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The Effects of Societal Threat on Authoritarianism and Social Dominance Orientation

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THE EFFECTS OF SOCIETAL THREAT ON AUTHORITARIANISM AND SOCIAL DOMINANCE ORIENTATION

by

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The present study examined the effects of societal threat on levels of authoritarianism and social dominance orientation and investigated if those self-report measures were consistent or inconsistent with a measure of implicit attitudes regarding Americans and Immigrants. Exposure to societal threat was hypothesized to increase authoritarianism and social dominance orientation, as well as to increase implicit prejudicial attitudes related to in-group and out-group members, as measured by the Implicit Relational Assessment Procedure (IRAP), towards out-group members. As predicted, exposure to societal threat significantly increased right-wing authoritarianism and social dominance orientation. Additionally, men endorsed greater levels of social dominance orientation than did women. However, no statistically significant differences were seen in implicit attitudes between the participants who were exposed to societal threat and those who were not (all p's > .05).

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CHAPTER 1

INTRODUCTION

These are tumultuous times in the United States. The once seemingly small gap that divided American opinions on most mainstream political and social issues appears to have widened into an insurmountable chasm. If Americans cannot even put their differences aside during times of national distress, such as mass shootings and natural disasters, how will they ever find common ground on more contentious issues like making progress towards social equality or reforming immigration policy? Public opinion polling from 2016 showed that the number of Americans who believed the country is "greatly divided when it comes to the most important values" was higher than it has ever been at 77% (Jones, 2016). Increased polarization should be worrisome, because, as people come to identify more strongly with their own in-group, they are more likely to engage in prejudicial thinking and behavior, particularly in the face of societal threat (Tajfel, 1969; Stephan, Stephan, & Demitrakis, 2000).

Group membership is important to individual identities and is known to play an important role in the development of social attitudes and behaviors (Whitley & Kite, 2010). Tajfel's (1969) cognitive view suggests that prejudice develops through a process of categorization, assimilation, and a search for conceptual coherence. He demonstrated that when people identify, even to a small degree, with their in-group, they perceive in-group members in more positive terms than out-group members and are more likely to make decisions that will benefit their own members (Tajfel et al., 1971). According to Intergroup Threat Theory (ITT; Stephan, et al., 2000), stronger in-group identification can lead to increased prejudice via threat from intergroup anxiety or perceptions of realistic or symbolic threat. Social media, newspapers, and television news programs are replete with language and imagery of fear-inducing situations that, for many, may suggest their physical or material safety, or the safety and tradition of their social order, has been

threatened. When social information arouses perceptions of both realistic and symbolic threat to in-groups, it may generally be termed "societal threat." The current study examined two individual difference variables that have been found to be the most common antecedents of threat-induced prejudice: authoritarianism and social dominance orientation (Kite & Whitley, 2016; Stephan, Ybarra, & Rios, 2016).

Existing evidence suggests that exposure to societal threat makes individuals more likely to exhibit authoritarian attitudes, and to endorse leaders and policies that reflect those views (McCann and Stewart, 1987; Doty, Petersen, & Winter 1991; Sales 1972, 1973; Feldman and Stenner, 1997). Furthermore, exposure to threat results in increased social dominance orientation (Quist & Resendez, 2002; Costello & Hodson, 2010; Duckitt, 2006)). Current political trends may reflect higher levels of authoritarianism and social dominance orientation in the general public, suggesting a functional relationship between perceived social threat and the appeal of authoritarianism (Feldman and Stenner, 1997; Duckitt, 2006) and social dominance orientation (Duckitt, 2003; 2006).

Although investigating the nature of the relationship between threat, authoritarianism, and social dominance orientation would seem imperative, there have been few studies to date that have provided clear experimental evidence about the effects of societal threat on levels of authoritarianism and social dominance (Duckitt & Fisher, 2003; Feldman & Stenner, 1997; Butler, 2013). Furthermore, authoritarianism and social dominance orientation are typically measured via self-report questionnaires. While self-report measures can provide a wealth of valuable information, such explicit measures are ultimately subjective; participants may not willing to report their true attitudes or are not even aware of their own biases.

The goals of the proposed study were to experimentally isolate and measure the direct effects of societal threat on levels of authoritarianism and social dominance orientation and to investigate if self-report measures of authoritarianism and social dominance were consistent or inconsistent with a measure of implicit attitudes regarding Americans and Immigrants. Exposure to societal threat was hypothesized to result in higher scores on self-report measures of authoritarianism and social dominance orientation, as well as an increased preference for Pro-American and Anti-Immigrant statements. Based on existing evidence (Sugiura, Mifune, Tsuboi, and Yokota, 2017), men were expected to endorse higher (versus lower) levels of social dominance, while no such effect was expected in women.

Theories of Prejudice

Throughout documented human history, people have categorized themselves and others into groups. Just by virtue of birth, we all become members of numerous, distinct social groups, the number of which likely increases with age, education, and experience. Accordingly, Auggoustinos & Walker (1995) noted that when some individual shares a connection with other group members, such as having gone to the same school or lived or worked in the same community, the individual feels as though whatever is happening to the group is happening to them. Other research has shown that people view individual same-group members as distinct individuals while perceiving out-group members as being more similar to one another than they are, particularly in negative and stereotyped ways (Tajfel, 1982).

Several popular theories consider the development of prejudicial attitudes and behaviors within a social and contextual framework. Realistic conflict theory essentially states that groups self-categorize and see themselves in competition with other groups for resources. Some have even suggested that categories themselves promote in-group-out-group mindsets and are enough

to create intergroup competition (Whitley & Kite, 2010). Social identity theorists argue that group membership is beneficial and desirable because identification with the group promotes feelings of acceptance and belonging and provides a social support system along with examples of appropriate behavior to follow within the established system of social norms and values (Stephan, Ybarra, & Morrison, 2016). Accordingly, people ought to be motivated to achieve and maintain positive social identities because they provide meaning and bolster their self-esteem. Thus, when the safety or honor of the group is somehow threatened or offended, the individual becomes defensive of the group and more likely to engage in prejudicial thinking and behavior.

The Intergroup Threat Theory of prejudice (ITT; Stephan et al., 2016) provides a broader model that incorporates aspects of several other popular models of threat-induced prejudice. ITT asserts that prejudice results from three types of threat to in-groups: intergroup anxiety, perceptions of realistic threats, and perceptions of symbolic threats. Intergroup anxiety arises from factors such as fear of embarrassment or aversive prejudice. Realistic threats are those that concern actual harm to an in-group member's physical or economic well-being and threaten the in-group's power, resources, or general welfare. Symbolic threats are those that threaten a group's values, belief system, or worldview and arise from slights towards individual self-identity or esteem (Stephan, et al., 2016). Societal threats may be viewed as threats that tap both realistic and symbolic concerns, but come to affect attitudes through different process, or via distinct individual differences. Although many researchers have studied individual differences related to prejudice, such as personal values, self-esteem, and social ideologies, the two most common and experimentally robust individual difference variables that have been identified as antecedents of threat-induced prejudice are authoritarianism and social dominance orientation (Whitley & Kite, 2010).

Authoritarianism and Threat

The study of authoritarianism began following World War II, as an attempt to understand the attitudes and behaviors of people who endorsed fascist policies and supported leaders like Mussolini and Hitler. With the publication of *The Authoritarian Personality* in 1950, Adorno, Frenkl-Brunswik, Levinson, and Sanford introduced the F-scale, or fascism scale, which was one of the first assessment tools used to measure and predict the presence of potentially fascist attitudes and behaviors in America. The theory was criticized for framing authoritarian traits in psychodynamic terms and serious criticisms were also raised about the psychometric integrity of the F-scale, which required positive responses on every item in order for the respondent to be classified as authoritarian and left the results open to a response set bias (Altemeyer, 1981; Ray, 1985; Pentony et al., 2000).

Scientific study on the topic of authoritarianism languished until Altemeyer broke ground with his 1981 book, *Right-Wing Authoritarianism.* In Altemeyer's view, social learning theory provided a heuristic framework by which to understand how individuals are shaped by their personal experiences in relationships and interactions with their families, peers, and community institutions (2006). In Altemeyer's view, authoritarianism is an individual difference variable arising from social environments that value traditionalism and obedience to authority. Altemeyer conceptualized right-wing authoritarianism as a covariation of three attitudes: Authoritarian Submission (willingness to submit to a legitimized authority), Authoritarian Aggression (hostility towards certain groups of people when sanctioned by the authority), and Conventionalism (adherence to social and moral conventions). In order to measure that relationship, Altemeyer created the Right-Wing Authoritarianism (RWA) scale. The RWA was carefully balanced against a response set bias and possessed the level of internal consistency

necessary for reliably measuring the covariation of those attitudes. In a combined sample of nearly one thousand participants, Altemeyer compared the RWA to other historically popular measures of authoritarianism, including the California Fascism Scale (Adorno et al., 1950), Rokeach's Dogmatism Scale (1960), and Wilson's Conservatism Scale (1973). The RWA was found to have the highest Alpha reliability at .88 and factor analysis indicated it was the most unidimensional of all the tests that were compared (Altemeyer, 1981).

Altemeyer has come to be widely respected for his empirical contributions to the field (Pentony et al., 2000; Feldman, 2003). The results of several studies indicated that high scorers on the RWA were more likely to report that George W. Bush's authorization of NSA spying was necessary and appropriate, would give longer jail sentences to various criminals than most, give light sentences to authorities who committed a crime, and would also give lighter sentences if the victim in the case belonged to a group they were prejudiced against (Altemeyer, 2006). Altemeyer has successfully demonstrated that high scorers on the RWA submit to established authority more than most, are more hostile towards others in the name of authority and are more conventional in their personal beliefs (1981, 2006). Adorno (1950), Altemeyer (1981), Feldman (2003), Stenner (2005), and Ray (1972) have all provided similar, but expanded, descriptions of the construct of authoritarianism. Despite the theoretical and methodological differences in their investigations of authoritarianism, these researchers appear to generally agree that the term authoritarianism involves obedience to legitimized authority, aggressive attitudes toward outsiders, and a desire for social stability and continued tradition.

