effect of the values threat manipulation on the personal freedoms vulnerability, as compared to the control, and a significant effect of the personal freedoms vulnerability on the values threat affordance stereotype. It shows no significant effect of the values opportunity condition on the community instability vulnerability, nor a significant effect of the community instability vulnerability on the values opportunity affordance stereotype. As hypothesized, this model shows that base stereotypes significantly or marginally significantly predict values opportunity and threat affordance stereotypes, respectively. Affordance stereotypes significantly predict prejudices, and prejudices significantly predict discriminatory inclinations in the predicted directions. The affordance stereotypes significantly fully and partially mediate the relationships between base stereotypes and resentment and appreciation, respectively.

As hypothesized and demonstrated in the above t-tests, this path model analysis shows a significant effect of the values threat manipulation on the personal freedoms vulnerability, as compared to the control. In turn, there is a significant effect of the personal freedoms vulnerability on the values threat affordance stereotype. However, there is no significant effect of the values opportunity manipulation on the community instability vulnerability, nor a significant effect of the community instability vulnerability on the values opportunity affordance stereotype.

As hypothesized, this model shows that base stereotypes significantly predict values opportunity affordance stereotypes and marginally significantly predict values threat affordance stereotypes. Affordance stereotypes significantly predict prejudices, and prejudices significantly predict discriminatory inclinations. As hypothesized, the relationship between the base stereotype and appreciation is fully mediated by the values opportunity affordance stereotype. Finally, the relationship between the base stereotype and resentment is partially mediated by the values threat affordance stereotype.

Because this model did not have acceptable model fit and because the values opportunity manipulation failed to cause an increase in community instability vulnerabilities, I conducted a path model analysis without including the manipulation dummy variables (see Figure 6). This model, also including a path from affordance stereotypes to discriminatory inclinations, had better model fit than multiple alternative models, including the hypothesized model including manipulation condition variables. However, model fit indices show that it also does not fit as well as hypothesized $(RMSEA = .116, TLI = .792, CFI = .881)$.
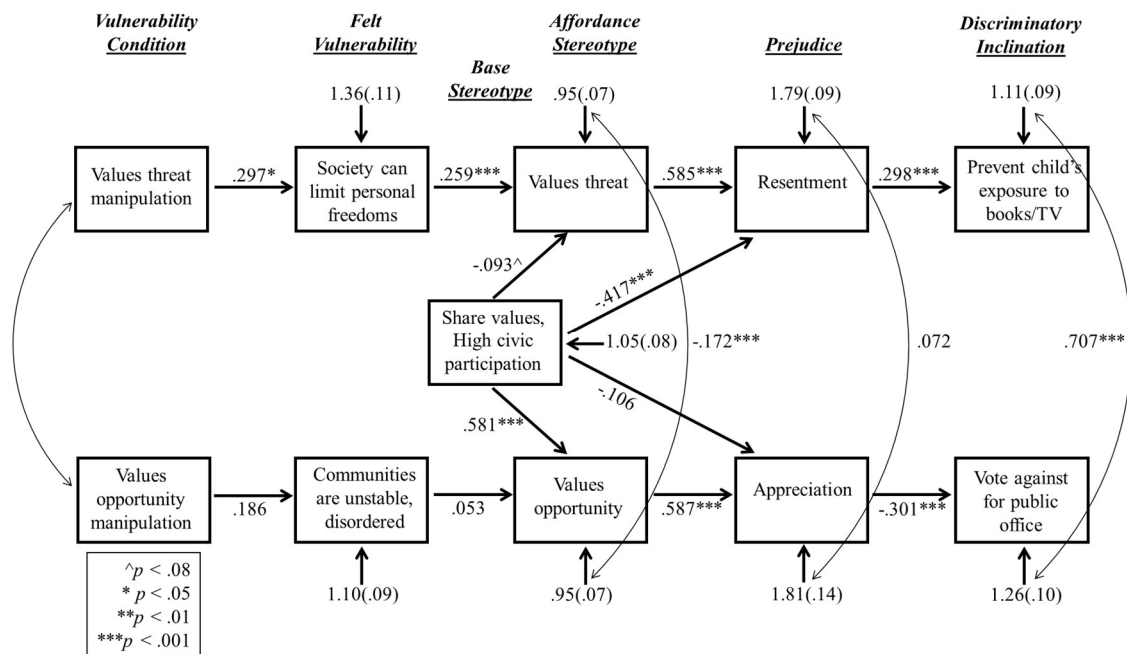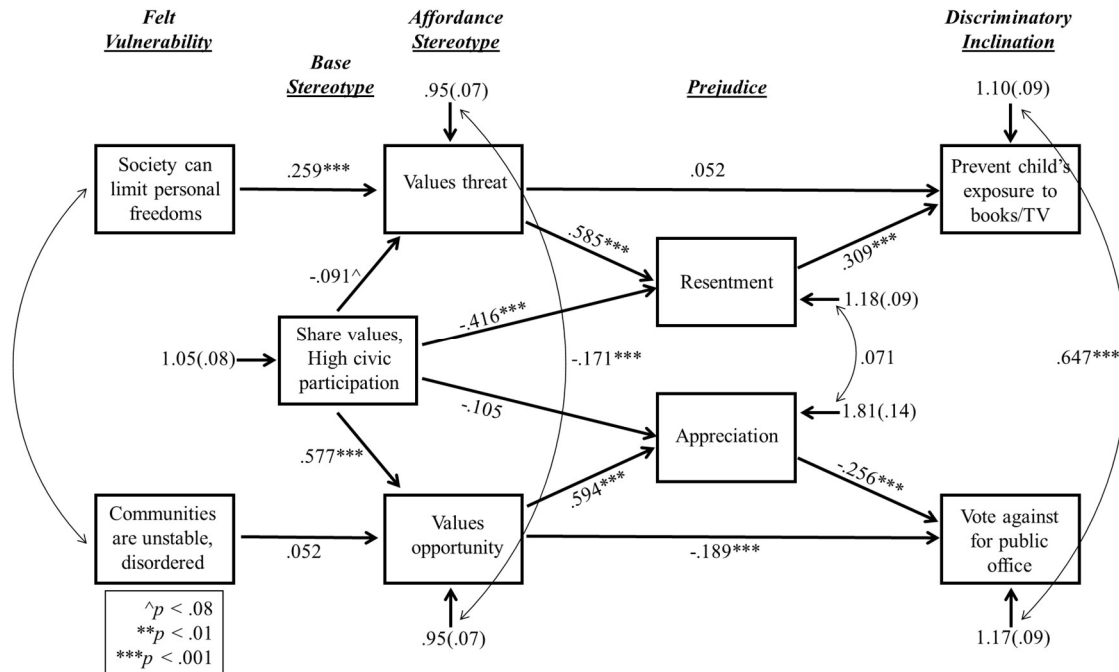
Figure 6. Study 2 analyzed path model without manipulations. This path model fits the data better than multiple equivalent alternative models. As hypothesized, this model shows a significant effect of the personal freedoms vulnerability on the values threat affordance stereotype, but no significant effect of the community instability vulnerability on the values opportunity affordance stereotype. As hypothesized, this model shows that base stereotypes significantly and marginally significantly predict values opportunity and threat affordance stereotypes, respectively. Affordance stereotypes significantly predict prejudices, and prejudices significantly predict discriminatory inclinations. The affordance stereotypes significantly fully and partially mediate the relationships between base stereotypes and resentment and appreciation, respectively. This model also includes a significant negative path from the affordance opportunity stereotype to the discriminatory inclinations.

