Religious Priming and Moral Reasoning as a Manipulation for Supporting Violence

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RELIGIOUS PRIMING AND MORAL REASONING AS A MANIPULATION FOR SUPPORTING VIOLENCE

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Dedication

This research is dedicated to the brave men and women who have struggled in the military and in the private sector to achieve peace in our lifetime. The cause is difficult, and the purpose is worth it.
RELIGIOUS PRIMING AND MORAL REASONING AS A MANIPULATION FOR SUPPORTING VIOLENCE

by

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DISSERTATION

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Abstract

The present research tests the effects of religious priming and cued moral reasoning on support for violence against others. Further, the present research examined the effects of two individual difference measures, Social Vigilantism and the degree to which people accept religion as a social force research demonstrates that religious priming elicits greater compliance by acting as a cognitive distraction. The data show that lower levels of moral reasoning and religious priming lead to higher activism, radicalism, and extremism scores as well as higher agreement with a recorded message. Implications and future directions are discussed.
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Introduction

Religious Priming and Moral Reasoning as a Manipulation for Supporting Violence

It is common to hear of western European and American citizens leaving their home countries and traveling to the Middle East to join terrorist organizations like the Islamic State (ISIS) or al-Qaeda. Schmid and Tinnes (2015) estimate the number of people not from Iraq or Syria that are currently fighting for the Islamic State at thirty thousand. Further, there have been several “ISIS inspired” attacks on satirical newspapers in France and military recruiting stations in the United States as well as other high profile attacks on commuter trains and airports in Europe. The perpetrators of these crimes were citizens, or legal residents, of the countries in which they committed the terrorist acts. To recruit people for these actions ISIS, and other such organizations, make use of social media to communicate their message. Further, they rely on an “us vs. them” narrative that is designed to persuade the receivers of the message that their group (Muslims) is under attack. This method is used by several other organizations and is not a tactic used solely by Islamic extremist groups. To this end the present research uses a religious prime and cuing of moral reasoning to examine people’s willingness and support for violent actions against others. In addition, the present research developed a novel measure of extremism intentions.

The proposed research examined the effects of religious priming, cued moral reasoning, and social vigilantism on people’s support for and willingness to support and/or commit violent actions. The present research tested the hypothesis that people primed with religion will be more likely to comply with a persuasive message to support violence against an outgroup. Furthermore, individuals who receive a moral reasoning cue that encourages adherence to a
group (low moral reasoning) compared to reliance on higher moral values, will show more support for violence towards an outgroup. In addition, we predict an interaction between priming and moral reasoning cues in which the effects of the religious prime will be greater in the low moral cue condition, compared to the high moral cue condition.

**Conveyor Belt Metaphor**

It is important to identify the process by which people become radicalized and thereafter become willing to engage in violent conflict with outgroups. When the process is identified it will then be possible to intervene in the process and inhibit the expansion of extremist/terrorist organizations. Presently, the most common idea of how people become radicalized is called the conveyor belt (see Razzaque, 2008 for overview).

The conveyor belt metaphor is used to describe the process by which “ordinary” people become radicalized and willing to engage in violent actions against a perceived enemy. The U.S. Department of State has used the conveyor belt metaphor to explain how extremist organizations are able to recruit people to perpetrate acts of aggression (U.S. Department of State, 2006). The conveyor belt metaphor is a useful tool in explaining a process of radicalization in that every radical is an activist, but not every activist is a radical. Activism is defined as activities and behaviors that are legal but are designed to draw attention to an issue, or to demonstrate dissatisfaction with a current state of affairs. Some behaviors that are typical of activism are attending protests, distributing pamphlets and petitions, and speaking publicly against a government’s actions. Radicalism involves vandalism, destruction of property, and other illegal acts that go beyond what would normally be considered activism. Extremism is characterized by
violence and the willingness to do harm to others in an effort to advance one’s own cause or agenda (see Moskalenko & McCauley, 2009).

Moving from stage to stage involves accepting a greater risk. Whereas, an activist may get arrested a radical would likely suffer more severe legal consequences. An extremist is likely to come to the attention of law enforcement and the military. The consequences of engaging in extremist activity could be grave. The present research tests factors that contribute to people’s willingness to support and engage in violent actions against a perceived enemy. These definitions apply mostly to states and governments that do not have prohibitions on free speech and free expression (USA, UK). Behaving as an activist in some states can result in severe punishments (KSA, Islamic Republic of Iran). In essence, there must be some stimulus or influence that causes people to be more willing to accept the increased risk that is characteristic of radicalism and extremism.

To move people along the conveyor belt from activism to radicalism, and perhaps extremism, people must be persuaded of the “rightness” of doing so insofar that the move from activism to radicalism is necessary to achieve group goals. Persuasive arguments are intended to influence the thoughts, beliefs, and attitudes of other people. Power is the ability to get people to do things that they otherwise would not do (Combs & Nimmo, 1984).

The process of persuasion often includes a “tuning” of a persuasive message to an audience (Daly & Gerwehr, 2006). Tuning an argument refers to the act of altering the delivery of a message while not changing the content of a message. This is important in understanding how people are persuaded to support and commit violent actions against others. A recruiter for an organization that uses violence will have to persuade people to act in a violent manner, or at least support the use of violence. As many groups use an “us vs. them” argument to encourage
derogation and to encourage violence against an outgroup, the present research will use a message that is tuned to communicate a similar argument.

Generally, people are reluctant to engage in aggressive or hostile acts towards others, but will do so when ordered to by a perceived authority figure. The famous Milgram studies demonstrated that people would be willing to expose people to electric shocks, even to the point of perceived fatality, if directed by an authority figure (Milgram, 1963). Further, when people were reluctant to deliver those shocks the researcher gave encouragement and stern direction to continue applying electric shocks.

Recent research has examined individual differences that cause people to be more tractable to social influence. In a replication of the Milgram experiments it was found that participants that were measured higher in conscientiousness and agreeableness were more likely to deliver more extreme electric shocks to a helpless person (Begue, et al., 2014). This shows that people who are more inclined to fit in and adhere to a social order are more easily swayed to perform acts of violence when doing so is viewed as necessary to adhere to the group. This compliance with authority, and the apparent desire to please authority figures, is supported by research that demonstrates that social exclusion decreases people’s propensity for prosocial behaviors. When people were primed to expect social exclusion they became less generous in donations in an iterated prisoner’s dilemma game (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). The fear of social exclusion can lead to compliance with authority, even if that compliance requires actions that the individual would not otherwise do.

As agreeableness and conscientiousness have been shown to lead to greater compliance (Begue, et al., 2014) it is then necessary to determine individual differences that would serve as a protective quality against persuasive messages. The present research includes an individual
difference measure that should predict resistance to persuasive arguments. Research has shown that social vigilantism predicts resistance to persuasion (Saucier & Webster, 2010). Social vigilantism is defined as an individual difference that measures people’s predisposition to impress their own ideas onto others. Saucier and Webster (2010) found that social vigilantism predicted aggressive counter-arguing when people were presented with a disagreement. Also, people that were scored higher on social vigilantism exhibited less attitude change after a persuasive appeal. Therefore, people who score higher on social vigilantism should be willing to engage in activism but not violence.

**Persuasion**

People often rely on the opinions and stances of political elites for information from which they form their own opinions (Zaller, 1990). This reliance on elites and opinion makers leaves open the opportunity for people’s opinions to be swayed by leaders. A leader can “tune” a message to influence people to adopt attitudes or opinions that serve a leader’s agenda (Daly & Gerwehr, 2006; Echterhoff, Higgins, & Groll, 2005). Further, the manner in which a message is conveyed can grant greater credence to the leader’s message (Bullock, 2011). When a message is tuned to an audience using a fear appeal there is a reduction in the systematic processing of the message content (Jepson & Chaiken, 1990; for review see Wood, 2000). For example, attempting to convince people about a policy to combat climate change would be more effective when appealing to the fearsome implications of extreme climate change if recommendations are made to alleviate the fearful situation (see Ruiter, Abraham, & Kok, 2001). A detailed discussion of the evidence associated with the climate change debate does not elicit the same emotional responses. The reduction in systematic processing of a message, brought on by fear appeals,
leaves people less likely to generate counter-arguments. In essence, when people do not systematically process information it is less likely that they will change their biases. On the other hand, when people do systematically process information there is the opportunity to change a person’s biases.

Previous research demonstrated that a charismatic leader is far more effective in gaining compliance than a non-charismatic leader in a decision-making paradigm (Smith & Zárate, 2015). It was shown that participants complied with a charismatic leader in allocating funds to hydro-fracture mining, though there was general preference for a “green energy” alternative. The participants were permitted to give their opinions on resource allocation between a hydro-fracture mining program and a green energy program in private. There was a strong preference to adhere to the direction of a confederate acting as a charismatic leader who argued in favor of hydro-fracture mining. This signifies attitude change in accordance with the direction put forth by a charismatic leader. Further, participants who were first primed with religion were more compliant with both charismatic and non-charismatic leaders. This demonstrates the impact religious priming has in increasing compliance with leaders.

**Religious Priming and Compliance**

Religious priming has been shown to lead to positive and negative social behaviors. When primed with religion people have demonstrated greater honesty (Randolph-Seng & Nielson, 2007; Randolph-Seng & Smith, in review) and more charitable behavior (Shariff & Norenzayan, 2007). In other research religious priming has been shown to lead to negative social behaviors such as support for suicide bombings (Ginges, Hansen, & Norenzayan, 2009), aggression (Bushman, Ridge, Das, Key, & Busath, 2007), and increased prejudice (Johnson,
Rowatt, & LaBouff, 2010). The effects of religious priming are not confined to domains where religion is relevant. Religious priming affects domains that are distinct from the religious domain. This phenomenon is consistent across research involving priming (for review see Bargh & Chartrand, 2000). For example, Smith and Zárate (2015) demonstrated that the effects of religious priming were seen in a task conceptually separate (energy policy) from religion. Further, Shenberger, et al. (2014) demonstrated the same phenomenon in that religious priming increased risk-taking behavior when a peer was encouraging risky behavior. Therefore, the priming of religion influences other psychological processes, not simply the semantic processes related to the concept of religion.

One bifurcating factor in the aforementioned research is the presence of some type of social influence, be it peers or authority figures. It is clear that religious priming results in greater compliance be it to positive or negative behaviors. In each of these studies the factor that seems to determine the behaviors is peer influence or leadership. Therefore, we propose that religious priming serves to lead to neither positive nor negative social behaviors on its own. Some other influence must be present, like social influence or leadership, causing people to engage in positive or negative behaviors. For this reason it is predicted that religious priming will lead to compliance with social influence in any direction, positive or negative, depending on what the leader or peer encourages.

Shenberger, Smith, and Zárate (2014) demonstrated that religious priming led people to more risky behaviors when exposed to the influence of a confederate. Participants were randomly assigned to a religious or non-religious prime condition, and a confederate encouragement or non-encouragement condition. The religious prime condition involved exposing participants to religious icons and having them write about the importance of those
icons. The encouragement condition had the confederate encouraging more risky behavior, while the non-encouragement condition had the confederate expressing no opinion and leaving all decisions in the hands of the participants. The participants then engaged in a Balloon Analogue Risk Task (BART; Lejuez, et al., 2002). The participants exhibited more risky behavior when first primed with religion and then exposed to a confederate who encouraged risky behavior. One unpredicted effect was that participants who were primed with religion but were exposed to a confederate, who did not encourage risky behavior, became more conservative in their behaviors while completing the Balloon Analogue Risk Task ($t (93) = 8.69, p < .0001$; see Shenberger at al, 2014 p. 155). This provides support for the notion that religious priming serves to increase compliance for engaging in risk-taking behavior, when exposed to social influence that encourages the risky behavior.

Smith and Zárate (2015) exposed participants to a charismatic or a non-charismatic leader, and exposed participants to a religious or non-religious prime. Participants in the charismatic leader condition demonstrated greater compliance with the leader’s agenda than in the non-charismatic condition. Further, participants who were primed with religion were more compliant with a leader regardless of the leader’s charismatic presentation.

Both studies demonstrate the role of religious priming led to increased compliance with social influence and leadership. Though the corpus of knowledge has been able to demonstrate that religious priming leads to greater compliance there is no research that explains how religious priming accomplishes this. One hypothesis states that religious priming serves as a cognitive distractor detraacting from the available resources needed to evaluate a persuasive argument. Increasing a cognitive load should produce greater compliance with a persuasive message (Petty,
Wells, & Brock, 1976). The present research tests the general hypothesis that religious priming serves as a form of cognitive distraction.

There are two key theories that explain how people can be persuaded into an action or how persuasion can elicit attitude change. These two key theories are the elaboration likelihood model (ELM; Cacioppo, Petty, Kao, & Rodriguez, 1986; Petty & Cacioppo, 1981) and the heuristic-systematic model (HSM; Chaiken, 1980; Chaiken, Liberman, & Eagly, 1989).

**Elaboration Likelihood Model**

The ELM (Cacioppo, Petty, Kao, & Rodriguez, 1986; Petty & Cacioppo, 1981) describes how attitudes develop and change in response to social stimuli. This model proposes two routes of persuasion, central and peripheral. The central route of persuasion involves thoughtful consideration of the information received. The peripheral route of persuasion relies on ancillary factors such as the attractiveness the messenger, or if the messenger seems to be an expert. In the central route of persuasion people will be influenced by their own motivations to think about and weigh the evidence and issues presented. In the peripheral route of persuasion, people have little or no interest in the topic of discussion or are unable to process the information. Therefore their attitudes or responses are formed by peripheral cues.