The most common criticism of Altemeyer's view of authoritarianism is that it is inextricably linked to conservatism (Ray, 1985; Feldman and Stenner, 1997; Stenner, 2005). Ray (1985) argued that his Ray Directiveness Scale (1976) and Ray Conservatism Scale (1982) were

constructed to reliably measure authoritarianism and conservatism separately and showed that the RWA (Altemeyer, 1981) produced correlations of .76 and .81 with two forms of Ray's Conservatism Scale, but only a correlation of - .024 with Ray's Directiveness Scale (Ray, 1985). However, Meloen, Van der Linden, and De Witte (1996) found that while the RWA (Altemeyer, 1988) and the scales of Adorno (1950) and Lederer (1982) were all similarly predictive of attitudes and behaviors commonly associated with authoritarianism, Ray's Directiveness Scale (1976) was not significantly related to any such typical attitudes and behaviors.

Feldman and Stenner (1997) critically asserted that Altemeyer's view not only confounds authoritarianism with conservatism but is also tautological with the dependent variables it was designed to explain. For example, using the RWA to predict attitudes about tolerance and prejudice can be problematic because the scale contains items that are similar to other measures of attitudes related to tolerance and prejudice. They asserted that Altemeyer's explanation based on social learning theory was too simple and could not sufficiently capture and clarify the concept of authoritarianism, which they viewed to be a dynamic interaction of a stable predisposition with perceived environmental threats, particularly threats to the normative social order (Stenner, 2005).

In Stenner's (2005) view, exposure to threat can "activate" tendencies associated with an authoritarian predisposition. Various types of threats could be categorized and discussed in a number of ways, such as environmental, economic, or physical threats, but the specific threat-type of interest in the current study is perceived societal threat, or the perception of a threat that occurs when individuals are exposed to language or imagery depicting a fearful situation, in which the safety and tradition of their social order, as well as their physical or material safety, have been threatened in some manner by outsiders. This conceptualization of perceived societal

threat is common among researchers who study covariations of authoritarianism measures (McCann and Stewart, 1987; Doty, Petersen, & Winter 1991; Sales 1972, 1973) and is found to contain aspects of both realistic and symbolic threat, as described by Stephan and colleagues (2016).

Perceived societal threat has been operationalized in a variety of ways during investigations of authoritarianism. Analysis of archival data appears to be one of the more popular methods. Sales (1973) analyzed archival data and compared social indicators of authoritarianism (e.g. power and toughness of popular comic book characters, demands placed upon school teachers for loyalty to federal and state constitutions, total budget of police and fire departments) across time periods of low societal threat (1959-1964) and periods of high societal threat (1967-1970) and found a pattern suggesting authoritarianism increased during high-threat time periods. In another examination of archival data, McCann (2009) utilized the Social, Economic, and Political Threat (SEPT) index, which was created with the assistance of 196 American historians who estimated the extent to which the social, political, and economic events of each year from 1920 to 1986 could be considered as threatening to the established social order in America.

Feldman and Stenner (1997) analyzed data from the 1992 National Election Studies (NES) and examined the relationship between societal threat and authoritarian tendencies by evaluating attitudes toward minority groups, social and political attitudes, and attitudes toward the use of force in relation to their measure of authoritarian predispositions. Rather than increasing authoritarianism directly, the authors hypothesized that transient societal threats would strengthen the relationship between an authoritarian disposition and the associated behavioral and attitudinal correlates, such as punitiveness. The results revealed evidence of a

significant interaction between authoritarian predispositions and perceived threat, but no evidence of a direct relationship between societal threat and authoritarian predispositions (1997). The current study aimed to measure the direct and isolated effects of societal threat on levels of Right-wing authoritarianism and social dominance orientation.

Although many researchers would readily endorse the presence of a relationship between societal threat and authoritarianism (Altemeyer, 2006; Feldman and Stenner, 1997; Hetherington and Suhay, 2011), few have endeavored to experimentally manipulate threat. One such experimental approach was taken by Stenner in her Cultural Revolution Experiment (Stenner, 2005), who found that student participants with an authoritarian predisposition (i.e. those who preferred the words "obey, rules, and obedience" over "question, progress, and curiosity") who read and reacted to both threatening and reassuring articles scored higher on the RWA than did participants who preferred the opposite set of words, with articles about fractured public opinion and unworthy leaders producing the biggest effects. The shortcoming of that particular study was the lack of a true control condition for comparison, as each participant read and reacted to both threatening and reassuring articles.

Butler (2013) exposed participants to a series of images depicting social differences (a male drug addict, an Arab man, an African woman, a man with face paint, two men in a gay pride parade) and social disorder (graffiti, a pile of trash, a mob attacking a building, a street barricade with burning tires). Participants rated their fear reactions to each image and then completed the RWA. The strongest relationship between fear and authoritarianism was associated with perceived threat from social differences (e.g., an Arab man; 2013). Although Butler found that high scoring authoritarians reported higher levels of fear in response to those

images, he did not directly investigate the potential impact on RWA scores from exposure to the threatening images relative to non-threatening images (2013).

Duckitt and Fisher (2003) did, however, directly manipulate and measure the effect of societal threat on authoritarianism, dangerous world, SDO, and conservatism by comparing participants exposed to a scenario where their society had experienced several years of economic decline along with social disintegration, high crime, violence, and social conflict, to those who experienced security, and those who experienced no change. They found that threat did, indeed, influence authoritarianism. The authors also identified conservative and authoritarian social control attitudes as the two factorially distinct subdimensions causing differential effects. However, while the RWA is a useful predictor of negative out-group attitudes, it is only measuring one of many separate, individual difference variables that are also related to prejudice.

Social Dominance Orientation

Pratto and colleagues (1994) introduced the construct of Social Dominance Orientation (SDO) and the SDO scale as part of an effort to understand and measure prejudicial attitudes related to hierarchical social systems and in-group superiority and dominance. They defined social dominance orientation as, "the extent to which one desires that one's in-group dominate and be superior to out-groups." As well as, "a general attitudinal orientation toward intergroup relations." (Pratto, et al., 1994). The authors argued that societies foster "hierarchy- legitimizing myths" in order to provide justification for negative attitudes toward out-group members and to minimize conflict among groups by providing a framework for how resources are allocated. As Whitley (1999) aptly noted, the role of negative stereotypes as legitimizing myths in social dominance orientation, regardless of in-group authority figures, is an important distinction in perspectives between strictly authoritarian and social dominator orientation models.

Jost and Thompson (2000) asserted that SDO is made up of two, related components, opposition to equality and group-based dominance. Those high in social dominance seek to maintain social inequality, as they believe that their own in-group should maintain a superior status while out-group members should forever be relegated to low status. In their original studies, Pratto and coauthors (1994) found that men have higher SDO scores than women and that people with high SDO scores seek hierarchy-enhancing professional positions while those who score lower seek out hierarchy-attenuating positions. High social dominance was related to beliefs in meritocracies and racist social and political ideologies and support for policies that could strain interpersonal relations such as those related to war, civil rights issues, and social support programs. An abundance of research on social dominance orientation has revealed that high scorers tend to be prejudiced against any out-groups that might challenge the legitimacy of the social hierarchy, including African Americans, Asian Americans (Sidanius & Pratto, 1999), Muslims (Cohrs et al., 2005) and lesbians and gay men (Whitley & Lee, 2000).

Evidence suggests that, while the RWA and SDO scales are both useful singular measures of prejudicial social attitudes, each provides information about different types of motivation for prejudice. Even Altemeyer (1998) admitted that the RWA was never a good measure of authoritarian dominance or prejudice and enthusiastically endorsed the Social Dominance Orientation scale (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994) as being the best measure of the "missing link" in the domination-submission authoritarian social system. Altemeyer found that the correlation between the RWA and the SDO generally fell close to .20 while the SDO was much more highly correlated with measures of nationalism, patriotism, cultural elitism, and racism (1998). Other researchers investigating the relationship between the RWA and the SDO have also generally found weak, positive correlations, and while some have

also shown strong positive and weak negatives, overall evidence suggests that, although the RWA and SDO scales are complementary of one another, they are otherwise relatively independent of one another and measuring separate constructs (Duriez, Van Hiel, & Kossowska, 2005; Roccato & Ricolfi, 2005).

Duckitt and colleagues (2001) recognized the complementary relationship between the RWA and the SDO and introduced the Dual Process Model of motivation (DPM), which suggested that ideological attitudes may be broken down along two distinct dimensions that are best represented by Right-Wing Authoritarianism and Social Dominance Orientation. This model attempts to explain how the RWA and SDO each predict prejudice against out-groups independently of one another. The DPM views authoritarianism and social dominance as arising from a combination of different social worldviews, personality traits, and social and environmental influences. Moreover, each construct relies on different techniques for influencing the behavior of others. According the DPM, authoritarians are predisposed to social conformity and motivated to attain goals of social security and stability, while social dominators are predisposed towards tough-mindedness and motivated to achieve goals of group power and superiority.

Much like authoritarianism, evidence suggests that social dominance orientation is susceptible to influence by societal threat. Evidence has shown that those high in SDO perceive higher levels of intergroup threat and endorse more stereotypical legitimizing myths than do those low in SDO (Quist & Resendez, 2002). An interpretation consistent with social identity and integrated threat theories would suggest that threats to the honor and safety of the group's identity would result in increased prejudice toward out-groups. In support, Costello and Hodson (2010) showed that participants high in SDO were more resistant to helping immigrants after

being exposed to realistic, symbolic, and combined realistic-symbolic threats. Duckitt and Fisher (2003) initially found only marginal effects of societal threat on social dominance orientation but acknowledged that it was possible that authoritarians and social dominators would be sensitive to different types of threat. Duckitt (2006) later showed significant relationships between perceived threat from, competitiveness toward, and attitudes toward a variety of social groups (e.g. housewives, rock stars, physically disabled persons) and found that the RWA predicted prejudice toward deviant outgroups while the SDO predicted prejudice towards socially subordinate groups. Morrison and Ybarra (2008) however, found that participants who identified strongly with their in-group were more sensitive to realistic threat from out-group members and had higher SDO than those who did not identify as strongly with their in-group.

