

The Ticking Time Bomb: When the Use of Torture Is and Is Not Endorsed

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Abstract Although standard ethical views categorize intentional torture as morally wrong, the ticking time bomb (TTB) scenario is frequently offered as a legitimate counter-example that justifies the use of torture. In this scenario, a bomb has been placed in a city by a terrorist, and the only way to defuse the bomb in time is to torture a terrorist in custody for information. TTB scenarios appeal to a utilitarian “greater good” justification, yet critics maintain that the utilitarian structure depends on a questionable set of hidden assumptions. Three experiments were conducted to investigate endorsement of torture when these hidden assumptions were violated. In Experiment 1, results indicated that endorsement varied as a function of the success likelihood of torture and its alternatives. In Experiment 2, people found torture to be more acceptable, less wrong, and more obligatory when the suspect in custody was described as a “terrorist” than when he was described simply as an individual, and when he was described as culpable as opposed to innocent. These results are more consistent with retributive justice than utilitarian “greater good” concerns. The results of Experiment 3 indicated that utilitarian decision profiles were not associated with lower levels of empathic concern but were instead associated with personal distress and the ability to transpose oneself into a fictitious character's experience. Across the three experiments, deontologists were more likely to reject torture than utilitarians.

1 Introduction

Moral dilemmas constitute the cornerstone of research on moral reasoning. Perhaps the most researched dilemma is the classic trolley problem in which the reasoned must decide whether to push a switch to divert a runaway trolley from colliding from five people, with the unfortunate result that a single person is killed (see Foot, 1978; Thomson, 1985). By systematically varying relevant features of the problem,

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researchers have proposed and tested psychological theories of moral reasoning (e.g., Greene et al., 2008). But despite the many insights gleaned from the study of trolley problems and related philosophical cases, their contrived structures bear little resemblance to the types of moral dilemmas faced by individuals in their everyday lives or to those faced by legal authorities: Responses to trolley problems aren't used to determine the policies governing public transportation and passenger safety.

In contrast, the Ticking Time Bomb (TTB) scenario has been used to justify national policy regarding torture. The standard TTB scenario describes a situation in which a terrorist has planted a bomb that will explode soon somewhere in a major city, and all traditional methods of investigation and interrogation have failed. The question posed by the scenario is whether or not, in these exceptional circumstances, it is justifiable to torture the terrorist for the information needed to defuse the threat in time (for examples of various TTB scenarios, see Shue 1978; Levin 1982; Luban 2005; Alhoff 2012).

A wide range of ethical views categorize the intentional torture of another human being as absolutely wrong (e.g., Sussman 2005; Matthews 2008). Despite this, the standard TTB scenario has not only been described as a potential counter-example to this type of moral absolutism (Alhoff 2005) but also as evidence for the necessity of state-sanctioned (or post-hoc forgiveness) of torture (Miller 2005). The Schlesinger Report on Abu Ghraib (Schlesinger 2005), for example, notes that “[f]or the U.S., most cases for permitting harsh treatment of detainees on moral grounds begin with variants of the ‘ticking time-bomb’ scenario.”

In the *University of San Francisco Law Review*, Bagaric and Clarke (2005) describe a version of the TTB scenario taking place on a plane and ask, “Who in the world would deny that all possible means should be used to extract the details of the plane and the location of the bomb?” (pp. 583).

Dershowitz (2002) reported that “[d]uring numerous public appearances since September 11, 2001, I have asked audiences for a show of hands as to how many would support the use of nonlethal torture in a ticking-bomb case. Virtually every hand is raised.” Dershowitz advocates for a ‘torture warrant’ model of legalized torture where a judge may issue a legal warrant for the torture of an individual in order to extract information in emergency circumstances. Those circumstances are just the kind described in TTB scenarios (Dershowitz 2002; Ginbar 2010, pp. 198–199).

The Israeli *Landau Commission of Inquiry* in 1987, commenting on the use of torture as a potential source of information, noted that, “This is not to say that it is impossible to envisage situations where the organs of the State may excusably resort to torture. Where it is known that a bomb has been planted in a crowded building, it is perhaps justifiable to torture the suspect so that lives may be saved.” (Ginbar 2010, pp. 359).

Despite appeals to the TTB scenario in various political, legal, and philosophical writings, the TTB scenario is not without its critics. TTB scenarios are cast in such a way as to appeal to a utilitarian “greater good” justification: One person’s pain versus saving thousands of lives. This assumption is crucial for justifying the use of torture via the “reasonable person” doctrine: We can’t fault people for torturing others if the majority of reasonable people would do so under the same circumstances (e.g., Holmes and Wendell Jr 1909; Simons 2008). But the TTB’s utilitarian structure depends on a questionable set of hidden assumptions—that it is certain the person in custody is culpable, that he or she has the right information needed to defuse the bomb,

that torture would successfully extract this information, and that the information would be extracted in time to defuse the bomb (Bufacchi and Arrigo 2006; Shue 2006).

It is unknown whether the use of torture would be endorsed if one or more of these crucial implicit assumptions underlying the problem were false. Yet manipulation of these assumptions has not been systematically tested. If endorsement of torture declines when assumptions that are crucial to the problem's utilitarian structure are removed, then the use of TTB scenarios as evidence for some kind of legally sanctioned torture is highly suspect.

1.1 Implicit Assumptions Underlying Utilitarian Structure of TTB Scenarios

One crucial assumption often built into TTB scenarios is that the proposed torture is a highly reliable method of acquiring information. But, historically, torture has proven to be a highly *unreliable* method for gathering information (e.g., Luban 2005; Shue 2006). Even governments that permitted the use of torture on prisoners of war described it as an untrustworthy and clumsy method of interrogation (Rejali 2007, pp. 458). In an attempt to address some of these worries about torture, Allhoff (2012) studied responses to TTB scenarios while manipulating the probability that torture would successfully yield useful information (100 or 1 % chance). The results indicated that the probability of torture success had no effect. There is, however, a significant problem with the methodology used in this part of the study: Likelihood of success was expressed in a way that ensured the expected number of lives saved was equivalent, but the raw number threatened quite different (100 % chance to save 100 or 1 % chance to save 10,000). Whatever effect changing the probability of success may have had could have been counteracted by the change in the absolute number of lives threatened or the equivalency of the number saved.

Another assumption is that the person to be tortured is described as possessing the information needed to defuse the bomb in time. Carlsmith and Sood (2009) manipulated the likelihood that a suspect was withholding information that might prevent lethal attacks on soldiers and innocent civilians, along with the suspect's past history of involvement in terrorist-related activity. They found that participants recommended increasingly severe interrogation as the target's likelihood of knowledge increased. However, participants endorsed severe interrogation of a "guilty" target even when it stood little chance of producing useful intelligence. This is consistent with a retributive interpretation of torture endorsement rather than a utilitarian one: People cite utilitarian justifications for imposing penalties, but their behavior may actually be guided by retributive principles (Carlsmith 2008; Carlsmith et al. 2002, 2007). This conjecture is consistent with the observation that when torture is described as conducted on a member of an out-group, it is judged as more morally justified, and is accompanied by decreased empathy for the torture victim (Tarrant et al. 2012). A confound in all of this work, however, is that the scenarios carried the implicit assumption that torture is an unequivocally successful method of interrogation, and only the likelihood that the suspect possesses useful knowledge is relevant.