The ELM has been used to describe how people process advertising (Cho, 1999) and attitude change (Jones, Sinclair, & Courneya, 2006). In both cases ELM was used to describe how people process a persuasive message in either advertising or in response to messages about exercise. Research has shown that people, when confronted with a cognitive distraction, are less likely to resist a persuasive message. Petty, Wells, and Brock (1976) exposed participants to a high quality message or a low quality message calling for an increase in tuition. As a distraction,
participants were directed to keep track of a separate screen in which an X would randomly appear in one of four quadrants. In a high distraction condition the X position would change every three seconds while in the low distraction condition the X position would change every 15 seconds. The participants would have to keep track of this X and record its location on a separate sheet of paper while listening to the high or low quality message. Participants reported greater agreement with the high quality message compared to the low quality message. It was also found that participants agreed more with either message when they were in the high distraction condition. Further, the accuracy of the material that the participants remembered from the persuasive message was lower in the high distraction condition. Lastly, participants in the high distraction/high quality argument condition produced fewer counter-arguments than did participants in the low distraction/low quality argument condition.

When people have had their cognitive resources depleted by having to attend to other stimuli they are less able to engage with issue-relevant information. This leaves people having to engage the information through peripheral cues, which then alters the manner in which they process a persuasive message. When tracking the location of an X on a screen while attempting to attend to a message, people will be less able to pay attention to the issue-relevant information provided in the message.

Presently, it is unclear how people process messages about violent actions against others. However, previous research has applied ELM to describing the processing of workplace violence though there were no empirical tests of their proposed model (Douglas, et al., 2008). The model proposed by Douglas, et al. (2008) showed that lower elaborative effort results in violence. When people were exposed to trigger events that forced the individual to expend cognitive
resources on free recall, such as low performance evaluations or conflict with a fellow employee, they were more likely to engage in violent behavior in the workplace.

Though violence is often considered wrong people are able to justify violent actions in service of a perceived greater cause such as the use of atomic bombs on Japan to end the Pacific campaign of World War II. In that case the use of violence was considered proper and ethical. The perpetrators of the September 11 attack on the World Trade Center in New York City believed that they were serving a higher cause and were making ethical decisions. The sequence of ethical decision-making was proposed to consist of four sequential steps. First, the decision-maker must recognize the moral issue in question. Second, the decision-maker must determine a moral judgment. Third, the decision-maker must intend to act in a manner that would see the decision come to fruition. Fourth, the decision-maker then engages in the moral behavior (Street, Douglas, Geiger, & Martinko, 2001). Thus, a persuasive message should include material that will present a moral or ethical issue and a solution to the dilemma. Then, the persuasive message would need to elicit support from the listener, through shaping or tuning the message to the listener.

Heuristic-Systematic Model

The HSM (Chaiken, 1980) provides a model of persuasion and decision-making in which a person acts either through a systematic or a heuristic pathway. The systematic path, closely related to the central path in ELM (Petty & Cacioppo, 1981), involves an analytic processing of information in which the reliability of the source of the information and the logic of the message are evaluated. The heuristic path relies on biases, stereotypes or other such judgment rules stored in memory. Unlike ELM, the heuristic and systematic paths can work simultaneously in a way
that the judgment rules stored in memory serve to bind a person’s systematic and rational evaluations and decision-making.

Chen, Shechter, and Chaiken (1996) conducted two studies to examine how people accomplish different goals in a social interaction using both heuristic and systematic processes. In study one the researchers randomly assigned participants to a condition in which they were to discuss reduced media coverage of airline hijackings with a discussion partner that was either for or against reducing the media coverage. They were also randomly assigned to read a strong or weak message for reducing media coverage. The participants had been previously assessed as either high or low self-monitors and they were assessed about their initial attitudes and opinions about the discussion topic. Before the experimental task the participants were told to expect a pleasant discussion, and they were given information about their discussion partner indicating whether their discussion partner was for or against the reduced media coverage.

Chen, et al. (1996) found that participants in the strong message condition agreed more with the proposal compared to those in the weak message condition. They also reported, that those in the favorable partner condition agreed more with the proposed reduced media coverage than those in the unfavorable partner condition. Further, it was found that high self-monitors, those who would most likely rely on a “go along to get along” heuristic would switch their reported opinion on the topic to match that of a discussion partner who expressed an unfavorable opinion of the reduced media coverage.

In the second study Chen et al. (1996) used a priming task for either accuracy prime or a motivation prime. All participants were given an essay that describe three arguments in favor and three arguments against reducing media coverage of hijacking incidents. The accuracy prime condition emphasized critical and objective thinking while the motivation prime condition
emphasized tailoring responses to the social context. Partner attitude, favorable or unfavorable to the proposed reduction media coverage, was manipulated the same way as study one.

It was found that there was no significant effect of priming. There was a significant effect of partner attitude. Those who were paired with a partner that expressed favorable opinions showed greater agreement with the proposal than did those participants paired with a partner who expressed an unfavorable opinion. The interaction between prime and partner attitude was significant showing that people primed with motivation expressed greater agreement when paired with a partner expressing a favorable opinion compared to an unfavorable opinion. Impression motivated people, those relying on heuristics, expressed greater agreement with the proposed reduction in media coverage even when they had previously expressed a contrary opinion. In essence, when people are primed to get along with their partner they are more likely to agree with the partner’s opinion. This effect was attenuated when the participants were primed for accuracy.

**Fear Then Relief Procedure**

The fear then relief procedure has been shown to elicit positive responses to requests. People who are first exposed to a source of anxiety or fear followed by an abrupt removal of the external source become more compliant (Nawrat & Dolinski, 2007). The fear then relief procedure employs the application of fear or anxiety causing stimuli that are then abruptly removed and then, requests for compliance follow the removal of the stimuli. Dolinski and Nawrat (1998) conducted a series of experiments in which participants were exposed to an anxiety causing stimuli, which was either removed or not removed, and was then followed by the dependent variable.
The experiment consisted of a single variable with three levels. Group one was exposed to anxiety causing stimuli, group two was exposed to the same stimuli but the stimuli was removed, and group three was not exposed to any anxiety causing stimuli. The participants were told that they were going to engage in a test of visual-motor coordination. The task was to throw darts at a target that was set at various distances. The participants in group one and two were told that they would receive a mild though not extremely painful shock when they make an error. The participants in group three did not receive any such instructions. The participants were then told that they would be called into the laboratory shortly.

While waiting for the researchers to call them into the laboratory, participants in group two were approached and told that the head researcher had determined that the shock was no longer necessary and that the participant would be rated only on the visual-motor coordination task. This was to remove the anxiety causing stimuli. Participants then completed an anxiety scale. While participants continued to wait to be called into the laboratory they were approached by a confederate who asked for their help in organizing a charity function. If the participant agreed they were asked to commit to one to six successive Sundays helping with the project. It was found that those in group two (anxiety then removal) complied more with the request for assistance than did those in group one or group three. The introduction and subsequent removal of the anxiety causing stimuli resulted in greater compliance. These results are similar to other research that has found that fear can lead to greater persuasion (Dillard & Anderson, 2004) particularly when fear is reduced (Shen & Coles, 2015). Fear or threat, real or otherwise, can be used as a tool for social and political change (Barbalet, 1995). For example, fear of terrorist infiltration has driven much of the resistance to accepting Syrian refugees from the current conflict in Syria and the surrounding area.
Though the present research did not directly manipulate the application of a stressor, followed by the removal of the stressor, we hypothesize that adopting extreme views or attitudes serves as a palliative to anxiety causing or fear inducing stimuli (Sleegers, Proulx, & van Beest, 2015). Extremist views are palliative in that they alleviate anxiety or fear in the face of threat that cannot be controlled. For example, people who are concerned about undocumented immigrants from Mexico are more likely to support the building of a wall on the USA-Mexico border, an extreme solution to a problem that supporters feel that they cannot control. Of course more reasonable solutions can be found but the current social-political milieu is an environment in which neither side in a dispute trusts the other to carry out a reasonable solution (Kydd & Walter, 2002). Collectively, distrust and fear are the foundation of intergroup conflict and are difficult to solve with by diplomatic or peaceful means (Figueiredo & Weingast, 1997). The present research investigated the relationship between the importance of a threat and a person’s response to that threat measured by endorsing radical and extreme positions.

**Moral Reasoning**

Kohlberg and Hersh (1977) identified three levels of moral development. These three levels are pre-conventional, conventional, and post-conventional moral reasoning. The pre-conventional level of moral reasoning is characterized by cultural rules with defined labels of right and wrong. At this level of moral reasoning the individual interprets right and wrong by the authority of those that have defined right and wrong, or by the punishments or rewards that result from violating or adhering to those labels and associated behaviors. The conventional level of moral reasoning is characterized by conformity in that the person strives to adhere to the expectations of family or one’s social group. This includes supporting and identifying with the
social group. The post-conventional level of moral reasoning is characterized by the development of universal principles that are valid apart from the dictates of society or authority.

These three levels are each characterized by two stages that describe maturing considerations of the precepts associated with the level of moral reasoning. The pre-conventional level of moral reasoning consists of two stages. The first stage is the punishment and obedience orientation. At this stage the punishment or reward of behaviors is used to judge the appropriateness of a behavior. Behaviors are chosen based on the desire to avoid punishment or to receive an award for adherence and obedience. The second stage of the pre-conventional level of moral reasoning is called the instrumental-relativist orientation. At this stage moral reasoning takes on an element of utilitarianism. Proper behavior is that which satisfies one’s own needs while maintaining relationships within the group.

The conventional level of moral reasoning is also divided into two stages. The first stage of the conventional level of moral reasoning is called interpersonal concordance. At this stage proper behavior is determined by pleasing other group members resulting in a greater level of conformity than in the pre-conventional levels of moral reasoning. The second stage of the conventional level of moral reasoning is the law and order orientation. In this stage individuals become oriented towards authority and the overall maintenance of social order. Appropriate behavior, at this stage, is characterized by respecting authority and acting to support the social order as an end of itself.

The post-conventional level of moral reasoning is also composed of two stages. The first stage of the post-conventional level of moral reasoning is referred to as the social-contract orientation. At this stage appropriate behavior is determined by the support of standards that have been agreed upon by the social group. The second stage of the post-conventional level of
moral reasoning is referred to as the universal ethical-principle orientation. At this stage proper behavior is determined by recognizing and supporting ethical principles that are universally applied (i.e. the Golden Rule).

Kohlberg’s levels of moral reasoning are presented as a developmental process, that others argue that the stages are not necessarily linear. Kohlberg’s theories are often considered to be categorical stages of development, other researchers have appended a nonlinear approach to the various stages proposed by Kohlberg (Josselson, 1987; Liberman, Gaa, & Frankiewicz, 1983). In fact people that function at the post-conventional level of moral reasoning can, and do function at the pre-conventional level of moral reasoning. When under stress, the same brain regions that are recruited for emotional processing are activated. Youssef, et al. (2012) found that people under stress are more likely to express utilitarian responses to moral dilemmas than would people who are not under stress. Further, Brugman and Aleva (2004) showed that moral reasoning was lower in juvenile delinquents before detention, and was similar to their non-delinquent counterparts after or during detention. This shows that moral reasoning is not a static trait but a response to one’s environment and other social factors, some of which could have contributed to the delinquent behavior. In other words, a person can operate at what some would consider a high level of moral reasoning in some situations, but not in others. This is supported by research that demonstrates that moral reasoning is influenced by the context in which moral questions or moral dilemmas arise. Bredemeier and Shields (1984) showed that athletes exhibited lower levels of moral reasoning for sports related dilemmas compared to non-sports related dilemmas.

Haidt (2001) proposed a social intuitionist approach to moral judgment. In this approach moral judgment is described as an interpersonal process by which people will experience an
emotion as a response to some stimuli and will, *ex post facto*, apply their reasoning to explain their heuristic or biased response. This is a clear example of a person’s biases serving as a bound to one’s rational decision-making. As emotional appeals are a foundation component for modern political persuasion campaigns (Nelson & Oxley, 1999) the purpose of the political messages are to take advantage of a person’s biases to advance a political agenda. That agenda could include the necessity of violence against an outgroup. This supports the notion that moral reasoning is contextual and that when confronted with a moral crisis in which a person’s biases are called into question there will be some resistance to the message. This is important in our understanding of how people are persuaded to engage in activities that they otherwise would not do. When considering ELM and HSM it is reasonable to assume that when people are motivated to systematically process information they may operate at a level of moral reasoning beyond what is expected, according to Kohlberg. Contrary, when people are motivated to adhere to their biases they are more likely to adhere to a lower level of moral reasoning. In essence, Haidt (2001) is not offering a contrary theory but adds nuance to Kohlberg (1977).

*Moral Reasoning and Support for Violence*

From a broad perspective, terrorist activity, or any asymmetric conflict, could be seen as irrational. Confronting a technologically, economically, and numerically superior force would seem to have an obvious outcome. While the act of suicide bombing seems irrational to most, the people that engage in that activity are awarded many benefits. Their families are often provided money and other resources, and the person is remembered as a hero (Caplan, 2006). If a person believes that their group is living under threat from a superior force then the economics of terrorism, one life for many, can be seen as a rational choice. This kind of dedication is actually
quite rare, considering the size of the population, and many people will not engage in suicide attacks or other such attacks. For the most part, in a society that has produced terrorists, the majority of the population generally expresses apathy or at best tacit support (Tullock, 1974). The impact of the few that are willing to engage in terrorism is disproportionate to the lives lost, the economic damage, and the resulting political and social chaos. Therefore, it is important to understand the bounded rational thinking of an extremist and the factors that contribute to radicalization and support for the same.

