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THE COGNITIVE DISSONANCE THEORY OF TORTURE PERCEPTIONS

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Abstract

Torture is commonly perceived as fundamentally wrong, yet sometimes justified. To examine these competing perceptions within a cognitive dissonance theory framework, participants were primed with either (1) a gray spectrum visual cue designed to produce a more flexible, nuanced mindset, (2) a black and white visual cue designed to elicit a dichotomous mindset, or (3) not primed in a control condition. Participants (N= 226) evaluated a torture scenario involving a terrorist perpetrator. Scenarios also varied in the degree of personal closeness to victims in the crisis. Contrary to expectations, participants primed with a gray spectrum cue were not significantly more likely to support torture or perceive the terrorist perpetrator in the scenario more positively compared to a control; participants primed with a black and white cue did not show less torture support or perceive the terrorist more negatively compared to a control. Also contrary to expectations, cognitive dissonance did not mediate expected effects of priming type and personal closeness on torture support and terrorist perceptions. However, findings did indicate that participants who evaluated a crisis describing a loved one in imminent danger were more likely to support torture and perceive the terrorist more negatively compared to those who considered a crisis that described a threat to unknown persons. Additional analyses also revealed some unexpected results concerning how psychological dissonance influenced participants’ evaluations of the crisis scenario. These unexpected findings provide some potential avenues for future research to further understand how people perceive torture and terrorists.
The Cognitive Dissonance Theory of Torture Perceptions

Torture is one of the most relevant topics in psychology today (e.g., Barrington & Shakespeare-Finch, 2013; Boussios, 2013; Defrin, Ginzburg, Mikulincer, & Solomon, 2014; Liberman, 2014; Viki, Osgood, & Phillips, 2013; Stevens, Eagle, Kaminer, & Higson-Smith, 2013). It has attracted considerable media attention and has cultivated fervent discussion in politics and among professionals in a number of fields. However, as others have noted (e.g., see Norris et al., 2010), limited psychological research relevant to how people think about torture and why exists. The evidence that does exist suggests that people’s broad perceptions of torture highlight an inherent contradiction: the perception that torture is fundamentally wrong is clearly juxtaposed with the perception that torture is sometimes justified. The present work explores this incongruency in torture perceptions within the framework of cognitive dissonance theory. The primary thesis of this study is that when the inconsistency between these two broad torture perceptions is made salient in a person’s mind, unpleasant feelings of dissonance result. To reduce this tension, people formulate negatively biased views of the person(s) being tortured (frequently terrorists), thereby justifying the use of torture against those viewed as “deserving” of torture.

Public Opinion Polls Reflect Discrepant Torture Perceptions

Most polling data from the United States and abroad suggests that while people tend to oppose torture at a very broad level, they often support it given a particular set of circumstances (for discussion, see Houck & Conway, 2013). For example, a 2012 poll found that 66% of Americans said they do not think the Government should use torture against suspected terrorists (Canseco, 2012), and as high as 82% of respondents in Spain, Great Britain, and France, say that all torture should be prohibited. Moreover, when asked about who should be held responsible
when acts of torture have been committed, 77% of Americans said that those who both administered the torture and also those who gave the orders to torture ought to be held accountable (World Public Opinion, 2006).

At the same time, another poll found that the majority of Americans believe torture is at least sometimes justified when interrogating suspected terrorists (e.g., Harris Interactive, 2005). More recent polling data revealed that 61% of Americans, nearly 9 in 10 South Koreans, and over half of people in France and Great Britain agreed that torture is justified on rare occasions (The Associated Press, 2013).

**Research Reflects Discrepant Torture Perceptions**

Although rather limited scientific research pertaining to torture perceptions exists, the research that has been conducted reveals similar discrepancies to those seen in opinion polls. On the one hand, there is a significant amount of evidence suggesting that people are inherently averse to harming others, even in cases where harmful actions against one person would save many lives (for discussion, see Cushman, Gray, Gaffey & Mendes, in press; also see, Mikhail, 2000; Petrinovich, O’Neill, & Jorgensen, 1993; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Mendez et al., 2005; Moretto, La’davas, Mattioli, & di Pellegrino, 2010). According to Grossman (1995), for example, combat soldiers who are trained to kill the enemy often miss their targets intentionally. Though these findings do not explicitly pertain to torture, the act of torturing is by definition a type of harmful action, and thus it is reasonable to infer that people are averse to torture in the main.

On the other hand, there is a growing body of work suggesting that people believe torture is justified in some situations. Much of this research has examined people’s torture support relative to different types of crisis scenarios (Homant & Witkowski, 2008; Homant &
Witkowski, 2011; Houck & Conway, 2013, Houck, Conway, & Repke, in press). For example, the ticking time bomb scenario is commonly used to illustrate a set of exceptional circumstances that many think justify the use of torture (e.g., Allhoff, 2003; Allhoff, 2012; Anderson, 2010; Bagaric & Clarke, 2005; Cohan, 2007; Constanzo & Gerrity, 2009; Dershowitz, 2003; Dershowitz, 2010; Lefebvre & Farley, 2007; Posner & Vermeule, 2006; Mayer, 2007; Rejali, 2007). It describes the following crisis:

There is a bomb that is set to detonate in a populated city that will cost thousands of innocent lives. The location of the bomb is unknown to authorities, and it is not possible to locate the bomb in time. Authorities have the terrorist who planted the bomb in custody, but the terrorist is refusing to reveal any information about the location of the bomb. Unless authorities can find the bomb in time, thousands of innocent civilians will die. One must choose whether or not torturing the guilty terrorist in order to save innocent lives is justified.

Homant and Witkowski (2011) found that 61% of undergraduate student participants supported the use of torture in a ticking time bomb scenario, and findings from Houck and Conway (2013; in press) similarly revealed high levels of torture support in adapted ticking time bomb and kidnapper scenarios. These findings demonstrate that when people are provided details about the context, they view torture as justified at least some of the time. But what specific aspects within a given situation lead to torture justification?

**Key Factor that Influences Torture Justification: Personal Closeness**

Prior research has identified personal closeness as a key variable. Personal closeness, commonly conceptualized in research through its inverse — psychological distance — has been applied to many different domains in psychology, and predicts a variety of outcomes. For
example, helping behavior is directly related to both the emotional closeness people feel with those in need (e.g., Toi & Batson, 1982) and the degree that people feel those others are incorporated into their own self-concept (e.g., Cialdini, Brown, Lewis, Luce, & Neuberg, 1997).

Further, research by Milgram (1974) demonstrates that participants are more likely to harm others when they are not in physical proximity—when distance is created between the participant and the victim.

**Personal Closeness and Torture Support.** Personal closeness is also importantly connected to how people make decisions regarding torture. When evaluating scenarios that describe torture as necessary to save the life of an innocent person, the closeness between the person deciding about torture usage and the potential victims of a crisis situation influences torture endorsement. In particular, findings from Houck and Conway (2013) and Houck, Conway, and Repke (in press) demonstrate that people are more likely to support the use of torture against the perpetrator of a crisis in personally close scenarios – those that involve a close loved one as the potential victim in the crisis – compared to abstract, psychologically distant scenarios involving strangers. Importantly, this effect occurred even for those who reported predominantly negative views of torture in general, thus further substantiating the notion that people frequently hold competing torture attitudes; people view torture as bad, but nevertheless think it can be justified.

**Personal Closeness and Perceptions of Torture.** Personal closeness also has more subtle, indirect effects on how people perceive aspects of the torture situation. For example, in personally relevant scenarios participants are more apt to believe that torture will in fact be effective (Houck, Conway, & Repke, in press). This suggests closeness to the victim makes people want to believe torture is effective, when in reality, whether or not torturing terrorists for
Another study found that personal closeness influences how people perceive the person being tortured (Gray & Wegner, 2010; see also, McCoy, 2006; Lerner, 1971; Zanna & Cooper, 1974), such that when participants were placed in a role closer to the torture, they were more likely to assume the suspect being tortured was guilty compared to when they were assigned to a role more distant from torture.

A larger theme that emerges from this prior work on torture perceptions is that people do not always evaluate and make decisions about torture objectively. On the contrary, how people think about torture scenarios is often biased in favor of one’s own motives. This is consistent with psychological research suggesting that when people want to believe in something, they are psychologically motivated to believe it is indeed so (for discussion, see Baron, 2007).

The present project is designed to test an overarching theory of torture perceptions grounded in cognitive dissonance theory. This cognitive dissonance theory of torture perceptions further explores the processes by which biases – particularly biases that satisfy psychological motives for attitude-consistency – lead to the rationalization of torture.