A third assumption is that the person to be tortured is culpable. Alhoff (2012), for example, found that people were more likely to endorse torture if the suspect was described as guilty of planting the bomb rather than innocent. But terrorists may be presumed to be culpable of wrong-doing, and hence may be less likely to be targets of moral concern and more likely to be targets of retributive justice. The results of Carlsmith and Sood (2009) are consistent with the interpretation that torture is endorsed in TTB scenarios not so much because of its usefulness in extracting information but

for its punitive nature. This is perhaps the most telling difference between the standard TTB and the vast majority of moral dilemmas used in psychological studies of moral judgment—the target of harm is presumed guilty of wrong-doing. Moreover, factors such as culpability and group membership are irrelevant to the utilitarian structure of the problem, and should not impact endorsement of torture.

Finally, the “reasonable person” doctrine is grounded in the concept of consensus, yet people have been found to vary along utilitarian and deontological dimensions, and their prior philosophical commitments strongly influence their moral judgments (Lombrozo 2009), and the likelihood that they may be persuaded to endorse torture through social conformity (Aramovich et al. 2011). Yet the impact of prior moral commitments on the willingness to endorse torture in the standard TTB has not been investigated.

1.2 Aims of the Present Work

The specific aim of this work was to investigate the relative contributions of these factors on willingness to endorse torture in TTB scenarios. In Experiment 1, torture and alternatives to torture were described as having either a high or low probability of success. In Experiment 2, culpability was manipulated by describing the suspect as a terrorist or simply as an individual, and as responsible or not responsible for planting the bomb. In Experiment 3, the individual was again described either as a terrorist or simply as an individual, and was also described as possessing or not possessing requisite knowledge for defusing the bomb. Across all three experiments, decision-makers’ prior moral commitments were used to predict endorsement rates. Participants’ propensity for *empathic concern* was also assessed in Experiment 3.

From a broadly utilitarian vantage point, likelihood of torture success, availability of viable alternatives, and possession of relevant information should strongly influence torture endorsement. The judgments of people with strong prior utilitarian commitments should be more strongly influenced by variation in these factors than those with weaker utilitarian commitments. Culpability and identification as a terrorist, however, are irrelevant to utilitarian concerns and hence should have little impact on willingness to endorse torture. If they do, this would be consistent with a desire for retributive justice rather than utilitarian concerns. Finally, empathic concern was predicted to impact willingness to endorse torture; this factor, again, is irrelevant to utilitarian concerns. These experiments were conducted during the period February 2012 through June 2013. During this period, no significant newsworthy events involving torture appeared in mainstream media that could have influenced participants’ views on torture.

2 Experiment 1

In almost every version of the TTB presented in the philosophical literature, torture is presented as being a successful means of information extraction (Shue 1978; Miller 2005; Shue 2006; Bufacchi and Arrigo 2006; Alhoff 2012). In this experiment, the contribution of this factor to torture endorsement was assessed. The probability that torture would be successful was described as either high or low. Alternatives to torture were also described as available, and the probability that they would be successful was described as either high or low. If endorsement of harsh interrogation techniques is

strongly motivated by utilitarian features of TTB scenarios, then endorsement of torture should vary as a function of (a) torture success rate and (b) the success rates of alternative means of information extraction.

Prior moral commitments were assessed using a modified version of a questionnaire introduced by Lombrozo (2009). This instrument allows people to be classified as utilitarians or deontologists based on whether their moral judgments are based on the consequences of actions (utilitarians) or moral rules (deontologists). Because torture is forbidden by deontology, participants who score as deontologists should not be influenced by changes in the problem's utilitarian structure, but the judgments of utilitarians should vary as a function of changes in utilitarian structure.

2.1 Method

2.1.1 Participants

One-hundred twenty-nine participants were recruited online from the Amazon Mechanical Turk (MTurk) work-distribution website. Participants received \$0.15 for participating. Twenty-seven were eliminated because they did not complete the survey or answered story comprehension questions incorrectly. Of the remaining 102 participants, 58 % were female.

2.1.2 Design

The design was a $2 \times 2 \times 2$ factorial with likelihood of torture success (High or Low), likelihood of alternative success (High or Low), and prior moral commitment (Deontologist or Utilitarian) as between-subject variables.

2.1.3 Materials and Procedure

The wording of the TTB scenarios used in the study is as follows:

A bomb has been planted in a crowded section of a major city and a terrorist is currently in custody. Beyond a reasonable doubt, this terrorist has the information required for successfully defusing the bomb. If the bomb explodes, it is estimated that thousands of people will die.

If torture is successfully employed against the terrorist, he will provide the information needed to defuse the bomb in time. All of the available evidence from previous situations like this indicates that torture has a < high/low > probability of making the terrorist provide the needed information to defuse the bomb in time. Alternative investigational and interrogative methods other than torture still remain as options. These methods have a < high/low > probability of success.

Given the situation described above, please indicate which rating best describes your judgment of the following statement: "It is morally permissible to torture the terrorist."

A rating scale with seven choices appeared beneath the scenario, labeled as "Strongly Disagree, Disagree, Somewhat Disagree, Unsure, Somewhat Agree, Agree, Strongly Agree."

Participants also completed a modified version of the questionnaire developed by Lombrozo (2009). The modification consisted of replacing the question regarding torture with a question concerning blackmail.

Half of the participants completed the Lombrozo (2009) moral commitment questionnaire first and the experimental task second. The remaining half received the reverse order. An unrelated distractor task intervened between the two tasks to reduce carry-over effects between the tasks. Stimuli were presented using Survey Monkey software.

2.2 Results

Preliminary analyses indicated that order of stimulus presentation was not significant, and so this variable was collapsed in subsequent analyses. Judgments were assigned values of 1 through 7, with larger numbers indicating greater endorsement of torture. Following Lombrozo (2009), each response to the commitment task was scored as 0, 1, or 2, where 0 was the least consequentialist response and 2 the most. The scores from all of the commitment questions were averaged for each participant. Consequentialist scores ranged from 0 to 2.0. Mean consequentialist score was .46, and the standard deviation was .30. As was done by Lombrozo (2009), participants were classified as utilitarians if their average was equal to or greater than .5; and the rest were classified as deontological. About half of participants scored as utilitarians overall (50 out of 102). Within each of the Torture Success (TS) X Alternatives Success (AS) cells, the proportion (and number) of utilitarians were as follows: High TS, High AS=50 % ($n=26$), High TS, Low AS = 59.2 % ($n=27$), Low TS, High AS 40.9 % ($n=22$), Low TS, Low AS=51.8 % ($n=27$).

A $2 \times 2 \times 2$ ANOVA was conducted on permissibility ratings using mean prior moral commitment, torture success probability (High or Low) and alternatives success probability (High or Low) as between subject variables. The main effects of torture success probability was significant, $F(1, 94) = 37.36$, $MSe=2.15$, $p<.0001$, $\eta^2=.28$, as was the main effect of alternatives success probability, $F(1,94) = 9.52$, $MSe=2.15$, $p<.003$, $\eta^2=.09$. These factors did not interact, $F<1$. The effect of prior moral commitment was not significant, $F(1,94) = 1.00$, $MSe=2.15$, $p=.32$. Mean permissibility ratings as a function of torture success probability and alternatives success probability are illustrated in Fig. 1.

People were more likely to endorse torture if it was described as very likely to be successful ($M=5.40$) than if it was described as unlikely to be successful ($M=3.59$). But if there was a high probability that something other than torture would be successful, people were less willing to endorse the use of torture (mean high alternative success = 4.96; mean low alternative success = 4.05). Prior moral commitment accounted for no appreciable variance, indicating that the permissibility judgments of deontologists and utilitarians were equally affected by variations in the utilitarian structure of the TTB.