Research has found that people are more willing to support torture as an act of retribution to some crime or attack (Carlsmith & Sood, 2009). Other research demonstrates that support for violent, radical political action was most associated with pre-conventional moral reasoning. Participants completed the Kohlberg Moral Dilemmas test and measures of political ideology. Participants who reasoned at the pre-conventional level favored violent radicalism while those who reasoned at the post-conventional level did not subscribe to conservative ideology, nor did they endorse radical ideas (Fishkin, Keniston, & McKinnon, 1973). This shows that people who are operating in a pre-conventional level of moral reasoning will be more likely to support violent actions against others.

Though most people feel that there is something morally wrong with killing other people there must be some function by which the inhibition is overcome. This inhibition of killing other people is developed during the normal process of socialization in which the moral standards of one’s community are adopted and internalized. To overcome this inhibition people must be able to disengage from the moral confines of their previous socialization (Bandura, 1990; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Kelman, (1973) posits that converting a normal person into a person that is willing to kill does not require a restructuring of the person’s mind
but a realignment of moral judgment in which the act of killing becomes a moral act. Another means by which otherwise immoral behavior can be made moral in the mind of a person who is going to kill is by diffusion of responsibility. This diffusion can come from many sources however two seem most prominent. An authority figure can take responsibility for the actions (Milgram, 1974) or the immoral action can be carried out by a group (Bandura, Underwood, & Fromson, 1975). This moral disengagement and/or diffusion of responsibility provide license for an individual to behave in a manner that they would otherwise deem immoral.

Moral licensing is a process in which a person is liberated to engage in negative behaviors because of past positive behaviors (Merritt, Effron, & Monin, 2010). Research has shown that moral certainty predicts support for violent conflicts (Shaw, Quezada, & Zarate, 2011). This certainty that violent conflict is a moral act allows individuals to disengage from previous socialization that would inhibit killing and violence. Beyond certainty, in a situation of intergroup conflict, being able to dehumanize the outgroup makes it easier to engage in violence against them. If the conflict is zero-sum, in which the success of one group will be a loss for another group, then the outgroup will be seen as possessing less agency and other such positive traits. Conversely, when a conflict is not seen as zero-sum outgroups are considered to be higher in agency (Dufner, Leising, & Gebauer, 2016). Conflict is more probable when the conflict is viewed as intractable.

Moral reasoning can be swayed by difficult situations, such as food shortages or armed conflict, in way that people will perceive actions like theft or killing as moral. This points to moral reasoning being a fluid process that is affected by situation rather than moral reasoning being stable (Bartels, 2008; Clopton & Sorell, 1993). A person’s level of moral reasoning is often measured using the Defining Issues Test (DIT; Schaeftl, Rest, & Thoma, 1985). DIT
presents a series of moral dilemmas in story form and respondents rate various aspects of situation in the story. The stories used in the DIT are meant to portray situations of moral ambiguity (i.e. stealing food to feed a child). Participants’ level of moral reasoning and/or judgment should influence the process by which someone becomes radicalized, or becomes willing to support violence.

**Social Vigilantism**

Some people are normally more resistant to persuasion than others. Social vigilantism is an individual difference measure that measures a person’s idea of their belief superiority and their willingness to impress their beliefs on others (Saucier & Webster, 2010). Social vigilantism has also been shown to predict resistance to persuasion (Saucier, Webster, Hoffman, & Strain, 2013). A sense of superiority of one’s own beliefs leads to resistance to persuasive messages, even to a cost to one’s own well-being (Kausel, Culbertson, Leiva, Slaughter, & Jackson, 2015). This sense of belief superiority should then predict resistance to persuasive messages calling for violence.
Present Research

The present research examined the effects of religious priming and moral reasoning cues on support for violence against an outgroup, and on support for activism, radicalism, and extremism. Further, we are testing a hypothesis that explains why religious priming results in greater compliance with social influence. It is hypothesized that religious priming acts as a cognitive distraction that diminishes cognitive resources used to resist a persuasive message. Lastly, we test a hypothesis that social vigilantism (Saucier & Webster, 2010) will serve as a prophylactic factor against persuasive messages.

The ultimate purpose of this research is to examine factors that serve to diminish the effects of religious priming on people’s attitudes towards violence against outgroups. The previously cited research shows that religious priming can lead to greater risk-taking and attitude change in a manner that coincides with a leader’s agenda. The present research serves to both replicate the previous research and to demonstrate factors that can serve to reduce support for violence against outgroups.

Religious ELM study

Study One

Research has demonstrated that religious priming can lead to greater compliance with social influence, including authority figures (Bushman, et al., 2007; Johnson, et al., 2012; Randolph-Seng & Nielson, 2007; Shariff & Norenzayan, 2007; Shenberger, et al., 2014; Smith & Zarate, 2015). Although the evidence is strong that religious priming leads to greater compliance the question remains as to how religious priming accomplishes this. In essence, we hypothesize that religious priming lowers a person’s resistance to a persuasive message.
To determine if religious priming serves as a cognitive distraction we replicated Petty, et al. (1976) and included a religious prime condition. The message quality conditions and the distraction conditions were presented the same way as Petty, et al. (1976). The religious prime condition was given by asking participants to write one to two paragraphs about the importance of religion in the formation of social values.

Participants

Two hundred and twenty-five participants were recruited from a Southwestern university. All participants were awarded partial course credit for participating. The sample was 60% female (with 5 participants failing to report sex). Reported ethnicity was 82% Latino/Hispanic, 11% Caucasian, 6% African-American, and 1% other. Median age of the participants was 20 years ($M = 21.96$, range 18 - 53 years). Reported religious affiliations were 87% Catholic or other Christian denomination, with the remainder reporting “other” or agnostic/atheist.

Procedure

Participants were first informed about the general nature of their participation. Then they were given an informed consent form to read and sign. Then participants were randomly assigned to an experimental condition. The participants then completed three dependent measures, which were given in a random order to each participant to avoid order effects. The first measured ascertained the participants’ attitudes toward a tuition increase proposal. The second was a measure of cognitive responses to determine the amount of cognitive elaboration that the participants engaged in. The third was a measure of recall of relevant arguments in the persuasive message. The participants that were in the religious prime condition completed a scale
that measured their acceptance of religion as a social force. Next, the participants completed a general demographic questionnaire. Finally, participants were debriefed and dismissed.

In the distraction conditions, participants were directed to keep track of a separate screen in which an X would randomly appear in one of four quadrants. In a high distraction condition the X position would change every three seconds while in the low distraction condition the X position would change every 15 seconds. The participants would have to keep track of this X and record its location on a separate sheet of paper while listening to the high or low quality message (see appendix J for the message scripts). In the religious prime condition participants were asked to write 1 – 2 paragraphs about the importance of religion in the formation of social values. The method of religious priming was designed to prime religion in general and not deity concepts. Ritter and Preston (2013) demonstrated that there are differential effects when priming religion compared to priming deity concepts. It was found that priming religion resulted in a more social focus, whereas priming deity concepts produced more introspective and therefore less social cognitions. The proposed research focuses exclusively on the effects of religion as a social force. Therefore, the proposed research primes religion instead of deity concepts.

**Design**

The study was a 2 (argument quality: high v. low) by 3 (distraction: religious prime v. high v. low) between-subjects design. The argument was given in a manner similar to that used by Petty, et al. (1976). In the religious prime condition participants were asked to write one to two paragraphs about the importance of religion in the formation of social values. In the distraction conditions participants were asked to monitor a separate screen, while listening to the argument for tuition increase. While they monitored the separate screen they were asked to keep
track of where an X appeared on the screen. In the high distraction condition the location of the X changed every three seconds. In the low distraction condition the location of the X changed every 15 seconds. The distraction task was conducted in a manner similar to that of Petty, et al. (1976). After the distraction/prime task participants then completed the dependent measures.

**Results**

Higher numbers indicated greater agreement for a tuition increase, which students generally oppose. The full model, containing argument quality and distraction was significant, $F(5, 166) = 12.63, p < .0001, R^2 = .22$. There was a main effect in the argument quality condition, $F(1, 225) = 55.13, p < .0001, b = .99, SE = .22$, in which the participants reported higher agreement with the high quality argument ($M = 3.69, SE = .09$) than the low quality argument ($M = 2.73, SE = .09$). The main effect for distraction condition was not significant, $F(1, 225) = .66, p = .52$. The interaction between argument quality and distraction condition was significant $F(2, 225) = 4.67, p = .01$ (see table 1).

In the low quality argument conditions, there was a significant difference between the high distraction argument and the religious prime condition, $t(143) = 3.06, p = .003$. There was also, as indicated by the full model analyses, a significant difference between the high distraction argument and the low distraction argument, $t(153) = 2.11, p = .04$. There was no significant difference between the low distraction condition and the religious prime condition, $t(142) = 1.03, p = .31$. Conversely, in the high quality argument condition the distraction/religious prime conditions were not significantly different.

Examining the effects of religious prime across argument quality there was a significant effect, $t(66) = 6.23, p < .0001, = .37$. In the high distraction condition there was a significant
effect for argument quality, $t(77) = 2.10, p = .04, = .05$. In the low distraction condition there was
a significant effect for argument quality, $t(76) = 4.45, p < .0001, = .21$. In all
distraction/religious prime conditions the effects of argument was greater in the high quality
argument condition than in the low quality argument condition (see table 1).

**Table 1.1: Means and Standard Errors for Agreement (standard error in
parentheses)**

<table>
<thead>
<tr>
<th>Argument Quality</th>
<th>Religious Prime</th>
<th>High Distraction</th>
<th>Low Distraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Quality</td>
<td>2.41 (.18), $n = 29$</td>
<td>3.12 (.15), $n = 41$</td>
<td>2.66 (.16), $n = 38$</td>
</tr>
<tr>
<td>High Quality</td>
<td>3.84 (.15), $n = 39$</td>
<td>3.65 (.15), $n = 38$</td>
<td>3.58 (.16), $n = 40$</td>
</tr>
</tbody>
</table>

As a measure of resistance to persuasion the number of counter-arguments to the
proposal was measured. The model containing distraction condition and argument quality was
not significant, $F(5, 219) = .84, p = .52$. There were no conditional effects or significant
interactions in this model. Thus, there was no difference in the number of counter-arguments
produced across the experimental conditions.

Recall accuracy was measured by asking participants to recall the points made in the
persuasive message. The number of incorrect points was subtracted from the number of correctly
recalled points. The model containing distraction condition and argument quality was significant,
$F(5, 198) = 3.52, p = .005, R^2 = .08$. The main effect for distraction was significant, $F(2, 198) =
8.07, p = .0004$. This shows that participants in the low distraction remembered more points
accurately ($M = .47, SE = .09$), compared to participants in the high distraction condition ($M = -.04, SE = .09$), and the religious prime condition ($M = .31, SE = .09$). There was no significant
difference between religious prime and the low distraction condition, $t (193) = 1.30, p = .10$. The
main effect for argument quality was not significant, $F(1, 198) = 1.57, p = .21$, and the
interaction between distraction condition and argument was not significant, $F(2, 198) = .01, p = .99$.

To replicate Petty, et al. (1976) we examined the responses of those that were assigned to the low and high distraction conditions. The model containing argument quality and distraction was significant, $F (3, 156) = 8.60, p < .0001, R^2 = .15$. The main effect for argument quality was significant, $F (1, 120) = 21.67, p < .0001$, showing that the high quality argument ($M = 3.61, SE = .11$) produced greater agreement than did the low quality argument ($M = 2.89, SE = .11$). However, the main effect for distraction condition was not significant, $F (1, 120) = 1.27, p = .21$. Further, the interaction between argument quality and distraction condition, was not significant, $F (1, 156) = 2.96, p = .08$. Petty, et al. (1976) had found a significant main effect for distraction condition showing that participants in the high distraction condition were more likely to accept a persuasive message than those in a low distraction condition. However, the measure of agreement in Petty, et al. (1976) was a measure counter-arguments produced in response to a message.

Further analyses were conducted to examine the production of counter-arguments and accuracy of recall in the same manner as the previous analyses. The model containing distraction condition and argument quality was not significant, $F(3, 156) = 1.13, p = .34$. However, when examining accuracy of recalled information, the full model containing distraction condition and argument quality was significant, $F(3, 134) = 5.55, p = .001, R^2 = .11$. There was a significant main effect for distraction condition, $F(1, 134) = 15.48, p = .0001$. Participants in the high distraction condition demonstrated less accuracy in recall ($M = -.04, SE = .09$) than did participants in the low distraction condition ($M = .47, SE = .09$). The present research did not replicate the findings of Petty, et al. (1976) directly. However, an alternative measure of
agreement produced results similar to that found in Petty, et al. (1976). Further research to determine why conflicting results were found is in order.

Discussion

Previous research has demonstrated robust effects of religious priming on people’s behavior (Shariff, Willard, Anderson, & Norenzayan, 2015). However, there is no research that examines how religious priming accomplishes this. The present research provides some evidence for one process by which religious priming elicits greater compliance with persuasive messages. Participants who were primed with religion performed in a manner that was similar to the low distraction condition. The low distraction condition was the control condition, therefore we do not have evidence that shows that religious priming functions as a cognitive distraction.

The results of the present research show that a religious prime produces effects on agreement that are stronger in the high quality argument condition than in the low quality argument condition. However, the production of counter-arguments that was reported as a dependent variable in Petty, et al. (1976) was not significantly different in any experimental condition of the present research.