**The Current Theory: The Cognitive Dissonance Theory of Torture Perceptions**

Cognitive dissonance refers to an unpleasant state caused by the awareness of inconsistencies between beliefs, attitudes, or actions (Festinger & Carlsmith, 1959). Individuals naturally seek consistency and are therefore motivated to reduce dissonance. A long history of research suggests that cognitive dissonance theory predicts a wide range of psychological phenomena. For example, classic research by Festinger and Carlsmith (1959) revealed that when participants were forced to perform an intentionally boring task that under normal conditions they report disliking, asking them to lie to another participant changed their attitudes about the
task. In particular, the dissonance created between participants’ behavior (saying they liked the task to another participant) and their cognition/attitude (not enjoying the boring task) was overcome by changing their evaluations of the task thereafter – participants later reported that the task was indeed enjoyable. Further, research suggests dissonance influences how people make and subsequently evaluate their decisions (e.g., Brehm, 1956) as well as their goals and behaviors (e.g., Aronson & Mills, 1959).

Applying this theory to the case of torture suggests that when inconsistencies between commonly held attitudes about torture are accentuated in one’s mind, the resulting dissonance influences how one perceives the use of torture in general, and also how one thinks about the person being tortured specifically. When the dichotomy between two widespread, antagonistic perceptions – torture is wrong, yet also justified – is made salient, the tension that emerges from those conflicting views must be dealt with psychologically. In other words, when evaluating a situation requiring decisions about torture, one must decide which view supersedes the other, or find some other way to manufacture attitude consistency.

Consider the following hypothetical example: John is a politician who strongly believes that torture is inhumane and wrong. He even plans to champion anti-torture laws during his time in office. However, in a recent political debriefing John was informed of a foiled terrorist attack that would have killed thousands of innocent lives. The attack was averted due to intelligence gathering that involved torturing a captured terrorist for information. The information gained through torture proved essential to prevent the attack. Such an extreme crisis situation had never before occurred during John’s time in politics, and it caused him to re-evaluate his staunch position against all forms of torture. Though it caused him angst, John began to consider the possibility that torture might be justified, but only in very rare circumstances where a great

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1 Research suggests that torture is not effective. This hypothetical example was used for illustrative purposes only.
number of innocent lives are at stake.

How might John deal with the disconnect between his long-standing view that torture is wrong, and his current thought that torture might be justified in exceptional situations such as in the crisis he just learned of? According to the basic tenets of cognitive dissonance theory (Festinger, 1957; also, for a review, see Mcleod, 2008), because John is aware that he holds inconsistent attitudes towards torture, he is motivated to alleviate the cognitive disharmony. This can be accomplished either by (1) changing the new cognition (e.g., John holds firm to the belief that torture is fundamentally wrong despite its potential usefulness in preventing a terrorist attack), (2) justifying the new cognition by changing the conflicting cognition (e.g., John changes his position on torture altogether and now thinks that torture is sometimes permissible, especially when it would save innocent lives), (3) adding new cognitions that justify the cognition (e.g., John reasons that the person being tortured is truly harmful to society and is deserving of torture anyway), or (4) minimizing or otherwise ignoring the importance of the cognitions (e.g., John views his own opinions about torture as inconsequential – what he thinks will not really matter in the larger picture, so he ought not dwell on the complexities of the issue).

Considering there are several possible pathways to reduce dissonance, what leads people to rationalize torture instead of simply changing their cognitions to match the view that torture is wrong? The amount of dissonance people experience and how they resolve it can depend on several factors, including how strongly one holds a particular attitude, the importance of the attitude, and the degree to which attitudes are inconsistent (McCleod, 2008).

This suggests two important implications for the present theory. First, because attitude importance and attitude strength both influence the amount of dissonance one feels, the present
theory would predict a stronger effect of dissonance (and in turn more rationalization of torture) when attitudes towards torture are more personally important. This suggests that personal closeness – a key variable identified in prior research (e.g., see Houck & Conway, 2013) – might importantly interface with the cognitive dissonance theory of torture perceptions, because people feel strongly about the outcome when they feel especially close to the potential victims in the torture scenario (Houck & Conway, 2013). Indeed, some evidence suggests that discomfort increases as one becomes closer in proximity to the torture, which leads one to change his/her thoughts about the suspect being tortured (Gray & Wegner, 2011; see also, McCoy, 2006; Lerner, 1971; Zanna & Cooper, 1974). Though they did not manipulate or measure dissonance directly, Gray and Wegner (2010) propose that one consequence of feeling personally close to torture is that it causes unpleasant feelings of dissonance, which leads to the perception that the person being tortured is guilty. For the present work, this suggests that personal closeness is one factor that is likely to lead people to resolve dissonance by changing their perceptions about the tortured person and in turn rationalizing torture, rather than holding to the view that torture is wrong.

Second, the degree to which people are attentive to their own attitude-inconsistencies importantly affects feelings of dissonance. This is relevant because the present theory is based upon people first experiencing dissonance (which requires some degree of awareness of discrepant attitudes) and then resolving that dissonance by rationalizing torture. Though people commonly hold dual perceptions about torture, they are not always fixated on their own disparate views. In order for dissonant feelings to emerge, it is a necessary that competing attitudes about torture are salient in a person’s mind, such that there is a focus on attitude-inconsistencies. This increases the likelihood that people will experience dissonance and in turn rationalize the use of
torture in order to reduce the psychological tension dissonance causes. If people do not experience dissonance, then torture perceptions are less likely to be influenced in this way, as decisions about torture situations are more straightforward in a person’s mind. Thus, one’s frame of mind – whether focused on the discrepancy, or alternatively focused on a more singular perspective – ought to affect how people evaluate torture scenarios. Below, I discuss priming as a mechanism that has been effectively used in prior work to produce different frames of mind (e.g., Zarkadi & Shnall, 2013; Gollwitzer, Heckhausen, & Steller, 1990; Bargh & Chartrand, 2000) and elaborate on the specific primes used in the present work that are designed to either minimize or enhance focus on attitude-discrepancies.

**Rationale**

Prior evidence about how people think about torture is useful, but merits further exploration. In total, this evidence suggests that people view torture negatively, but nonetheless support it in some situations. In particular, personal closeness is one specific aspect of the situation that generates more torture justification (e.g., see Houck & Conway, 2013; Houck, Conway, & Repke, in press). While this evidence helps inform when people view torture more favorably, it remains less clear why and how people justify torture. Specifically, why do people sometimes align with the perspective that torture is wrong, and at other times (i.e. in personally close torture scenarios) align more with the perspective that torture is justified, and what are the psychological processes underlying the resolution between these competing perceptions? There is little known work that has applied a broader theoretical umbrella from which to understand torture perceptions. The purpose of this project is to test the **cognitive dissonance theory of torture perceptions** by examining the connection between dissonance and the justification of torture.
Design Overview

To test this theory, participants will first complete a questionnaire that will be used to obtain a pre-measure for participants’ overall attitudes towards torture. Next, participants will be randomly assigned a hypothetical crisis scenario to evaluate and will be asked to indicate their level of support for torturing the terrorist in the scenario, as well as answer questions relevant to how they perceive the terrorist. Two key factors will be manipulated.

First, to increase the likelihood that participants focus on attitude discrepancies and in turn experience feelings of dissonance, participants will be primed with a particular mindset as they evaluate the torture scenario. Following similar methods used in prior work (e.g., Zarkadi & Shnall, 2013), primes will be imbedded into the visual border surrounding the scenario that participants will read (See Appendix A for an example). Some participants will be primed to think in a more flexible, nuanced mindset via a gray spectrum visual cue. This prime is designed to accentuate attention to dissonance by cueing people to think about multiple perspectives that are conceptually associated with nuanced shading (i.e., “torture is immoral, yet it will accomplish a greater good by saving innocent lives which is a moral goal”). Other participants will be primed to think in a black and white, dichotomous mindset via a non-emotive black and white visual cue (adapted from Zarkadi & Shnall, 2013). This prime is aimed at minimizing dissonance by prodding people to think in simple, clear-cut terms rather than focus on attitude discrepancies (i.e. “torture is always wrong regardless of the circumstances”). While there is no known work that directly connects visual primes to dissonance in this way, prior work has shown that visual primes can effectively produce different frames of mind, (e.g., see Zarkadi & Shnall, 2013; Gollwitzer, Heckhausen, & Steller, 1990; for a review, see Bargh & Chartrand, 2000) and that one’s mindset influences one’s subsequent judgments (e.g., Haidt, 2001). Relevant to the
present study, Zarkadi and Shnall (2013) found that black and white visual cues activate right vs. wrong, dichotomous thinking and lead to more extreme moral judgments. Second, scenarios will also vary in the degree of closeness to potential victims in the crisis, largely to see if the manipulation increases dissonance and in turn participants’ torture perceptions, and to see if closeness interacts with the type of prime.