Removing the manipulation dummy variables improved model fit, without significantly altering other relationships among the variables. This model also shows a significant negative relationship between the values opportunity affordance stereotype and discriminatory inclinations. Although not hypothesized, this relationship does fit with my theory that it is truly affordance stereotypes that are driving downstream prejudice and discrimination hypotheses.

This model, overall, provides further correlational support for the hypothesized relationships between base stereotypes, affordance stereotypes, prejudices, and discrimination.

Alternative Hypothesis

Another possible explanation for the correlational relationships found in these models is that people tend to feel a general sense of threat (or opportunity) from a given target group, and thus feel general negative prejudices and discriminatory inclinations toward them. To test this alternative hypothesis, I included several new variables related to physical safety threat in the model. Physical safety threat characterizes several real-world target groups, with affective and behavioral implications for perceivers. However, I do not predict it to be systematically related to the specific base and affordance stereotypes that characterize Sidanians, nor to the vulnerabilities that shape those affordance stereotypes.

The physical safety threat affordance stereotype item asked whether Sidanians "endanger the physical safety of people like me" ($M = 2.49$, $SD = 1.40$, 1-Strongly disagree, 7-Strongly agree). Note that mean endorsement of the physical safety threat affordance stereotype is significantly lower than the mean endorsement of both the values threat affordance stereotype ($t(332) = -14.4$, $p < .001$) and the values opportunity affordance stereotype ($t(332) = -21.8$, $p < .001$). This follows predictions that participants do not feel physical safety threat from Sidanians as strongly as either of the hypothesized relevant affordance stereotypes.

The fear prejudice item asked "how afraid are you of Sidanians" ($M = 2.20$, $SD = 1.49$, 1-Not at all, 7-Extremely). Fear of Sidanians was not significantly lower than the

54

resentment prejudice (t (334) = .934, p = .351), but it was significantly lower than

appreciation (t (334) = -12.5, p < .001). Finally, the physical safety discriminatory

inclination variable was a composite averaging together participants' endorsement of

three variables (e.g., "How likely are you to vote to increase police patrols if Sidanians

move into your neighborhood; M = 2.517, SD = 1.283, Cronbach's alpha = .79, 1-

Extremely unlikely, 7-Extremely likely). Mean endorsement of the physical safety

discriminatory inclination variable is significantly lower than both the values threat

discriminatory inclination variable (t (335) = -17.3, p < .001) and the values opportunity

discriminatory inclination (t (335) = -12.3, p < .001).

Given my original hypotheses, I predicted that neither the personal freedoms nor

community instability vulnerabilities, nor the Sidanian base stereotype would

significantly predict the physical safety threat affordance stereotype item. Further, I

predicted that the values threat and opportunity affordance stereotypes would not predict

the fear prejudice nor the physical safety discriminatory inclinations. However, I did

predict that any natural variation in participants' endorsement of the physical safety threat

affordance stereotype item would significantly predict their endorsement of the fear

prejudice, which would in turn predict endorsement of the physical safety discriminatory

inclination. Finally, I predict that even while the physical safety threat variables are

included in the model—one manner of statistically controlling for feelings of general

threat by the target group—my originally hypothesized relationships between values

threat and values opportunity variables would remain significantly related.

To test these hypothesized relationships, I performed a path model analysis with

MPlus Version 7 using maximum likelihood parameter estimation. I tested the alternative

hypothesis model, including the physical safety threat variables (see Figure 7). Rectangles represent measured variables. As hypothesized, this model had poor fit, and worse fit than the originally-hypothesized models (RMSEA = .175, TLI = .540, CFI = .766; AIC = 9970, compared to the better AIC = 6890 in the hypothesized model).