3 Experiment 2

Previous studies have indicated that the desire for retributive justice also drives people's judgments about torture, and that retribution is more likely to be directed to members of

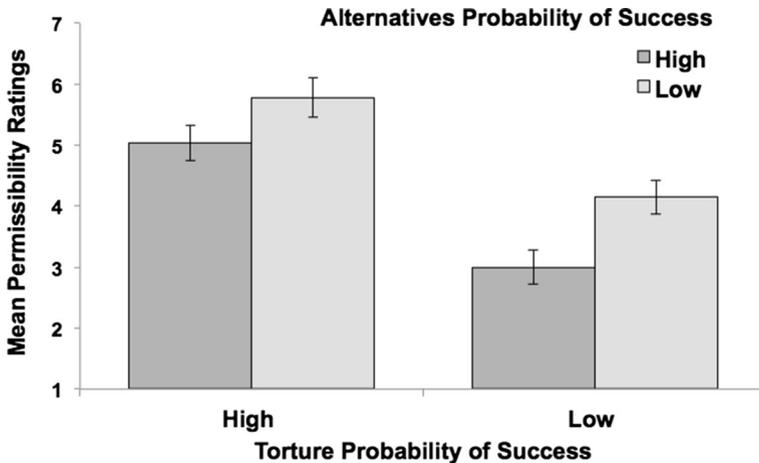


Fig. 1 Agreement ratings to the statement “It is morally permissible to torture the terrorist” when torture was described as having either a high or low probability of success, and when alternative means of interrogation were available that had high or low probability of success. Rating choices ranged from 1 (Strongly Disagree) to 7 (Strongly Agree), and 4 constituted “Unsure”

out-groups than in-groups (Carlsmith 2008; Carlsmith et al. 2002, 2007). Because virtually all TTB scenarios identify the suspect as a terrorist, it is likely that decision-makers assume the suspect is both a member of an out-group and guilty of similar acts of aggression. If people continue to endorse torture even when these possible confounds are eliminated, this would strongly implicate retributive justice as a motivation in torture endorsement (see also Sood and Carlsmith 2012).

The purpose of Experiment 2 was to test this hypothesis. We manipulated whether the person in custody was identified as a terrorist or simply as an individual. We also manipulated whether or not he was responsible for constructing and planting the bomb. Neither group membership nor culpability is relevant to the broadly utilitarian structure of the TTB. But both are directly relevant to retributive concerns, that is, as punishment for involvement in current or past terrorist acts.

We also probed judgments using three questions that were specifically designed to contrast deontological and consequentialist concerns, namely, whether torture was morally acceptable, morally wrong, or morally obligatory under the circumstances. For strong consequentialists, the overall balance of good should be what drives judgments about torture, that is, the fact that thousands of lives would be saved far outweighs the suffering of a single individual. Because the probability of torture was always described as high, the overall balance of good is fixed in each version of the vignette (one person tortured vs. thousands of lives saved). Consequentialists may be moved somewhat by culpability and the term “terrorist”, since given the option of torturing a guilty or innocent person, the overall good is better served by not harming innocent people. However, such an effect should be minor, given the thousands of lives that are described to be at risk. For these reasons, decision-makers who embrace consequentialism should decide that torture is not just morally acceptable, but morally right and obligatory as well.

From a deontological perspective, however, torture is always wrong. The intentional infliction of great pain and suffering on another human being is a violation of human

dignity. The person tortured is being used as a mere means of gaining information, rather than as an end in himself. From a strong deontological perspective, torture is morally unacceptable, morally wrong, and definitely not morally obligated.

A third perspective on TTB, called “dirty hands deontology”, holds that political leaders may and should break some of the most important moral prohibitions in service of preventing even greater calamities (Walzer 1977; Miller 2007; Meisels 2008). From this modified deontological view, torture is still morally wrong, but it is permissible and even obligatory under prescribed circumstances.

To summarize, given the strong utilitarian structure of the TTB, higher utilitarian scores should yield higher acceptance ratings for torture, regardless of circumstances. When asked whether torture is morally acceptable or obligatory, however, utilitarians and “dirty hands” deontologists should strongly agree, while pure deontologists should strongly disagree. Finally, if suspect label and culpability impact judgment ratings, this implies underlying retributive motivations in torture endorsement.

3.1 Method

3.1.1 Participants

Two-hundred eighty participants were recruited online, from the MTurk work-distribution website. Participants received \$0.15 via Amazon payments for full participation in the study. Thirty-six were eliminated for not completing the survey or answering story comprehension questions incorrectly. Of the remaining 244 participants, 51 % were female.

3.1.2 Design

The design was $2 \times 2 \times 2$ factorial in which the term used to describe the person in custody (Terrorist or Individual), responsibility for planting the bomb (Responsible or Not Responsible), and prior moral commitment (Deontologist or Utilitarian) served as between-subject variables.

3.1.3 Materials and Procedure

The procedures and materials were identical to those used in Experiment 1, with the following modifications: First, the person in custody was described either as a terrorist or simply as an individual. Second, the person in custody was described as either responsible for planting the bomb or not responsible for planting it. Third, the statement describing the probability of alternatives to torture was replaced with the following: *All regular investigative and interrogation methods have been exhausted, and the only remaining option is to torture the terrorist.* Fourth, in order to avoid an unrealistic “null” condition in which the person in custody was neither a terrorist nor responsible for planting the bomb, the following sentence was also added as the final line of each scenario: *It is suspected that the < individual/terrorist > may know how to defuse the bomb, although it is not certain.* This provided a plausible motivation for considering torture in the case where the individual had nothing to do with constructing or planting the bomb.

Finally, the endorsement of torture was measured through three separate questions: “It is acceptable to torture the < individual/terrorist>”, “It is morally wrong to torture the < individual/terrorist>”, and “It is morally obligatory to torture the < individual/terrorist>”. These questions were designed in order to draw out any hidden decisional differences that might be attributable to participants’ prior moral commitments. The same 7-point rating scale appeared under each question as was used in Experiment 1.

3.2 Results

3.2.1 “Dirty Hands” Deontology

Participants were classified in two ways. The first way was as was done in Experiment 1, using consequentialism scores to divide participants into utilitarians and deontologists. Consequentialist scores ranged from 0 to 2.0. Mean consequentialist score was .58, and the standard deviation was .44. Overall, 61.0 % ($n=149$) were classified as utilitarians (scores $\geq .5$). Within each of the Suspect Label X Culpability cells, the proportion (and sample sizes) of utilitarians were as follows: Culpable Terrorist = 59.3 % ($n=35$), Not Culpable Terrorist = 54.7 % ($n=35$), Culpable Individual 66.7 % ($n=44$), Not Culpable Individual = 63.6 % ($n=35$).

Participants were also classified a second way. A strict deontologist would agree that torture is wrong and would disagree that it is acceptable. A strict utilitarian would disagree that torture is wrong and would agree that it is acceptable. But according to “dirty hands deontology”, torture is both morally wrong and permissible under prescribed circumstances. The presence of this type of ideology was assessed by subtracting participants’ acceptability ratings from their wrongness ratings. This “dirty hands” score should be highly positive for strict deontologists, close to zero for “dirty hands” deontologists, and highly negative for strict utilitarians.