Given the limited experimental evidence about the effects of societal threat on authoritarianism and the conflicting evidence about its effects on social dominance orientation, the literature will benefit from further investigation into the effects of societal threat on these two often used, but not fully understood, measures of prejudice. Furthermore, the only available measures of authoritarianism and social dominance orientation are self-report types of measures. While self-report measures can provide valuable information about individuals' perceptions, they are ultimately subjective and individuals may not be willing to report their true attitudes or may not even be aware of their own biases. A less subjective and readily quantifiable measurement of authoritarian attitudes and behaviors would be preferable. A measure of implicit attitudes was incorporated in order to develop a more thorough and complete picture of the effects of societal threat on levels of authoritarianism and social dominance orientation.

Measuring Implicit Attitudes

Greenwald & Banaji (1995) defined implicit beliefs as introspectively or inaccurately identified traces of past experience that mediate favorable or unfavorable feelings, thoughts, and actions toward social objects. Over the last few decades, researchers have strived to develop methodology that provides a more objective measurement of such implicit attitudes and beliefs. One example of such methodology is the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998), which measures response latency on a computer sorting task. The IAT works on the assumption that individuals will respond more quickly to categorize two concepts that are consistent, meaning they share a semantic history (i.e. flower-positive), than they will to categorize two concepts that are inconsistent or not semantically related (i.e. insect-positive). In other words, IAT results are interpreted in terms of associations between pairs of words. The first IAT study, conducted by Greenwald et al. (1998) found that participants responded more quickly to flower-positive and insect-negative trials (consistent) than they did to flower-negative and insect-positive trials (inconsistent). An *IAT effect* when responses to one type of trial are faster than to the other type of trial.

The IAT has been the most widely used measure of implicit attitudes, but a primary weakness of the test is that, while it provides a seemingly valid measure of the relative strength of an association, it fails to provide information about the nature and direction of the association. If an IAT were used to compare attitudes about insects and flowers, the results would provide information about whether the participant preferred insects more than flowers, or flowers more than insects, but would not allow for examination of an attitude specific to one or to the other, because every response to one is always in relation to the other. Other implicit measures such as the Extrinsic Affective Simon Test (EAST; De Houwer, 2003) and the Go/No-Go IAT have also

used similar measures of response latency to assess the strength of relationships between concepts and words with positive or negative valence. However, these particular tests have not been as widely used as the IAT.

In further efforts to understand and measure implicit attitudes, behavioral psychologists have begun to pay more attention to how human language and cognition are conceptualized through the lens of Relational Frame Theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001). RFT provides a detailed behavioral account of language and cognition and seeks to explain the behavioral units of human language and thought in terms of derived stimulus relations and expanding relational networks rather than simple associations. Derived stimulus relations can be conceptualized by the following example: A is bigger than B and B is bigger than C. The knowledge that A is bigger than C is a derived stimulus relation between A and C. The relationship was derived from existing information and was not explicitly taught, nor was it based exclusively on any of the physical properties of the stimuli. The intellectually appealing idea of a quantifiable relationship between language and derived stimulus relations has gained in popularity and the body of empirical evidence to support the theory is steadily growing (Hayes et al., 2001, Barnes-Holmes et al., 2006, Drake et al., 2010; 2015; Farrell & McHugh, 2017).

The Implicit Relational Assessment Procedure (IRAP; Barnes-Holmes et al., 2006) is a computer sorting task that was developed based on RFT as a method of manipulating relevant Stimulus-Response (S-R) compatibility and measuring the presence of implicit associations based on response latency and response accuracy to consistent and inconsistent blocks of trials. An *IRAP effect* is said to have occurred when the response latency is shorter for certain types of blocks than it is for others, there is said to have been. The Relational Elaboration and Coherence (REC) model was developed by Barnes-Holmes et al. (2010) as an RFT approach to

understanding implicit beliefs. The model explains IRAP effects in terms of brief and immediate relational responses (BIRRs) and extended and elaborate relational responses (EERRs). The IRAP requires rapid responses to trial stimuli and therefore elicits BIRRs, the strength of which reveals information about the participant's relevant behavioral tendencies. In contrast, when participants are given ample time to consider a response, they will provide an EERR based on an expanded relational network, as is generally the case in self-report measures.

The IRAP provides information about derived stimulus relations and has been shown to be a valid measurement of not only the strength of an association, but also the direction. The IRAP pairs two stimuli with both positive and negative evaluative words and allows for the measurement of four separate attitudes via rapid behavioral responses to four distinct trial-types (e.g., insect-positive, insect-negative, flower-positive, and flower-negative). Although people would not be likely to knowingly or unknowingly be dishonest about their attitudes on insects and flowers, this type of behavioral measure should prove especially useful for obtaining information about more sensitive, and often prejudicial social attitudes, such as those regarding immigrants from foreign countries versus natural born American citizens. According to Roche and Dymond (2013), the IRAP has demonstrated good convergent validity, in that it has predicted certain classes of behavior similar to self-report methodologies, and also displays good divergent validity via its ability to predict behavior not captured by self-reports, at levels similar to other indirect behavioral measures, such as the IAT.

The IRAP has also shown some promise in its ability to provide an indirect behavioral measure of various social attitudes. Barnes-Holmes and colleagues (2006), for example, assessed implicit relations regarding autism and found longer latency times on IRAP trials requiring Autism-Positive-type responses than would be expected based on self-report data from the same

subjects. They also found significant differences between explicit (self-report) and implicit (IRAP) measures of the likeability of different social groups. The IRAP has also been used to assess attitudes about race, religion, gender, and obesity (Drake et al., 2010), and perceptions of the 2012 U.S. Presidential candidates (Drake et al., 2015). Studies such as these have suggested that the IRAP could potentially serve as a powerful measurement tool for other sensitive and prejudicial social attitudes. Employing the IRAP as a measure of implicit attitudes related to in-group and out-group members in addition to self-report measures served to provide a more thorough and complete picture of the effects of societal threat on levels of authoritarianism and social dominance orientation.

Broader Implications

Media representations of societal crime threat have been shown to distort perceptions about the actual potential for victimization and have contributed to increased fear (Lawrence and Mueller, 2003; Romer, et al., 2003), and possibly, increased levels of authoritarianism and social dominance orientation in the general public. Given that high levels of authoritarianism and social dominance have been associated with some of the most heinous atrocities of the past, existing evidence that suggests high scoring authoritarians are likely to be associated with positions of power, either their own power or that of a worthy leader, should also be cause for concern. Altemeyer administered the RWA to North American lawmakers in 1990 and found higher than average RWA scores for both Democratic and Republican lawmakers (Altemeyer, 1996).

During these tumultuous times, consideration of long-standing perceptions of authority figures is useful. In an early review of evidence on police mentality, Balch (1972) asserted that the typical police officer portrayed in the literature was a near-classic example of the authoritarian personality and identified and discussed the difficulties in determining whether

authoritarians specifically seek out employment that allows them to engage in authoritarian behaviors, or if certain situations, such as those involving threats to the normative social order, result in an activation of authoritarian tendencies. Regardless, if high scorers of authoritarianism and social dominance orientation are more likely to be associated with positions of power, and exposure to societal threat does indeed activate greater levels of either or both, further investigation would seem worthwhile.

Current Study

The current experiment was intended to provide needed clarification and expansion of information about the specific and unconfounded effects of societal threat on levels of authoritarianism and social dominance orientation. The other distinct and novel contribution came from the opportunity to compare the results from well-known and validated self-report measures of authoritarianism and social dominance orientation with an indirect behavioral response measure of speed and accuracy during a computer sorting task in an effort to measure the strength and direction of semantic associations related to social attitudes regarding in-group and out-group members. Participants were randomly assigned to either the experimental or control condition and exposure to societal threat occurred only for the experimental group. Emotional responses to the experimental or control stimuli were measured across groups prior to randomized administration of the RWA, SDO, and the IRAP for both the experimental and control groups.

The present study tested the hypotheses that (1) exposure to societal threat should lead to higher RWA and SDO scores, (2) men will have higher SDO scores than women, regardless of condition, and (3) exposure to societal threat will result in higher (more positive) D-IRAP scores

in the threat condition, relative to the control condition, indicating Pro-American and Anti-Immigrant sentiments.

CHAPTER 2

METHOD

Design

Demographic surveys obtained information in the following six categories: age, race, gender sex, religion, political affiliation, and habits of news consumption. The independent variable was group level. The experimental group, hereafter referred to as *Societal Threat*, was exposed to perceived societal threat via an actual news article. The Control group, read an emotionally neutral article. The dependent variables for both groups were scores on the Right-Wing Authoritarianism (RWA) scale, scores from the Social Dominance Orientation (SDO) scale, and response latency and accuracy scores from the IRAP.

Participants

Sixty-seven participants from a large Midwestern university in the United States were recruited from introductory psychology courses and received course credit for participation in the study. See the Results section for a complete and detailed descriptive statistics for the retained sample. Demographic categories of age, race, sex, religion, political affiliation, and habits of news consumption were assessed with a 7-item questionnaire via Qualtrics. Drop-down menus for age, race, sex, religion, and political affiliation provided the standard choices, including options for *other* or *do not wish to say*. Habits of news consumption were assessed with two questions. Response options for "How much time per day do you spend reading/watching/listening to the news?" ranged from *less than one hour* to *greater than five hours*. The question, "Which of the following would be your first choice for a news source?" gave the following options: *Social Media, Local News, FOX, MSNBC, or NPR*.

Measures

Manipulation Check

When participants in both groups finished reading the assigned news article, they completed a short questionnaire, presented via Qualtrics, asking them to rate their emotional response to the information to ensure that the experimental manipulation elicited the expected response across conditions. The 5-item questionnaire asked participants to consider how the article made them feel and to complete a Likert-type scale for each of the following words: *Fear, Anger, Sadness, Joy,* or *No Reaction.* The range of the scale was from *1-5* with *1* meaning *Strongly Disagree* and *7* meaning *Strongly Agree*.