Significant path coefficients largely followed the originally-hypothesized pattern. The relationships between values threat and values opportunity variables remained unchanged when the physical safety threat variables were included in the path model analysis. Further, neither the values threat nor values opportunity affordance stereotypes, nor the appreciation prejudice significantly predicted the physical safety discriminatory inclinations. As predicted, the physical safety affordance stereotype did significantly predict the fear prejudice and physical safety discriminatory inclination items. However, unlike my predictions, the physical safety threat affordance stereotype significantly predicted the resentment prejudice, which significantly predicted the physical safety discriminatory inclination (and the fear prejudice did not). The physical safety threat affordance stereotype also significantly predicted the values threat and values opportunity discriminatory inclinations, but this relationship is not unexpected, given that it is unlikely that participants who consider Sidanians a physical safety threat would want to vote them into public office or expose children to TV shows about them.
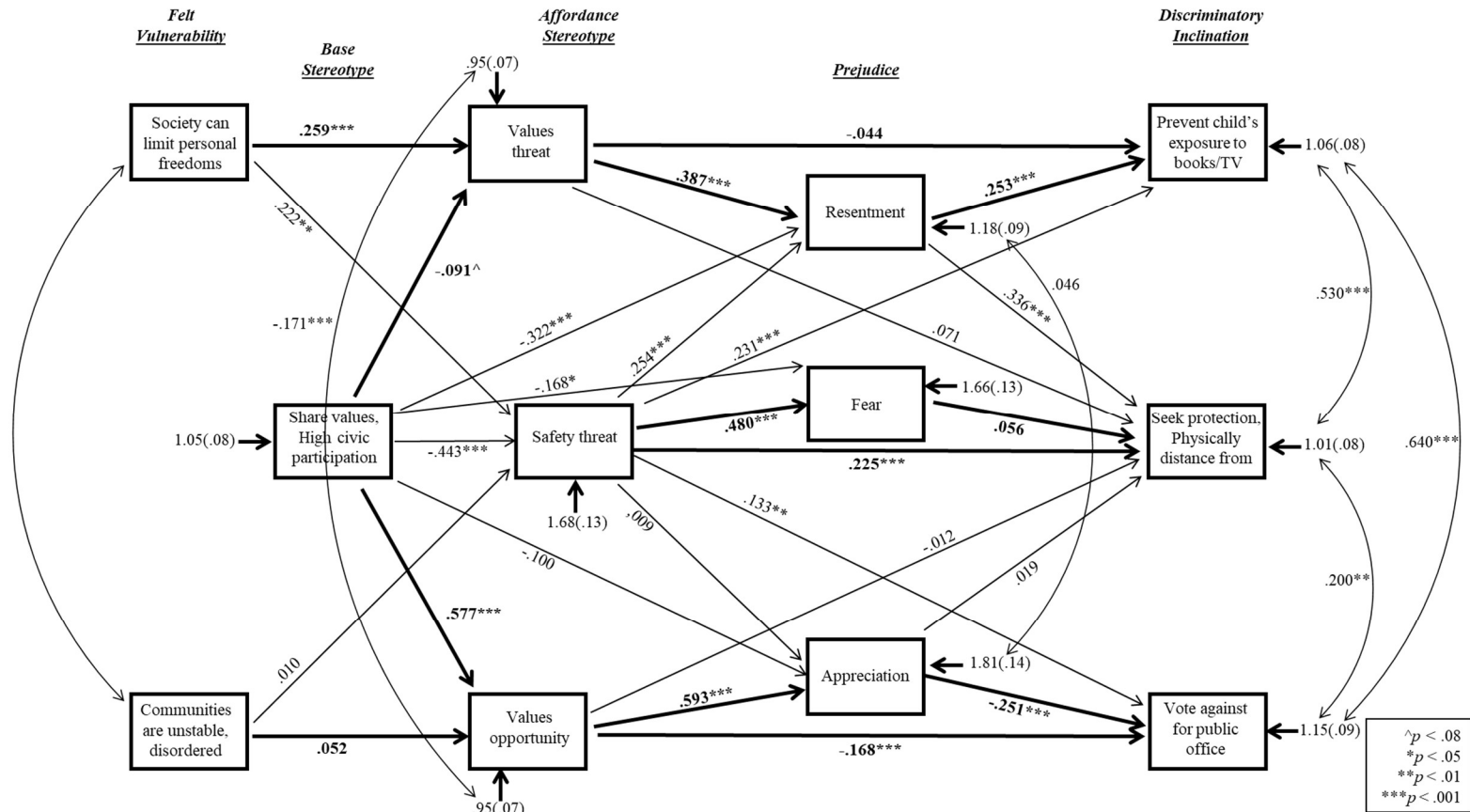
Figure 7. Study 2 analyzed alternative hypothesis path model. This path model analyzes the alternative hypothesis that general threat perceptions are related to overall negative prejudices and discriminatory inclinations. The data do not support this alternative hypothesis, but instead support the originally-hypothesized relationships. Darker lines indicate relationships consistent with the original hypotheses. Physical safety threat affordance stereotype, fear prejudice, and physical safety discriminatory inclination items are included in the path model.

Discussion

In sum, I was able to conduct similar studies in two samples from distinct populations. In Study 1, my manipulations were unsuccessful. In Study 2, however, the manipulation had a partial effect, and with new items I was able to more accurately assess participants' felt vulnerabilities.

In both studies, I predicted and found high endorsement of the base stereotypes that Sidanians try to share their values and actively participate in the community, with low variability. I also predicted and found more variation in affordance (vs. base) stereotype endorsement, which was systematically related to participants' felt vulnerabilities in Study 2. Taken together, these findings support my hypothesized distinction between base stereotypes (relatively objective, consensually held beliefs) and affordance stereotypes (which reflect the implications of base stereotypes, related to individuals' vulnerabilities). Finally, as predicted, I was able to test and find support for the proposed correlational relationships between base stereotypes, affordance stereotypes, prejudices, and discriminatory inclinations in the model.

Potential Limitations of Manipulations

In Study 1 it is possible that, as suspected, MTurk workers did not engage with the manipulation prompts sufficiently to create an effect on their felt vulnerabilities. Participants did respond to the prompts in the manipulations, but to spontaneously form affordance stereotypes and prejudices about a group, they would need to strongly feel these vulnerabilities and see the target group as a threat or opportunity. Indeed, as predicted, in Study 2, with the potentially more engaged undergraduate participants, I did

58

see a small effect of the values threat condition on felt vulnerability (but not on the other dependent variables). I also saw an effect of the values opportunity condition on prejudice and discriminatory inclination variables.

The partial effects of the manipulation may have occurred for several reasons. Again, in the values threat condition, participants answered a series of prompts asking them to think of a value that was important to them, a time when this value was restricted by someone else, and how this made them feel, e.g.:

> *Now, please think back to a time when you felt that someone or something in society was preventing you from living according to your values, or from living your life the way you felt you should. When did this occur and how did it come about? Please write several sentences describing this experience of not being able to live according to your values.*

In Study 2, in this condition the manipulation significantly increased participants' concerns about potential restrictions on their personal freedoms, which may be an issue that is quite realistic and personal for many people in the United States today. The individual variability in concern about personal freedoms was significantly related to spontaneously-formed affordance stereotypes, prejudices, and discriminatory inclinations toward Sidanians. However, the manipulation itself was not strong enough to cause these downstream observed differences in affordances stereotypes, prejudices, or discriminatory inclinations.

A review of responses to these values threat condition prompts revealed that many participants listed financial concerns as their value that had been impeded by others. This may be one reason the manipulation had only a partial effect. While this threat may have invoked a strong feeling of vulnerability in the participants, it may not have been a vulnerability that was related to the specific perceived threats posed by Sidanians as a

religious group that tries to share its values. Indeed, in such a case, I would not hypothesize that Sidanians would be seen as a values threat, resented, or discriminated against.

In the values opportunity condition, participants answered a series of prompts asking them to think of stability and support in their community, a time when this stability or support felt like it was unravelling, and how this made them feel, e.g.:

> *Now, please think back to a time when you felt like society was beginning to unravel around you, or when it seemed that people had stopped supporting others in your community. When did this occur and how did it come about? Please write several sentences describing this experience of instability and lack of support in your community.*

There may be several reasons why this manipulation was not fully successful. First, if community instability was not an important concern for these participants, the prompts would not make them feel vulnerable. If participants do not feel particularly connected to a community, or do not rely on community support, they would not feel threatened by such instability.