Although the majority of participants were classified as utilitarians using Lombrozo’s consequentialism questionnaire ($n=149$, 61 %), classification based on the “dirty hands” score revealed a dramatically different distribution of philosophical commitments. Specifically, only 67 participants (27 %) had scores less than -2 indicating moderate to strong utilitarianism, 111 participants (46 %) had scores greater than $+2$ indicating moderate to strong deontological leanings, and 66 participants (27 %) had scores that fell within the range of -1 and $+1$ indicating “dirty hands” deontology. Of these 66, two-thirds ($n=43$) were classified as utilitarians using Lombrozo’s consequentialism score, $\chi^2_{(1)}=5.96$, $p<.02$. Moreover, “dirty hands” scores did indeed correlate negatively with Lombrozo consequentialist scores, $r(244) = -.29$, $p<.0001$, indicating that the more actions were judged on the basis of their consequences, the more torture was considered acceptable and not wrong.

These results indicate that the more weight people place on expected consequences, the more likely they were to endorse torture as a means of information extraction, the less likely they were to find torture morally wrong, and the more likely they were to agree that it is obligatory. Although the majority of participants were classified as utilitarians using Lombrozo’s consequentialism survey instrument, their actual pattern of responses indicated that, when it comes to torture, they were better described as pure deontologists (torture is absolutely wrong) or “dirty hands” deontologists (torture is absolutely wrong but acceptable under prescribed circumstances).

Turning now to the problem manipulations, a $2 \times 2 \times 2 \times 3$ repeated measures ANOVA was conducted using prior moral commitment (Deontologist or Utilitarian), suspect label (Terrorist or Individual), and culpability (Responsible or Not Responsible) as between subject variables, and ratings for acceptability, wrongness, and obligation as repeated measures. Because judgment type interacted with all three variables, separate $2 \times 2 \times 2$ ANOVAs were conducted on each judgment type, and the results are reported separately here.

3.2.2 Acceptability Ratings

Mean acceptability ratings are depicted in Fig. 2. Higher ratings indicate greater agreement that torture is acceptable under the circumstances.

Unlike Experiment 1, the main effect of prior commitment was found to be significant, $F(1,239) = 8.65$, $MSe=3.19$, $p<.005$, $\eta^2=.04$. Deontologists disagreed that torture was acceptable ($M=3.37$; “Somewhat Disagree”) while utilitarians were unsure ($M=4.07$; “Unsure”). This factor did not interact with any other factor, indicating that the impact of the other factors were equivalent for deontologists and utilitarians.

The main effect of responsibility was significant, $F(1,236) = 34.60$, $p<.0001$, $\eta^2=.13$, as was suspect label $F(1,236) = 6.28$, $p<.025$, $\eta^2=.03$. These two factors interacted, $F(1,236) = 5.19$, $p<.025$, $\eta^2=.02$. The question of interest is the nature of this interaction, specifically, whether culpability mattered less when the person in custody was identified as a terrorist. To address this question, we directly compared acceptability ratings when the person was not responsible for planting or constructing

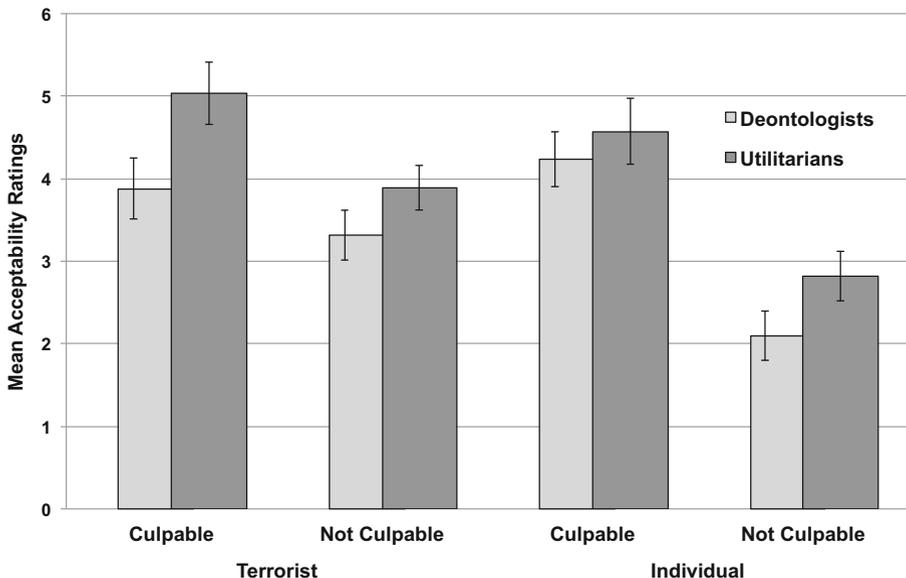


Fig. 2 Agreement ratings to the statement “It is acceptable to torture the < terrorist/individual in custody >” when the person in custody was described as being either culpable or not culpable for the bomb being planted. Ratings choices ranged from 1 (Strongly Disagree) to 7 (Strongly Agree), and 4 constituted “Unsure”

the bomb, but was described as an individual ($M=2.57$, midway between “Disagree” and “Somewhat Disagree”) as opposed to a terrorist ($M=3.69$; two-thirds of the way between “Somewhat Disagree” and “Unsure”). This comparison was significant, $F(1,116) = 11.83$, $MSe=3.02$, $p<.001$. Recall that when the person in custody was not responsible for constructing or planting the bomb, he was still described as possibly having information that could be used to defuse the bomb. If people were only concerned about getting the bomb defused in time, then it should not have mattered whether he was described as a terrorist or an individual. But it did matter; people judged torture to be unacceptable when the suspect was described as “an individual”. When he described as a terrorist, they were unsure whether torture was acceptable. This result is consistent with a retributive interpretation.

3.2.3 Wrongness Ratings

Mean judgment ratings are depicted in Fig. 3. Higher ratings indicate greater agreement that torture is wrong under the circumstances.

As in the acceptability rating analysis, prior moral commitment was found to be significant, $F(1,236) = 17.25$, $MSe=3.12$, $p<.0001$, $\eta^2=.7$. Deontologists agreed more strongly that torture was wrong ($M=5.41$) than did utilitarians ($M=4.44$). Also significant were the main effects of responsibility $F(1,236) = 10.99$ $p<.0001$, $\eta^2=.05$, and suspect label $F(1,236) = 6.14$, $p<.02$, $\eta^2=.03$. People were uncertain whether it was wrong to torture suspects who were responsible for the bomb ($M=4.54$; midway between “Unsure” and “Somewhat Agree”), and more likely to agree that it was not wrong when the suspect was culpable ($M=5.31$; “Somewhat Agree”). They also were also more certain that it was wrong to use torture when the suspect was described as an individual ($M=5.22$; “Somewhat Agree”) than when the suspect was described as a terrorist ($M=4.64$; midway between “Unsure” and “Somewhat Agree”).