The Implicit Relational Assessment Procedure

The IRAP presented a series of blocks, each of which contained the same set of randomly ordered trials. The response criteria for each block was 78% for accuracy and 2000ms for median latency. Verbal stimuli was selected in order to elicit both positive and negative attitudinal responses toward in-group and out-group members Each trial involved a sample (American or Immigrant), target (safe, innocent, secure, friend, trustworthy, resident, insider, us, harmless, dangerous, guilty, risky, enemy, dishonest, intruder, outsider, them, scary), and two response options (True or False). The sample was presented at the top, center of the screen, the target was presented just below the sample, and the two response options were presented at each corner in the bottom of the screen (see Appendix G). During each trial, the participants selected either the "d" or "k" key to indicate their response for true or false. Choosing a correct response cleared the screen for 400ms and then the next trial was presented. If an incorrect response is given, a red "X" appeared in the middle of the screen and did not disappear until a correct response was given. Correct and incorrect responses were determined by block-type. Half of the blocks

required one pattern of responses (American-Friend, Immigrant-Enemy) while the other half required the opposite pattern of responses (American-Enemy, Immigrant-Friend). In order to assess split-half reliability, Pearson correlations were performed on all IRAP D-scores for odd-numbered and even-numbered trials for all participants achieving 70% accuracy or better. The results were not statistically significant ($r = .221$, $p > .05$).

Right Wing Authoritarianism (RWA) Scale

A computerized version of Altemeyer's 21-item RWA scale (1988) was used as a measure of authoritarianism. Questions included*, "*The established authorities generally turn out to be right about things, while the radicals and protesters are usually just loud mouths showing off their ignorance." and "Everyone should have their own lifestyle, religious beliefs, and sexual preference, even if it makes them different from everyone else." (Altemeyer, 1988). Choices on each item ranged from *-4 (very strongly disagree)* to *4 (very strongly agree)*. Possible scores range from *20* to *180*. Higher scores indicate higher levels of right-wing authoritarianism. Cronbach's alpha was .896.

Social Dominance Orientation (SDO) Scale

A computerized version of the 14-Item Social Dominance Orientation Scale (SDO; Pratto, Sidanius, Stallworth, and Malle, 1994) was used as a measure of prejudicial attitudes. Participants were asked to rate their positive or negative feelings towards statements such as, "This country would be better off if we cared less about how equal all people were." and "All humans should be treated equally." Choices on each item ranged from *1 (Very Negative) to 7 (Very Positive).* The SDO is a balanced scale, with an equal number of pro and anti-social equality statements. Pratto et al. (1994) found reliability coefficients of .90 with the 14-Item questionnaire. For the present study, Cronbach's alpha was .867.

General Procedure

Experimental sessions included one experimenter and one participant. Completion time for all sessions was less than one hour. Upon arrival to the laboratory, participants read and completed a consent form and were randomly assigned to either the *Societal Threat* condition or the *Control* condition. The online survey program, Qualtrics, was used to present the manipulation check and self-report measures.

Participants in the *Societal Threat* condition were asked to read an actual news article about an American town that received an influx of Middle Eastern refugees. The article contained language and symbolism that emphasized the potential societal threat posed by the newcomers. Statements included, "It has been reported that a mob of around 30, young, Somali men terrorized an upscale community…this is not the first time mobs have shown up to frighten the town…we cannot continue to allow these foreign cultures to spread into our culture…when millions of refugees come…they bring their violent culture here and refuse to adopt to our way of life and doing things…the United states could turn into a country like Syria or Iraq where we have to be scared of bombs and gun attacks every time we leave our homes." (Walsh, 2016). In the *Control* condition, participants were asked to read an actual news article about a horticulture competition in a small European town. Statements included, "Purple carrots were the talk of the town when the Constitutional Club hosted a special competition." and "The aim of the competition was to grow carrots." (Purple Carrots, 2016). All participants completed the manipulation check immediately after reading the assigned article. Upon completion of all experimental tasks, each participant was given documentation of course credit and a debriefing form that explained the purpose of the study and provided contact information for the primary researcher.

CHAPTER 3

RESULTS

Attrition

Of the 67 original participants, those reporting "Other" as their country of origin (*n* = 3, 4.5%) and/or a language other than English as their first language (*n* = 6, 9%) were dropped from all subsequent analyses. One additional participant who failed to achieve at least 70% accuracy on IRAP trials was dropped from all analyses, while all participants achieving at least 70% accuracy were retained. Finally, two participants who completed the self-reports, but did not attempt the IRAP were dropped from all analyses, resulting in a final sample of N = 57.

Descriptive Statistics of the Retained Sample

The average participant age was 19.26 years (*SD* = 2.20) and the majority were female (*n* = 31, 54.4%), White (*n* = 39, 68.4%), and Christian (*n* = 39, 68.4%). The sample retained some racial diversity with 14 Black or African American participants (24.6%), and 3 Hispanic or Latino participants (5.3%), with one participant reporting Other (1.8%). The remaining non-Christian participants were Agnostic (*n* = 14, 24.6%), Atheist (*n* = 2, 3.5%), and Jewish (*n* = 3.5%) participants. Regarding political orientation for economic issues, 7 participants indicated they were slightly liberal (12.3%), 6 were moderately liberal (10.5%), and three were strongly liberal (5.3%), while another 6 were slightly conservative (10.5%), 13 were moderately conservative (22.8%), and four were strongly conservative (7%). Political orientation for social issues showed that 29.8% (*n* = 17) were in the middle, 12.3% were slightly liberal (*n* = 7), 21.1% were moderately liberal (*n* = 12), and 12.3% were strongly liberal (*n* = 7), while 7% were slightly conservative (*n* = 4), 14% were moderately conservative (*n* = 8), and 3.5% were strongly conservative (*n* = 2).

Most participants (*n* = 36, 63.2%) reported spending less than one hour per day reading, watching, or listening to the news and the remaining participants reported watching 1-3 hours per

day (*n* = 21, 36.8%) Social media (*n* = 29, 50.9%) was the most popular first choice for a news source, with the remaining participants endorsing local news (*n* = 8, 14%), Fox News (*n* = 12, 21.1%), MSNBC (*n* = 6, 10.5%), or NPR (*n* = 2, 3.5%). Table 1 contains overall means across groups on each of the dependent measures.

Group Comparisons

Manipulation Check

Only participants who correctly answered the three article content questions were included for analysis. One directional, independent samples t-tests revealed significant differences in emotional responses to the different articles across groups. Independent samples *t*-tests revealed significant differences in Anger ($t(55) = 13.82$, $p < .000$), Sadness ($t(55) = 11.72$, $p < .000$), Fear ($t(55) = 9.85$, $p < .000$), Joy ($t(55) = -5.295$, $p < .01$), and No Reaction ($t(55) = -7.27$, $p < .000$) between experimental conditions. See Table 2 for descriptive statistics.

IRAP Effects

While the Overall D-score across groups was marginally significant ($t(55) = -1.76$, $p = .084$, Cohen's $d = .47$), suggesting an overall pro-American and anti-Immigrant bias, statistically significant differences in IRAP trial-type scores between the Control and Societal Threat conditions were not observed (all p's > .05). Table 2 presents the means and standard deviations for each trial type, for the Control and Societal Threat conditions. See Table 1 for detailed descriptive statistics for each condition and trial type for the entire retained sample. Figure 1 contains bar graphs depicting Mean D-IRAP scores for each trial type, for the overall retained sample. Figure 2 contains a bar graphs depicting Mean D-IRAP scores across trial-type and condition. for the Societal Threat condition and Figure 3 contains bar graphs depicting Mean D-IRAP scores in the Control Condition.

Right-Wing Authoritarianism

As predicted, RWA scores in the Societal Threat condition (M = 89.25, SD = 24.88) were significantly higher than RWA scores in the Control condition (M = 77.07, SD = 19.70, $t(55)$ = -2.53, p = .045, Cohen's d = .54). The difference in RWA scores for men (M = 89.00, SD = 21.00) and women (M = 78.19, SD = 24.15) was marginally significant ($t(54)$ = 1.763, p = .08). Table 2 includes a comparison of RWA scores for the retained sample across conditions. See Figure 2 for a graphical comparison of RWA and SDO scores across conditions.

Social Dominance Orientation

Significant differences in SDO scores for the Societal Threat Condition and the Control condition were found ($t(55)$ = -2.117, p = .041, Cohen's d = .54), with those in the Control condition (M = 26.24, SD = 8.92) scoring lower than those in the Societal Threat condition (M = 32.04, SD = 11.61). As further predicted, the results of an independent samples t-test ($t(54)$ = 2.92, p < .018, Cohen's d = .53) revealed that men obtained higher scores on the SDO scale (M = 33.72, SD = 11.44) than did women (M = 25.84, SD = 8.40). See Figure 2 for a comparison of RWA and SDO scores across conditions.

Post-Hoc Analyses

Further investigation of SDO scores, using a 2x2 ANOVA with experimental condition (Societal Threat, Control) and gender (Female, Male) as between-subjects factors, revealed a significant main effect of experimental condition $F(1,55)$ = 4.29, p < .043, Cohen's d = .64), providing support that the societal threat manipulation increased social dominance orientation. As expected, a significant main effect of gender was present (F = 1.32, p < .05), with men obtaining significantly higher SDO scores than women. However, no significant interaction was observed between experimental condition and gender (F = .305, p > .05).

For Right-Wing Authoritarianism, a 2x2 ANOVA with experimental condition (Societal Threat, Control) and gender (Female, Male) as between-subjects factors, revealed a significant main effect of experimental condition $F(1,55) = 5.38$, $p < .024$, Cohen's $d = .55$), with no significant main effect of gender ($F = 1.32$, $p > .05$) and no significant interaction between experimental condition and gender ($F = 2.36$, $p > .05$). In order to investigate any gender effects related to implicit attitudes, a multivariate ANOVA, with experimental condition (Societal Threat, Control) and gender (Female, Male) as fixed factors, and D-IRAP scores from each trial type as dependent variables was performed and revealed no significant differences.

Given that the terrorists referenced in the article were Somalian, the presence of potential race effects was also considered. Because the study included only 14 Black or African American participants, 3 Hispanic or Latino participants, and one participant reporting Other, those separate racial categories were collapsed into one and compared to White participants via independent samples t-tests that investigated any potential racial differences in scores on the RWA, SDO, and IRAP. However, the analyses produced no significant results (all *p'*s > .05*)*

Lastly, no significant relationship was present between habits of news consumption and RWA, SDO, or D-IRAP scores (all *p's* > .05).