Second, the manipulation prompts in this condition ask participants to recall a time when they felt instability in their community. If they were unable to recall such a time, we would not expect to see a significant effect of the manipulation. Indeed, a review of the responses in this condition showed multiple participants responding that they could not think of such a time. Other participants responded with concerns over the recent election of Donald Trump to U.S. President, which made them feel as though their communities were unraveling. These participants, while feeling vulnerable, would be unlikely to see Sidanians (a religious group possibly perceived to share the current administration's values) as being a values *opportunity*. This reveals a third drawback of

the values opportunity manipulation: It requires a two-step "buy-in" from participants. They must both believe and feel that their community is unraveling, *and* that Sidanians have the ability and intent to stabilize the community in a way that will benefit the participant. It may be that a higher number of participants remained unaffected by this manipulation because they did not fully believe both of these implications.

Finally, because I did see significant effects of the values opportunity manipulation on the appreciation prejudice and the values opportunity discriminatory inclination in Study 2, it could be that I still did not have sufficiently accurate measures of vulnerabilities and affordance stereotypes. While the vulnerability items in Study 2 were much improved over those of Study 1, they still included phrases such as, for example, "Many people *like me* lack community support today," rather than measuring whether the participants themselves specifically felt like they lacked community support.

Other Potential Limitations

Beyond (lack of) manipulation effects, in both studies, the analyzed path models had poor overall fit despite significant hypothesized path coefficients. This could be due to a lack of participant concern over a novel group's ability to truly affect their outcomes. I theorize that affordance stereotypes capture a perceiver's belief that a target group poses a potential threat or opportunity to him/her, but perhaps a novel group that the participant has not heard of before does not appear to be a strong enough threat or opportunity.

Further, the path model that was analyzed to test the alternative hypothesis that general threat perceptions lead to general negative prejudices and discriminatory inclinations did support the originally-hypothesized relationships, but not quite as cleanly as predicted. However, while including these general threat perceptions in the model, the

hypothesized relationships between relevant affordance stereotypes, prejudices, and discriminatory inclinations did remain significant. The alternative model also had poorer fit than the hypothesized model, although several path coefficients were significant despite predictions to the contrary. For example, significant relationships were found between the base stereotype and physical safety threat affordance stereotype, and between the values threat vulnerability and physical safety threat affordance stereotype. This seems to suggest that there is a component of general threat perception that is related to general negative downstream effects. However, overall, the path coefficients in this model were significant (or not) as hypothesized, even when the physical safety threat constructs were included, and despite the aforementioned limitations of the study (e.g., possible lack of believability of the novel target group) leading to overall weaker effects. It is likely that some participants feel a general sense of threat from an outgroup and develop affordance threat and prejudices accordingly. However, past research has shown that there is specificity in people's threat perceptions and the prejudices they feel (Cottrell & Neuberg, 2005). For example, physical safety threat perception leads to fear but not disgust prejudices. This suggests that in a study with a more convincing novel target group, we may find better support for the predicted discriminant relationships between specific affordance stereotypes, prejudices, and discriminatory inclinations.

Future Directions

In a future study, I could perhaps induce another participant vulnerability that would be felt more strongly and more personally than a concern about community instability or support. This vulnerability would also ideally be more directly connected to the target group's base stereotype, so they would be more clearly seen as a potential

threat and/or opportunity. For example, perhaps I can use base stereotypes more parallel to those of Mexican or Asian immigrants as hard workers, and induce participants to feel financially vulnerable and spontaneously form economic threat affordance stereotypes of the novel target group. It will also be necessary to choose my study sample carefully, in relation to this vulnerability. I would not, for example, predict that Trump detractors would see a religious group as a values opportunity while they feel vulnerable to community instability.

In a future study, I can also design methods to make a novel target group's impacts seem more influential for the participants' outcomes. For example, I can create more elaborate materials to convince participants of impacts the group has already had on the outcomes of the participant and people like the participant. I can create news articles and other materials that convey how the target group has had a very real impact that the participant was simply unaware of before now. Further, if using an undergraduate sample, I can perhaps use the pre-screen survey that is distributed to nearly all Psychology 101 students at the beginning of each semester to plant information about the novel group in advance. This way, the target group's name would be familiar to the participant when he or she comes across it again in the main study.

Finally, I could design a behavioral study using a minimal groups paradigm— actually creating two groups, one of which the participant sees as an outgroup. In such a study, members of the outgroup (target group) can be made to have real control over the participant's outcomes, perhaps in the form of an economic decision-making game. Thus, the target group's affordances will be more salient and the affordance stereotypes, prejudices, and discriminatory inclinations will be stronger and easier to measure cleanly.

Intellectual Merit

In these two studies, I found further supporting evidence of a correlational relationship between felt vulnerabilities, base and affordance stereotypes, prejudices, and discriminatory inclinations—now toward a *novel* target group. Thus, this study provides a valuable contribution above previous work. The proposed model adds to the stereotype literature by beginning to probe an important distinction between base and affordance stereotypes. It helps us understand how people can have the same base stereotypes but very different prejudices and discriminatory inclinations toward a target group.

Although the current studies had difficulty manipulating participants' vulnerabilities as intended, there were significant relationships between these vulnerabilities and affordance stereotypes, prejudices, and discriminatory inclinations. These predicted relationships do not naturally arise from other models in the literature as they do from the model proposed here, and as such, in other studies they are not manipulated or otherwise measured. Indeed, some models would predict that constructs and processes such as stereotypes and discrimination are often produced as justifications for prejudices (Crandall et al., 2011; Crandall, & Eshleman, 2003). In the current studies, alternative path models to this effect were analyzed in comparison with the hypothesized path models, and they were found to be of poorer fit.

These studies also contribute above my preliminary work by focusing on a novel target group. My previous studies examining real-world target groups have already provided correlational support for the proposed model. However, real-world target groups are characterized by multiple base stereotypes. Thus, any test of the relationship between these base stereotypes and different affordance stereotypes and downstream prejudices

and discriminatory inclinations may be affected by multiple base stereotypes and different vulnerabilities at once. Using a novel target group provides a cleaner test of the hypotheses because participants are not influenced by any base stereotypes about the group except those provided (in this case) in a fake news article. Participants also cannot have learned affordance stereotypes, prejudices, or discriminatory inclinations toward the target group through any social means (e.g., through the media or from family members or peers). Thus, these data provide a valuable contribution to our understanding of the relationship between stereotypes, prejudices, and discrimination.