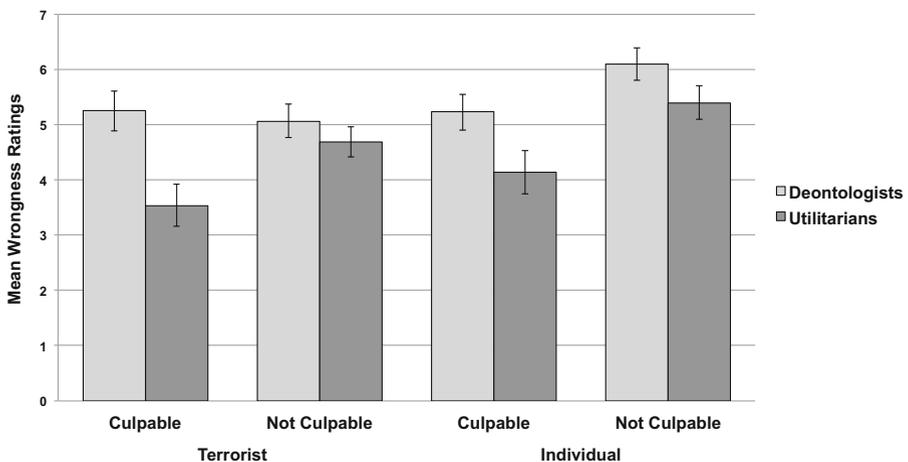


Fig. 3 Agreement ratings to the statement “It is morally wrong to torture the < terrorist/individual in custody >” when the person in custody was described as being either culpable or not culpable for the bomb being planted. Ratings choices ranged from 1 (Strongly Disagree) to 7 (Strongly Agree), and 4 constituted “Unsure”

Unlike the results of the acceptability analysis, these two factors did not interact, $F(1,236) = 1.58, p = .21$.

3.2.4 Obligation Ratings

Mean judgment ratings are depicted in Fig. 4. Higher ratings indicate greater agreement that torture is wrong under the circumstances.

As in the prior two analyses, the impact of prior commitment was significant, $F(1,236) = 8.13, MSe = 2.95, p < .005, \eta^2 = .03$. Deontologists disagreed more strongly that torture was obligatory ($M = 2.99$) than did utilitarians ($M = 3.64$). The main effect of responsibility was again significant; people disagreed more strongly that torture was obligatory when the suspect was not culpable ($M = 2.96$) than when he was culpable ($M = 3.68$), $F(1,236) = 9.97, p < .0002, \eta^2 = .04$. Unlike the previous analyses, suspect label was not significant, $F(1,236) = 2.13, p = .15$, and the two factors did not interact, $F < 1$.

Summary Culpability strongly impacted all three judgments. When the suspect was described as culpable, participants judged torture to be more acceptable, less wrong, and more obligatory. Referring to a suspect as a terrorist as opposed to an individual also made torture seem more acceptable and less wrong. Deontologists objected more strongly to torture than did utilitarians. Although the majority of participants were classified as utilitarians using the Lombrozo's (2009) consequentialism score, their torture judgments indicated that the majority were better described as strict deontologists (46%), and the remainder were equally divided between strict utilitarians (27%) and "dirty hands deontologists" (27%).

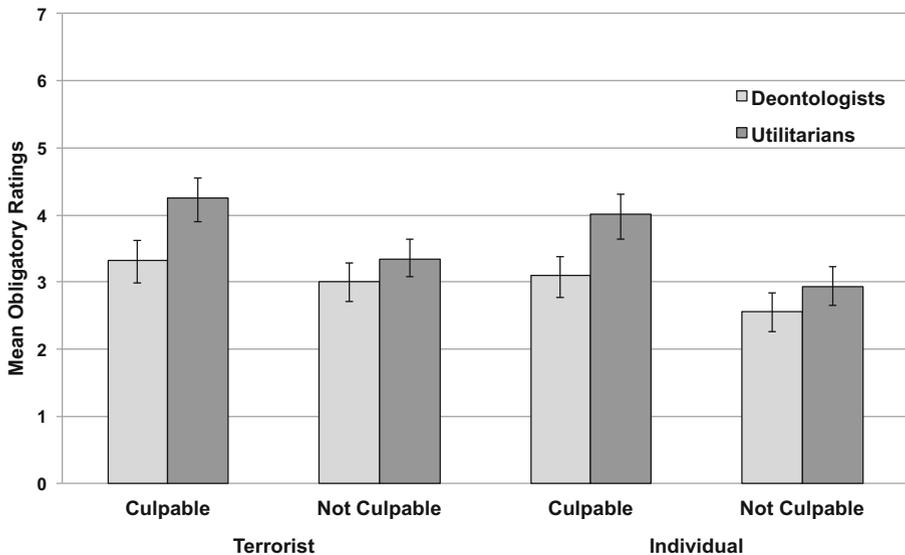


Fig. 4 Agreement ratings to the statement "It is morally obligatory to torture the < terrorist/individual in custody >" when the person in custody was described as being either culpable or not culpable for the bomb being planted. Ratings choices ranged from 1 (Strongly Disagree) to 7 (Strongly Agree), and 4 constituted "Unsure"

4 Experiment 3

The results of Experiment 2 suggested that use of the term “terrorist” in TTB scenarios may be sufficient to identify the suspect as an out-group member and hence increase endorsement of torture. Alternatively, describing the target this way may increase a reasoner’s confidence that the target does indeed possess information needed for defusing the bomb. People may believe an experienced terrorist is more likely to know where the bomb is likely to be located, or how to defuse it. To rule out this possible confound, we added a question asking participants the following: *Given the information provided, how likely it is that the individual/terrorist actually has the knowledge necessary to defuse the bomb in time?*

This experiment also investigated another factor that is sometimes ignored by philosophical theories of morality yet looms large in psychological theories of morality—the role of emotion in moral judgment, although how and when emotion impacts judgment are still topics of investigation. Several researchers have demonstrated a link between utilitarian judgments and low levels of *empathic concern* (e.g., Gleichgerrcht and Young 2013; Miller et al. 2014). Gleichgerrcht and Young (2013), for example, measured *empathic concern* using the Interpersonal Reactivity Index (IRI) (see Davis 1980, 1983). The IRI is a 28-item self-report questionnaire which measures four different aspects of empathy: *empathic concern* (the tendency to experience feelings of warmth, compassion, and concern for other people), *personal distress* (one’s own feelings of personal unease and discomfort in reaction to the emotions of others), *perspective taking* (the tendency to adopt the point of view of other people), and *fantasy* (the tendency to transpose oneself into the feelings and actions of fictitious characters). *Empathic concern* and *personal distress* represent two independent measures of emotional empathy, while *perspective taking* and *fantasy* represent measures of cognitive empathy. Using the IRI, Gleichgerrcht and Young (2013) found that lower levels of *empathic concern* on the IRI predicted utilitarian responses to traditional trolley and footbridge problems.

More recently, however, Sarlo, Lotto, Rumiati, and Palomba (2014) reported that *personal distress* was more predictive of non-utilitarian moral judgments than *empathic concern*. Again using trolley problems, Sarlo et al. (2014) found that scores on the *personal distress* subscale were negatively correlated with the mean percentages of utilitarian choices and positively correlated with the mean amplitudes of the P260, an ERP component reflecting an immediate emotional reaction during decision-making. They concluded that “self-oriented” feelings of anxiety and unease, rather than “other-oriented” feelings of concern were the primary determinants of moral judgments on trolley problems.

Torture is an action that presumably evokes strong emotion in observers, and this emotion may constitute a major factor in moral judgments concerning its acceptability. Moreover, the research cited above suggests that emotions such as *empathic concern* or *personal distress* may correlate negatively with utilitarian judgments.

4.1 Method

4.1.1 Participants

One-hundred and eighty one were recruited online, from the MTurk work-distribution website. Participants received \$0.50 via Amazon payments for full participation in the

study. Eleven subjects were eliminated for not completing the survey or answering story comprehension questions incorrectly. Of the remaining 170 participants, 45 % were female.

4.1.2 Design

The design was $2 \times 2 \times 2$ factorial in which suspect label (Terrorist or Individual), responsibility for planting the bomb (Responsible or Not Responsible), and prior moral commitment (Deontologist or Utilitarian) served as between-subject variables.