CHAPTER 4

DISCUSSION

The present findings are consistent with long standing research suggesting that individuals tend to view out-group members in negative and stereotyped ways (Tajfel, 1982) and that when individuals share a connection to other group members, they feel as if whatever is happening to the group is happening to them (Auggoustinos & Walker, 1995). In the present study, participants demonstrated significant sensitivity to a societal threat manipulation, such that they endorsed greater prejudicial attitudes, as measured by the Right-Wing Authoritarianism and Social Dominance Orientation scales, following exposure to a news article depicting a societally threatening scenario. Explicit responses to the present threat manipulation appear to be consistent with social identity theories suggesting that individuals become defensive of their group and are more likely to engage in prejudicial thinking and behavior when the safety or honor of the group is somehow threatened or offended, as participants were in the present threat condition.

Viewing societal threat as a combination of realistic and symbolic threat, the findings are consistent with, and may be interpreted within, the framework of intergroup threat theory. The significant increase in RWA scores may be attributed to a perceived increase in symbolic threat, as the threat manipulation made specific reference to group values and moral standards (e.g. “we cannot continue to allow these foreign cultures to spread into our culture.”). The significant increase in SDO scores may have been due to the perception of realistic threat derived from statements specific to intergroup conflict and competition (e.g. “a mob of around 30, young, Somali men terrorized an upscale community”). Furthermore, consistent with Sugiura et al. (2017), the threat manipulation used in the current study appears to have particularly elicited realistic threat concerns among men (versus women) related to competition or scarcity of resources and resulted in stronger social dominance attitudes.

Authoritarianism and social dominance orientation are often thought of as generally stable traits involving obedience to legitimate authority, aggressive attitudes toward outsiders, and a desire for social stability and continued tradition in the case of authoritarianism and support for hierarchical social systems and a desire that one's in-group dominate and be superior to out-groups for those high in social dominance orientation. However, the current findings add to the growing number of studies that have demonstrated how authoritarian (Stenner, 2005; Butler, 2013) and social dominance (Duckitt & Fisher, 2003) attitudes are also susceptible to influence from perceived social and environmental threats. Specifically, when individuals are exposed to language or imagery depicting a situation in which the safety and tradition of the normative social order, or the physical and material safety of group members, have been threatened in some manner by outsiders, levels of authoritarianism increase. Although prior experimental evidence about the effects of societal threat on social dominance attitudes has been less clear (e.g., Duckitt & Fisher, 2003), the current results suggest that support for social attitudes endorsing hierarchical dominance and superiority appears to increase following exposure to societal threat.

Duckitt and Fisher (2003) found that societal threat resulted in a clear increase in the RWA but saw only a marginally significant increase ($p < .10$) in the SDO in reaction to threat, which were entirely mediated through dangerous world beliefs and authoritarian attitudes. However, the increase was statistically significant ($p = .043$) in the present study. One possible explanation is that the threat manipulation used by Duckitt and Fisher (2003), in which participants answered the measures while imagining themselves 10 years in the future, having experienced several years of severe and dramatic decline in a previously stable and comfortable economic, social, and political landscape, may have aroused general feelings of insecurity

without specifically targeting feelings of intergroup conflict and competition. Duckitt (2006) later showed that social dominance orientation was more susceptible to threats from increased inequality and competition. The threat manipulation employed in the present study was specifically chosen to elicit reactions relative to situations in which the economic, political, and social stability have been threatened by out-group members.

The present findings suggested that exposure to societal threat resulted in higher prejudice towards Immigrants (relative to Americans), and appears to be consistent with prior research on social dominance orientation that demonstrated high scorers tend to be prejudiced against any out-groups that might challenge the legitimacy of the social hierarchy, including African Americans, Asian Americans (Sidanius & Pratto, 1999), Muslims (Cohrs et al., 2005) and lesbians and gay men (Whitley & Lee, 2000). While authoritarians are predisposed to social conformity and motivated to sustain social security and stability, social dominators are predisposed towards tough-mindedness and motivated to maintain group power and superiority. The RWA and SDO are thought to measure distinct, but related, attitudinal dimensions and Altemeyer found that the correlation between the RWA and the SDO generally fell close to .20. However, the two measures were found to be significantly correlated ($r = .45$, $p < .000$) in the present study. According to the Dual Process Model, authoritarianism and social dominance each arise separately from a combination of different social worldviews, personality traits, and social and environmental influences. Perhaps the significant relationship observed between the two measures suggests a greater overlap in the characteristics of this sample of mostly college freshmen, who are likely to share at least somewhat similar backgrounds and experiences.

In contrast to the self-report measures, the IRAP seemed to be less sensitive to the experimental variable, as the results obtained from analyses comparing IRAP D-scores of the

groups were not statistically significant. Previous effect sizes of $d = 1.20$ have been observed in other studies employing a similar threat manipulation (Fischer, Kastenmuller, Greitemeyer, Fischer, Frey, & Crelley, 2011) and initial G-Power analysis (Faul, Erdfelder, Lang, & Buchner, 2007) indicated that 12 participants were needed in each condition in order to have power of .80, while a repeat G-Power analysis based on IRAP effect sizes related to ageist attitudes suggested only 6 participants were needed in each condition. Despite the use of a substantially larger sample size of 57 participants, the sample may have been too small to reveal any differences in implicit attitudes across groups. Indeed, post hoc power analysis revealed the current study to be significantly underpowered at 49%. G-Power analysis based on current mean differences in IRAP scores across groups indicated that a sample size of $N = 140$ would have been necessary in order to achieve power of .80.

Although the IRAP has previously been shown to be useful for obtaining information about sensitive social attitudes regarding autism and the likeability of different social groups (Barnes-Holmes et al., 2006), attitudes about race, religion, gender, and obesity (Drake et al., 2010), and perceptions of the 2012 U.S. Presidential candidates (Drake et al., 2015), implicit and explicit measures often produce incompatible results. For example, Barnes-Holmes and colleagues (2006) found longer latency times on IRAP trials requiring Autism-Positive-type responses than would be expected based on self-report data from the same subjects. They also found significant differences between self-report and IRA) measures of the likeability of different social groups. However, in the current study, group differences were obtained for the self-reports and not the IRAP, rather than between an implicit measure and not with explicit measures, as is often otherwise reported (Kelly & Barnes-Holmes, 2013; Power, et al., 2009; Breen & Karpinski, 2013). Hence, while the IRAP has previously demonstrated good convergent

validity and has predicted certain classes of behavior similar to other self-report methodologies, some studies have failed to reveal evidence of convergence between these types of measures, even when they are populated with similar content (Kelly & Barnes-Holmes, 2013; Power, et al., 2009; Breen & Karpinski, 2013).

Rowatt, Franklin, and Cotton (2005) found only slightly positive correlations between implicit (i.e. IAT) and explicit (i.e. self-report) measures of preference for Christians relative to Muslims, or a preference for Muslims relative to Christians. Self-report measures of right-wing ideology have been shown to correlate with general implicit ethnocentrism (e.g. Cunningham, Nezlek, & Banaji, 2004) and, furthermore, self-reported authoritarianism is related to specific implicit prejudice toward blacks relative to whites (Rowatt & Franklin, 2004). Religious fundamentalism, however, has been found to correlate with more specific implicit prejudice toward homosexuals, relative to heterosexuals (Rowatt et al. 2004). Although some have claimed that implicit attitudes shift in response to contextual and psychological factors (Blair, 2002; Gawronski & Bodenhausen, 2006), the present results appear to be more consistent with former interpretations suggesting that implicit attitudes are far less malleable than explicit attitudes (Dasgupta, 2009).

Given that the current study was the first known attempt to measure prejudicial attitudes related to authoritarianism and social dominance orientation with the IRAP, reasons why the experimental variable failed to generate a group difference in IRAP performance remain unclear. According to the RFT model, the IRAP requires rapid responses to trial stimuli and elicits BIRRs, the strength of which reveals information about the participant's relevant behavioral tendencies. In contrast, when participants are given ample time to consider a response, as was the case with the self-report measures, they provided an EERR based on an expanded relational

network. The current findings seem to suggest that brief and immediate relational responses related to attitudes about immigrants were not affected by exposure to societal threat, while extended and elaborate relational responses were more sensitive to the threat manipulation. Although the threat manipulation produced significant differences on the self-report measures, perhaps the stimuli selected were not optimal for eliciting significant changes in implicit attitudes and alternative methods of stimulus selection may have been more successful in producing group differences. Further research would also benefit from investigation of the effects of extended exposure to societal threat on prejudicial attitudes. In considering the vitriol and fear mongering that is characteristic of political discourse, researchers should attempt to understand the long-term effects of threatening stimuli on prejudicial attitudes.

Several limitations to the present study are acknowledged. For example, split-half reliability testing on all IRAP D-scores for odd-numbered and even-numbered trials for all participants was non-significant and demonstrated a substantial lack of internal consistency for the present IRAP scores. Additionally, group identification was assumed, as all participants retained for analysis were American citizens. However, in order to properly test assumptions of intergoup threat theory, the measures should have included a specific question about how strongly the participants identified as an American, because individuals who identify strongly with their in-group are more sensitive to realistic threat from out-group members and have higher SDO scores than those who do not identify as strongly with their in-group (Morrison and Ybarra, 2008). Furthermore, questions about intergroup anxiety may have provided additional insight into how prejudice arises and how intergroup anxiety relates to authoritarianism and to social dominance orientation. Lastly, additional measures of prejudice (e.g. Belief in a Dangerous World scale, Altemeyer, 1988; Symbolic Racism Scale, Henry & Sears, 2002; Aversive Racism

Measure, Dovidio et al., 1986) would have provided a more complete picture and would have allowed for more interesting analyses. For example, Duckitt and Fisher (2003) developed a more sophisticated theoretical model and investigated differences among threatened and non-threatened participants on measures of dangerous world beliefs, authoritarian attitudes, social dominance attitudes, and conservative attitudes via a LISREL path analysis, which allowed them to uncover mediational relationships among a broader range of prejudicial attitudes and attributes under conditions of societal threat.