Broader Impacts

Attaining a better understanding of the relationship between stereotypes, prejudices, and discrimination has implications for how we design interventions to reduce the deleterious effects of such processes on their targets. Instead of focusing on ignorance-reduction methods of prejudice change (i.e., targeting base stereotypes to change prejudices and discrimination), perhaps we should be focusing instead on perceiver vulnerabilities and perceived affordance stereotypes to more effectively reduce prejudices and discrimination. To design more effective interventions, we first need to understand how stereotypes, prejudices, and discrimination relate to one another. With these studies, we further this critical understanding.

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APPENDIX A

PROPOSED MODEL
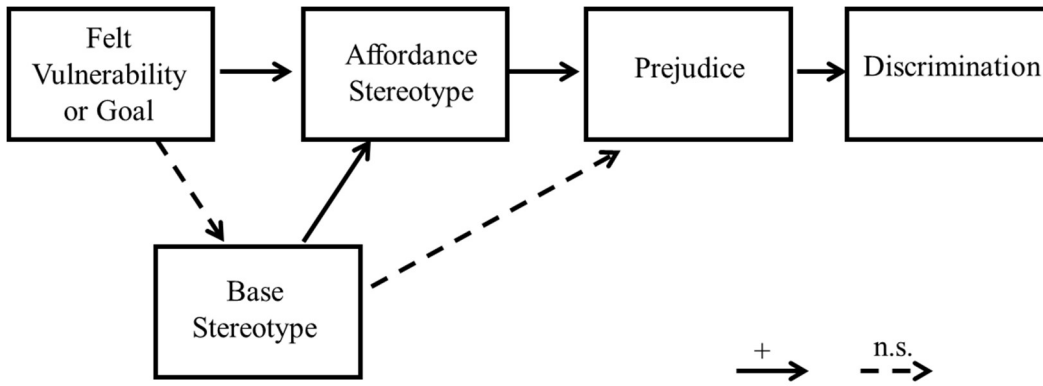
Figure 1. Proposed conceptual model. The proposed conceptual model of the relationship between base stereotypes, affordance stereotypes, individual goals and vulnerabilities, prejudices, and discrimination includes hypothesized significant effects (solid arrows) and theoretically-relevant non-effects (dashed arrows). The model predicts that base stereotypes are necessary components of affordance stereotypes. However, it is felt vulnerabilities that predict the content of affordance stereotypes. Further, it is affordance (not base) stereotypes that predict prejudices, which in turn predict discrimination.

APPENDIX B

STUDY 1 (MTURK SAMPLE)

INFORMED CONSENT

"Memory Formation"

Dear Participant:

We are researchers at Arizona State University. We are conducting a study about memory formation to examine whether different techniques are more or less effective at helping us remember information. We are inviting your participation, which will take approximately 15 minutes. You will be paid $1.00 for your participation. You must be 18 years or older to participate in this study.

In this study, you will perform two tasks. In the first, you will be asked to remember a past experience and then recall how it made you feel. Next, you will read a brief current news article and form the most accurate impression you can of the group described in the article. You will then answer a series of memory questions, including what you remember about this group and how you feel about its members. Your participation in this study is voluntary. You can skip questions if you wish. You can choose not to participate or to withdraw from the study at any time.

Your responses to this survey will be kept completely anonymous. The researchers must temporarily store MTurk worker IDs in order to pay each participant. Only individuals involved in ensuring that you receive payment will see your worker ID. Your worker ID can be used to extract personally identifiable information, but your worker ID will be

deleted from our data before any analyses are conducted. The results of this study may be used in reports, presentations, or publications but your name will not be known.

If you have any questions concerning the research study, please contact the research team at either Cari Pick at Cari.Pick@asu.edu, or Dr. Steven Neuberg at Steven.Neuberg@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

If you do not agree to participate, please exit the survey at this time. If you agree to participate in the survey, please check the box indicating your consent.

APPENDIX C

STUDY 2 (UNDERGRADUATE SAMPLE)

INFORMED CONSENT

"Memory Formation"

Dear Participant:

We are researchers at Arizona State University. We are conducting a study about memory formation to examine whether different techniques are more or less effective at helping us remember information. We are inviting your participation, which will take no more than 60 minutes. You will receive 1 research credit in your PSY101 class for your participation. You must be 18 years or older to participate in this study.

In this study, you will perform a series of tasks. In the first, you will be asked to remember a past experience and then recall how it made you feel. Next, you will read a brief current news article and form the most accurate impression you can of the group described in the article. You will then answer a series of memory questions, including what you remember about this group and how you feel about its members. Your participation in this study is voluntary. You can skip questions if you wish. You can choose not to participate or to withdraw from the study at any time.

Your responses to this survey will be kept completely anonymous. The results of this study may be used in reports, presentations, or publications but your name will not be known.

If you have any questions concerning the research study, please contact the research team at either Cari Pick at Cari.Pick@asu.edu, or Dr. Steven Neuberg at Steven.Neuberg@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

If you do not agree to participate, please exit the survey at this time. If you agree to participate in the survey, please check the box indicating your consent.

APPENDIX D

VALUES THREAT STIMULUS

People have many different values (for example, family, freedom, tradition, loyalty, order, or independence). These values are very important to people, and to how they live their everyday lives. Please spend a minute thinking about the values that are important in your life.

--

Now, please think back to a time when you felt that someone or something in society was preventing you from living according to your values, or from living your life the way you felt you should. When did this occur and how did it come about? Please write several sentences describing this experience of not being able to live according to your values.

_____

_____

--

How did it feel to not be able to live according to your values? Please write several sentences about how that felt.

_____

_____

APPENDIX E

VALUES OPPORTUNITY STIMULUS

Communities can be stable in many ways (for example, through civic engagement, community support, or sharing resources). This stability and a sense of community support are very important to people, and to how they live their everyday lives. Please spend a minute thinking about the stability and support you feel in your community.

--

Now, please think back to a time when you felt like society was beginning to unravel around you, or when it seemed that people had stopped supporting others in your community. When did this occur and how did it come about? Please write several sentences describing this experience of instability and lack of support in your community.

_____

_____

--

How did it feel to live in the unstable, unsupportive time you described? Please write several sentences about how that felt.