4.1.3 Materials and Procedure

The procedures and materials were identical to those used in Experiment 2, with the following changes: First, endorsement of torture was measured *only* through the question: “*It is acceptable to torture the < individual/terrorist > .*” The same 7-point rating scale appeared under this question as was used in Experiment 1. Second, a new question was added to measure how likely subjects thought it was that the person in custody had the necessary knowledge to defuse the bomb, since it was left uncertain in the materials: “*How likely do you think it is that the < individual/terrorist > in custody has information about how to defuse the bomb in time?*” The numbers 1 through 7 were assigned to the rating scale in order to analyze responses, with 1 corresponding to “Very Unlikely”, 4 corresponding to “Unsure”, and 7 corresponding to “Very Likely”. In addition to measuring subjects’ prior commitments in the same way as in the previous experiment, subjects also completed the IRI.

4.2 Results

Participants were classified with respect to their prior moral commitments according to the criteria described in Experiment 1. Consequentialist scores ranged from 0 to 2.0. Mean consequentialist score was .54, and the standard deviation was .45. Within each of the Suspect Label X Culpability cells, the proportion (and number) of utilitarians were as follows: Culpable Terrorist = 42.5 % ($n=20$), Not Culpable Terrorist = 62.5 % ($n=25$), Culpable Individual 59.1 % ($n=26$), Not Culpable Individual 53.8 % ($n=21$).

4.2.1 Torture Endorsement Ratings

Mean acceptability ratings as a function of suspect label and culpability are illustrated in Fig. 5.

A $2 \times 2 \times 2$ ANOVA was conducted on acceptability ratings using prior moral commitment (Deontologist or Utilitarian), suspect label (Terrorist or Individual) and culpability (Responsible or Not Responsible) as between subject variables. As in Experiment 2, the main effect of prior moral commitment was significant, with utilitarians logging higher acceptability ratings than deontologists, $F(1,162) = 7.31$, $MSe=3.18$, $p<.001$, $\eta^2=.04$. Once again, this factor did not interact with any other factor. Also as in Experiment 2, the main effect of suspect label probability was significant, $F(1, 162) = 4.94$, $MSe=3.18$, $p<.03$, $\eta^2=.03$, as was the main effect of culpability, $F(1,162) = 17.98$, $MSe=3.18$, $p<.001$, $\eta^2=.10$. Unlike Experiment 2,

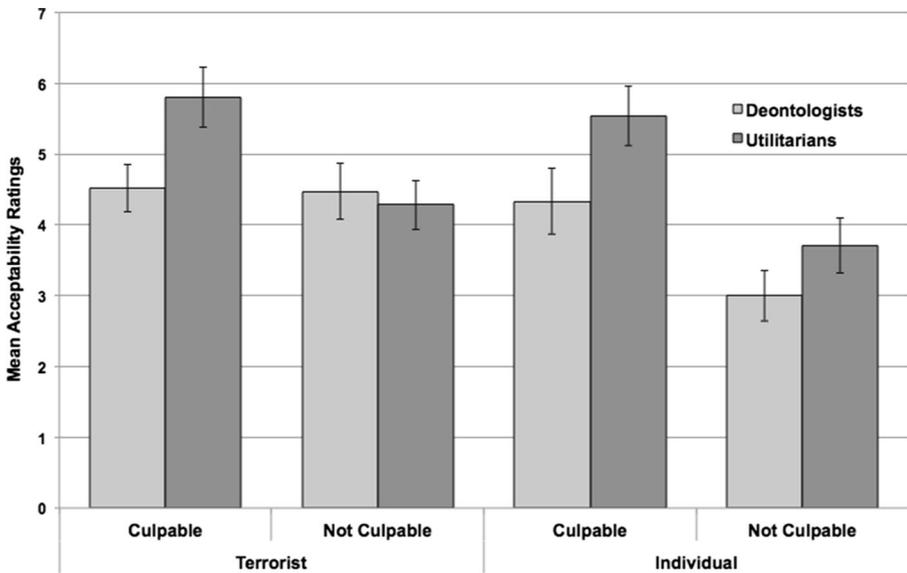


Fig. 5 Agreement ratings to the statement “It is acceptable to torture the < terrorist/individual in custody >” when the person in custody was described as being either culpable or not culpable for the bomb being planted. Ratings choices ranged from 1 (Strongly Disagree) to 7 (Strongly Agree), and 4 constituted “Unsure”

however, these factors did NOT interact. Participants gave higher acceptability ratings when the suspect was referred to as a terrorist ($M=4.77$) than when he was referred to as an individual ($M=4.15$). They also found torture to be more acceptable when the suspect was described as responsible for the bomb ($M=5.05$) than when he was described as not responsible ($M=3.87$).

4.2.2 Knowledge Ratings and Torture Acceptability

To test the possibility that the results of Experiment 2 were due to participants assuming a suspect identified as a terrorist would be more likely to know how to find and defuse the bomb than a suspect identified merely as “an individual”, a $2 \times 2 \times 2$ ANOVA was conducted on knowledge ratings using prior moral commitment (Deontologist or Utilitarian), suspect label (Terrorist or Individual) and culpability (Responsible or Not Responsible) as between subject variables. None of these factors were significant, indicating that terrorists were considered no more likely to possess knowledge of how to defuse the bomb than suspects identified merely as individuals. Similarly, culpable suspects were not considered any more likely to possess requisite knowledge. This indicates that the results of Experiment 2 were not likely to be due to assumptions concerning differences in bomb-relevant knowledge depending on how the suspect was described.

4.2.3 Empathic Concern and Utilitarianism

Gleichgerricht and Young (2013) categorized participants as deontologists, utilitarians, or “other” category based on their response patterns to Trolley Problems. They then

performed a discriminant analysis using gender and the four IRI scales as predictors for these classifications. They found *empathic concern* to be the primary component that successfully discriminated utilitarians from others.

We attempted to replicate this finding. The correlations among participants' torture acceptability ratings, consequentialist scores, gender, age, and the four components of the IRI are presented in Table 1.

As reported by Davis (1980, 1983), *empathic concern* positively correlated with *perspective taking* ($r=.59, p<.0001$) and with *fantasy* ($r=.36, p<.0001$), while a marginal negative correlation obtained between *personal distress* and *perspective taking* ($r=-.14, p=.07$). Our results therefore are consistent with those of Davis (1980, 1983) and substantiate the theoretical claims underlying the IRI. But none of the components of the IRI correlated with consequentialist scores as measured by Lombrozo (2009), not even *empathic concern*, $r(170) = -.08, p=.28$. Neither did *empathic concern* correlate with torture acceptability ratings, $r(170) = .09, p=.22$.