**Expectations**

Given the design, the cognitive dissonance theory of torture perceptions predicts the following hypotheses:

(1) A main effect of priming type on torture support and terrorist perceptions is expected. Specifically, participants who are primed with the gray spectrum (flexible mindset) will support higher levels of torture (as measured by continuous and dichotomous measures of torture support) and report more negative views of the terrorist perpetrator described in the scenario (as measured by a *Negative Perceptions of the Terrorist Perpetrator Questionnaire*) compared to a control. It is expected that participants who are primed with a black and white visual cue (dichotomous mindset) will support lower levels of torture (as measured by the continuous and dichotomous measures of torture support) and relatively more positive views of the terrorist perpetrator in the scenario (as measured by the *Negative Perceptions of the Terrorist Perpetrator Questionnaire*) compared to a control.

(2) These main effects of priming type on torture support and terrorist perceptions will be moderated by personal closeness, such that effects will be stronger for participants who consider torturing the terrorist perpetrator to save a loved one (personally close condition) as opposed to a stranger (distant condition).
(3) Expected effects of priming type on torture support and terrorists perceptions will be in part mediated by feelings of dissonance (as measured by the *Cognitive Dissonance Scale*).

(4) Consistent with findings from prior work (Houck & Conway, 2013; Houck et al., in press), a main effect of personal closeness on torture support is expected. In particular, those who evaluate a crisis describing a loved one in imminent danger will support higher levels of torture against the perpetrator of the crisis (as measured by the continuous and dichotomous measures of torture support) and report more negative views of the terrorist in the scenario (as measured by the *Negative Perceptions of the Terrorist Perpetrator Questionnaire*) compared to those who evaluate a crisis involving a stranger.

(5) Expected effects of personal closeness on torture support and perceptions of terrorists will be mediated by cognitive dissonance (as measured by the *Cognitive Dissonance Scale*).

**Methods**

**Participants**

Two hundred and twenty six participants were recruited using Amazon’s Mechanical Turk (MTurk), an online survey system where people are paid to participate in research. Nine participants incorrectly answered the “check” question and were thus excluded from analyses, leaving two hundred and seventeen participants (112 Males, 103 Females, 1 Transgender, 1 unreported, $M_{age} = 36$). Participants were predominantly White ($N=141$), while other represented races included: Asian ($N=48$), African American ($N=9$) Hispanic or Latino/Latina ($N=8$), Indian ($N=8$), Native American ($N=1$) and other or unidentified ($N=2$). Participants’ religious affiliation was primarily Christian ($N=86$) or no religion ($N=80$). Other religions included: 28 Hindus, 13 “Other”, 5 Muslims, 2 Jews, 2 Buddhists, and 1 unreported. Participants

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2 Nine participants incorrectly answered the “check” question, which was included to see if participants were paying attention while answering questions. The question asked participants to “please enter 4 for the answer to this question”. The nine participants who did not enter “4” to this question were excluded from all reported analyses.
resided primarily in the United States. Following typical MTurk compensation standards, participants were paid 60 cents to complete this study.

**Materials**

Participants completed a brief questionnaire that included an initial measure of torture attitudes. Participants were randomly assigned to receive one of six hypothetical crisis scenarios that were used to prompt responses pertaining to torture support and perceptions of the terrorist perpetrator of the crisis. All scenarios, adapted from prior work (Homant & Witkowski, 2011; Houck & Conway, 2013; Houck et al., in press), are roughly equivalent in length and include parallel features. Specifically, all scenarios describe a guilty terrorist in custody; the terrorist holds vital information necessary to prevent the loss of innocent life, but is refusing to cooperate. All alternatives to obtain the information have already been attempted and failed, leaving torturing the terrorist for the information the only remaining option. The scenarios were constructed to vary along two primary dimensions relevant to the key hypotheses: 1) the visual background within which the scenario is presented (gray spectrum prime/flexible mindset, black and white prime/dichotomous mindset, or no background/control), and 2) personal closeness to the victim of the crisis. (Please see Appendix B for a sample of scenarios.)

**Manipulations**

Two manipulations in the current study are directly relevant to the primary hypotheses. The first is the visual prime that participants were exposed to while reading about a crisis situation. The priming manipulation, adapted from previous research (Zarkadi & Schnall, 2013),

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3 Due to experimenter error, forty participants living outside of the United States completed this study. To account for any potential influences this might have caused in terms of the reported findings, analyses were conducted both including and also excluding these participants. Descriptive and inferential results that were relevant to the key hypotheses were not substantially different: Whether including or excluding these 40 non-U.S. participants, the resulting descriptive and inferential results from this study are the same. Therefore, I do not discuss this issue further.
was used to examine the influence of one’s frame of mind on one’s subsequent evaluations of the use of torture and one’s views of terrorists, and more broadly to test the cognitive dissonance theory of torture perceptions. The second primary manipulation, taken from prior work (e.g., see Houck & Conway, 2013; Houck et al., in press), is personal closeness to the victim in the crisis scenario. This manipulation was used to examine the potential interaction between priming type and personal closeness to the victim on torture support and perceptions of the terrorist described in the crisis.

**Visual Primes.** Some participants read a crisis scenario that was displayed against a gray spectrum background, while others read a crisis scenario displayed against a black and white checkered background. Participants in the control condition read a scenario against no background at all.

**Personal Closeness.** Some participants evaluated a crisis scenario that involved a loved one in imminent danger. Prior to reading the scenario, participants were first asked to name a loved one and to thoughtfully consider that loved one in the context of the scenario. Others evaluated a crisis scenario describing a stranger from another country in imminent danger (see Houck & Conway, 2013; Houck et al., in press).

**Dependent Measures**

Participants completed two measures relevant to torture support, both of which have been used in prior work (Houck & Conway, 2013; Houck et al., in press). Participants also answered questions about their perceptions of the terrorist described in the scenario. Afterwards, participants completed a measure related to the amount of dissonance they felt while evaluating and answering questions about the torture scenario. Lastly, after all primary measures were completed participants answered additional questionnaires relevant to abstract attitudes about
torture and terrorists, personality, and ideology.

**Support for Torture.** The *Continuous Torture Support Scale*, anchored by 1 as “no pressure” and 6 as “maximum pressure,” asks participants to indicate the degree to which they would support coercive interrogation. Torture is notoriously hard to define, and as a result, there are numerous legal definitions. According to Miller (2005), the most “widely-accepted” definition is from the United Nations Convention Against Torture (CAT), in which torture is defined as:

Any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions.

As it pertains to the levels of coercive interrogation in the present research, torture is generally described as occurring around level 4 (Cohen, 2007; Covey, 2005), and level 5 clearly constitutes physical torture (Homant et al., 2008; Homant & Witkowski, 2011).

To further capture people’s support for torture in the scenario, we used the *Dichotomous Measure of Torture Support*, which asks participants to indicate (yes/no) whether or not they would support the use of torture in the scenario they evaluated. (Please see Appendix C for torture support measures.)

**Negative Perceptions of the Terrorist Perpetrator.** To examine the influence of priming
different frames of mind on the degree to which participants hold negative views of the terrorist in the scenario, participants answered questions related to their perceptions and stereotyping of the terrorist perpetrator they read about. The *Negative Perceptions of the Terrorist Perpetrator Questionnaire* was constructed following typical methods for measuring stereotypes (e.g., see Conway et al., 2009; Schaller, Conway, & Tanchuk, 2002; Schaller, Park, & Mueller, 2003), and includes items relevant to the degree to which participants feel that the terrorist deserves torture, how justified and vindicated participants view torturing the terrorist in the scenario, how much empathy they feel for the terrorist, and how they evaluate the terrorist on traits such as aggression, cruelty, deceitfulness, intelligence, and sophistication. Items were reverse scored when appropriate; high scores on this scale reflect negative views of the terrorist described in the scenario. Please see Appendix D.

**Cognitive Dissonance Scale as a Mediator**

Similar to other measurements of dissonance (e.g., see Hausknecht, Sweeney, Souter & Johnson, 1998; Levin, Harriott, Paul, Zhang & Adams, 2013), participants answered dissonance-related questions relevant to their thoughts and feelings about their responses to the torture scenario they read. For example, participants were asked questions, anchored by 1 (“not at all”) and 7 (“very much”), about how comfortable with and certain they felt with their answers, if their responses to the scenario were consistent with prior beliefs about the subject, and how much regret, guilt, and worry they felt about their answers. These items were reverse-scored when appropriate and averaged to create an overall dissonance composite. Please see Appendix E.