Despite the limitations, the present study contributed further experimental evidence to the body of literature demonstrating that societal threat increases prejudicial attitudes related to authoritarianism and social dominance. When individuals experience even brief exposure to stimuli, such as the one-page news article employed here, in which the cultural or material safety of the in-group is threatened by an out-group, they are more likely to respond by explicitly endorsing greater prejudicial attitudes toward out-group members. Such reactions are especially troublesome in today's polarized social and political climate, the ever-widening divide of which seems to be accelerated by the twenty-four-hour news cycle and a smart phone culture in which great numbers of individuals stay constantly connected online and are not only able to access information about the attitudes and opinions of in-group and out-group members, but likely receive a steady barrage of news updates throughout the day with headlines that are intended to cause intense emotional reactions.

One need not spend more than a few moments perusing social media, reading article headlines from news sources, or watching news programs on television to be exposed to information that arouses strong fear reactions to societal threat. Media representations depicting a high threat of victimization have been shown to contribute to increased fear of crime

(Lawrence & Mueller, 2003; Romer, et al., 2003) and, in turn, perceptions of heightened crime threat have been shown to increase punitiveness (Hartnagel & Templeton, 2012; Amborst, 2017), which is a well-known attribute of authoritarianism (Altemeyer, 1988). Individuals high in social dominance are also known to seek hierarchy-enhancing professional positions and to express support for meritocracies and racist social and political ideologies and policies that would be detrimental to civil rights protections and social support programs.

Given the present results demonstrating that exposure to societally threatening information leads to increased endorsement of authoritarian and social dominance attitudes, along with prior non-experimental (McCann and Stewart, 1987; Feldman and Stenner, 1997) and experimental (Stenner, 2005; Duckitt & Fisher, 2013; Butler, 2013) evidence demonstrating that exposure to societal threat increases social dominance and authoritarian attitudes, working towards a better understanding of the effects of societal threat on prejudicial attitudes seems more imperative than ever, as does the important task of continuing to identify effective ways in which to guard against, or even reverse, the negative effects of increased prejudice following exposure to threat.

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TABLES

Table 1

Overall Means for Retained Sample (N = 57)

Measure	*M*	*SD*
RWA	83.05	23.03
SDO	30.00	11.12
Overall D-Score	.0647	0.18
American-Safe	.3345	0.28
American-Dangerous	.1112	0.33
Immigrant-Safe	-.1811	0.32
Immigrant-Dangerous	-.0056	0.33

Table 2

Comparison of Means Across Conditions (N = 57)

	Societal Threat Condition (N = 28)		*Control Condition (N = 29)*	
Measure	*M*	*SD*	*M*	*SD*
RWA Total	89.25	24.88	77.07	19.70
SDO Total	32.04	11.61	26.24	8.92
Overall D-Score	.11	0.19	.02	0.16
American-Safe	.37	0.24	.30	0.32
American-Dangerous	.17	0.31	.06	0.34
Immigrant-Safe	-.13	0.37	-.23	0.25
Immigrant-Dangerous	.02	0.37	-.03	0.30
Fear	4.83	.54	2.64	1.06
Anger	4.83	.54	2.14	.90
Sadness	4.79	.56	2.32	.98
Joy	3.31	1.17	4.68	.72
No Reaction	1.62	.82	3.32	.95

FIGURES

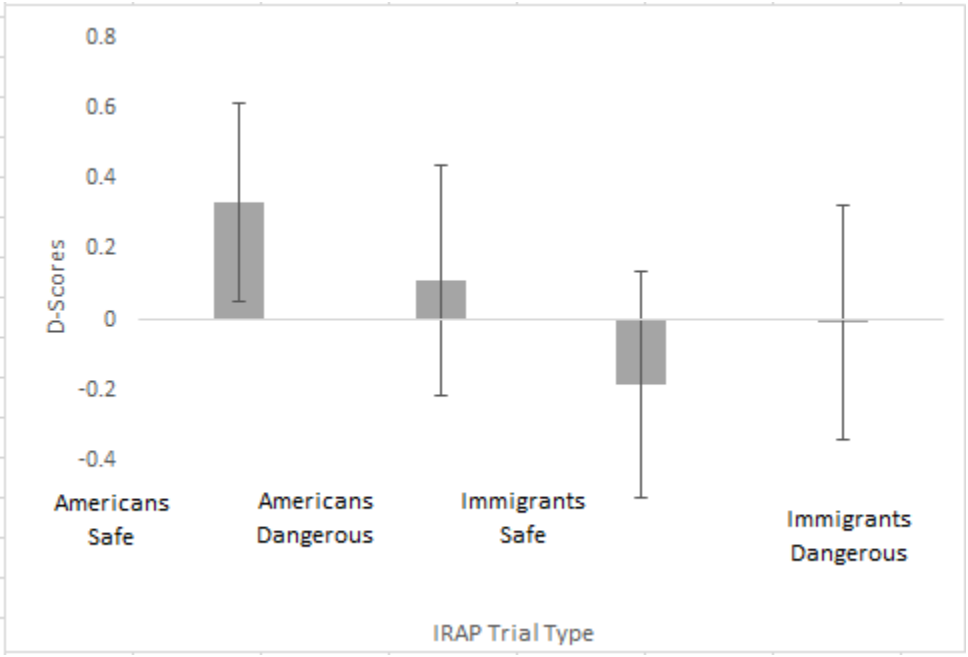


Figure 1. Overall D-IRAP Scores across conditions.

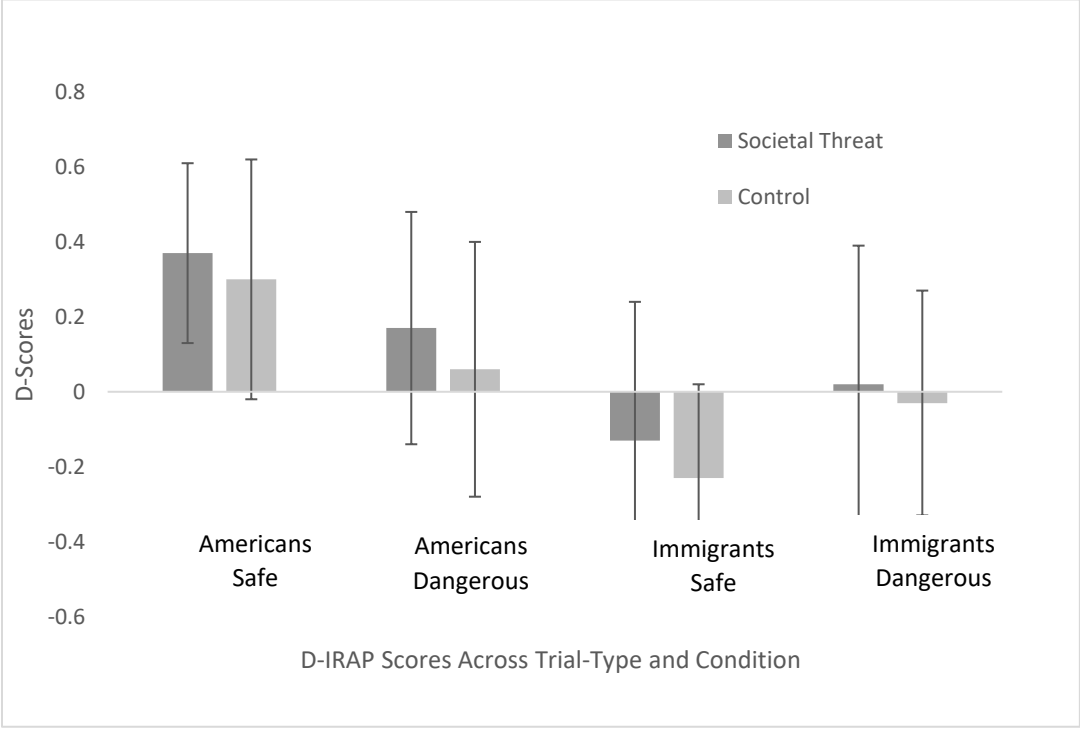


Figure 2. D-IRAP Scores Across Trial-Type and Condition.

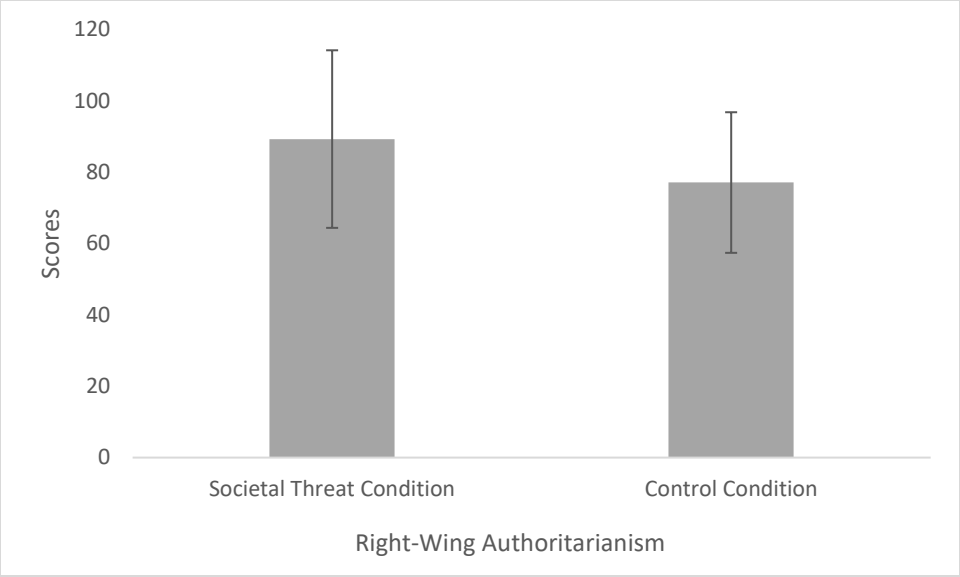


Figure 3. Comparison of RWA Scores across groups.