Following Gleichgerricht and Young (2013), we performed a stepwise discriminant analysis using gender and the four IRI scales as predictors to classify participants as deontologists or utilitarians based on their Lombrozo scores (a score of .5 or greater = utilitarian). None of the variables satisfied the criteria for entry into the equation. Re-analysis using forced entry of all variables yielded the structure matrix shown in Table 2, which was not significant, $\chi^2_{(5)} = 6.93, p=.23$, Wilks' Lambda = .96

One reason why our results may have differed from those of Gleichgerricht and Young (2013) is that they categorized participants based on their actual Trolley problem moral judgments while we categorized participants based on the Lombrozo (2009) commitments questionnaire. This questionnaire does not require people to render moral judgments, but instead to indicate their agreement with statements such "It is never morally permissible to lie", and "If lying will produce greater net good than bad, then it is morally permissible to lie." It is possible that when required to actually render moral judgments, the emotional impact of the described situation influences the judgment process in ways that cannot be predicted by people's responses to generalized rules such as those used on the commitments task. To rule out this possibility, we divided our participants into deontologists and utilitarians based on their acceptability ratings. Those who found torture to be acceptable (ratings > 4) were classified as utilitarians

Table 1 Correlations among torture acceptability ratings, Consequentialism score, Sex, and the four components of the interpersonal reactivity index in Experiment 3

	Conseq.	Empathic concern	Perspective taking	Fantasy	Personal distress	Sex
Torture rating	.145	.093	-.057	.189	.230**	.080
Consequentialism		-.083	-.057	.073	.075	-.190*
Empathic Concern			.588**	.358**	.038	.193*
Perspective taking				.145	-.137	.015
Fantasy					.119	.136
Personal distress						.104

* $p<.05$

** $p<.01$

Table 2 Structure matrix for discriminant analyses conducted in Experiment 3

Discriminant function	Lombrozo classif.	TTB classif.
p value for function	ns	.001
Personal distress	-.104	.754
Fantasy	.611	.713
Empathic concern	-.415	.248
Sex	.267	.163
Consequentialism	na	.054
Perspective taking	-.247	.008

($n=48$) and those who found torture to be unacceptable (ratings < 4) were classified as deontologists ($n=103$). Nineteen participants entered a score of 4 (“unsure”) and were excluded from the analysis.

We then performed a stepwise discriminant analysis using gender and the four IRI scales as predictors to classify participants as deontologists or utilitarians. A significant discriminant function obtained that included *personal distress* and *fantasy*, Wilks’ Lambda = .91, $\chi^2_{(2)}=14.28$, $p<.001$, canonical correlation = .30. The standardized canonical discrimination function coefficients were .70 for *personal distress* and .66 for *fantasy*. The results of this analysis indicated that *empathic concern* (the tendency to experience feelings of warmth, compassion, and concern for other people) did not distinguish utilitarians from deontologists. Instead, these groups could be distinguished based on *personal distress* (a measure of emotional empathy that reflects one’s own feelings of personal unease and discomfort in reaction to the emotions of others) and *fantasy* (a measure of cognitive empathy that measures the tendency to transpose oneself into the feelings and actions of fictitious characters). These results are consistent with those reported by Sarlo et al. (2014) for trolley problems.

5 General Discussion

The TTB scenario is frequently described as a counter-example to the condemnation of torture as a means of information extraction. Its utilitarian structure pits the fate of many against the suffering of one, and some moral scholars have argued that torture is permissible under these circumstances. Torture cannot be justified in terms of cost-benefit efficacy, however, if its effectiveness is questionable, if the likelihood that the suspect possesses relevant information is low, or if other means of obtaining information are available.

Our results show that acceptance of torture in the TTB scenario depends strongly on a highly idealized and therefore highly unrealistic utilitarian structure. Contrary to Allhoff (2012), we found that people were less willing to endorse torture when it was not likely to be successful, and when viable alternatives were available (Experiment 1). Culpability also constituted a significant factor for the endorsement of torture. Torture was judged more acceptable and less morally wrong when the suspect was explicitly identified as responsible for the bomb or was identified as a

terrorist (and hence implicated in similar acts of aggression). While studies such as Gleichgerrcht and Young (2013) have found that *empathic concern* is predictive of judgment patterns for Trolley Problems, our results suggest that this type of *empathic concern* does not distinguish utilitarians from deontologists nor does it predict willingness to endorse torture. Instead, the degree of emotional distress decision-makers feel in response to the distress of others, and the ease with which they can imagine themselves in a fictitious character's place predicted decision profiles. In fact, our results regarding the role of empathy are more in line with a recent study which purports to show that "self-oriented" empathy, (e.g., *personal distress*), more so than "other-oriented empathy" (e.g., *empathic concern*) affect behavioral choices in moral dilemmas (Sarlo et al. 2014). This is consistent with arguments advanced by Greene and colleagues that the degree of distress elicited by moral dilemmas influences how strongly or weakly a dilemma's the utilitarian structure will weigh in the final judgment. It is also consistent with Cummins and Cummins (2012) argument that moral judgments involving harm to others are strongly influenced by the degree to which the individual to be harmed is viewed as a legitimate target of moral concern by the decision-maker.

Additionally, our results have clear implications for philosophical debates that surround TTB scenarios. Many of the worries raised by Shue (2006) regarding the stipulations of the TTB are affirmed. Shue argued that the TTB contains too many idealizations and abstractions for our moral judgments about it to have any real-world significance. The importance of such stipulations for people's judgments coupled with their problematic availability in the real world, casts serious doubt on the use of TTB scenarios as an argument for legalized torture (see Spino 2012).

The willingness to permit torture in the TTB scenario is sometimes cited as vindication of broadly consequentialist views (Alhoff 2005). However, the results from Experiment 2 are inconsistent with this interpretation as the culpability or terrorist-status of the individual in question is irrelevant to a "greater good" outcome. If the permissibility of torture is mostly motivated by the acceptability of sacrificing one individual in order to save the lives of many, these factors should not matter, or at the very least matter very little. Instead, these results suggest that torture is endorsed under these circumstances as a form of retributive action, and not simply as a means of information extraction. An alternative explanation, however, is that our participants were unsure of the term "obligatory", and were simply expressing their strong belief in the permissibility of torture under the circumstances.

5.1 The TTB and the "Reasonable Person Doctrine"

Legal scholars sometimes justify the use of torture in TTB scenarios by appeal to the "reasonable person doctrine", that is, torturers are not culpable if the majority of reasonable people would do the same under the same circumstances. But our results show that people sometimes vary significantly in their endorsement of torture due to differences in their prior moral commitments. Utilitarians were more likely to reason this way than deontologists, indicating that the use of utilitarian frameworks in TTB scenarios are particularly persuasive to people of this kind of philosophical orientation (Experiment 2). Compared to utilitarians, deontologists found torture to be less acceptable, more wrong, and less obligatory. Hence, it is not clear how the term "reasonable person" should be defined.

5.2 Utilitarianism or Retribution?

Carlsmith and colleagues have argued that people often cite utilitarian justifications for imposing penalties, but their behavior is actually guided by retributive principles (Carlsmith 2008; Carlsmith et al. 2002, 2007). Factors that should not matter under utilitarian analysis greatly impact endorsement of torture, such as whether the person to be tortured is a member of one's own group or an out-group member, and the person's past involvement in terrorist activities. But these factors are irrelevant to utilitarian concerns in TTB scenarios, where only the question of saving current lives by incurring current torment on an individual matters.

Our results indicate that a desire for retribution may constitute a hidden motivation for endorsing the use of torture in scenarios. Labeling suspect as a terrorist (Experiment 2) made torture seem more acceptable and less wrong, and culpability mattered less when the suspect was identified as a terrorist than when he was identified as "an individual". Given the gross violations in utilitarian structure that resulted from our manipulations, we would expect the impact of these manipulations to be greater than what we observed. Even when viable alternatives were available (Experiment 1), however, mean ratings ranged between "Somewhat Disagree" and "Unsure", suggesting that violations are more likely to make decision-makers uncertain whether to endorse rather than rejecting this option outright. Moreover, this was true regardless of whether the decision-maker leaned more toward utilitarian or deontological moral commitments.