**Abstract Views of Torture Questionnaire**
After participants read and responded to their assigned scenario and completed the primary dependent measures, they answered questions pertaining to their general (abstract) attitudes about torture. The purpose of this questionnaire was to assess participants’ broad views of torture. This three item questionnaire, anchored by 1 as “strongly disagree” and 7 as “strongly agree,” asks participants (1) whether they generally agree with torture, (2) to what degree they think torture was moral, and (3) whether they think that there are some circumstances in which torture is justified. This questionnaire has been used in prior research (Houck & Conway, 2013). Please see Appendix F.

**Abstract Perceptions of Terrorists Questionnaire**

In order to examine the extent to which the type of mindset participants are primed with will influence perceptions of terrorists more generally (not solely specific to the terrorist in the scenario), participants answered questions related to their broad perceptions of terrorists. Questions were constructed to parallel the Negative Perceptions of the Terrorist Perpetrator Questionnaire, but were framed so that they refer to views of terrorists in general rather than specific to the scenario. Please see Appendix G.

**Additional Questionnaires**

After all of the other variables are administered, participants also completed a number of additional questionnaires. Some of these questions were relevant to their views of the scenario they read about (Houck & Conway, 2013; see also Homant & Witkowski, 2011). Other questions pertained to information about the participants themselves, including political and social beliefs (Conway et al., 2008), right wing authoritarianism (Altemeyer, 1981), social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994), personal need for structure (Neuberg & Newsom, 1993), and need for cognition (Cacioppo, Petty & Kao, 1984). These
personality and values questions were included largely to look for potential individual-level moderators of the expected effects of priming type and personal closeness on measures of torture support and perceptions of terrorists.

Finally, participants were also asked for the following standard demographic information: gender, sexual orientation, age, ethnicity/race, political ideology, and religious affiliation. All of these questionnaires have been used in similar prior research (Conway et al., 2008, Conway et al., 2012). Please see Appendix H for all additional questionnaires.

**Procedure**

All participants were randomly assigned to read one of six possible hypothetical crisis scenarios derived from a 3 (Prime: Gray Spectrum, Black Versus White, Control) X 2 (Personal Closeness: Loved One, Stranger) between subjects design. Participants completed measures of torture support and terrorist perceptions relative to the scenario. Next, participants completed the cognitive dissonance scale, followed by all additional questionnaires that were administered after all other variables.

**Results**

**Primary Analyses**

A 3 (Prime: Gray Spectrum, Black Versus White, Control) X 2 (Personal Closeness: Loved One, Stranger) ANOVA was conducted on the primary outcome measures: (1) Torture Support Measures (Continuous Torture Support Scale and the Dichotomous Measure of Torture Support), and (2) the Negative Perceptions of the Terrorist Perpetrator Questionnaire. Contrary to hypotheses 1 and 2, analyses did not reveal a main effect of Prime on Continuous Torture Support ($F[2, 211] = .54, p > .05$; partial eta squared = .031), and there was no interaction between Prime and Personal Closeness on Continuous Torture Support ($F[2, 211] = .19, p > .05$;
partial eta squared = .002). Please see Figure 1. Similarly, no main or interaction effects emerged for the Dichotomous Measure of Torture Support ($p’s > .05$). Also contrary to hypotheses 1 and 2, analyses did not reveal a main effect of Prime on Negative Perceptions of the Terrorist Perpetrator ($F[2, 211] = 4.10, p > .05$; partial eta squared = .004), and there was no interaction between Prime and Personal Closeness on Negative Perceptions of the Terrorist Perpetrator Questionnaire ($F[2, 211] = 2.12, p > .05$; partial eta squared = .002). Please see Figure 2.

Consistent with hypothesis 4 (and replicating findings from prior work; e.g., see Houck & Conway, 2013; Houck, Conway, & Repke, in press), analyses did reveal a significant main effect of Personal Closeness on Continuous Torture Support ($F[1, 211] = 6.75, p = .01$; partial eta squared = .031), such that participants who evaluated a crisis scenario describing a close loved one in imminent danger were more likely to endorse the use of torture against the terrorist perpetrator compared to participants who read a scenario involving strangers as potential victims of a crisis. Please see Figure 3. However, this effect of Personal Closeness did not emerge for the Dichotomous Measure of Torture Support ($F[1, 209] = 6.44, p > .05$; partial eta squared = .003). As anticipated in hypothesis 4, there was also a significant main effect of Personal Closeness on Negative Perceptions of the Terrorist Perpetrator Questionnaire ($F[1, 211] = 4.21, p < .05$; partial eta squared = .020). Specifically, compared to the stranger condition, participants in the loved one condition perceived the terrorist perpetrator of the crisis considerably more negatively. Please see Figure 4.

**Cognitive Dissonance as a Mediator**

Following commonly accepted methods to test for mediation (see, e.g., Baron & Kenny, 1986; also see, Conway et al., 2011), analyses were conducted to see if cognitive dissonance
explained the effects of priming type and personal closeness on torture support and perceptions of the terrorist perpetrator in the scenario. Contrary to hypotheses 3 and 5, cognitive dissonance did not mediate effects of Prime or Personal Closeness on either measure of Torture Support (Continuous Torture Support Scale and the Dichotomous Measure of Torture Support) or on the Negative Perceptions of the Terrorist Perpetrator Questionnaire.

**Additional Analyses: Moderating Variables**

A number of potential individual-level moderators of the effects of priming type on torture support and negative perceptions of the terrorist were examined. Because descriptive analyses revealed that participants in the gray spectrum prime and black-white prime conditions showed lower mean Continuous Torture Support ($M=4.29$ and $M=4.39$ respectively) compared to the control condition ($M=4.57$), and also relatively more positive perceptions of the terrorist perpetrator ($M's=5.57, 5.52$) compared to the control ($M=5.71$), a new variable (prime versus control) was created by combining participants in both priming conditions to compare them to participants in the control condition who were not primed. 4

**Pre-existing torture attitudes.** Using the initial measure of torture attitudes that participants completed prior to evaluating a crisis scenario, which asked participants to indicate

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4 In order to further examine potential moderating factors of the primes on torture and terrorist perceptions relations, I also conducted analyses comparing each specific priming type to the control condition. First, because the original priming type variable contained three levels (gray spectrum prime, black-white prime, control/no prime), consequently making it ill-suited for regression, I created new priming variables with only two levels -- one variable compared the gray spectrum prime condition to the control condition, and the other compared the black-white prime condition to the control. Separate tests were conducted using each binary priming variable (gray spectrum vs. control and black-white vs. control). No interaction effects emerged for the Pre-existing Torture Attitude Measure, Dissonance, or Political Conservatism.
their overall attitude towards torture from 1 “extremely unfavorable” to 7 “extremely favorable”, participants’ pre-existing attitudes toward torture was examined as a moderating factor. To do this, commonly accepted methods for testing interactions between variables via regression were used (e.g., Aiken & West, 1991; for exemplars, see Conway & Schaller, 2005; Conway et al., 2009; Conway et al., 2011). First, (1) the Pre-existing Torture Attitude Measure, Prime versus Control/no prime, and Personal Closeness variables were converted to z-scores, (2) all possible interaction terms between those variables were created by computing their products, and then, (3) the Pre-existing Torture Attitude Measure, Prime versus Control/no prime, Personal Closeness, and the interaction terms were entered as predictors in a regression for Continuous Torture Support, as well as for the Dichotomous Torture Support and the Negative Perceptions of the Terrorist Perpetrator Questionnaire.

Analyses revealed a significant main effect of the Pre-existing Torture Attitude Measure on Continuous Torture Support (Beta = .22; p = .01) as well as Dichotomous Torture Support (Beta = .20; p < .05), such that having prior favorable attitudes towards torture was related to more torture endorsement in response to the crisis scenario. However, there were no significant interaction effects for Continuous Torture Support (p’s > .05) or for Dichotomous Torture Support (p’s > .05), and there were no significant main or interaction effects for the Negative Perceptions of the Terrorist Perpetrator Questionnaire (p’s > .05).