The robust effects of religious priming have been found mainly with prosocial or positive social behaviors (Shariff, et al., 2015). A similar quantitative analysis has not been conducted to determine if a similar robust effect exists for negative social behaviors. However, several studies have demonstrated that religious priming can lead to negative social behaviors if a person is directed to engage in negative behaviors like support for suicide attacks, aggression, and outgroup derogation (Bushman, et al, 2007; Ginges, et al., 2009; Johnson, et al., 2012). To examine this, a measure of extremist behavior was developed.
Previous research has demonstrated the effects of high v. low quality arguments similar to that shown in the present research (Petty, Cacioppo, & Schumann, 1983). Other research showed that including a distraction can disrupt the production of arguments in favor of a proposition, while leaving recall unaffected (Harkins & Petty, 1981; Keating & Brock, 1974; Osterhouse & Brock, 1970). Though research has shown that distraction can reduce the number of counter-arguments produced, that does not translate to agreement.

The present research partially replicated Petty, et al. (1976). However, the production of counter-arguments dependent variable was not affected by the manipulation. The agreement dependent variable was affected. People agreed with a message as a function of argument quality, but did not produce fewer counter-arguments. Across all experimental conditions, production of counter-arguments was not different. This either suggests a different theoretic explanation for the observed data, or the need of a more dynamic understanding of ELM in that people’s biases influence the manner in which information is systematically processed. Considering that the message stimuli were about raising tuition, a topic that is likely to elicit strong positions from the student sample, it is understandable that many participants would reject the notion. When a person holds a strong position they are not likely to elaborate on that position when a simple “yes” or “no” answer would suffice. Therefore, confronting students with a message or raising tuition would likely produce that strong dichotomy of responses and lead to null effects for the production of counter-arguments. The heuristic-systematic model (HSM; Chaiken, 1982), predicts that a person will elaborate on a message only when it is necessary to abandon previously held heuristic routines or responses. Tasks and stimuli reflecting ambiguous situations can establish a conflict whereby a person can either remain with a heuristic response or apply themselves to solving the conflict. For example, a person faced with a decision to go to
war or accept a current geo-political situation can systematically examine the issue, or can respond which derives from pre-existing heuristics.
Scale Development to Measure Extremist Intentions

Study Two

The Activism and Radicalism Intentions Scale (ARIS; appendix A) has been useful in examining one part of a process of radicalization (Moskalenko & McCauley, 2009). Intuitively, a person does not simply become a terrorist. A person starts as an activist, and then moves to more dangerous and possibly illegal activities (radicalism), after an activist approach fails to achieve the person’s goals. When a radical approach fails a person could then move to the more dangerous extremist approach to reach one’s goals. For example, the recent national dialogue on police misconduct and the perceived lack of accountability has led to protests around the country. The perceived lack of accountability on the part of police departments has resulted in riots in Ferguson, MO and Baltimore, MD. More ominous, a recent call to the Denver Police Department issued threats to police officers’ lives. This gives an example of how people can adopt an extremist approach as a response to their social environment.

Activism is characterized as behaviors such as petition drives and non-violent protests. Radicalism is characterized as behaviors that could be illegal such as participation in protests that turn violent or possibly attacking law enforcement personnel. However, these two scales do not capture more extreme behavior that would be attributed to terrorist activity. Therefore, an extremism measure was constructed to fit with the ARIS scale. The full scale, including the extremism factor is referred to as the Activism, Radicalism, and Extremism Scale (ARES; appendix B for extremism items). The addition of an extremism measure to the existing scale allows for a more fine grained examination of the conveyor belt metaphor describing a process of radicalization.
Study 2a

Participants

Two hundred and thirty participants (N = 230) were recruited to participate in this study. The sample was 72% female (one participant did not report sex). Eight participants were removed from analyses for failure to respond properly to attention check items, resulting in a final sample size of 222. Self-reported ethnicity was 83% Latino, 7% white, 7% African-American, and 3% reported Asian, Pacific Islander or other. Self-reported religious affiliation was 66% Roman Catholic, 14% Protestant Christian, 12% Non-denominational, 4% Orthodox Christian, 1% Jewish, and 3% agnostic/atheist. Participant age was an average 21.36 years (SD = 4.81).

Procedure

All participation occurred online. Participants were first given basic information about the nature of the study. Then they were presented with an informed consent form that they were to read and electronically sign if they elected to continue with the study. Participants were then presented with ARIS and the extremism scales. These scales were presented in a random order and all items within the scales were presented in a random order. Embedded in each scale were attention check items. For example, a typical attention check item was “This is an attention check, if you are reading these items do not select any answer for this item.” Participants then completed a short demographics questionnaire. This study was strictly observational and contained no experimental manipulations. The extremism items were developed by taking the items from the radicalism scale (Moskalenko & McCauley, 2009) and then altering those items to express violent actions instead of strictly radical behaviors.
Results

The ARIS activism sub-scale demonstrated decent reliability, Cronbach’s α = .83, and the radicalism sub-scale showed decent reliability, Cronbach’s α = .78. The extremism scale demonstrated a strong reliability, Cronbach’s α = .92. The activism and radicalism factors showed a strong correlation, \( r(222) = .43, p < .0001 \), activism was significantly correlated with extremism, \( r(222) = .19, p = .004 \) and extremism was significantly correlated with radicalism \( r(222) = .49, p < .0001 \), but activism and extremism were weakly correlated, consistent with the conveyor belt metaphor. Regression analyses were performed to examine the relationships between the three factors. Activism was found to predict radicalism, \( F(1, 215) = 49.26, p < .0001 \), \( r^2 = .19, b = .36, SE = .05 \). Activism significantly predicted extremism, \( F(1, 210) = 7.44, p = .007 \), \( r^2 = .03, b = .09, SE = .03 \). Radicalism significantly predicted extremism, \( F(1, 209) = 65.49, p < .0001 \), \( r^2 = .24, b = .27, SE = .03 \). These findings lend credence to the conveyor belt metaphor in that people are more likely to move from radicalism to extremism than from activism to extremism.

Removing items that correlated poorly with the total extremism score resulted in a scale that is composed of 11 items. The extremism scale maintained a strong reliability, Cronbach’s α = .90. The correlation between activism and extremism, \( r(222) = .43, p < .0001 \), and between radicalism and extremism, \( r(221) = .16, p = .02 \), which is essentially the same as the correlations associated with the full 15-item extremism scale. Additional regression analyses were conducted to examine the relationships between activism, radicalism, and the reduced extremism scale. Activism was still a significant predictor of extremism, \( F(1,219) = 5.39, p = .02, b = .07, SE = .03 \), though the effect size is quite small, \( r^2 = .02 \). However, radicalism was a strong predictor of extremism, \( F(1, 219) = 49.73, p < .0001, b = .24, SE = .03 \).
Secondary analyses of demographic information revealed interesting, but unpredicted, results. One-way ANOVA was performed with participant sex as a predictor. Sex did not significantly predict activism scores, $F(1, 217) = 1.48, p = .23$. However, participant sex did predict radicalism scores, $F(1, 216) = 15.15, p < .0001, R^2 = .07$. Males had higher radicalism scores ($M = 3.32, SE = .14$) than did females ($M = 2.69, SE = .09$). In a similar fashion, participant’s sex predicted extremism scores, $F(1, 211) = 7.99, p = .005, R^2 = .03$. These results show that males had higher extremism scores ($M = 1.67, SE = .08$) than did females ($M = 1.42, SE = .05$).

**Discussion**

The results show a fairly reliable addition to the ARIS scale (Moskalenko & McCauley, 2009). The addition of a factor that will measure extremism is important for the study of terrorism and other asymmetric intergroup conflict because the extremism items examine severe violence. In addition to providing a reliable measure of extremism, the results support the conveyor belt metaphor of radicalization. Whereas activism and radicalism are related, activism and extremism are not strongly related compared to the relationship between radicalism and extremism.

The unpredicted but intriguing results on the relationship between sex and radicalism, and sex and extremism are consistent with the literature on sex differences in aggression and violence (Deaner & Smith, 2013; Eagly & Steffen, 1986). Males demonstrated greater intentions towards radicalism and extremism. However, these sex differences did not hold when examining a model that included activism or radicalism. This suggests that the sex differences towards aggression and violence are contextual.
This scale requires further refinement to reduce the number of items from the current 15 for the extremism factor to a more tractable amount. An additional sample will be recruited to perform a confirmatory factor analysis. Items that were similarly worded and showed large correlations with each other. Several items were removed and replaced 4 new items that better reflected “support for extremism” instead of all items being designed to reflect extremism intentions.

Study 2b

The results of study 1a necessitated further revision and analyses of the proposed scale. As the extremism scale is designed to be a dependent variable, study 2b included a manipulation that should show distinct differences in responses based on a threatening versus a non-threatening scenario.

Design

This study is a single factor (threat: present v. not present) between-subjects design. In addition to the basic analysis, factor analysis will be conducted to establish the psychometric properties of the proposed scale. In the threat condition participants were instructed to think about a situation in which the country is under threat, and the economy is in poor condition. In the non-threat condition participants are instructed to think about a situation in which the nation is relatively secure and the economy is stable.
Participants

One hundred and seventy-seven participants were recruited to take part in this study online. Eighteen participants were excluded from analysis because they had either failed attention check items or they failed to complete dependent measures (final $N = 159$). Participant age ($M = 20.56$ years, $SD = 4.50$) was skewed with a range of 18 to 51 years of age. The median age was 19 years. The sample was 77% female (20% male). Reported ethnicity was 93% Latino/Hispanic, 4% white, 2% African-American, and the remainder reporting Native American, Pacific Islander, Asian, or other ethnic group. Reported religious affiliation was 52% Roman Catholic, 3% Orthodox Christian (Greek, Russian, and Antiochian Orthodox), 15% Protestant, and less than 4% for several other religious affiliations or atheist agnostic.

Procedure

Participants first were informed of the general nature of what would be asked of them in this experiment. They were then given an informed consent form to read and sign. Participants were then asked to read their randomly assigned threat condition stimuli. Participants in the threat condition were instructed to imagine a situation in which the country was under a potential attack and the economy was doing badly. In the non-threat condition participants were told to imagine a situation in which the country was relatively secure and the economy was on solid ground and fairly balanced. Participants then completed the ARIS (Moskalenko & McCauley, 2009). Next, participants completed the extremism scale. Lastly, participants completed a basic demographics questionnaire and were debriefed.
Results

The full ARIS scale showed decent internal reliability, Cronbach’s α = .84, and the two sub-scales also showed decent internal reliability. The activism intentions sub-scale (AIS) had a Cronbach’s α = .74 and the radicalism intentions sub-scale (RIS) had a Cronbach’s α = .82. The extremism scale showed a strong internal reliability, Cronbach’s α = .85. Activism was correlated with radicalism, r(156) = .50, p < .0001, but was not correlated with extremism scores, r(156) = .19, p = .06. However, radicalism scores were correlated with extremism scores, r(156) = .55, p < .0001. This replicates study 2a.

Confirmatory Factor Analysis

Confirmatory factor analysis was performed on the proposed extremism scale. This scale contains five items loading onto one extremism factor. Initially, 20 items were tested and most were discarded for not showing unique variance by being simply another way of asking the same question or showing no connection with the central theme. The remaining items showed a Kaiser-Meyer-Olkin measure of sampling adequacy was meritorious (Kaiser & Rice, 1974), KMO = .85. This shows that the sample was sufficient in size and variability to examine the correlations between the variables. Model fit was assessed for the entire sample (N = 159). This model fit the data well, (df = 5) = 11.355, p = .045, though this was significant, indicating a poor fit, the other fit indices show a good fit for the data, CFI = .989, RMSEA = .045, SRMR = .033. These indices demonstrate a strong model fit according to the criteria set by Hu and Bentler (1999; CFI ≥ .90, RMSEA ≤ .06, SRMR ≤ .08). For the extremism scale the predicted uni-dimensional model provides a strong fit for the data.
Examination of Factor Relationships in Threat Conditions

It was expected that the scores on all three scales would change in response to relevant stimuli. Therefore, correlations for scores under the two threat conditions were calculated. Examining only those participants in the non-threat condition, activism was correlated with radicalism, \( r(77) = .43, p = .005 \), but was not correlated with extremism, \( r(77) = .05, p = .89 \). However, radicalism was correlated with extremism, \( r(77) = .51, p = .0008 \). When examining only those participants in the threat condition the correlations differ. Activism was correlated with radicalism, \( r(82) = .53, p < .0001 \), but not with extremism, \( r(82) = .20, p = .09 \). Radicalism was correlated with extremism, \( r(82) = .48, p < .0001 \). To examine causal relationships regression analyses were conducted. Activism predicted radicalism scores, \( F(1, 156) = 52.13, p < .0001, r^2 = .25, b = .57, SE = .08 \). Activism predicted extremism scores, \( F(1, 156) = 5.42, p = .02, r^2 = .03, b = .17, SE = .07 \). As predicted, radicalism predicted extremism scores, \( F(1, 156) = 65.68, p < .0001, r^2 = .30, b = .44, SE = .06 \).

Examining the conditions of the data it was found that the distributions for activism and radicalism scores were normally distributed. However, the distribution of extremism scores was positively skewed. The Pearson coefficient of skewness showed the distribution of extremism scores was extremely skewed, \( Sk_2 = 1.11 \). This shows a clear violation of the normality condition associated with regression analysis according to the criteria set by Doane and Seward (2011).

Regression methods are known to be robust to violations of the normality condition. Therefore, regression analysis will proceed with all dependent variables and non-parametric analysis will be used to examine and support the results of the regression on extremism scores on predictors. Regression analyses were carried out for all three dependent variables. Additional
non-parametric analysis (Kruskal-Wallis) was conducted to confirm the results of the regression of extremism on threat. A surprising percentage of people showed extremism scores above the scale mid-point (approximately 31%). As this was not expected the distribution of extremism scores was examined in each threat condition. The median extremism score in the non-threat condition was 2.2, and the median extremism score in the threat condition was 2.4. Twelve people in the non-threat condition scored above the mid-point (16%) and 38 people scored above the mid-point in the threat condition (47%). Mood’s median test was conducted and there was a significant difference between the medians of the threat conditions, \( \chi^2 (1, N = 157) = 6.58, p = .01, \eta^2 = .21 \). This indicates that it is more likely to observe higher extremism scores under a threat condition compared to a non-threat condition. The median extremism score for males was 1.9, and the median extremism score for females was 1.8. Mood’s median test was conducted and there was no significant difference between the medians of males’ and females’ extremism scores, \( \chi^2 (1, N = 157) = .11, p = .74 \).