_____

_____

APPENDIX F

COMPARISON CONDITION STIMULUS

People can achieve financial security in a variety of ways (for example, by earning more money or by spending more carefully). Feeling financially secure is important to people, and to how they live their everyday lives. Please spend a minute thinking about the areas in your life that benefit when you feel financially secure.

--

Now, please think back to a time when you felt that you did not have the money you needed to pay for something you needed or strongly desired. When did this occur and why did it come about? Please write several sentences describing this experience of not being able to afford something that was necessary or that you strongly desired.

_____

_____

--

How did it feel to not be able to afford something important? Please write several sentences about how that felt.

_____

_____

APPENDIX G

SURVEY ITEMS

Brief Demographic Questionnaire

Please answer the following questions.

What is your sex?
- Male
- Female
- Other

What is your age?
- 18 to 25 years old
- 26 to 35 years old
- 36 to 45 years old
- 46 to 55 years old
- 56 to 65 years old
- 66 to 75 years old
- 76 years or older

Where in the United States do you **currently** live?
- [Drop down menu of 50 States and Washington, DC]
- I do not live in the United States

How often do you read current news online?
1. Never
2. Rarely
3. Sometimes
4. Frequently
5. Extremely frequently

How often do you reflect on childhood memories?
1. Never
2. Rarely
3. Sometimes
4. Frequently
5. Extremely frequently

Randomly Assigned Manipulation Condition

[Participant then viewed 1 of 3 vulnerability manipulation stimuli. See Appendices D – F for full text.]

Affective Reaction Items (Study 2 only)

[Items were presented in a randomized order.]

Please answer the following questions about how you feel *right now*.

	Not at all						Extremely
How **anxious** do you feel?	1	2	3	4	5	6	7
How **sad** do you feel?	1	2	3	4	5	6	7
How **angry** do you feel?	1	2	3	4	5	6	7
How **happy** do you feel?	1	2	3	4	5	6	7
How **appreciative** do you feel?	1	2	3	4	5	6	7
How **afraid** do you feel?	1	2	3	4	5	6	7
How **nervous** do you feel?	1	2	3	4	5	6	7
How **hopeless** do you feel?	1	2	3	4	5	6	7

Sidanian Article

You will now read a brief current news article, [4] randomly selected from 10 possible articles.

Please read the article carefully and form the most accurate impression you can of the group described in the article. You will then be asked a series of memory questions, including what you remember about the group and how you feel about its members.

---

[4] In Study 1 (MTurk sample) in the title and body of the short article, participants were shown the name of the appropriate geographic region given the State they reported residing in within the demographic questions at the beginning of the survey. In Study 2, all participants were undergraduates at a university in the U.S. Southwest, so they were all presented with the "Southwest" version of the article.

Pew Research Center *Religion & Public Life*

SEARCH

DEMOGRAPHIC STUDY | OCT 3, 2017

Southwestern Religious Group Rapidly Growing in Numbers and Influence

Recent surveys show that Sidanians, a small but rapidly growing sect of a religious group that has been around for centuries, are gaining influence in metropolitan areas of the Southwest region of the United States. Sidanians, respected and law-abiding community members, are joining school boards and being elected to local government offices. Sidanian teachings focus on the importance of community involvement and social coordination, and on the importance of civic participation and actively sharing these values with non-members. Instead of transforming society through proselytizing, they are more focused on "improving society by placing Sidanian believers in powerful positions in all sectors of society."

(map labeled: Northeast Region, Southeast Region, Mid-West Region, Rocky Mountain Region, Southwest Region, Pacific Region)

POLLING AND ANALYSIS | JUL 26, 2017

Findings From Pew Research

MULTI-SECTION REPORTS | AUG 31, 2017

After 500 Years, Reformation

DATA GALLERY

Sidanian Reading Comprehension Questions

[Participants received feedback immediately upon answering each question, to reinforce the Sidanian base stereotypes, and to make sure that participants knew the information covered in the article.]

In which region of the U.S. is the number of Sidanians rapidly increasing?
- Pacific Region
- Rocky Mountain Region
- Southwest Region
- Mid-West Region
- Southeast Region
- Northeast Region

[Depending on the participant's answer, they will see one of the following responses.]
- **Correct!** The number of Sidanians living in the **Southwest[5] region** of the U.S. is growing rapidly.
- **Incorrect.** Sidanians are rapidly growing in number in the **Southwest region** of the U.S.

Which of the following are some of the Sidanians' major teachings? (Check all that apply.)
- Promoting community involvement
- Sharing their values with others
- Living vegan lifestyles
- Exploring creative outlets to find meaning

[Depending on the participant's answer, they will see one of the following responses.]
- **Correct!** Sidanians are taught to highly value **civic participation**, and they are committed to **sharing their values** with others.
- **Incorrect.** Sidanians are taught to highly value **civic participation**, and they are committed to **sharing their values** with others.

How do Sidanians believe they should share their values?
- Influencing society from positions of power
- Going on month-long mission trips to South American countries
- Commercials on TV and the radio

[Depending on the participant's answer, they will see one of the following responses.]
- **Correct!** Sidanians believe that the best way to share their values is to serve as role models and **influence others from positions of power**.

---

[5] In Study 1 (MTurk sample), in this reading comprehension question, as in the Sidanian article itself, participants were shown the name of the appropriate geographic region given the State they report residing in within the demographic questions at the beginning of the survey.

- **Incorrect.** Sidanians believe that the best way to share their values is to serve as role models and **influence others from positions of power**.

Vulnerability Items

[Items were presented in a randomized order.]

Please answer the following questions to the best of your ability.

	Strongly disagree						Strongly agree
Religion's influence on public policy is growing.	1	2	3	4	5	6	7
Religion has a positive influence on public policy.	1	2	3	4	5	6	7
Religion has a negative influence on public policy.	1	2	3	4	5	6	7
Religion should have an influence on public policy decisions.	1	2	3	4	5	6	7
It is important to have order in society.	1	2	3	4	5	6	7
The political climate in the U.S. today is highly unstable.	1	2	3	4	5	6	7
	Strongly disagree						Strongly agree
People can influence their community through civic participation.	1	2	3	4	5	6	7
The U.S. national debt is currently rising.	1	2	3	4	5	6	7
Americans should be concerned about the level of the national debt.	1	2	3	4	5	6	7

The level of the national debt has consequences for everyday Americans.	1	2	3	4	5	6	7
Non-profit organizations can have a large impact on the causes they champion.	1	2	3	4	5	6	7
Most Americans have access to the health care services they need.	1	2	3	4	5	6	7

[The following items were included in Study 2 (undergraduate sample) only. They were randomized among the above items.]