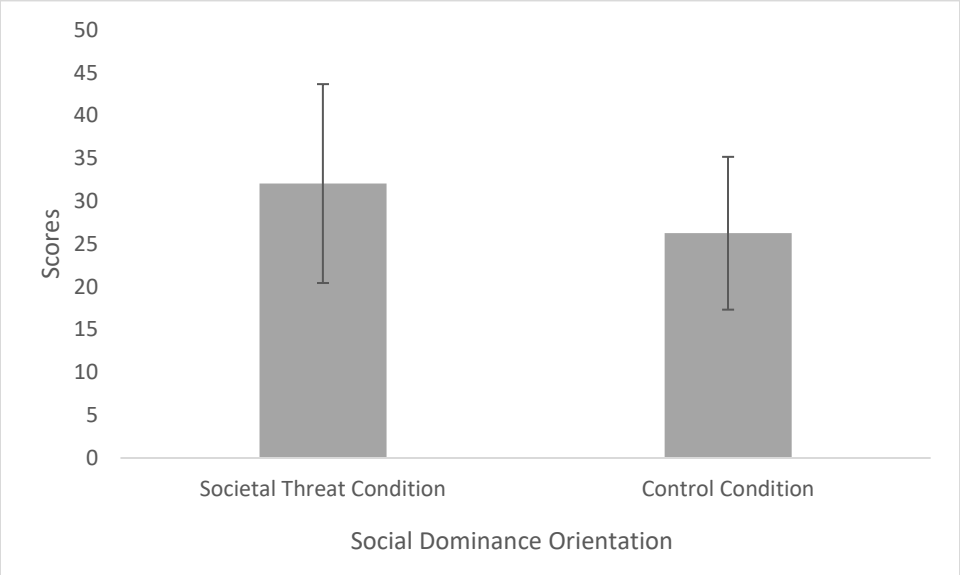


Figure 4. Comparison of SDO Scores across groups.

APPENDICES

Appendix A

Informed Consent

The objective of this study is to examine the psychometric properties of a computerized task that may be a useful measure of behavior. More specifically, we want to investigate if varying the way stimuli are presented will result in differential effects on the Implicit Relational Assessment Procedure (IRAP).

I understand that as a participant in this study, I was asked to read a news article, complete various questionnaires, and perform a computer sorting task. I understand that the study investigator is mandated to report any intention on my part to harm myself. It is possible that I may find parts of the task uncomfortable and I may refuse to answer or withdraw from the study at any time without penalty. As a participant in this study, I agree to complete the computer task and the questionnaires. If I have any questions about this study, I may contact Chasity Ratliff at chasity.ratliff@siu.edu for more information.

I understand that my participation in this research is voluntary and that I may withdraw from the study at any time, without penalty. This study will require approximately 60 minutes of my time. For my participation, I will receive 4 credits. Furthermore, I understand that all material received from my participation was kept confidential and that my name/identity will in no way be connected with my answers. Instead, only an assigned subject number was used in association with my answers.

I have read and understand the information above,

_____

Signature Date

This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Sponsored Projects Administration, SIUC, Carbondale, IL 62901-4709. Phone (618) 453-4533. E-mail: siuhsc@siu.edu

Appendix B

Demographic Questionnaire

Age (in years): _____

Race (Choose One):
American Indian or Alaska Native
Asian
Black or African-American
Hispanic or Latino
Native Hawaiian or Other Pacific Islander
White or Caucasian
Other

Sex (Choose One):
Female _____ Male _____ Other _____

Religion (Choose One):
Agnostic (undecided as to the existence of God or an afterlife)
Atheist (do not believe in the existence of God or an afterlife)
Buddhist
Christian (any denomination of Catholics, Protestants, etc.)
Hindu
Jewish
Muslim
Other (please specify): _____

Political Affiliation (Choose One):
Democrat _____ Republican _____ Other: _____

How much time per day do you spend reading/watching/listening to the news?
Less than 1 hour
1-3 hours
3-5 hours
Greater than 5 hours

Which of the following would be your first choice for a news source (Choose One)?
Social Media
Local News
FOX
MSNBC
NPR

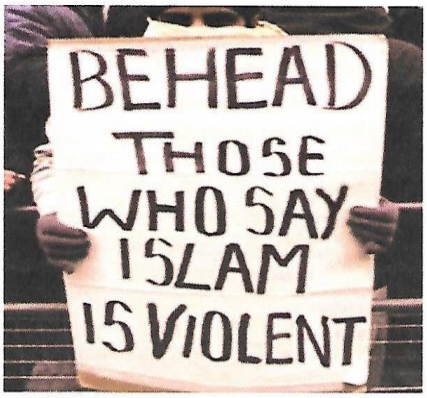
Appendix C

Societal Threat Article

Walsh, 2016

BREAKING: ISIS Refugees Invaded Minnesota Town, The Fight For America Just Begun!

Posted by Martin Walsh | Jul 8, 2016 | Uncategorized



Minnesota is having yet another incident with Muslims attacking innocent people throughout neighborhoods. It has been reported that a mob of around 30, young, Somali men terrorized an upscale community near the Lake Calhoun area earlier last week.

"They were screaming at the house that they were going to kidnap you and they were going to rape you," one Minneapolis resident told KSTP TV, "It was a very traumatizing experience."

Most of the Somalis who live in Minnesota are Sunni Muslim and residents say this is not the first time mobs have showed up to frighten the town, which is filled with million dollar homes. Let this be a great example for everyone to see that we cannot continue to allow these foreign cultures to spread into our culture.

Western values here in the United States are not the same as other parts of the world, especially the Middle East. In the United States, we reflect freedoms that are afforded to us that are guaranteed by the Constitution. That is not common in foreign places in the Middle East. So when millions of refugees come to the United States from their areas, they bring their violent culture here and refuse to adopt our way of life and doing things. Yes, there are peaceful Muslims, but there are also hundreds of thousands that partake in terrorism and violence.

The United States Department of State, working with the United Nations, has permanently resettled more than 132,000 Somali "refugees" into dozens of American cities since 1983, according to federal data collected by the State Department. Again, if we continue to allow millions of refugees to come into this country without properly vetting and screening them, we have no way of protecting American citizens.

If we aren't careful, we will allow a mass culture into this country that changes us forever. Over the course of time, the United States could turn into a country like Syria or Iraq where we have to be scared of bombs and gun attacks every time we leave our homes. We have to slow down our refugee process and only allow the best and brightest into this country. Immigration is a privilege, remember that.

Appendix D

Control Article

Mid Devon Gazette, 2016

Purple Carrot competition wows Tiverton vegetable growers

By Mid Devon Gazette | Posted July 27, 2016

0 COMMENTS SHARES

Purple Carrot

Comments (0)

PURPLE carrots were the talk of the town when the Constitutional Club hosted a special competition.

The Tiverton Con Club and the Heavitree Conservative Club in Exeter teamed up to stage a horticultural competition open to the members of each club.

The finals of the competition were held at the Tiverton Constitutional Club. The aim of the competition was to grow carrots.

The competition co-ordinator collected the entries from Cambridge, Blyth, Exeter and Tiverton.

The panel judges were Tiverton Constitutional Club member Peter Sendell, Richard Jones, Tiverton Club Chairman and George Williams, former Heavitree Conservative Club Trustee.

The winners were:

- Tony Phillips and Mel Ward for longest carrot
- Ray Gordon from Cambridge for Uniform Three
- Dave and Sarah Westwood for Smallest Carrots
- Tom from Heavitree for Factual or "Shaggy Carrot" Story
- Mel Middleton for Cooking with Purple Carrots

Tiverton and Honiton MP Neil Parish has also been sent some beetroot seed which has now arrived at the House of Commons.

I will plant the seed and see whether my beetroot are going to grow quickly as it is quite late for them to start," he said.

"If I do have any decent size beetroot by the end of the season I will show them at the Conservative Club."

Appendix E

Manipulation Check

Take a moment to consider how the previous article made you feel. Below are words that describe some common emotions. For each word, choose a number that reflects the degree to which you agree or disagree that you experienced the emotion in response to the article.

Fear
1- (Strongly Disagree)
2- (Disagree)
3- (Neither Agree nor Disagree)
4- (Agree)
5- (Strongly Agree)

Anger
1- (Strongly Disagree)
2- (Disagree)
3- (Neither Agree nor Disagree)
4- (Agree)
5- (Strongly Agree)

Sadness
1- (Strongly Disagree)
2- (Disagree)
3- (Neither Agree nor Disagree)
4- (Agree)
5- (Strongly Agree)

Joy
1- (Strongly Disagree)
2- (Disagree)
3- (Neither Agree nor Disagree)
4- (Agree)
5- (Strongly Agree)

No Reaction
1- (Strongly Disagree)
2- (Disagree)
3- (Neither Agree nor Disagree)
4- (Agree)
5- (Strongly Agree)

Appendix F

D-IRAP Algorithm

1. Only response latencies from test blocks are included in the analyses.

2. Latencies larger than 10,000 ms was deleted from the data.

3. If a participant has response latencies less than 300 ms in more than 10% of the trials, his or her data was discarded.

4. 12 Standard deviations was computed for the four trial-types: 4 standard deviations for the latencies from blocks 1 and 2, 4 for the latencies from blocks 3 and 4, and 4 from blocks 5 and 6.

5. 24 mean latencies was calculated, one for each trial-type within each of the 6 blocks.

6. A difference score between each test block pair was computed based on the 24 mean latencies previously calculated. Mean latencies of each trial-type's consistent trials was subtracted from the mean latencies of each trial-type's inconsistent trials.

7. 12 D-IRAP scores was calculated by dividing each difference score from step 6 by its corresponding standard deviation from step 4. There was one D-IRAP score calculated for each trial-type for each block-pair.

8. 4 overall D-IRAP scores was calculated for each trial-type. These scores was derived by calculating the mean of the 3 D-IRAP scores for each trial-type and block pair.

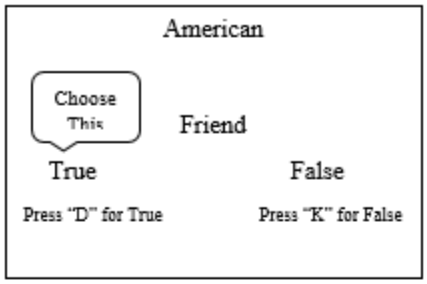
9. Two compound D-IRAP scores was calculated, one for each type of target stimuli, by finding the average the D-IRAP scores from step 8.