Threat condition did not predict activism scores, \( F(1, 120) = 2.42, p = .12 \). However, threat condition predicted radicalism, \( F(1, 120) = 8.61, p = .004, r^2 = .07, b = .66, SE = .22 \), showing that participants in the threat condition evidenced greater radicalism scores (\( M = 3.86, SD = 1.33 \)) than did participants in the non-threat condition (\( M = 3.20, SD = 1.11 \)). Further, threat condition predicted extremism scores, \( F(1, 120) = 12.72, p = .0005, r^2 = .10, b = .51, SE = .14 \). This shows that participants in the threat condition had higher extremism scores (\( M = 2.57, SD = .95 \)) that did those in the non-threat condition (\( M = 2.06, SD = .46 \)). Kruskal-Wallis analysis was performed on threat predicting extremism, \( \chi^2 (1, N = 157) = 18.69, p < .0001, \eta^2 = .35 \). The effect size for the non-parametric test was much higher than that found with the parametric test.
Activism and radicalism scores are normally distributed, all descriptive statistics showed that the central limit theorem should apply and the distribution of the data was within acceptable boundaries. However, extremism scores are heavily skewed, Pearson coefficient of skewness, $Sk_2 = 1.10$, which falls well outside the criteria established by Doane and Seward (2011) for determining skewness (see figure 1 for scatterplot). This shows that the distribution of extremism scores should be properly examined with general linear model parametric methods. Non-parametric methods were used to analyze those data.

![Scatterplot showing extremism scores against activism scores](image)

**Figure 1.1: Scatterplot showing extremism scores against activism scores**
Analyses by Threat Condition

To examine the difference between predictors in the two threat conditions separate regression analyses were conducted. In the non-threat condition activism predicted radicalism scores, $F(1, 75) = 15.54, p = .0002, r^2 = .17, b = .41, SE = .10$. Activism also predicted radicalism in the threat condition, $F(1, 79) = 30.54, p < .0001, r^2 = .28, b = .65, SE = .12$. Slope comparison shows that the slopes for activism predicting radicalism were not different in the two threat conditions, $t(150) = 1.54, p = .13$. In the non-threat condition activism did not predict extremism, $F(1, 75) = .18, p = .67$. In the threat condition, activism did not predict extremism, $F(1, 79) = 3.33, p = .07$. No slope comparisons were conducted on the slopes for activism predicting extremism in the two threat conditions because neither test was significant.

In the non-threat condition radicalism predicted extremism scores, $F(1, 75) = 26.58, p < .0001, r^2 = .26, b = .33, SE = .06$. In addition, radicalism predicted extremism in the threat condition, $F(1, 79) = 24.29, p < .0001, r^2 = .24, b = .44, SE = .09$. The slope estimates for radicalism predicting extremism in the two threat conditions were not significantly different, $t(150) = 1.02, p = .31$.

Secondary Analysis

Including participant sex as a predictor with threat condition produced a full model, predicting activism, radicalism and extremism, which was significant, $F(3, 155) = 4.06, p = .008, R^2 = .07$. There was a main effect for threat condition predicting activism, $F(1, 155) = 10.75, p = .001, b = .35, SE = .11$. This shows participants in the threat condition had higher activism scores ($M = 5.39, SE = .16$) than did participants in the non-threat condition ($M = 5.02, SE = .15$). The main effect for participant sex predicting activism was not significant, $F(1, 155) = .09, p = .77$. 

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However, the interaction between threat condition and participant sex was significant, $F(1, 155) = 7.91, p = .006$ (see table 2). In the threat condition, males demonstrated higher activism scores than did females, $t(152) = 2.10, p = .04, r^2 = .03$. In the non-threat condition activism scores did not differ for males and females, $t(152) = 1.87, p = .06$. Males demonstrated higher activism scores in the threat condition than in the non-threat condition, $t(152) = 3.45, p = .0007, r^2 = .07$. There was no significant difference in activism scores for females in the threat and non-threat conditions, $t(152) = .50, p = .62$.

<table>
<thead>
<tr>
<th>Threat condition</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat</td>
<td>5.93 (.29)</td>
<td>5.27 (.14)</td>
</tr>
<tr>
<td>Non-threat</td>
<td>4.63 (.25)</td>
<td>5.16 (.15)</td>
</tr>
</tbody>
</table>

The model containing threat condition and participant sex, predicting radicalism, was significant, $F(3, 152) = 9.04, p < .0001, R^2 = .15$. The main effect for participant sex predicting radicalism was not significant, $F(1, 154) = 2.90, p = .09$. The interaction between threat condition and participant sex was significant, $F(1, 154) = 7.10, p = .009$ (see table 3). In the threat condition males demonstrated higher radicalism scores than did females, $t(152) = 2.95, p = .004, r^2 = .05$. In the non-threat condition there was no significant difference between the radicalism scores for males and females, $t(152) = .71, p = .48$. The radicalism scores for males were greater in the threat condition compared to the non-threat condition, $t(152) = 4.40, p < .0001, r^2 = .11$. Females also demonstrated higher radicalism scores in the threat compared to the non-threat condition, $t(152) = 2.58, p = .01, r^2 = .42$. 

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**Table 3.1: Means for Interaction Between Threat and Sex Predicting Radicalism**

<table>
<thead>
<tr>
<th>Threat condition</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat</td>
<td>4.74 (.31)</td>
<td>3.71 (.15)</td>
</tr>
<tr>
<td>Non-threat</td>
<td>2.92 (.27)</td>
<td>3.14 (.16)</td>
</tr>
</tbody>
</table>

The model containing threat condition and participant sex, predicting extremism, was significant, \( F(1, 152) = 8.26, p < .0001, r^2 = .14 \). In contrast to the previous analyses, the main effect for participant sex predicting extremism was not significant, \( F(1, 154) = 2.35, p = .13 \). The interaction between threat condition and participant sex predicting extremism was not significant, \( F(1, 154) = .01, p = .91 \).

Owing to the skewed nature of the extremism scores a Friedman’s test was conducted to examine the effects of threat condition and participant sex. The full model containing threat condition and participant sex was significant, \( F(3, 155) = 8.16, p < .0001, R^2 = .14 \). There was a main effect for threat condition predicting extremism scores, \( F(1, 155) = 16.85, p < .0001 \). This shows that participants in the threat condition evidenced higher extremism scores (median = 2.23, \( SD = 1.17 \)) compared to those in the non-threat condition (median = 1.60, \( SD = .74 \)). There was no main effect for participant sex predicting extremism scores, \( F(1, 155) = 1.93, p = .17 \). The interaction between threat condition and participant sex was not significant, \( F(1, 155) = .01, p = .91 \) (see table 4).

**Table 4.1: Ranked Scores in Relation to the Median**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Score Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat/Male</td>
<td>105.59</td>
<td>43.65</td>
</tr>
<tr>
<td>Threat/Female</td>
<td>93.29</td>
<td>43.93</td>
</tr>
<tr>
<td>Non-threat/Male</td>
<td>71.05</td>
<td>45.59</td>
</tr>
<tr>
<td>Non-threat/Female</td>
<td>60.57</td>
<td>40.76</td>
</tr>
</tbody>
</table>

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**Discussion**

Study 2 developed and refined a measure of extremism intentions, showing both a decent internal validity and predictive validity. This 5-item measure can be used with the ARIS scale (Moskalenko & McCauley, 2009). The extremism scale can be used in laboratory settings for studies that examine violent inter-group conflict research. This scale will be used with the ARIS sub-scales (activism intentions and radicalism intentions) for the present research.

The use of non-parametric analysis was necessary to fully explore the extremism dependent variable. Regression analyses are robust towards violations of the normality assumption. The violations were severe enough, relying on the criteria set by Doane and Seward (2011), to warrant non-parametric tests. The scale has been shown to be uni-dimensional with decent internal validity and strong predictive validity.
Focus of the Present Research

The present research examined the effects of religious priming and cuing of moral reasoning on intentions toward and support for violent acts against an enemy. This is an extension of previous research in which it was shown that people exposed to a religious prime and a confederate that encouraged risky behavior complied in a risk-taking task (Shenberger, Smith, & Zárate, 2014) and research that demonstrated how persuasive messages are able to sway people to support counter-attitudinal policies (Smith & Zárate, 2015). The present research tested the effects of religious priming and persuasion with the purpose of replicating previous research showing religious priming leading to greater compliance. In addition we test how moral reasoning influences how people respond to intergroup conflict.

Specifically, we tested the hypothesis that participants in the religious prime condition would evidence greater agreement, activism, radicalism, and extremism scores compared to participants in the non-religious prime conditions. Further, we predicted that participants in the low moral reasoning condition would demonstrate greater agreement with the recorded message and would demonstrate greater activism, radicalism, and extremism scores. We predicted this because people who are cued to support their group over addressing a crisis with more universal ethical values are more likely to suborn those same values to benefit their group. We predict that when people stop and address a crisis using higher ethical values they will be less likely to endorse violence.

We predicted that the effects of religious priming would be greater in the low moral reasoning condition compared to the high moral reasoning condition. Also, we examined the relationships between activism, radicalism, and extremism to test the conveyor belt metaphor.
Lastly, we tested the hypothesis that religious priming acts as a cognitive distraction which would make people more compliant.

Materials

As the present research used a persuasive message as part of the stimuli it is necessary to account for individual differences that make people resistant to persuasion. Therefore, we include Social Vigilantism (SV; Saucier & Webster, 2010; appendix C) to account for this individual difference. Social Vigilantism has been shown to predict counter-argument and therefore resistance to persuasion. This measure has demonstrated reliability across samples with Cronbach’s α = .82 and .87 regularly (see Saucier & Webster, 2010). Another individual difference measure was included in this study to account for people who respond negatively to religious priming because of their personal beliefs about religion in the social domain. People who do not accept religion as a social force are not as strongly affected by religious priming as people who subscribe to a religion (Shariff, et al., 2015). As participants were randomly assigned to an experimental condition and one of those conditions will include a religious prime, we will measure to what degree participants accept religion as a social force. The Religious Influence Acceptance Scale (RIAS) has shown strong internal reliability, Cronbach’s α = .92 and .95 (Smith & Jones, 2015). Dependent measures were comprised of the ARIS and extremisms scales. In addition a scale was included that assessed a person’s recall of a persuasive message by presenting a questionnaire that allows participants to determine if a specific idea or argument was given in a message. These items were presented in three categories: in the message, unsure, not in the message. Participants also completed the Defining Issues Test - Short Form (Rest,
Participants then completed RIAS (appendix D) and a short demographics questionnaire (appendix E).

Religious priming method

Participants in the religious priming condition were asked to write one to two paragraphs about the importance of religion in the formation of social values. All participants accomplished this task by typing their responses into a text box that did not have a limit on the length of their response nor was there a specific time limit on their response. All participants completed the entire experimental session within 45 minutes. This method has proven successful in previous research (Smith & Zárate, 2015). This method primes religion without priming a specific religion. This is important because our sample is likely to include people from several religious creeds. Priming a person with a religion to which they do not subscribe would likely not have an effect or it could result in a reactance to the message. This method of religious priming avoids priming deity concepts and instead focuses on religion as a social force. Previous research has shown that priming religion enhances ingroup pro-social behaviors and priming deity concepts enhances outgroup pro-social behaviors (Preston & Ritter, 2013). For this experiment we purposefully used an explicit religious prime task instead of an implicit task. Previous research has shown that implicit religious prime tasks may not generalize to cultures outside of the United States and Western Europe (Aveyard, 2014).
**Design**

The research design was a 2 (Prime: religious v. non-religious) by 2 (Cue: pre-conventional v. post-conventional) + 1 (null condition) between-subjects design. In the religious prime condition participants were directed to write one to two paragraphs about the importance of religion in the formation of social values. In the non-religious prime condition participants will be asked to write one to two paragraphs about their favorite movie. Participant responses will be reviewed and coded to determine if they are anti-religion in the religious prime condition or if their favorite movie is overly religious in nature in the non-religious prime condition. The null condition is included to test substantive differences in the sample. Participants in the null condition will not receive any experimental treatment.

**Participants**

One hundred and ninety-five participants were recruited for this study. The sample was 85% Latino, 10% white, and the remainder reported African-American or Native American. Mean age = 21 ($SD = 4.60$) and the sample was comprised of 74% female participants. Most of the participants reported Roman Catholic as their religion (77%), the remainder reported another Christian denomination (20%) with the remainder reporting to be atheist/agnostic, Jewish, or Muslim.

**Procedure**

Participants were recruited through UTEP SONA system and will be awarded partial course credit for their participation. Participants will first be given basic information about the nature of their participation. The participants will then be given an informed consent form to read.
and sign. The participants will be given the opportunity to ask questions and receive more information about the study. The moral reasoning cues were designed to prime a person to address the recorded message with either a morality of standing with one’s group (low moral reasoning) or with application of higher, universal ethical values (high moral reasoning; see appendix F for cues). The participants then listened to a recorded message through headphones (see appendix G for script). After listening to the recorded message participants completed a questionnaire that measured their agreement with the message and their outlook on the potential conflict (appendix H). Participants then were presented with the second dependent variable questionnaire that assesses their recall of the information in the recorded message (appendix I). Then participants then were presented with the following in a counter-balanced fashion: social vigilantism (Saucier & Webster, 2010), and ARIS (Moskalenko & McCauley, 2009) and the extremism scale. Next, participants then completed a demographics questionnaire and RIAS. Lastly, participants were then debriefed and released.