**Cognitive Dissonance.** Following the same methods for testing interactions described above, analyses were also performed to see if experiencing dissonance while evaluating the crisis scenario moderated the effects of prime and personal closeness on torture support and perceptions of the terrorist perpetrator in the scenario. Results indicated a significant main effect of Dissonance on Continuous Torture Support (Beta = -.17; p < .05), but this main effect did not
emerge for Dichotomous Torture Support ($p > .05$). Results also revealed a significant main effect of Dissonance on the Negative Perceptions of the Terrorist Perpetrator Questionnaire ($Beta = -.28; p < .001$). While these results suggest that feeling more dissonance predicted lower torture endorsement as well as relatively more positive perceptions of the terrorist described in the scenario, dissonance did not significantly moderate the effects of priming type on torture support and negative perceptions of the terrorist ($p's > .05$).

**Political Conservatism.** Analyses were also conducted to examine if political conservatism moderated the effects of priming type and personal closeness on torture support and perceptions of the terrorist perpetrator in the scenario. Findings revealed a significant main effect of Political Conservatism on Continuous Torture Support ($Beta = .23; p < .01$), but there was no main effect for Dichotomous Torture Support ($p > .05$). There was also a significant main effect of Political Conservatism on the Negative Perceptions of the Terrorist Perpetrator Questionnaire ($Beta = .22; p < .01$). However, political conservatism did not significantly moderate effects of priming type on torture support or negative perceptions of the terrorist ($p's > .05$).

**Discussion**

First and foremost, these results did not lend support to the cognitive dissonance theory of torture perceptions. Inconsistent with expectations, participants who were primed with the gray spectrum (flexible mindset) did not support higher levels of torture or report more negative views of the terrorist perpetrator described in the scenario compared to a control, and participants who were primed with a black and white visual cue (dichotomous mindset) did not support lower torture levels or hold more positive views of the terrorist compared to a control. Further, for the effects of personal closeness that were predicted and found, cognitive dissonance did not mediate
those effects as expected. However, consistent with prior work (Houck & Conway, 2013; Houck et al., in press), results did show that participants who evaluated a crisis involving a loved one in imminent danger were more likely to support torture. Further, the present results revealed the novel finding that personal closeness to the victim caused participants to view the terrorist perpetrator more negatively.

While it is unclear exactly why some of the expected findings did not emerge, some possible reasons why the priming effects were unsuccessful in this sample are discussed below.

**Explaining Null Findings**

One possible explanation for these null findings is that the cognitive dissonance theory of torture perceptions is incorrect. It may be that one’s frame of mind – whether attentive to one’s conflicting torture attitudes or not – does not influence how people perceive torturing terrorists. This study tested a new theory of which there was no prior direct evidence to support it; one reasonable conclusion is that this sample provides some evidence that the theory is invalid. And indeed, below in the discussion, some additional evidence is covered that might suggest the theory is incorrect. On the other hand, there are other potential reasons that could in part explain why the expected effects did not emerge, and thus it is important to consider the possibility that the proposed theory may indeed still be correct, but that other factors interfered with finding an effect.

**Problems with the Testing Environment.** Given that this study was distributed online, it is possible that uncontrolled factors in the testing environment could have impacted participants completing this study. For example, participants may have been distracted, under a time constraint, multi-tasking, or for a number of other reasons may not have been entirely attentive while evaluating the scenario and answering questions. Because the cognitive dissonance theory
of torture perceptions requires that people are at least to some degree cognitively aware of their discrepant attitudes towards torture, lack of attention and lack of cognitive effort would prevent the processes involved in the dissonance effect from operating.

However, this seems unlikely for several reasons. First, only nine out of two hundred and twenty six participants incorrectly answered the “check” question (which was included for the express purpose of seeing whether or not participants were attentive to the questions), suggesting that the majority of participants were indeed paying attention while answering questions. Second, some expected effects were demonstrated in this study, and therefore it seems improbable that participants were inattentive altogether. For example, the personal closeness – torture support relationship found in prior work also conducted on MTurk (Houck & Conway, 2013; Houck et al., in press) was replicated in the present sample, suggesting that participants did process at least some specific details in the scenario (e.g., thinking about a loved one in danger). Similarly, results showed an effect of personal closeness on negative perceptions of the terrorist, a relationship that has not previously been identified in prior work. As such, it does not seem a particularly compelling explanation for the null findings that the online testing environment substantially impacted participants’ ability to process the visual primes and other important aspects of the scenario.

**Problems with the Priming Manipulations.** Another potential explanation for null findings is that the priming manipulations did not have their intended effect on participants’ cognitive dissonance. Although prior work has successfully used the priming method implemented in the present study (e.g., Zarkadi & Schnall, 2013), there is no prior work that connects these specific primes to dissonance directly, and therefore it is possible that the primes did not effectively induce different frames of mind that either heightened or minimized
DISSONANCE AND TORTURE PERCEPTIONS

participants’ focus on dissonance. If participants were unaffected by the primes while evaluating the crisis scenario, this would subsequently prevent the processes involved in the dissonance-torture support relation from taking effect.

To examine this possibility further, a one-way ANOVA was conducted using the priming manipulation as the independent variable and cognitive dissonance as the dependent variable. There were no significant differences between priming conditions on dissonance (p > .05), suggesting that being primed with a visual cue did not influence persons’ experience of dissonance. However, based on the descriptive data, there is perhaps some reason to think that these primes do create at least some degree of dissonance, though not entirely as predicted. In particular, participants in the control condition (no prime) experienced the least amount of dissonance (M = 3.16) compared to participants in the black-white condition (M = 3.37) and in the gray spectrum condition (M = 3.52). This suggests that, while not statistically significant, participants primed with any visual cue – either the gray spectrum or black-white prime – experienced more dissonance compared to a control. And consistent with what the theory tested in this study predicts, the gray spectrum prime (flexible mindset) induced the most dissonance overall.

Considering the descriptive differences between the priming and control conditions with respect to dissonance, the idea that the primes failed to produce dissonance altogether cannot be entirely ruled out, but it is nonetheless a reasonable possibility.

Problems with Power. As an alternative explanation to potential problems with the testing environment or problems with the manipulations, perhaps the priming effects are indeed real – and could be captured using this design – but are very weak effects that require a larger sample to produce them. In other words, it is possible that findings were not observed in this
sample because the real effect size was underestimated. On the other hand, even though findings directly relevant to key hypotheses involving the priming aspects of the theory did not emerge, it is important to note that analyses did reveal several significant results pertaining to key manipulations and dependent measures. For example, as previously discussed, analyses revealed a significant main effect of Personal Closeness on Continuous Torture Support ($p < .05$; partial eta squared$= .031$). This effect falls within the small to medium range according to Cohen’s (1988) suggested norms for partial eta squared, which indicate small effects$= .01$, medium effects$= .06$, and large effects$= .14$. And even smaller effects were found. For example, there was a significant main effect of Personal Closeness on Negative Perceptions of the Terrorist Questionnaire ($p < .05$; partial eta squared$= .020$). These small (or at least less than medium) effects suggest that the study was properly powered for some effects in this study involving at least some primary manipulations and outcome measures, and therefore it seems unlikely that the reason the study failed to find an effect on the key hypotheses is due to a need for additional participants.

**Additional Unexpected Findings**

Additional analyses revealed some unexpected findings that might suggest avenues for future research. As previously mentioned, these unexpected findings also potentially provide some evidence that the cognitive dissonance theory of torture perceptions is inaccurate. In particular, although the visual priming manipulations did not significantly influence the amount of dissonance participants experienced in the ways expected for each condition, there were a number of differences between participants who felt higher levels of dissonance and those who felt lower levels of dissonance as they read the crisis scenario. For example, contrary to what the theory tested in this study predicted, participants who experienced a higher degree of dissonance
were less likely to support torture ($p<.05$), perceived the terrorist perpetrator in the scenario relatively more positively ($p<.001$), and also perceived terrorists in general more positively ($p=.001$) compared to participants who felt less dissonance.

The degree to which participants’ initial reported torture attitude (prior to reading a crisis scenario) shifted in favor of torture after evaluating a crisis scenario was also examined. To do this, a new variable (Torture Favorability Change) was created by subtracting participants’ pre-scores from their post-scores on the overall torture attitude item, which asked participants to indicate their overall attitude towards torture on a scale from 1 (extremely unfavorable) to 9 (extremely favorable). Interestingly, there was a significant negative correlation between dissonance and torture favorability change, such that feeling more dissonance was associated with less torture favorability change ($r=-.14; p<.05$). In other words, those who experienced more dissonance compared to less dissonance were less likely to shift their initial attitude towards a more favorable view of torture after evaluating the crisis scenario.

Taken in total, these results suggest that persons’ perceptions of torture and terrorists differed in a number of ways when they felt more dissonance – when people faced more tension about deciding whether or not to torture terrorists, they were less likely to align with the attitude that torture is permissible, and were also less likely to change their pre-existing views about torture after evaluating a crisis scenario.