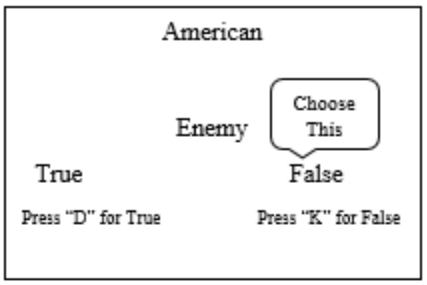
10. An overall D-IRAP score was calculated by averaging across the 4 trial-type D-IRAP scores from step 8.

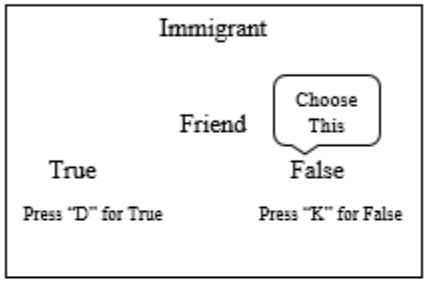
Appendix G

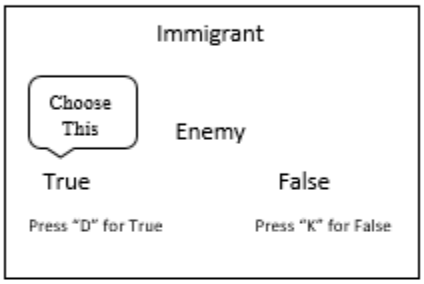
IRAP Trial Types

Consistent Blocks:

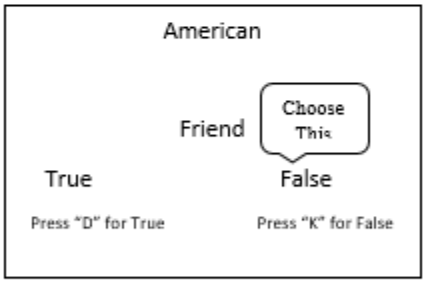


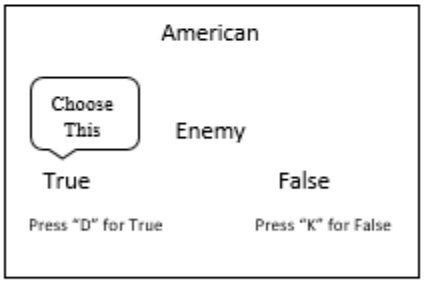


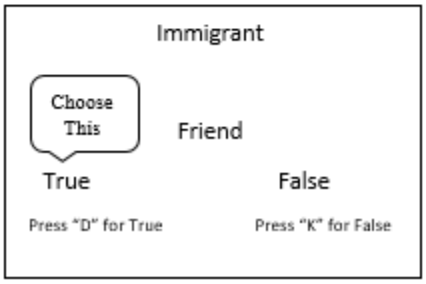


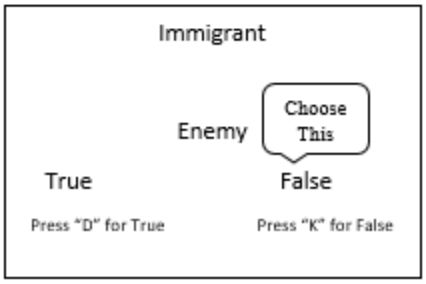


Inconsistent Blocks:









Appendix H

The RWA Scale

This survey is part of an investigation of general public opinion concerning a variety of social issues. You will probably find that you agree with some of the statements, and disagree with others, to varying extents. Please indicate your reaction to each statement according to the following scale:

-4 = You **very strongly disagree** with the statement.
-3 = You **strongly disagree** with the statement.
-2 = You **moderately disagree** with the statement.
-1 = You **slightly disagree** with the statement.
0 = You **feel exactly and precisely neutral** about the statement.
1 = You **slightly agree** with the statement.
2 = You **moderately agree** with the statement.
3 = You **strongly agree** with the statement.
4 = You **very strongly agree** with the statement.

Important: You may find that you sometimes have different reactions to different parts of a statement. For example, you might very strongly disagree ("-4") with one idea in a statement, but slightly agree ("+1") with another idea in the same item. When this happens, please combine your reactions, and [record] how you feel on balance (a "-3" in this case).

1. The established authorities generally turn out to be right about things, while the radicals and protestors are usually just "loud mouths" showing off their ignorance.

2. Women should have to promise to obey their husbands when they get married.

3. Our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways and sinfulness that are ruining us.

4. Gays and lesbians are just as healthy and moral as anybody else.

5. It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.

6. Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.

7. The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas.

8. There is absolutely nothing wrong with nudist camps.

9. Our country needs free thinkers who have the courage to defy traditional ways, even if this upsets many people.

10. Our country was destroyed someday if we do not smash the perversions eating away at our moral fiber and traditional beliefs.

11. Everyone should have their own lifestyle, religious beliefs, and sexual preferences, even if it makes them different from everyone else.

12. The "old-fashioned ways" and the "old-fashioned values" still show the best way to live.

13. You have to admire those who challenged the law and the majority's view by protesting for women's abortion rights, for animal rights, or to abolish school prayer.

14. What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path.

15. Some of the best people in our country are those who are challenging our government, criticizing religion, and ignoring the "normal way things are supposed to be done."

16. God's laws about abortion, pornography and marriage must be strictly followed before it is too late, and those who break them must be strongly punished.

17. There are many radical, immoral people in our country today, who are trying to ruin it for their own godless purposes, whom the authorities should put out of action.

18. A "woman's place" should be wherever she wants to be. The days when women are submissive to their husbands and social conventions belong strictly in the past.

19. Our country was great if we honor the ways of our forefathers, do what the authorities tell us to do, and get rid of the "rotten apples" who are ruining everything.

20. There is no "one right way" to live life; everybody has to create their own way.

21. Homosexuals and feminists should be praised for being brave enough to defy "traditional family values."

22. This country would work a lot better if certain groups of troublemakers would just shut up and accept their group's traditional place in society.

Appendix I

The 14-Item Social Dominance Orientation Scale

Which of the following objects or statements do you have a positive or negative feeling towards? Beside each object or statement, choose a number from 1 to 7 that represents the degree of your positive or negative feeling.

1 = **Very Negative**
2 = **Negative**
3 = **Slightly Negative**
4 = **Neither Positive or Negative**
5 = **Slightly Positive**
6 = **Positive**
7 = **Very Positive**

1. Some groups of people are simply not the equals of others.

2. Some people are just more worthy than others.

3. This country would be better off if we cared less about how equal all people were.

4. Some people are just more deserving than others.

5. It is not a problem if some people have more of a chance in life than others.

6. Some people are just inferior to others.

7. To get ahead in life, it is sometimes necessary to step on others.

8. Increased economic equality.

9. Increased social equality.

10. Equality.

11. If people were treated more equally we would have fewer problems in this country.

12. In an ideal world, all nations would be equal.

13. All humans should be treated equally.

14. It is important that we treat other countries as equals.

Appendix J

Debriefing Form

You have just completed a study involving the Implicit Relational Assessment Procedure (IRAP). The study investigators are interested in examining the psychometric properties of the IRAP (such as reliability and validity) so that it may one day be used as a measure for applied purposes, such as education and behavior modification. In order to establish the usefulness of this measure, we need to administer the IRAP along with other measures so that we can understand how people react to the measure.

We appreciate your willingness to contribute to our efforts to understand the IRAP. If you have any additional questions about this study, please contact Chasity Ratliff at chasity.ratliff@siu.edu.

This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Sponsored Projects Administration, SIUC, Carbondale, IL 62901-4709.

VITA

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Southeast Missouri State University
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Special Honors and Awards:

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SEPCS Pipeline Scholar, Society of Experimental Psychology and Cognitive Science, 2015
Bowers Endowed Scholarship in Psychology, 2008
Hoover Endowed Scholarship in Psychology, 2007
Best Empirical Paper, Student Research Conference, 2007
Provost Award, College of Liberal Arts, 2007

Thesis Title:

The effects of societal threat on authoritarianism and social dominance orientation

Major Professor: Eric Jacobs

Publications:

Beran, M. J., Evans, T. A., & Ratliff, C. L. (2009). Perception of food amounts by chimpanzees (*Pan troglodytes*): The role of magnitude, contiguity, and wholeness. *Journal of Experimental Psychology: Animal Behavior Processes, 35,* 516-524.

Beran, M. J., Ratliff, C. L., & Evans, T. A. (2009). Natural choice in chimpanzees (*Pan troglodytes*): Perceptual and temporal effects on selective value. *Learning and Motivation, 40,* 186-196.

Burns, R. A., Racey, D. E., Ratliff, C. L. (2007). The roles of outcome and position associations in animal serial learning. *Learning and Motivation,* 39, 1-12.

Presentations:

Moral outrage mediates the effects of aggression and crime threat on punitiveness towards juvenile offenders
Oral Presentation: 2018 American Psychology-Law Society Conference, March 2018.

Perceptual and temporal effects on natural choice in chimpanzees (*Pan troglodytes*) Oral presentation: 101st Annual Meeting of the Southern Society for Philosophy and Psychology, April, 2009

Exploring Position Learning
Oral presentation: Kent Library Athenaeum Series, Southeast Missouri State University, March 4, 2009.

Position Learning
Poster presentation: 80th Annual Meeting of the Midwestern Psychological Association, May 1, 2008.

Position Learning and Series Chunking
Oral presentation: Southeast Missouri State University, Student Research Conference, April 17, 2008.

Chunking and Phrasing Based on Information Derived from Serial Position
Oral presentation: One Hundredth Annual Meeting Southern Society of Philosophy and Psychology, March 22, 2008.

Position Learning in Rats
Poster presentation: 79th Annual Meeting of the Midwestern Psychological Association, May 3, 2007.

Position Learning Without Reliable Reward Memories
Oral presentation: Southeast Missouri State University, Student Research Conference, April 19, 2007. Winner, Best Empirical Paper.

Position Learning in the Absence of Reliable Reward Memories
Poster Presentation: 15th Annual National McNair Research and Graduate School Fair, November 4, 2006.