Results

Each dependent variable was examined to check assumptions for the general linear model. Agreement, activism, radicalism, and social vigilantism were normally distributed and met the other requirements for the central limit theorem to apply. However, extremism scores were skewed, Pearson coefficient of skewness, $Sk_2 = .82$ which falls outside of the criteria established by Doane and Seward (2011). Therefore a non-parametric procedure (Friedman’s test; Friedman, 1939) was used to test extremism. A summary table of primary results is provided at the end of this section (see tables 18 - 19).
RIAS was checked as a predictor to determine if there were hostile opinions towards religion in the public sphere. In no case did RIAS scores predict any of the independent variables and it was dropped from further analysis.

The activism sub-scale of ARIS demonstrated good reliability, Cronbach’s α = .84, and the radicalism sub-scale showed similar reliability, Cronbach’s α = .85. The extremism scale showed decent reliability, Cronbach’s α = .78. The correlations between activism, radicalism, and extremism were examined and were similar to the previous studies (see table 5). Unlike the previous studies there is a statistically significant relationship between activism and extremism though the effect size is small.

**Table 5.1: Correlations between activism, radicalism and extremism, N = 149**

<table>
<thead>
<tr>
<th></th>
<th>Activism</th>
<th>Radicalism</th>
<th>Extremism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activism</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radicalism</td>
<td>.44</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1p &lt; .0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extremism</td>
<td>.19</td>
<td>.48</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>p = .02</td>
<td>p &lt; .0001</td>
<td></td>
</tr>
</tbody>
</table>

Regression analyses were conducted to examine a causal relationship described by the conveyor belt metaphor. Activism was a significant predictor of radicalism, $F (1, 147) = 34.88, p < .0001, r^2 = .19, b = .40, SE = .07$; and extremism, $F (1, 147) = 5.76, p = .02, r^2 = .04, b = .13, SE = .06$. Radicalism, as with previous research, was a significant predictor of extremism, $F (1, 147) = 43.15, p < .0001, b = .36, SE = .06$. These results offer more support for the conveyor belt metaphor describing a process of radicalization.
MANOVA is used to examine all of the dependent variables. The extremism dependent variable is heavily skewed and the parametric ANOVA/regression methods are not appropriate to examine those data. There are no current methods to examine data in a MANOVA context in which one of the dependent variables does not meet the conditions required for MANOVA. As there are no current methods for a simultaneous analysis of mixed distributions in MANOVA we decided to conduct a MANOVA for all dependent variables that met criteria, while keeping the skewed variable in the model. This was done to avoid perturbing the model. A second set of analysis was conducted using Friedman’s test, which is a non-parametric analogue to 2-way ANOVA (Friedman, 1939).

**Activism**

The model containing prime, cue, and social vigilantism as predictors of activism was significant, $F(7, 138) = 7.12, p < .0001, R^2 = .27$. There was a significant effect of prime on activism, $F(1, 144) = 10.87, p = .001$, this shows that participants in the religious prime condition scored higher on the activism scale ($M = 4.88, SD = 1.35$) compared to participants in the non-religious prime condition ($M = 4.10, SD = 1.23$). There was no significant effect of cue on activism, $F(1, 144) = .06, p = .80$. However, there was a significant effect of social vigilantism on activism, $F(1, 144) = 9.49, p = .003, b = .49, SE = .23$, this shows that as social vigilantism scores increase activism scores increase.

There was a significant two-way interaction between prime and cue predicting activism, $F(1, 144) = 11.43, p = .0009$ (see table 6). The effects of the religious prime differed across moral cue conditions. Participants in the high moral cue, religious prime condition exhibited the highest activism scores. Participants in the high moral cue, non-religious prime condition showed
the lowest activism scores. This directly supports our central argument. That being that free from the influence of religious priming and relying on higher moral reasoning we become less violent or less likely to support violence as a solution to problems. The participants in the non-religious / low moral reasoning cue evidenced lower activism scores compared to the participants in the non-religious / high moral reasoning condition, \( t(143) = 2.45, p = .02 \). This shows that people exposed to no religious prime and low moral reasoning cues were higher in activism scores.

The participants in the religious prime / high moral reasoning condition showed greater activism scores, compared to the non-religious prime / high moral reasoning condition, \( t(143) = 4.56, p < .0001 \). This was not expected but it is welcome because activism is a good thing and more people should avail themselves of the legal means to make changes in their society or government. Participants in the religious prime / low moral reasoning condition compared to the participants in the non-religious / high moral reasoning condition showed greater activism scores, \( t(143) = 2.07, p = .002 \) (see table 6). This supports our central hypothesis that people exposed to religious primes and low moral reasoning cues will evidence greater activism scores. The remainder of the comparisons were not significant, \( p > .15 \).

**Table 6.1: Means for the Interaction Between Prime and Cue for Activism, SD in ()**

<table>
<thead>
<tr>
<th>Prime</th>
<th>High Moral Cue</th>
<th>Low Moral Cue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-religious</td>
<td>3.74 (1.20), n = 41</td>
<td>4.51 (1.42), n = 34</td>
</tr>
<tr>
<td>Religious</td>
<td>5.14 (5.10), n = 34</td>
<td>4.67 (1.15), n = 36</td>
</tr>
</tbody>
</table>

There was a significant two-way interaction between prime and social vigilantism predicting activism, \( F (1, 144) = 7.33, p = .008 \), the two-way interaction between cue and social vigilantism was not significant, \( F (1, 144) = .15, p = .70 \). The three-way interaction between
prime, cue and social vigilantism was significant, $F (1, 144) = 8.43, p = .004$. The slope for social vigilantism was significant, $b = 1.54, SE = .53, t(144) = 2.90, p = .004$. The influence of social vigilantism was greater in the religious prime / high moral reasoning condition compared to the religious prime / low moral reasoning condition $t(67) = 2.05, p = .04$ (see table 7). The slope for social vigilantism was not significant in the non-religious conditions, $t(74) = 1.36, p = .18$ (see table 8).

**Table 7.1: Regression coefficients for Social Vigilantism in the religious conditions.**

<table>
<thead>
<tr>
<th></th>
<th>Slope</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Moral Cue</td>
<td>-.38, n = 35</td>
<td>.28</td>
</tr>
<tr>
<td>Low Moral Cue</td>
<td>.48, n = 36</td>
<td>.28</td>
</tr>
</tbody>
</table>

Table 8.1: Regression coefficients for Social Vigilantism in the non-religious conditions

<table>
<thead>
<tr>
<th></th>
<th>Slope</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Moral Cue</td>
<td>1.10, n = 36</td>
<td>.24</td>
</tr>
<tr>
<td>Low Moral Cue</td>
<td>.43, n = 42</td>
<td>.43</td>
</tr>
</tbody>
</table>

**Radicalism**

The full model containing prime, cue, and social vigilantism predicting radicalism was significant, $F (7, 138) = 3.08, p = .005, R^2 = .14$. However, there were no significant main effects for any of the predictors, all $p$-values > .14. Further, none of the two-way interactions were significant, $p$-values > .12. Lastly, the three-way interaction between prime, cue, and social vigilantism was marginally significant, $F (1, 144) = 3.88, p = .0508$. The failure of the main
effects and all two-way analyses giving way to only a marginally significant three-way interaction is not warranted.

**Extremism**

The extremism dependent variable is heavily skewed, therefore we conducted Friedman’s test using prime and cue as predictors. The Friedman’s test was significant, $F(3, 145) = 5.14, p < .0001, R^2 = .21$. There was a significant main effect for prime, $F(1, 144) = 9.23, p = .003$ showing that participants in the religious prime condition exhibited greater extremism scores, assessed by rank to the median, ($M = 85.71, SD = 39.55$; median = 2.00, $SD = .95$) than did those in the non-religious prime condition ($M = 64.90, SD = 44.47$; median = 1.6, $SD = .87$). There was a significant main effect for cue, $F(1, 144) = 4.00, p = .0475$, showing that participants in the low moral reasoning cue condition exhibited higher extremism scores, assessed by rank to the median, ($M = 81.88, SD = 41.41$; median = 2.00, $SD = .88$) than did those in the high moral reasoning cue condition, ($M = 68.25, SD = 44.30$; median = 1.60, $SD = .95$).

There was a significant interaction between prime and cue, $F(1, 144) = 11.08, p = .001$. Examination of ranked scores (see table 9) shows that the participants in the religious prime/low moral reasoning condition exhibited the highest extremism scores, compared to all other experimental groups. Our main hypothesis was that high moral reasoning could reduce the influence of religious priming on compliance with messages calling for violence. Examining only those participants who were in the non-religious prime conditions there was no main effect for cue, $F(1, 76) = .55, p = .46$. However, examining those participants in the religious prime condition there is a significant main effect for cue, $F(1, 69) = 16.77, p = .0001$. The high moral reasoning did produce lower extremism scores compared to the low moral cue condition for
those in the religious prime conditions. Since Friedman’s test is not designed to handle a continuous predictor we have included a non-parametric point-biserial analysis, those results are included in table 9. It shows that social vigilantism correlates with extremism only in the non-religious / high moral cue condition which supports our central hypothesis.

| Table 9.1: Scores from Friedman’s Test, Standard Deviations in (), Point Biserial Correlations Included for Extremism and Social Vigilantism |
|-------------------------------------------------|-----------------|-----------------|
|                               | Low Moral Cue   | High Moral Cue  |
| Religious                      | 102.82 (30.98)  | 67.59 (39.94)   |
|                                | \( r_{pb} = -.10, p = .55 \) | \( r_{pb} = .06, p = .73 \) |
| Non-Religious                  | 60.34 (40.02)   | 68.79 (48.10)   |
|                                | \( r_{pb} = .02, p = .91 \) | \( r_{pb} = .40, p = .01 \) |

**Agreement**

The model containing prime, cue, and social vigilantism predicting agreement was significant, \( F(7, 138) = 3.19, p = .004, R^2 = .14 \). There was no significant main effect for prime, cue or social vigilantism, \( p \)-values > .40. There was a significant interaction between prime and cue, \( F(1, 144) = 4.22, p = .042 \) (table 10). Following the same pattern that we have seen with the other dependent variables participants in the religious prime / low moral cue condition showed greater agreement with the recorded message than did participants in the non-religious / high moral cue condition, \( t(75) = 3.09, p = .003 \). Cuing higher ethical principles reduced the influence that religious priming has in eliciting agreement, \( t(68) = 3.47, p = .0008 \).

55
TABLE 10.1: INTERACTION BETWEEN PRIME AND CUE PREDICTING AGREEMENT

<table>
<thead>
<tr>
<th>Prime</th>
<th>High Moral Cue</th>
<th>Low Moral Cue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-religious</td>
<td>4.91 (1.05), n = 41</td>
<td>5.30 (1.02) = 35</td>
</tr>
<tr>
<td>Religious</td>
<td>4.79 (1.02), n = 34</td>
<td>5.65 (1.05), n = 36</td>
</tr>
</tbody>
</table>

**Accuracy**

In a similar manner the model containing prime, cue and social vigilantism predicting accuracy of recall was significant, $F (7, 138) = 2.08, p = .0494, R^2 = .10$, there were no main effects. However, there was a significant interaction between prime and cue, $F (1, 144) = 4.20, p = .042$ (see table 11). Participants in the religious prime / low moral cue condition had greater recall than those in the non-religious prime / high moral cue condition, $t(75) = 1.79, p = .04$. This was contrary to our predictions and could be an indication that people in the non-religious prime / high moral cue condition dismissed the persuasive message globally and therefore did not attend to the details. None of the other interactions were significant.

TABLE 11.1: INTERACTION BETWEEN PRIME AND CUE PREDICTING ACCURACY OF RECALL

<table>
<thead>
<tr>
<th>Prime</th>
<th>High Moral Cue</th>
<th>Low Moral Cue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-religious</td>
<td>1.59 (.24), n = 41</td>
<td>1.62 (.20), n = 35</td>
</tr>
<tr>
<td>Religious</td>
<td>1.75 (.25), n = 34</td>
<td>1.69 (.25), n = 36</td>
</tr>
</tbody>
</table>
Relief from Fear

Regression analyses were carried out to determine if people endorsed greater activism, radicalism and extremism as a response to fear or uncertainty. Participants who rated the recorded message as more important and the threat salient had higher activism items, \( F(1, 147) = 17.73, p < .0001, r^2 = .11, b = .34, SE = .08 \). In a like manner, outlook on the crisis described in the recorded message which gave information about a threat to western values because of radicalization in Muslim nations was a predictor of radicalism scores as well, \( F(1, 147) = 47.18, p < .0001, r^2 = .24, b = .46, SE = .67 \). However, outlook did not predict extremism scores, \( F(1, 147) = 2.22, p = .14 \). In general, as people rate the recorded message as more arousing the higher the activism and radicalism scores are.