	Strongly disagree						Strongly agree
Public policy often infringes on individuals' personal freedoms.	1	2	3	4	5	6	7
Public policy often infringes on the personal freedoms of people like me.	1	2	3	4	5	6	7
Society often limits individuals' personal freedoms.	1	2	3	4	5	6	7
Society often limits the personal freedoms of people like me.	1	2	3	4	5	6	7
Communities in America today are highly unstable.	1	2	3	4	5	6	7
Communities like mine are highly unstable today.	1	2	3	4	5	6	7

	Strongly disagree						Strongly agree
Many people today lack community support.	1	2	3	4	5	6	7
Many people like me lack community support today.	1	2	3	4	5	6	7

American communities are becoming increasingly unstable and chaotic.	1	2	3	4	5	6	7
Communities like mine are becoming increasingly unstable and chaotic.	1	2	3	4	5	6	7
Society is often able to prevent people from living according to their values.	1	2	3	4	5	6	7
Society is often able to prevent people like me from living according to their values.	1	2	3	4	5	6	7

	Strongly disagree						Strongly agree
Many Americans are living under difficult financial circumstances.	1	2	3	4	5	6	7
Many people like me are living under difficult financial circumstances.	1	2	3	4	5	6	7
Many people struggle financially at some point.	1	2	3	4	5	6	7
Many people like me struggle financially at some point.	1	2	3	4	5	6	7
Economic hardship is a difficult burden that many live with.	1	2	3	4	5	6	7
Economic hardship is a difficult burden that many people like me live with.	1	2	3	4	5	6	7

	Strongly disagree						Strongly agree
People are often able to prevent others from living according to their values.	1	2	3	4	5	6	7

92

Others are often able to prevent people like me from living according to their values.	1	2	3	4	5	6	7
American society has begun to unravel in many ways.	1	2	3	4	5	6	7
American society has begun to unravel in many ways for people like me.	1	2	3	4	5	6	7

Stereotype and Prejudice Item Instructions

On the following pages, we will ask about your impressions of the group (Sidanians) you read about in the current news article. We appreciate your honest answers to each question. There are no right or wrong answers to any of these items; we are simply interested in your memories of the article and in your personal impressions. Please think about your perceptions of the group as a whole, rather than your impressions of any single member of the group.

Base Stereotype Items

[Items were presented in a randomized order.]

Please answer the following questions about **Sidanians.**

In general…

	Not at all						Extremely
how much do Sidanians, as a group, _try to share their values_ with others?	1	2	3	4	5	6	7

how much do Sidanians, as a group, actively *participate in the community*?	1	2	3	4	5	6	7
how much do Sidanians, as a group, *share their values* to others?	1	2	3	4	5	6	7
how *important is civic participation* to Sidanians, as a group?	1	2	3	4	5	6	7
how *hard-working* are Sidanians, as a group?	1	2	3	4	5	6	7
how much do Sidanians, as a group, *value education*?	1	2	3	4	5	6	7
how willing are Sidanians, as a group, to *use violence to achieve their aims*?	1	2	3	4	5	6	7
how *physically formidable* are Sidanians, as a group?	1	2	3	4	5	6	7

Affordance Stereotype Items

[Items were presented in a randomized order.]

Please answer the following questions about **Sidanians.**

In general…

	Strongly disagree						Strongly agree
Sidanians <u>try</u> to limit the personal freedoms of people like me.	1	2	3	4	5	6	7
Sidanians <u>are able</u> to limit the personal freedoms of people like me.	1	2	3	4	5	6	7
Sidanians <u>try</u> to impose their values on people like me.	1	2	3	4	5	6	7

	Strongly disagree						Strongly agree
Sidanians _are able_ to impose their values on people like me.	1	2	3	4	5	6	7
Sidanians _try_ to move society away from the values that people like me cherish.	1	2	3	4	5	6	7
Sidanians _restrict the personal rights_ of people like me.	1	2	3	4	5	6	7
Sidanians _try_ to improve communities for people like me.	1	2	3	4	5	6	7
	Strongly disagree						Strongly agree
Sidanians _are able_ to improve communities for people like me.	1	2	3	4	5	6	7
Sidanians _try_ to stabilize communities through local involvement.	1	2	3	4	5	6	7
Sidanians _are able_ to stabilize communities through local involvement.	1	2	3	4	5	6	7
Sidanians _endanger the physical safety_ of people like me.	1	2	3	4	5	6	7
Sidanians _take economic opportunities_ away from people like me.	1	2	3	4	5	6	7
Sidanians have _introduced new values that benefit people like me_.	1	2	3	4	5	6	7
Sidanians _perform jobs that provide valuable services_ for people like me.	1	2	3	4	5	6	7

Prejudice Items

[Items were presented in a randomized order.]

Please answer the following questions about **Sidanians.**

In general…

	Not at all						Extremely
how *mad* are you at Sidanians, as a group?	1	2	3	4	5	6	7
how *angry* are you at Sidanians, as a group?	1	2	3	4	5	6	7
how much do you *resent* Sidanians, as a group?	1	2	3	4	5	6	7
how *bitter* are you toward Sidanians, as a group?	1	2	3	4	5	6	7
how much do you *appreciate* Sidanians, as a group?	1	2	3	4	5	6	7
how much do you *admire* Sidanians, as a group?	1	2	3	4	5	6	7

	Not at all						Extremely
how *positive* do you feel toward Sidanians, as a group?	1	2	3	4	5	6	7
how *negative* do you feel toward Sidanians, as a group?	1	2	3	4	5	6	7
how much do you *like* Sidanians, as a group?	1	2	3	4	5	6	7
how much do you *dislike* Sidanians, as a group?	1	2	3	4	5	6	7
how *physically disgusted* are you by Sidanians, as a group?	1	2	3	4	5	6	7
how *afraid* are you of Sidanians, as a group?	1	2	3	4	5	6	7

Discriminatory Inclination Items

[Items were presented in a randomized order.]

Please answer the following questions about **Sidanians**.