Finally, a "dirty hands" deontological view predicts that torture should be judged equally wrong under all circumstances, but acceptable and possibly obligatory when the suspect was culpable. We found instead that deontologists' wrongness ratings of torture varied significantly as a function of suspect culpability and label, as did their acceptability ratings.

5.3 Torture and Public Policy

Our results are directly relevant to policy directed at the use of torture as an information-extraction technique. Real life scenarios often depart significantly from the idealized TTB scenarios cited to justify torture. Torture has long been known to be an unreliable method (Rejali 2007, pp. 24–25), and our studies have shown that the permissibility of torture is significantly lower when torture is described as unreliable. The practice of depicting torture as otherwise in a scenario whose results are sometimes used to justify real like instances of torture is highly suspect. Additionally, our results and those of Carlsmith and colleagues indicate that at least some of the motivation for finding torture permissible has nothing to do with making a difficult utilitarian judgment of sacrificing the one for the benefit of the many. This should give us reason to pause when arguments for the legalization for torture appeal to this utilitarian concern, yet typically involve cases where it is an outsider or "terrorist" that is to be tortured.

Subsequent research would need to investigate further how it is certain features of TTB scenarios interact with things like *empathic concern* and *personal distress* in order to get a clearer picture of how moral reasoning functions in TTB scenarios. Of particular interest is why subjects more susceptible to anxious emotional reactions towards other's distress were *more* inclined to make utilitarian judgments, since it is

normally deontological judgments that are associated with emotional responses (e.g., Greene et al. 2001, 2007), not utilitarian ones.

References

- Alhoff, F. 2005. A defense of torture: Separation of cases, ticking time-bombs, and moral justification. *International Journal of Applied Philosophy* 19(2): 243–264.
- Alhoff, F. 2012. *Terrorism, ticking time-bombs, and torture*. Chicago: The University of Chicago Press.
- Aramovich, N.P., B.L. Lytle, and L.J. Skitka. 2011. Opposing torture: Moral conviction and resistance to majority influence. *Social Influence* 7: 21–34.
- Bagartic, M., and J. Clarke. 2005. Not enough torture in the world? The circumstances in which torture is morally justifiable. *University of San Francisco Law Review* 39: 581–616.
- Bufacchi, V., and J.M. Arrigo. 2006. Torture, terrorism, and the state: A refutation of the ticking time-bomb argument. *Journal of Applied Philosophy* 23(3): 355–373.
- Carlsmith, K.M. 2008. On justifying punishment: The discrepancy between words and actions. *Social Justice Research* 21: 119–137.
- Carlsmith, K.M., and A.M. Sood. 2009. The fine line between interrogation and retribution. *Journal of Experimental Social Psychology* 45: 191–196.
- Carlsmith, K.M., J.M. Darley, and P.H. Robinson. 2002. Why do we punish? Deterrence and just deserts as motives for punishment. *Journal of Personality and Social Psychology* 83: 284–299.
- Carlsmith, K.M., J. Monahan, and A. Evans. 2007. The function of punishment in the “civil” commitment of sexually violent predators. *Behavioral Sciences & the Law* 25: 437–448.
- Cummins, D.D., and R.C. Cummins. 2012. Emotion and deliberative reasoning in moral judgment. *Frontiers in Psychology: Emotion Science* 3: 1–16.
- Davis, M.H. 1980. A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology* 10: 85.
- Davis, M.H. 1983. Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology* 44: 113–126.
- Dershowitz, A. 2002. *Why terrorism works: Understanding the threat, responding to the challenge*. New Haven: Yale University Press.
- Foot, P. 1978. *Virtues and vices*. Oxford: Blackwell.
- Ginbar, Y. 2010. *Why not torture terrorists? Moral, practical and legal aspects of the “ticking bomb” justification for torture*. NYC: Oxford University Press.
- Gleichgerrcht, E., and L. Young. 2013. Low levels of empathic concern predict utilitarian moral judgment. *PLoS ONE* 8(4).
- Greene, J.D. 2007. Why are VMPFC patients more utilitarian? A dual-process theory of moral judgment explains. *Trends in Cognitive Science* 11: 322–323.
- Greene, J.D., R.B. Sommerville, L.E. Nystrom, J.M. Darley, and J.D. Cohen. 2001. An fMRI investigation of emotional engagement in moral judgment. *Science* 293: 2105–2108.
- Greene, J.D., S.A. Morelli, K. Lowenberg, L.E. Nystrom, and J.D. Cohen. 2008. Cognitive load selectively interferes with utilitarian moral judgment. *Cognition* 107: 1144–1154.
- Holmes, Oliver Wendell, Jr. 1909. *The Common Law* (2nd ed.). Little, Brown.
- Levin, D. 1982. The case for torture. *Newsweek*.
- Lombrozo, T. 2009. The role of moral commitments in moral judgment. *Cognitive Science* 33: 273–286.
- Luban, D. 2005. Liberalism, torture, and the ticking bomb. *Virginia Law Review* 91: 1425–1461.
- Matthews, R. 2008. *The absolute violation: Why torture must be prohibited*. Montreal: McGill-Queen’s University Press.
- Meisels, T. 2008. Torture and the problem of dirty hands. *Canadian Journal of Law and Jurisprudence* 21(2): 149–173.
- Miller, S. 2005. Is torture ever morally permissible? *International Journal of Applied Philosophy* 19(2): 179–192.
- Miller, S. 2007. Noble cause corruption in politics. In *Politics and morality*, ed. I. Primoratz, 92–112. New York: Palgrave Macmillan.
- Miller, R. M., I. A. Hannikainen, and F. A. Cushman. 2014. Bad Actions or Bad Outcomes? Differentiating affective contributions to the moral condemnation of harm. *Emotion*. Advance online publication. <http://dx.doi.org/10.1037/a0035361>.

- Rejali, D. 2007. *Torture and democracy*. Princeton: Princeton University Press.
- Sarlo, M., L. Lotto, R. Rumiati, D. Palomba. 2014. If it makes you feel bad, don't do it! Egoistic rather than altruistic empathy modulates neural and behavioral responses in moral dilemmas. *Physiology & Behavior*.
- Schlesinger, J.R. 2005. *The Schlesinger report: An investigation of Abu Ghraib*. Cosimo Reports.
- Shue, H. 1978. Torture. *Philosophy & Public Affairs* 7(2): 124–143.
- Shue, H. 2006. Torture in dreamland: Disposing of the ticking bomb. *Journal International Law* 37(2/3): 231–239.
- Simons, K.W. 2008. Self-defense: Reasonable beliefs or reasonable self-control. *New Criminal Law Review* 11: 51–90.
- Sood, A.M., and K.M. Carlsmith. 2012. Aggressive interrogation and retributive justice: A proposed psychological model. In *Ideology, psychology, and law*, ed. J. Hanson, 574–604. New York: Oxford University Press.
- Spino, J. 2012. Defusing dangers of imaginary cases. *International Journal of Applied Philosophy* 26(1): 29–37.
- Sussman, D. 2005. What's wrong with torture? *Philosophy and Public Affairs* 33: 1–33.
- Tarrant, M., N.R. Branscombe, R.H. Warner, and D. Weston. 2012. Social identity and perceptions of torture: It's moral when we do it. *Journal of Experimental Social Psychology* 48: 513–518.
- Thomson, J. 1985. The trolley problem. *Yale Law Journal* 94: 1395–1415.
- Walzer, M. 1977. *Just and unjust wars: A moral argument with historical illustrations*. New York: Basic Books.