Mediation Model with DIT

We conducted mediation analyses, separately, for DIT on all dependent variables. We conducted the mediation analysis using the online utilities provided by Selig and Preacher (2008). Refer to table 10 to see the bootstrapped 95% confidence intervals. Note that in all confidence intervals the theoretical null hypothesis value of zero is included in each confidence interval. This was unexpected because the theory behind DIT dictates that a person’s moral reasoning would apply, more or less, to most situations (Rest, 1986). The DIT scores did not serve as a mediator between the predictors and the dependent variables for the data on hand.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Lower Limit</th>
<th>Upper Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activism</td>
<td>-1.591</td>
<td>5.069</td>
</tr>
<tr>
<td>Radicalism</td>
<td>-1.387</td>
<td>1.18</td>
</tr>
</tbody>
</table>
Table 13.1: Correlations between Activism, Radicalism, Extremism, and Social Vigilantism

<table>
<thead>
<tr>
<th></th>
<th>Activism</th>
<th>Radicalism</th>
<th>Extremism</th>
<th>Social Vigilantism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activism</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radicalism</td>
<td>.42</td>
<td>1.00</td>
<td></td>
<td>p &lt; .0001</td>
</tr>
<tr>
<td>Extremism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Vigilantism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Regression analyses were conducted to examine the hypothesized causal relationship described by the conveyor belt metaphor. The results are similar to those found when examining the responses from those participants in the experimental conditions (table 14). This provides further evidence in support of the conveyor belt metaphor.

**Table 14.1: Regression coefficients for the Conveyor Belt Test**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>Slope</th>
<th>SE</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activism</td>
<td>Radicalism</td>
<td>.37</td>
<td>.06</td>
<td>6.23</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Activism</td>
<td>Extremism</td>
<td>.11</td>
<td>.05</td>
<td>2.44</td>
<td>.02</td>
</tr>
<tr>
<td>Radicalism</td>
<td>Extremism</td>
<td>.34</td>
<td>.05</td>
<td>7.41</td>
<td>&lt; .0001</td>
</tr>
</tbody>
</table>

Condition predicting activism was significant, $F (4, 187) = 7.31, p < .0001, R^2 = .14$. This showed that there was a significant difference between conditions (table 15). The difference between the null condition and the religious prime/high moral cue condition are not statistically different, $t(183) = .45, p = .33$. The difference between the null condition and the non-religious/low moral cue condition are statistically significant, $t(183) = -1.68, p = .0472$. Further, the difference between the null condition and the non-religious/high moral cue conditions were significantly different, $t(183) = -4.24, p < .0001$. In essence activism is free from the influence of religious priming and moral reasoning cues, when compared to a null condition, all $p > .10$. 
Table 15.1: Substantive difference comparison against null condition for activism

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>43</td>
<td>5.02</td>
<td>1.30</td>
</tr>
<tr>
<td>Religion/High Moral</td>
<td>35</td>
<td>5.11</td>
<td>1.14</td>
</tr>
<tr>
<td>Religion/Low Moral</td>
<td>36</td>
<td>4.67</td>
<td>1.29</td>
</tr>
<tr>
<td>Non-Religion/High Moral</td>
<td>42</td>
<td>3.76</td>
<td>1.19</td>
</tr>
<tr>
<td>Non-Religion/Low Moral</td>
<td>36</td>
<td>4.49</td>
<td>1.40</td>
</tr>
</tbody>
</table>

Condition predicting radicalism was significant, $F(4, 187) = 3.40, p = .01, r^2 = .07$. This showed that there is a statistically significant difference on radicalism between the conditions (see table 16). The religious prime/high moral cue condition is not statistically different from the null condition, $t(186) = .65, p = .26$. The comparison between the religious prime/low moral cue condition and the null condition is statistically significant, $t(186) = 2.10, p = .02$. This shows that there are greater radicalism scores for those in the experimental conditions compared to null condition. Comparing the primary condition associated with our central prediction (religious prime/low moral cue) and the null condition there was a significant difference, $t(77) = 1.22, p = .04$. Conversely, the non-religious/low moral cue condition was also significant, $t(77) = 1.82, p = .04$. This shows that the low moral cue reduces radicalism scores when compared to a null condition. This effect should be qualified by the fact that the participants in the null condition were not exposed to any experimental manipulations and could be carrying effects from the current geo-political issues and the upcoming national election. We do not have to data to test that notion and offer that only as a caveat. All other conditions, which are in essence control conditions, were not different from the null condition, $p > .46$. This shows that the control conditions are not different from the null conditions. The inclusion of the null condition does
provide information that shows a substantive difference between our key experimental condition and the other conditions with the added qualification of a condition in which the participants were not exposed to any experimental manipulation. The results of this analysis give further credence to the previous analyses showing the dramatic difference between the comparison conditions and the key experimental condition (religious prime / low moral reasoning).

**TABLE 16.1: SUBSTANTIVE DIFFERENCE COMPARISON AGAINST NULL CONDITION FOR RADICALISM**

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>43</td>
<td>3.29</td>
<td>1.24</td>
</tr>
<tr>
<td>Religion/High Moral</td>
<td>35</td>
<td>3.41</td>
<td>1.10</td>
</tr>
<tr>
<td>Religion/Low Moral</td>
<td>36</td>
<td>3.80*</td>
<td>1.19</td>
</tr>
<tr>
<td>Non-Religion/High Moral</td>
<td>42</td>
<td>3.27</td>
<td>1.16</td>
</tr>
<tr>
<td>Non-Religion/Low Moral</td>
<td>36</td>
<td>2.78</td>
<td>1.24</td>
</tr>
</tbody>
</table>

Condition predicting extremism was significant, $F(4, 187) = 6.19, p = .0001, r^2 = .12$. This showed that there was a statistically significant difference on extremism between the conditions (see table 17). The only comparison with the null condition that was statistically significant was the comparison with the religious prime/low moral cue condition, $t(185) = 3.44, p = .0004$. The other comparisons were not significant, $p > .10$. This shows that the several comparison conditions are not statistically different from the null condition. This also shows the consistent pattern of the religious prime / low moral reasoning condition are dramatically different.
**Table 17.1: Substantive Difference Comparison Against Null Condition for Extremism**

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>Mean Rank</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>43</td>
<td>86.63</td>
<td>52.39</td>
</tr>
<tr>
<td>Religion/High Moral</td>
<td>35</td>
<td>88.11</td>
<td>51.15</td>
</tr>
<tr>
<td>Religion/Low Moral</td>
<td>36</td>
<td>135.19</td>
<td>40.07</td>
</tr>
<tr>
<td>Non-Religious/High Moral</td>
<td>42</td>
<td>91.26</td>
<td>62.09</td>
</tr>
<tr>
<td>Non-Religion/Low Moral</td>
<td>36</td>
<td>81.47</td>
<td>52.82</td>
</tr>
</tbody>
</table>

**Table 18.1a: Results of Testing the Conveyor Belt Metaphor**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>Slope</th>
<th>SE</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activism</td>
<td>Radicalism</td>
<td>.40</td>
<td>.07</td>
<td>5.91</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Activism</td>
<td>Extremism</td>
<td>.13</td>
<td>.06</td>
<td>2.40</td>
<td>.02</td>
</tr>
<tr>
<td>Radicalism</td>
<td>Extremism</td>
<td>.36</td>
<td>.06</td>
<td>6.57</td>
<td>&lt; .0001</td>
</tr>
</tbody>
</table>

**Table 18.1b: Results of Testing the Conveyor Belt Metaphor with the Null Condition**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>Slope</th>
<th>SE</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activism</td>
<td>Radicalism</td>
<td>.37</td>
<td>.06</td>
<td>6.23</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Activism</td>
<td>Extremism</td>
<td>.11</td>
<td>.05</td>
<td>2.44</td>
<td>.02</td>
</tr>
<tr>
<td>Radicalism</td>
<td>Extremism</td>
<td>.34</td>
<td>.05</td>
<td>7.41</td>
<td>&lt; .0001</td>
</tr>
</tbody>
</table>
TABLE 19.1: SUMMARY OF RESULTS FOR EXPERIMENTAL CONDITIONS ONLY

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Activism</th>
<th>Radicalism</th>
<th>Extremism</th>
<th>Agreement</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime</td>
<td>$F = 10.87$</td>
<td>No effect</td>
<td>$F = 9.23$</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>$p = .001$</td>
<td></td>
<td>$p = .003$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cue</td>
<td>No effect</td>
<td>No effect</td>
<td>$F = 4.00$</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$p = .0475$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV</td>
<td>$F = 9.49$</td>
<td>No effect</td>
<td>No test</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>$p = .003$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prime/Cue</td>
<td>$F = 11.43$</td>
<td>No effect</td>
<td>$F = 11.08$</td>
<td>$F = 4.22$</td>
<td>$F = 4.20$</td>
</tr>
<tr>
<td></td>
<td>$p = .0009$</td>
<td></td>
<td>$p = .001$</td>
<td>$p = .042$</td>
<td>$p = .042$</td>
</tr>
<tr>
<td>Prime/SV</td>
<td>$F = 7.33$</td>
<td>No effect</td>
<td>No test</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>$p = .008$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cue/SV</td>
<td>No effect</td>
<td>No effect</td>
<td>No test</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td>Prime/Cue/SV</td>
<td>$F = 8.43$</td>
<td>No effect</td>
<td>No test</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td></td>
<td>$p = .008$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion

Consistent with our hypothesis people in the religious prime/low moral reasoning condition showed greater extremism scores than did those in the religious prime/high moral reasoning condition. Religious priming did lead to greater compliance with a message that was calling for violence against Muslim nations. However, the high moral reasoning cue produced lower extremism scores comparatively. The pattern of results in the previous analysis is similar to that found when we include the null condition experimental groups and the null condition.
demonstrated. In all cases the religious prime / low moral cue condition produced higher activism, radicalism and extremism scores.

**General Discussion**

The present research tested the effects of religious priming on endorsements of activism, radicalism, extremism, and agreement with a message that was calling for violence against Muslims. Further, we tested one hypothesis that would explain why religious priming results in greater compliance. Lastly, we tested whether a person’s endorsement of activism, radicalism, and extremism were a function of how much a person is aroused by a stimuli. In addition, we were able to provide further evidence in support of the conveyor belt metaphor. We also tested an individual difference measure, social vigilantism, which should predict a person’s resistance to persuasive messages.

Across our dependent variables we see the same pattern emerge where the religious prime / low moral reasoning condition produced higher scores in agreement, activism, and extremism. Radicalism was not influenced and there were no main effects from our predictors, nor were there any two-way interactions. There was a marginally significant three-way interaction.

The present research has provided evidence in support of the conveyor belt metaphor though we have not described a motive force that moves people from one qualitatively stable state to another. We have only demonstrated that the phenomena happens. We have demonstrated that there is a causal relationship between activism, radicalism, and extremism, in that order. Some care must be taken that the working categories of activism, radicalism, and extremism are not taken as discrete and qualitatively different states. They are related and the
categorical titles are useful for discussion purposes only. We do not suggest a tipping point in which a person goes from a protest to a violent attack.

While useful in describing a general process of radicalization the conveyor belt metaphor fails to identify the factors that move a person along the conveyor belt. The present research has tested influential factors and individual differences that account for the political mobility along the conveyor belt. Religious priming and cuing different domains of moral reasoning, with an index of social vigilantism, were found to predict higher activism scores. Activism, using legal means to try to cause change in the political environment in which one lives, are generally be considered a sign of a healthy society. Though the moral cue condition was not a significant predictor of activism scores there was an interaction in which those in the high moral cue, non-religious prime condition showed the lowest activism scores. Conversely, those in the high moral cue, religious prime condition exhibited the highest activism scores.

In accord with previous research (Saucier & Webster, 2010) higher social vigilantism scores predicted higher activism scores. This is unsurprising in that activism is defined by activities and behaviors that require argument, in the classic sense, and social vigilantism details a person’s predisposition to questioning authorities and peers. There was a three-way interaction between prime and cue conditions with social vigilantism in which the effects of social vigilantism predicting activism scores was greater in the non-religious prime/high moral reasoning cue condition compared to the other experimental conditions.

Activism can often be beneficial, though it is sometimes difficult to motivate people to engage in active citizenship behaviors (availing themselves of the legal means to affect change in government or society) the results of the present research provide some guidance. The inactive public can be a source of great energy for positive change (Hallahan, 2000). As public relations
professionals, and political campaigns, often focus on the politically active (“the base”) there is a well-spring of energy in the inactive public that can be motivated. Since the inactive public tends to be less well educated on the issues it is incumbent on leadership to focus attention on the inactive public to bring them into the dialogue. Inspiring higher moral reasoning, which could encourage people to be motivated to re-evaluate previously held ideas can be the tool of social change. However, other leaders could take advantage of commonly held ideas to move masses of people to create negative change (Chaiken & Maheswaran, 1994). This is important because the inactive public has been shown to act on secondary sources of information (leaders and opinion makers) instead of personal education and experience (Lippman, 1922). To maintain a stable society with open and productive dialogue it is important to address concerns of activists. Ignoring or suppressing activism tends to move people towards more radical behaviors (McCauley & Moskalenko, 2010). Subverting or suppressing legal means leaves little recourse for dedicated activists. For the effects of the predictors (prime, cue, and social vigilantism) there was little effect on radicalism scores, which showed only a marginally significant three-way interaction.

Owing to the skewed nature of the extremism data additional analyses was conducted. In accord with the previous analysis it was found that those in the religious prime/low moral cue condition exhibited greater extremism scores than the other experimental conditions. This supports our hypothesis and demonstrates how moral cuing can reduce the impact of religious priming on support for violence.

The effects of our predictors on agreement showed that there was no main effect of prime or cue on self-reported agreement with the recorded message. This is contrary to previous research. However, the interaction between prime and cue showed that the effects of prime
differed across cue levels. Though the prime condition was not itself significant those participants in the religious prime/low moral cue condition exhibited greater agreement scores than those in the religious/high moral cue and non-religious/high moral cue conditions. This is consistent with our hypotheses.