These findings, however, are inconsistent with the cognitive dissonance theory of torture perceptions, which suggests that dissonance ought to lead to more torture endorsement. It is uncertain what this might mean exactly. Due to the fact that participants completed the Cognitive Dissonance Scale after evaluating the crisis scenario, and the dissonance questions were retroactive in nature (e.g., “After I made the decision whether or not to endorse torturing
the terrorist, I felt apprehensive about my choice”), two different interpretations are conceivable. On the one hand, these findings might suggest that feeling a greater degree of uncertainty while evaluating the scenario decreased the likelihood that participants endorsed torture. This interpretation is consistent with Festinger’s (1957) conceptualization of cognitive dissonance, which, as previously discussed, suggests that an internal inconsistency between opposing thoughts (e.g., torture is wrong vs. torture is sometimes justified) creates dissonance, and consequently people act to reduce that dissonance. In this study, this suggests that people might reduce dissonance by maintaining the position that torture is wrong.

But on the other hand, the effect may in fact work in the opposite direction, such that making a decision to endorse torture created more uncertainty later on when participants were answering dissonance related questions concerning the scenario they had already evaluated. This interpretation is consistent with research on post-decisional dissonance, a type of dissonance that emerges from feeling doubt about a decision after it was made, which then leads people to later justify their decision (e.g., Brehm, 1957; Heine & Lehman, 1997; Kitayama, Snibbe, Markus, & Suzuki, 2004; Knox and Inkster, 1968). In this study, participants were faced with a decision between two very undesirable outcomes: allow torture and prevent loss of innocent life, or don’t allow torture knowing that innocent people will die. It is possible that deciding against torture led participants to feel more uncertainty after the decision was made; participants might feel more angst about allowing innocent persons to die (by choosing not to torture) than they would feel about causing pain to a terrorist.

These two different interpretations suggest that the placement of the cognitive dissonance scale might interface with different types of cognitive dissonance. If, for example, participants would have completed the cognitive dissonance scale after reading the crisis scenario, but before
they indicated their decision about whether or not to torture, then this would reveal the degree to which participants feel dissonance specifically about their impending decision about torture. However, in the present study, the presentation of the dissonance scale came after decisions were already made, leaving the possibility that participants felt post-decisional dissonance. The placement of the dissonance scale in this paradigm merits further investigation in future research.

However these findings are interpreted, it remains unclear what exactly causes people to experience varying degrees of dissonance to begin with. In this study, neither the priming or personal closeness manipulations significantly influenced feelings of dissonance, yet some people did in fact experience greater dissonance in this paradigm more so than others. One possible reason is that individual traits such as ideology, religious attitudes, or other personality characteristics predispose some people to feel more dissonance when making decisions about torture in this context. This is in part consistent with findings in the current study concerning ideological conservatives, which demonstrated that, compared to participants who identified as more liberal, political conservatives were significantly less likely to feel dissonance when evaluating the crisis scenario \( p = .05 \), and more likely to endorse torture \( p = .001 \).

This raises a further question: What might explain these differences between conservatives and liberals? One potential explanation centers on moral foundations theory (Haidt & Joseph, 2004), which suggests that the “intuitive ethics” of different cultures are built upon six primary moral dimensions: (1) care/harm, (2) fairness/cheating, (3) loyalty/betrayal, (4) authority/subversion, (5) sanctity/degradation, and (6) liberty/oppression. For example, one prior study found that conservatives tend to use all of the above-mentioned moral foundations, whereas liberals rely mostly on the care/harm foundation (Haidt & Graham, 2007). Given that the current study used a crisis scenario that invariably amplifies the care vs. harm dichotomy,
moral foundations theory may help in our understanding of liberals’ lower torture support compared to conservatives.

Some of these unanticipated findings suggest possible courses for future research. For example, future research could explore specific factors that lead people to experience dissonance when making decisions about torture, and also pursue moral foundations theory as an explanatory theory that might help broaden our understanding of the processes involved in rationalizing torturing terrorists.

Limitations

Of course, as with all studies, this study is not without its limitations. As previously discussed, there are some potential drawbacks with using an online sample, as it introduces a number of uncontrolled factors that may have impacted the degree to which the visual primes affected participants. Second, this study used only one type of crisis scenario that was fictitious and extreme in nature, and as a result, the generalizability of this study is somewhat constrained in terms of understanding how people might perceive torture and terrorists in other crises. Despite these challenges, there has been other prior work on torture perceptions using the same ticking time bomb crisis scenario with an online sample, so it seems unlikely that these limitations substantially impacted null findings.

Concluding Thoughts

Although the primary expectations of the cognitive dissonance theory of torture perceptions were not supported by the findings of this study, other promising findings arose in the additional analyses that provide possible directions for future research. In particular, thinking about a loved one in imminent danger in the crisis scenario led people to perceive the terrorist perpetrator of the crisis considerably more negatively. Further, feeling more dissonance
predicted both people’s decisions to support or reject torture and their views of terrorists. There were also interesting differences in torture and terrorist perceptions between liberals and conservatives that are consistent with moral foundations theory. Future research ought to explore these ideas.
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Figure 1: The Effect of Priming Type by Personal Closeness on Torture Support

(Continuous Measure)

Figure 2: The Effect of Priming Type by Personal Closeness on Negative Perceptions of the Terrorist in the Scenario
Figure 3: The effect of Personal Closeness on Continuous Torture Support

Figure 4: The effect of Personal Closeness on Negative Perceptions of the Terrorist in the Scenario
Appendix A: Example of primes

*Gray Spectrum Prime*

First, we’d like you to think of the person that you love the most in the world. Please write the first name of that person in the blank provided. If you can think of more than one person that would qualify, please just choose one and type that person’s name in the blank below.

Loved One’s First Name:

Now imagine the following scenario: A terrorist has planted a bomb somewhere in a populated city and the bomb is set to go off in just 3 hours. The bomb is large enough to destroy the entire city. Law enforcement officials have no idea where the bomb will be deployed and they will not have enough time to search all possible areas. Imagine that the person that you love most in the world is in the city where the bomb will go off. Suppose that you know with *absolute certainty* that the true terrorist is in custody, and that they are the *only person* who knows where the bomb is located. The terrorist readily admits to the crime, but is refusing to give any information. Unless the terrorist reveals the whereabouts of the bomb, your loved one will die.

Suppose that you also know with *absolute certainty* that you can find out where the bomb is, but the *only* way to do so is to allow the terrorist to be tortured by a trained interrogator. It is clear that every possible alternative option has already been attempted, but they have all failed. The *only way* that you can save the person that you love most is to allow the terrorist to be tortured.
Black and White Prime

First, we’d like you to think of the person that you love the most in the world. Please write the first name of that person in the blank provided. If you can think of more than one person that would qualify, please just choose one and type that person’s name in the blank below.

Loved One’s First Name: __________________________

Now imagine the following scenario: A terrorist has planted a bomb somewhere in a populated city and the bomb is set to go off in just 3 hours. The bomb is large enough to destroy the entire city. Law enforcement officials have no idea where the bomb will be deployed and they will not have enough time to search all possible areas. Imagine that the person that you love most in the world is in the city where the bomb will go off. Suppose that you know with absolute certainty that the true terrorist is in custody, and that they are the only person who knows where the bomb is located. The terrorist readily admits to the crime, but is refusing to give any information. Unless the terrorist reveals the whereabouts of the bomb, your loved one will die.