In general, how likely would you be to…

	Extremely unlikely						Extremely likely
vote for a Sidanian to serve on the local school board?	1	2	3	4	5	6	7
vote for a Sidanian to become a local judge?	1	2	3	4	5	6	7
support the creation of community organizations run by Sidanians?	1	2	3	4	5	6	7
hire a Sidanian to take care of your children?	1	2	3	4	5	6	7
approve of your child marrying a Sidanian?	1	2	3	4	5	6	7

	Extremely unlikely						Extremely likely
approve of your sibling marrying a Sidanian?	1	2	3	4	5	6	7
prevent your child from reading books written by Sidanians?	1	2	3	4	5	6	7
prevent your child from watching TV shows showing the lifestyles of Sidanians?	1	2	3	4	5	6	7
vote to increase police patrols if Sidanians moved into your neighborhood?	1	2	3	4	5	6	7
walk in a different direction if you saw a group of Sidanians approaching you on the street?	1	2	3	4	5	6	7

keep your distance from Sidanians?   1   2   3   4   5   6   7

Extensive Demographic Questionnaire

What is your age in years?
[Drop down menu with ages to select from.]

In terms of income, how would you describe your family's socioeconomic status **while you were growing up?**
- Upper class
- Upper middle class
- Middle class
- Lower middle class
- Working class

Please rate your agreement with the following statements.

	Strongly disagree						Strongly agree
I currently have enough money to buy the things I want.	1	2	3	4	5	6	7
I don't currently need to worry too much about paying my bills.	1	2	3	4	5	6	7
Change in society is generally a good thing.	1	2	3	4	5	6	7
Traditional values are generally preferable.	1	2	3	4	5	6	7
Public policy doesn't have much influence over daily life.	1	2	3	4	5	6	7

Politically, how conservative or liberal are you, overall?
1. Extremely liberal
2. Liberal
3. Somewhat liberal
4. Neither liberal nor conservative
5. Somewhat conservative
6. Conservative
7. Extremely conservative

Economically, how conservative or liberal are you, overall?
1. Extremely liberal
2. Liberal
3. Somewhat liberal
4. Neither liberal nor conservative
5. Somewhat conservative
6. Conservative
7. Extremely conservative

Socially, how conservative or liberal are you, overall?
1. Extremely liberal
2. Liberal
3. Somewhat liberal
4. Neither liberal nor conservative
5. Somewhat conservative
6. Conservative
7. Extremely conservative

How would you describe your religious beliefs?
- Catholic
- Christian (Non-Catholic)
- Jewish
- Hindu
- Buddhist
- Muslim
- Mormon
- Native American
- Agnostic
- Atheist
- Other [with text box]

Please rate your agreement with the following statements.

I try hard to live all my life according to my religious beliefs.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

To lead the best, most meaningful life, one must belong to the one, fundamentally true religion.
1. Strongly Disagree

2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

What is your race or ethnicity? Check as many as apply.
- African/African-American
- Asian/Asian-American
- Latino/Latina/Hispanic
- Middle Eastern/Middle-Eastern-American
- Native American
- Caucasian/White
- Other [with text box]

Have you spoken English for **six** or more years?
- Yes
- No

[The following items were included in Study 2 (undergraduate sample) only.]

Did you spend most of your childhood in the United States?
- Yes
  If yes, in which **State** did you spend most of your childhood? [Text box]
- No
  If no, in which **country** did you spend most of your childhood? [Text box]

Which category most closely describes your college major?
[List of common college majors, including "Undecided" and "Other [Text box]"]

[Participants then filled out the Motivation to Respond Without Prejudice Scale (see Appendix H) and read the Debriefing Form (see Appendix I).]

APPENDIX H

MOTIVATION TO RESPOND WITHOUT PREJUDICE SCALE

<u>Motivation to Respond Without Prejudice (MTRWP) Scale</u>

Please answer the following questions openly and honestly. As a reminder, your responses are completely anonymous.

Because of today's PC (politically correct) standards I try to appear nonprejudiced toward people of different races.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

I try to hide any negative thoughts about people of different races in order to avoid negative reactions from others.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

If I acted prejudiced toward people of different races, I would be concerned that others would be angry with me.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

I attempt to appear nonprejudiced toward people of different races in order to avoid disapproval from others.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

I try to act nonprejudiced toward people of different races because of pressure from others.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

I attempt to act in nonprejudiced ways toward people of different races because it is personally important to me.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

According to my personal values, using stereotypes about people of different races is OK.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

I am personally motivated by my beliefs to be nonprejudiced toward people of different races.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

Because of my personal values, I believe that using stereotypes about people of different races is wrong.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree

5. Somewhat Agree
6. Agree
7. Strongly Agree

Being nonprejudiced toward people of different races is important to my self-concept.
1. Strongly Disagree
2. Disagree
3. Somewhat Disagree
4. Neither Agree nor Disagree
5. Somewhat Agree
6. Agree
7. Strongly Agree

APPENDIX I

DEBRIEFING

If you have any questions, comments, or concerns about our study, please enter them in the box below. If not, please click the arrow to continue.

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"Memory Formation"

Thank you very much for participating in our research.

In this study, you recalled a past experience, and you were told that you would read a random news article and give your impressions of and feelings about the people described in this article. In fact, the task where you recalled a past experience was designed to put you in a certain frame of mind before you read the same fictitious article written by our research team about a fictional group, the Sidanians.

Previous research reveals that prejudices are not simply general positive or negative feelings, but rather more complex feelings about others. We are interested in how the vulnerabilities a person feels may contribute to these complex feelings.

Whether a person sees a group as a threat or opportunity affects the stereotypes they hold about the group. For example, a person concerned that religion's influence on politics is growing might see community leaders who share their religious values with others as threats to his or her personal freedoms. On the other hand, a person who is concerned about a lack of community-minded local politicians might see community leaders who share their religious values with others as opportunities for stability. We have previously studied how people's different needs, vulnerabilities, backgrounds, and other

106

characteristics (like feeling unsafe while walking at night) affect stereotypes about real groups in the U.S. Since these stereotypes are tied to the threats and opportunities that a person believes a group poses, they are closely linked to prejudices and behaviors directed at group members.

In this study, we manipulate participants' current vulnerabilities to produce different stereotypes of a fictional group that the participant could never have interacted with or formed pre-existing opinions about. Exploring the underpinnings of these stereotypes will give us greater understanding into how people perceive one another and enable potentially novel insights into how we can curb undesirable prejudices and discrimination.

The information gathered here will help us better understand the relationship between stereotypes and prejudices. We hope to use this information to inform theories that could be useful in improving intergroup relations.

Thank you again for your time. If you are interested in this topic or have any other questions or concerns, please feel free to contact the researchers, Cari Pick at Cari.Pick@asu.edu, and Dr. Steven Neuberg at Steven.Neuberg@asu.edu.

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If you have any questions, comments, or concerns about our study, please enter them in the box below. If not, please click the arrow to continue.