The effects of our predictors on overall accuracy of recall were similar to the effects on agreement in that only the two-way interaction between religious prime and moral cue was significant. Though significant the results were not consistent with our hypotheses which predicted that religious priming would act as a cognitive distraction resulting in lower accuracy scores. The highest accuracy was actually in the religious prime/high moral cue condition. Over two studies the hypothesis that religious priming acts as a cognitive distraction has not been supported. It may be more appropriate to view religion as a bound on rationality (Boyd & Richerson, 2001; Gigerenzer, 2010; Hayakawa, 2000). Future research will test this hypothesis.

Participants who rated the recorded message as more arousing also exhibited higher activism and radicalism scores. This lends support to the hypothesis that more extreme positions serve to alleviate fear and/or anxiety about a threat. This is important because an adaption of the Hegelian Dialectic (thesis, anti-thesis, synthesis) is often used to persuade people to support policies that they otherwise would not. The method is referred to as problem-reaction-solution (Naghiu, 2011) and in a crisis people’s factual information is reduced by fearful stimuli (Johansen & Joslyn, 2008). People are more easily swayed when they are in a low information setting and the data in the present research has shown that people in a low moral reasoning condition are more likely to agree and more likely to endorse harsher approaches to an enemy. It was predicted that a person’s level of moral reasoning would temper this relationship.
The Defining Issues Test (DIT; Rest, 1986) is designed to measure moral and ethical judgment. DIT was tested as a potential mediator between the predictors and all dependent variables. In no case did DIT scores serve as a mediator for the data at hand. The reason for this failure could be related to the nature of the predictors, but that may entail moral reasoning itself to be context dependent. The moral reasoning cue and the prime conditions could interfere with or perturb the nature of the relationship between DIT scores and the dependent variables. A separate, but parallel, set of future studies would be necessary to determine if this is plausible.

Comparing the experimental groups to a null condition that received no experimental stimuli we find intriguing results. For the activism dependent variable, the substantive differences between experimental conditions and the null condition were for the non-religious prime/low moral cue showing a reduction in activism scores based on the experimental manipulation compared to the null condition. This reduction in average activism scores was greater in the non-religious prime/high moral cue condition.

The conveyor belt metaphor received some support from the present research in that activism does predict radicalism, and it predicts extremism to a lesser degree. Radicalism does however predict extremism. This shows evidence in support of the notion that there is a progression along which people become radicalized and could eventually come to support violence against an outgroup. The present research, however, does not identify tipping points at which an individual would be willing to change from one qualitatively stable state to another (i.e. moving from activism to radicalism).

Our hypothesis that religious priming would lead to greater activism scores was supported. Moral cue did not influence activism, though there two-way interaction did show that participants in the non-religious/high moral cue condition evidenced the lowest scores on
activism. Contrary to our hypothesis the participants in the religious prime/high moral cue condition showed the highest activism scores. This should not be seen as alarming as activism can be a sign of a healthy society.

Our hypothesis that religious priming would lead to higher radicalism scores was not supported, nor was our hypothesis that participants in the low moral cue condition would evidence higher radicalism scores. However, there was a main effect for prime in which people in the religious prime condition showed higher extremism scores than did those in the non-religious prime condition. This was consistent with our hypothesis. As extremism was heavily skewed non-parametric analysis was used to test the hypotheses. Our hypothesis was supported in that the highest extremism scores were found in the religious prime/low moral reasoning condition.

We have tested a process of radicalization that shows the influence of religious priming and moral reasoning cues. We have accounted for an individual difference variable (social vigilantism) that was predicted to reduce the influence of persuasive messages on the process of radicalization. This process is detailed.

Contrary to our hypothesis and previous research there was no effect of prime or moral cue on agreement with the recorded message. However, there was a significant interaction in that the participants in the religious prime/low moral cue condition showed the greatest agreement with the recorded message. This was in accord with our hypothesis. This was the key hypothesis of the present research. In review of all the results, including the comparison to the null condition, we see a distinct pattern in which the religious prime / low moral reasoning cue
resulted in greater endorsement of activism and extremism items. This pattern, though not significant with this data set followed the same general pattern. We look forward to examining this relationship in future data sets.

There is no evidence to support the hypothesis that religious priming functions as a cognitive distraction. It is likely that religion serves as a bound on rationality. Chen, et al. (1996) demonstrated judgment heuristics serve as bounds on rational thinking. The concept of bounded rationality states that people make rational decisions within the confines of the information that they have and the manner in which that information had been evaluated and assessed (Fror, 2008; for overview see Gigerenzer, 2001). These bounds on rationality, how the information has been processed and previously evaluated can later influence systematic processing (Chaiken & Maheswaran, 1994). Bounded rationality is characteristic of the heuristic path of decision-making. In ill-defined or complex situations people use schemas or judgment rules developed previously (Arthur, 1994). Under these conditions, or any condition of decision-making in extremis, people are likely to engage in decision-making using heuristics while ignoring other evidence or information (Gigerenzer & Goldstein, 1996). One heuristic that is common is to go along with, or adhere to, a group’s decisions. This was shown in previous research (Asch, 1940; Chen, et al., 1996). Another bound on rationality is fear (Kahneman, 2003; Kaufman, 1999).

**Future Directions**

The next study will replicate the present research with the re-introduction of the leadership manipulation used in previous research in which we will use a confederate leader who uses either a charismatic or non-charismatic persuasion style. Following this we will then conduct another study in which activism is suppressed which should increase radicalism and
extremism scores. Through this we will also examine the function of social vigilantism in a radicalized environment.

The next block of studies will examine the hypothesis that religious priming and leadership serves as a bound on rationality. This bounded rationality should limit one’s chances of arriving at a clearly optimal solution to a behavioral game theory measure. The next hypothesis that will be tested to explain why religious priming results in greater compliance will include a behavioral task that will show that religious priming, moral cuing, and leadership serve as limits on rational decision-making. Within the confines of the rules set by leaders, moral cues and religious primes we should see more profound effects than we did with the present research.

The results of the present and previous research should lead to behaviors that would be analogous to violence or aggression towards outgroups. This will be examined by a partial replication of previous research that showed that religious priming led to greater punishment of outgroup members (Bushman, et al., 2007).

The present research has shown many problems with using the GLM to analyze data that is heavily skewed or shows high kurtosis. Therefore, future directions associated with this research will first establish empirical criteria to interpret kurtosis coefficients. Doane and Seward (2011) have already provided empirical criteria for interpreting skewness coefficients. This has not yet been accomplished for kurtosis coefficients. After that is accomplished mathematical proofs will be made available to demonstrate a method to examine mixed distributions MANOVA. The equation and proofs will be used to construct R code that can be used to address mixed distribution MANOVA without the two-test solution that was used in the present research.
Data sharing

All results and materials from this study will be made available on the Social Cognition Laboratory’s website. Further, the data set will be made available as well, with identifying information removed. Lastly, the SAS file and the MPlus file, fully annotated will be made available. This is done in the interest of full transparency in research.
References


Randolph-Seng, B., & Smith, B.A. (in review). Religious identity vs. organizational identity: Influences on organizational citizenship. *unpublished manuscript*


Appendix A: Activism and Radicalism Intentions Scale (ARIS)

All items measured on a 1-7 Likert-type scale
Items 1-4 represent activism intentions and items 5-10 represent radicalism intentions

1. I would join/belong to an organization that fights for my group’s political and legal rights
2. I would donate money to an organization that fights for my group’s political and legal rights.
3. I would volunteer my time (i.e. write petitions, distribute flyers, recruit people, etc.) for an organization that fights for my group’s political and legal rights.
4. I would travel for one hour to join in a public rally, protest, or demonstration in support of my group.
5. I would continue to support an organization that fights for my group’s political and legal rights.
6. I would continue to support an organization that fights for my group’s political and legal rights, even if the organization sometimes resorts to violence.
7. I would participate in a public protest against oppression of my group even if I thought the protest might turn violent.
8. I would attack police or security forces if I saw them beating members of my group.
9. I would go to war to protect the rights of my group.
10. I would retaliate against member of a group that had attacked my group, even if I couldn’t be sure I was retaliating against the guilty party.
Appendix B: Extremism items for Activism, Radicalism, and Extremism Scale

All items measured on a 1-7 Likert-type scale

1. I would engage in low level criminal activity (theft, bribery) to achieve my group’s goals.
2. I would commit high level criminal actions (killing, assault) to achieve my group’s goals.
3. I would commit acts of sabotage (destroying a bridge) to harm my group’s enemies.
4. I would plant a bomb in an empty building to achieve my group’s goals.
5. I would inform the authorities of the actions of a friend who was planning on committing a common crime. (reverse coded)
Appendix C: Social Vigilantism Scale

All items measured on a 1-7 Likert-type scale

1. I feel that it is my duty to enlighten other people.
2. I feel that my ideas should be used to educate others.
3. I feel a social obligation to voice my opinion.
4. I need to win any argument about how people should live their lives.
5. Those people who are more intelligent and informed have a responsibility to educate the people around them who are less intelligent and informed.
6. I like to imagine myself in a position of authority so that I could make the important decisions around here.
7. I try to get people to listen to me, because what I have to say makes a lot of sense.
8. Some people just believe stupid things.
9. There are a lot of ignorant people in society
10. I think that some people need to be told that their point of view is wrong
11. If everyone saw things the way that I do, the world would be a better place.
12. It frustrates me that many people fail to consider the finer points of an issue when they take a side.
13. I often feel that other people do not base their opinions on good evidence.
14. I frequently consider writing a “letter to the editor” or policy makers.
Appendix D: Religious Influence Acceptance Scale

All items measured on a 1-7 Likert-type scale

1. Religion is an important foundation for our values.
2. My life would be missing something if it weren’t for religion.
3. I am a better person because of my religious beliefs.
4. Religion doesn’t really matter when it comes to morality. (R)
5. Religion is dangerous to society. (R)
6. Society would be less generous if we lacked religion.
7. Religious beliefs keep people from being as bad as they could be.
8. Religion has no place in the public. (R)
Appendix E: Moral Reasoning Cues

Pre-conventional moral reasoning cue
Previous crises such as this have been resolved by adhering to the social order, repelling threats to the group. Whatever problems the group may have can be resolved by the group. Holding strong to our rules and norms has consistently produced good results for our group. We stand strong together.

Post-conventional moral reasoning cue
Previous crises such as this have been resolved by reaching to higher moral values. For example the revolution of Mexico against Spain and the United States against England were based on higher moral principles. These principles of universal human well-being and life have served us well in the past and will continue to serve us well.
Appendix F: Script for Recorded Message

Western civilization is under attack by forces that are wanting to force foreign ideas on western people. Famous Middle Eastern religious leaders are on the record calling for the implementation of Islamic law on everyone in the western world and requiring the death of anyone who resists. Our governments have done little to stem the rise of these radical groups and their threat to our lives and livelihoods.

We can ignore the growth of this problem like Europe ignored the growth of dangerous governments, which eventually led to World War II. It is clear that our governments are ignoring this threat. Agents and people influenced by this foreign group have already staged attacks in France, England, and the United States. The intent is clear, to kill all of those who would resist the implementation of Islamic law on western people.

To preserve our freedoms of religion and life we should oppose these forces respond to their aggression with vigor.
Appendix G: First DV questionnaire

1. To what degree do you agree with the recorded message?
2. How critical do you consider the crisis that was described in the recorded message?
3. To what degree are you confident that we could win the conflict?
4. To what degree are you willing to participate in the conflict if it is fought in another country?
5. To what degree are you willing to participate in the conflict if it is fought near your home?
Appendix H: Second DV questionnaire

Each question will be answer on a “point present,” “point implied,” or a “point not present” scale.

Which of the following statements were actually part of the recorded message?

1. We are currently under attack
2. We could be under attack in the future
3. We are not currently under attack but we could be in the future
4. European leaders are calling for the implementation of foreign laws on the western world
5. Middle Eastern leaders are call for the implementation of foreign laws on the western world
6. Europe has ignored the growth of this problem.
7. Europe has addressed the growth of this problem.
8. Our governments are addressing this threat.
9. Our governments are ignoring this threat.
10. There have already been attacks in the Western world.
11. There have not yet been attacks in the Western world.
12. The enemy wants to conquer us.
13. We must act to preserve our liberties.
14. Our liberties are firm and are not currently threatened.
Appendix I: Demographics questionnaire

Age: ______

Sex: Male __ Female ___

Religion:
Roman Catholic __
Orthodox Christian __
Protestant Christian __
Jewish __
Muslim __
Hindu __
Atheist/Agnostic __
Other __

Ethnicity:
Hispanic/Latino __
White, non-ethnic __
Cajun/Arcadian __
African-American__
Asian__
Pacific Islander__
Native American__
Other__

Political Affiliation:
Republican__
Democrat__
Socialist__
Libertarian__
Independent__
Uncertain__
Other__
Appendix J: Script for Persuasive Message

Difficult to counter-argue message

An intensive 2-year investigation has found that the University of Texas at El Paso was 50th in the state for expenditures on education. It was also found that improvements were needed in the library system and that improvements to the campus transportation and parking system should be initiated. Further studies have proven that if UTEP could upgrade its quality, the average salary of its graduates would increase substantially.

Easy to counter-argue message

A recent 2-month study has found that the University of Texas at El Paso was 10th in the state for expenditures on education. More trees and landscaping needs to be accomplished on campus. It was also found that lighting in the classrooms need to be improved to reduce student headaches in class. The income that UTEP currently has will not pay for this improvements.
Vita

Brandt Smith began his academic career at Grand Valley State University in Allendale, MI where he was awarded a bachelor of science degree in psychology with a minor in applied statistics in 2011. He began his graduate training that same year at the University of Texas at El Paso. There he was awarded a master of arts degree in experimental psychology in 2013. He has recently completed all requirements for a doctor of philosophy degree in psychology with a graduate certificate in quantitative methods.

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