Suppose that you also know with absolute certainty that you can find out where the bomb is, but the only way to do so is to allow the terrorist to be tortured by a trained interrogator. It is clear that every possible alternative option has already been attempted, but they have all failed. The only way that you can save the person that you love most is to allow the terrorist to be tortured.
Pre-measure of Existing Torture Attitudes

1. My overall attitude towards abortion is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

2. My overall attitude towards recycling is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

3. My overall attitude about the current U.S. economy is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

4. My overall attitude towards the current health care system is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

5. My overall attitude towards fighting global warming is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

6. My overall attitude towards affirmative action is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

7. My overall attitude towards torture is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

8. My overall attitude towards gun control is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

9. My overall attitude towards gay marriage is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable
10. My overall attitude towards the legalization of marijuana is:
   
   1 2 3 4 5 6 7

   extremely neutral extremely favorable

   unfavorable

11. My overall attitude towards the current minimum wage is:

   1 2 3 4 5 6 7

   extremely neutral extremely favorable

   unfavorable

12. My overall attitude towards welfare is:

   1 2 3 4 5 6 7

   extremely neutral extremely favorable

   unfavorable

13. My overall attitude towards capitalism is:

   1 2 3 4 5 6 7

   extremely neutral extremely favorable

   unfavorable

14. My overall attitude towards animal rights is:

   1 2 3 4 5 6 7

   extremely neutral extremely favorable

   unfavorable

Appendix B: Sample of Hypothetical Crisis Scenarios

Time-Bomb Scenario: Known Victim/Personally-Relevant

   First, we’d like you to think of the person that you love the most in the world. Please
   write the first name of that person in the blank provided. If you can think of more than one
   person that would qualify, please just choose one and type that person's name in the blank below.
   Loved One’s First Name: ________________

   Now imagine the following scenario: A terrorist has planted a bomb somewhere in a
   populated city and the bomb is set to go off in just 3 hours. The bomb is large enough to destroy
   the entire city. Law enforcement officials have no idea where the bomb will be deployed and
   they will not have enough time to search all possible areas. Imagine that the person that you love

most in the world is in the city where the bomb will go off. Suppose that you know with absolute certainty that the true terrorist is in custody, and that they are the only person who knows where the bomb is located. The terrorist readily admits to the crime, but is refusing to give any information. Unless the terrorist reveals the whereabouts of the bomb, your loved one will die.

Suppose that you also know with absolute certainty that you can find out where the bomb is, but the only way to do so is to allow the terrorist to be tortured by a trained interrogator. It is clear that every possible alternative option has already been attempted, but they have all failed. The only way that you can save the person that you love most is to allow the terrorist to be tortured.

**Time-Bomb Scenario: Unknown Victims**

A terrorist has planted a bomb somewhere in a populated city in a foreign country and the bomb is set to go off in just 3 hours. The bomb is large enough to destroy the entire city. Law enforcement officials have no idea where the bomb will be deployed and they will not have enough time to search all possible areas. Suppose that you know with absolute certainty that the true terrorist is in custody, and that they are the only person who knows where the bomb is located. The terrorist readily admits to the crime, but is refusing to give any information. Unless the terrorist reveals the whereabouts of the bomb, thousands of innocent people will die.

Suppose that you also know with absolute certainty that you can find out where the bomb is, but the only way to do so is to allow the terrorist to be tortured by a trained interrogator. It is clear that every possible alternative option has already been attempted, but they have all failed. The only way that you can save the thousands of innocent people is to allow the terrorist to be tortured.
Appendix C: Torture Support Measures

**Continuous Torture Support Scale**

_______1=No pressure. The person can be repeatedly questioned, but there should be no use of threats, physical discomfort, and so forth.

_______2=Negative consequences. The person should be made aware that failure to cooperate will result in maximum penalties being imposed. This might be referred to as “throwing the book” at the offender.

_______3=Physical discomfort. The person should be placed in increasing levels of discomfort until she or he cooperates (i.e. food deprivation, sleep deprivation, kept standing in an uncomfortable position, etc.)

_______4=Psychological discomfort and fear. The person should be made to experience increasing levels of psychological stress (i.e. forcing him or her to stand naked in a group, feeding foods that are taboo, violating his or her religious artifacts, etc.)

_______5=Physical pain. The person should be placed under increasing levels of physical pain until he or she cooperates. This could include blows to the body, arm-twisting to the breaking point, electric shock, partial suffocation, etc.

_______6=Maximum pressure. This is a “no holds barred” interrogation, including painful extraction of fingernails, amputation of body parts, burning of the skin, breaking of bones, etc.

**Dichotomous Measure of Torture Support**

Considering everything, if the decision were left to you, would you allow the expert interrogator to torture the terrorist? (Please indicate your answer below).

Yes      No
**Perceptions of the Terrorist Perpetrator**

For each of the following questions, please indicate the number best representing your attitudes about the terrorist responsible for the crisis that you read about:

1. To what degree do you think the terrorist you read about deserved to be tortured?
   - 1 not at all
   - 2 somewhat
   - 3 extremely
   - 4 deserving
   - 5 deserving
   - 6 deserving
   - 7 deserving

2. How justified do you think torturing the terrorist you read about is?
   - 1 not at all
   - 2 somewhat
   - 3 extremely
   - 4 justified
   - 5 justified
   - 6 justified
   - 7 justified

3. To what degree do you think the terrorist you read about is a bad person?
   - 1 not at all
   - 2 somewhat
   - 3 extremely
   - 4 bad
   - 5 bad
   - 6 bad
   - 7 bad

4. To what degree do you think the terrorist you read about is harmful to society?
   - 1 not at all
   - 2 somewhat
   - 3 extremely
   - 4 harmful
   - 5 harmful
   - 6 harmful
   - 7 harmful

5. How negatively do you view the terrorist you read about?
   - 1 not at all
   - 2 somewhat
   - 3 extremely
   - 4 negatively
   - 5 negatively
   - 6 negatively
   - 7 negatively

6. How vindicated do you feel about torturing the terrorist you read about?
   - 1 not at all
   - 2 somewhat
   - 3 extremely
   - 4 vindicated
   - 5 vindicated
   - 6 vindicated
   - 7 vindicated

7. How much empathy did you feel for the terrorist you read about?
   - 1 no empathy
   - 2 some empathy
   - 3 extreme empathy
   - 4 no empathy
   - 5 some empathy
   - 6 extreme empathy
   - 7 no empathy

8. To what degree do you view the terrorist you read about as cruel?
   - 1 not at all
   - 2 somewhat
   - 3 extremely
   - 4 cruel
   - 5 cruel
   - 6 cruel
   - 7 cruel

9. To what degree do you view the terrorist you read about as deceitful?
   - 1 not at all
   - 2 somewhat
   - 3 extremely
   - 4 deceitful
   - 5 deceitful
   - 6 deceitful
   - 7 deceitful
not at all  somewhat  extremely
deceitful  deceitful  deceitful
(10) To what degree do you view the terrorist responsible for the crisis you read about as aggressive?
1  2  3  4  5  6  7
not at all  somewhat  extremely
aggressive  aggressive  aggressive
(11) To what degree do you view the terrorist you read about as intelligent?
1  2  3  4  5  6  7
not at all  somewhat  extremely
intelligent  intelligent  intelligent
(12) To what degree do you view the terrorist you read about as sophisticated?
1  2  3  4  5  6  7
not at all  somewhat  extremely
sophisticated  sophisticated  sophisticated
Appendix E
Cognitive Dissonance Scale
1. Sometimes I was uncomfortable when answering questions about the torture scenario.
1  2  3  4  5  6  7
not at all  somewhat  very much
2. Some of the answers I gave to the questions about the torture scenario were inconsistent with my previous beliefs about the subject.
1  2  3  4  5  6  7
not at all  somewhat  very much
3. I was sometimes uncertain about my responses to the torture scenario.
1  2  3  4  5  6  7
not at all  somewhat  very much
4. After I made the decision whether or not to endorse torturing the terrorist, I felt anxious.
1  2  3  4  5  6  7
not at all  somewhat  very much
5. After I made the decision whether or not to endorse torturing the terrorist, I felt guilty.
6. After I made the decision whether or not to endorse torturing the terrorist, I felt regret.

7. After I made the decision whether or not to endorse torturing the terrorist, I felt worried.

8. After I made the decision whether or not to endorse torturing the terrorist, I felt anguished.

9. After I made the decision whether or not to endorse torturing the terrorist, I felt disappointed with myself.

10. After I made the decision whether or not to endorse torturing the terrorist, I felt unhappy with my choice.

11. After I made the decision whether or not to endorse torturing the terrorist, I felt uneasy.

12. After I made the decision whether or not to endorse torturing the terrorist, I felt apprehensive about my choice.

13. After I made the decision whether or not to endorse torturing the terrorist, I thought maybe I'd made the wrong decision.
14. After I made the decision whether or not to endorse torturing the terrorist, I wondered if I had made the best choice.

1 2 3 4 5 6 7
not at all somewhat very much

Appendix F

Abstract Views of Torture

Please circle the number best representing your attitudes about torture for each of the following questions:

1. My overall attitude towards torture is:
   1 2 3 4 5 6 7
   extremely neutral extremely unfavorable favorable

2. How important is this attitude to you?
   1 2 3 4 5 6 7
   not at all very important

3. How strongly do you hold this attitude?
   1 2 3 4 5 6 7
   not strongly at all very strongly

4. How sure are you that your opinion on this topic is the right opinion?
   1 2 3 4 5 6 7
   not sure at all very sure

5. Do you think that torture is moral?
   1 2 3 4 5 6 7
   not at all moral very moral

6. Do you think that there are some circumstances in which torture is justified?
   1 2 3 4 5 6 7
   never sometimes always
   justified justified justified

7. Information gained through torturing someone is totally unreliable and never of any real long-term use in fighting terrorism.
   1 2 3 4 5 6 7
   completely somewhat completely disagree agree agree
8. Criminals need more punishment and less rehabilitation.
   - completely disagree
   - somewhat agree
   - completely agree

9. There are some things that are so basically wrong such as torturing an innocent child, that no circumstance can ever justify them.
   - completely disagree
   - somewhat agree
   - completely agree

10. It is reasonable that most American counter-terrorism efforts over the past six or so years have focused mainly on members of the Muslim community.
    - completely disagree
    - somewhat agree
    - completely agree

11. American Muslims, especially those of Arabic origin, have been subjected to an unfair and unreasonable amount of suspicion by law enforcement and security personnel.
    - completely disagree
    - somewhat agree
    - completely agree

12. The United States should get rid of capital punishment.
    - completely disagree
    - somewhat agree
    - completely agree

13. In the recent “war on terror” there have been at least a few instances where the use of torture or other extreme forms of questioning have yielded useful information.
    - completely disagree
    - somewhat agree
    - completely agree

14. Life sometimes presents us with the need to choose the lesser of two evils.
    - completely disagree
    - somewhat agree
    - completely agree

15. Only close surveillance by various federal agencies has prevented additional terrorist attacks in the United States after those of 9/11 on the Pentagon and World Trade Center.
    - completely disagree
    - somewhat agree
    - completely agree
Appendix G

Abstract Views of Terrorists Questionnaire

For each of the following questions, please indicate the number best representing your general attitudes about terrorists:

(1) To what degree do you think the terrorists deserve to be tortured?
   1 not at all       2 somewhat       3 extremely
   deserving         deserving        deserving

(2) In general, how justified do you think torturing terrorists is?
   1 not at all       2 somewhat       3 extremely
   justified         justified        justified

(3) To what degree do you think the terrorists are bad people?
   1 not at all       2 somewhat       3 extremely
   bad               bad             bad

(4) To what degree do you think the terrorists are harmful to society?
   1 not at all       2 somewhat       3 extremely
   harmful           harmful         harmful

(5) How negatively do you view terrorists?
   1 not at all       2 somewhat       3 extremely
   negatively        negatively      negatively

(6) How vindicated does it make you feel to think about torturing terrorists for information?
   1 not at all       2 somewhat       3 extremely
   vindicated        vindicated      vindicated

(7) In general, how much empathy do you feel for terrorists?
   1 no empathy       2 some empathy   3 extreme empathy

(8) To what degree do you view terrorists as cruel?
   1 not at all       2 somewhat       3 extremely
   cruel             cruel           cruel
(9) To what degree do you view terrorists as deceitful?

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(10) To what degree do you view terrorists as aggressive?

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(11) To what degree do you view terrorists as intelligent?

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(12) To what degree do you view terrorists as sophisticated?

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**Appendix H: Additional Questionnaires**

**Questions about the Crisis Scenario Participants Read About**

For each of the following questions, please indicate the degree to which you were certain about the crisis scenario that you read about. Indicate your rating by circling a percentage (0% certain -100% certain):

(1) How certain were you that the suspected perpetrator of the crisis represented a realistic threat to society?

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(2) How certain were you that torturing the suspected perpetrator would be an effective way to obtain the needed information to save innocent life?

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(3) How certain were you that the suspected perpetrator of the crisis was guilty?

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(4) How certain would you have to be that the suspect in question was guilty in order to support the use of coercion at levels 4-6? Indicate the minimal level of certainty that you would need to endorse the use of levels 4-6 against the suspect.
Would not torture no matter how certain

Please indicate the number best representing your attitudes about the crisis scenario that you read about for each of the following questions:

(1) How personally close did you feel to the potential victim in the crisis scenario?

- Not at all close
- Somewhat close
- Extremely close

(2) How realistic do you think the crisis situation that you read about is (e.g., could it actually occur)?

- Not at all realistic
- Somewhat realistic
- Extremely realistic

(3) How likely do you think it is that using torture in the scenario you read about would bring about a good outcome (e.g., would torture stop the bad event)?

- Not at all likely
- Somewhat likely
- Extremely likely

(4) When you think about the suspected perpetrator of the crisis, how difficult is it for you to imagine the perpetrator being tortured, knowing that the perpetrator is still a human being?

- Not at all difficult
- Somewhat difficult
- Extremely difficult

Personal Need for Structure Questionnaire

Read each of the following statements and decide how much you agree with each according to your attitudes, beliefs, and experiences. Place your rating in the space to the left of each statement. Please respond according to the following scale:

1. Strong disagreement
2. Moderate disagreement
3. Slight disagreement
4. Neither disagreement nor agreement
5. Slight agreement
6. Moderate agreement
7. Strong agreement

1. It upsets me to go into a situation without knowing what I can expect from it.
2. I'm not bothered by things that interrupt my daily routine.
3. I enjoy having a clear and structured mode of life.
4. I like to have a place for everything and everything in its place.
5. I enjoy being spontaneous.
6. I find that a well-ordered life with regular hours makes my life tedious.
7. I don't like situations that are uncertain.
8. I hate to change my plans at the last minute.
9. I hate to be with people who are unpredictable.
10. I find that a consistent routine enables me to enjoy life more.
11. I enjoy the exhilaration of being in unpredictable situations.
12. I become uncomfortable when the rules in a situation are not clear.

**Personal Need for Cognition Questionnaire**

Please indicate a number in the blank beside each item, where 1 = not true of me at all, 4 = sometimes true of me, and 7 = very true of me.

1. I would prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun.

**Social Dominance Questionnaire**

Below are some statements representing different attitudes about others and about yourself. You will probably find that you agree with some of the statements, and disagree with others, to varying extents. Please indicate your reaction to each statement by selecting a number representing your answer, where 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = exactly neutral, 5 = slightly agree, 6 = agree, and 7 = strongly agree.

1. Some groups of people are simply inferior to other groups.
2. In getting what you want, it is sometimes necessary to use force against other groups.
3. It’s OK if some groups have more of a chance in life than others.
4. To get ahead in life, it is sometimes necessary to step on other groups.
5. If certain groups stayed in their place, we would have fewer problems.
6. It’s probably a good thing that certain groups are at the top and other groups are at the
7. Inferior groups should stay in their place.
8. Sometimes other groups must be kept in their place.
9. It would be good if groups could be equal.
10. Group equality should be our ideal.
11. All groups should be given an equal chance in life.
12. We should do what we can to equalize conditions for different groups.
13. We need increased social equality.
14. We would have fewer problems if we treated people more equally.
15. We should strive to make incomes as equal as possible.
16. No one group should dominate in society.

Right Wing Authoritarianism Questionnaire

For the following questions, please answer on a 1-7 scale, where 1 = “I disagree completely”, 4 = “neutral/undecided”, and 7 = “I completely agree”.

1. Gays and lesbians are just as healthy and moral as anybody else.
2. You have to admire those who challenged the law and the majority’s view by protesting for abortion rights, for animal rights, or to abolish school prayer.
3. Our country will be great if we honor the ways of our forefathers, do what the authorities tell us to do, and get rid of the “rotten apples” who are ruining everything.

Political/Social Attitudes

1. Politically, I would say that I am (indicate most appropriate answer):
   Liberal  Conservative  Neither/Cannot say
2. Politically, I would be most likely to vote (indicate most appropriate answer):
   Democratic  Republican  Neither/Cannot say
3. Based on what I know about politics, I am (indicate number that best represents your political attitudes):
   1  2  3  4  5  6  7  8  9
   Liberal  Conservative
4. Based on what I know about politics, I am most likely to vote (indicate number that best represents your political attitudes):
   1  2  3  4  5  6  7  8  9
   Democratic  Republican
5. My attitude towards organized religion is:
   1  2  3  4  5  6  7  8  9
6. In the scenario you read, if you had to leave the decision on whether or not to torture in the hands of either an ATHEIST or a CHRISTIAN, which one would you want to make the decision? Indicate the number that best represents your opinion:

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<tr>
<td>Atheist</td>
<td>not sure</td>
<td>Christian</td>
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**General Background**

1. Age:___________
2. Race/Ethnicity: ____________
3. Sex: ( ) Male ( ) Female ( ) Transgender
4. Gender identity: ( ) Heterosexual ( ) Gay ( ) Lesbian ( ) Bisexual ( ) Transsexual
5. Please enter the city where you live.
6. Please enter the state where you live.
7. Are you an active or retired member of the military? ( ) No ( ) Yes