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Abstract

How does war influence moral judgments about harm? While the general rule is “thou shalt not kill,” war appears to provide an exception to the moral prohibition on intentional harm. In three studies ($N = 263$, $N = 557$, $N = 793$), we quantify the difference in moral judgments across peace and war contexts, and explore two possible explanations for the difference. The findings demonstrate that people judge a trade-off of one life for five as more morally acceptable in war than in peace, especially if the one person is from an outgroup of the person making the trade-off. In addition, the robust difference in moral judgments across “switch” and “footbridge” trolley problems is attenuated in war compared to in peace. The present studies have implications for moral psychology researchers who use war-based scenarios to study broader cognitive or affective processes. If the war context changes judgments of moral scenarios by triggering group-based reasoning or altering the perceived structure of the moral event, using such scenarios to make decontextualized claims about moral judgment may not be warranted.

Key words: moral psychology, trolley problems, war, ingroup bias, intergroup conflict

The Influence of War on Moral Judgments about Harm

Killing is wrong; therefore all murderers are punished unless they kill in large numbers and to the sound of trumpets.

- *Voltaire*

The moral judgments we make about killing in war differ markedly from the moral judgments we make about killing in times of peace. In an everyday context, the quintessential moral wrong is intentional harm (i.e., murder, Gray & Keeney, 2015), and the most common immoral actions observed in people’s everyday lives involve harm (Hofmann, Wisneski, Brandt, & Skitka, 2014). But what about in contexts of war? Although harm is highly relevant in war contexts – in the 20th century, upwards of 110 million people lost their lives in international and civil wars (Wimmer, 2014) – very little research compares judgments of harm in war to judgments of harm in everyday contexts. Thus, while it is generally assumed that harm is more permissible in war than in peace, this difference in moral judgments has yet to be quantified. In addition, no previous research has investigated *how* war

influences moral judgments. Is it the “large numbers”, or “the sound of trumpets” that is driving the effect? Or something else entirely?

In the present paper we compare judgments made about harm in a peace context to those made in a war context, to investigate how war influences moral judgments. We also investigate two specific aspects of the war context which may underpin any observed difference: (a) the intergroup nature of war, and (b) the context-specific nature of the construal of causal and intentional event structure. We aim to further our understanding of moral judgments about actions in war – particularly about its core activity, killing. Philosophers of (the ethics of) war have suggested that how we make moral judgments about killing in war may influence our likelihood of joining them (McMahan, 2009), as well as the manner in which they are fought (McMahan, 2010). Establishing how people do in fact make moral judgments about war is a first step in investigating these possibilities. In addition, much moral psychological research currently focuses on broad domains (e.g., Haidt, 2001) or general affective and cognitive processes (assumed to operate across contexts, see Carnes, Lickel, & Janoff-Bulman, 2015). Investigating how a specific context – war – influences moral judgments, contributes to our understanding of the potential context-sensitivity of moral judgments and processes.¹

Third-Party Judgments and the Intergroup Nature of War

Moral judgments of harmful actions are influenced by the group-based identities of perpetrators and victims. People are more concerned about harm to their ingroups, than about harm to an outgroup (Cikara, Botvinick, & Fiske, 2011; Pratto & Glasford, 2008). Further, when a member of a bystander’s ingroup is guilty of harming an outgroup member, the bystander will morally disengage from the act (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996) – and thus judge it as less wrong – by, for example, dehumanizing the outgroup (Castano & Giner-Sorolla, 2006), shifting their moral standards (Leidner & Castano, 2012; Leidner, Castano, Zaiser, & Giner-Sorolla, 2010) or by rationalizing the harm with an appeal to justice (Aquino, Reed, Thau, & Freeman, 2007). In war, harm usually occurs across group boundaries; indeed, war is by definition an intergroup activity (Horgan, 2013; Shue, 2008; Wimmer, 2014). This is thus one reason why the war context seems likely to influence judgments about harm.

However, moral judgments about war are frequently made by people who do not belong to either warring group – that is, by people who are external to the war itself (e.g., The International Criminal Court, ICC). Currently, the ICC is an impartial (“third party”) institution which adjudicates on matters of international law, including war crimes (Schabas, 2011). International law in turn has been strongly influenced by the philosophy of war (Orend, 2013), which also has impartial ideals. It is therefore important to understand how third-party judges make moral judgments about harm in the intergroup context of war (compared to in peace).

In the studies cited above, comparisons were made between harms directed at ingroup and outgroup members, but not between harms committed in peace compared to in war. Thus, while this

research provides some insight into the dynamics of intergroup morality, it does not answer our fundamental question: How does war influence moral judgments of harm? While we certainly expect that ingroup-perpetrated harms will be judged as less wrong than outgroup perpetrated harms, we do not know what role the war context plays *per se*; that is, how third-party observers make moral judgments across war and peace contexts.

If war changes moral judgments merely by virtue of its being a competitive, intergroup, context, we may see greater ingroup bias in judgments in a war context than in a peace context (e.g., Hewstone, Rubin, & Willis, 2002; Stephan & Stephan, 2000), but no independent effect of context on third-party moral judgments. In other words, while you would judge your ingroup members more leniently in war than in peace, a third-party judge would not. However, it is also possible that something beyond ingroup bias impacts moral judgments in war. We know that social and relational context influences moral judgments. For example, care and loyalty are seen as more relevant moral concerns among intimates (e.g., members of a family, a group of close friends) than among members of a task group (e.g., members of a jury, the cast of a play), even if the person making the judgment is positioned outside of these groups (Carnes, et al., 2015; Simpson & Laham 2015; Simpson, Laham, & Fiske, 2016). War is a social context involving unique relationships: Hierarchical relationships among members of the armed forces, horizontal relationships between soldiers of the same unit, relationships across the military-civilian divide, and the antagonistic relationship between the warring parties. It is possible that these elements of the war context may impact third-party judgments by reframing the value of harm in war contexts. For example, harms executed under orders or in group defense (both clear components of war contexts) may be deemed less wrong than harms in contexts in which such elements are absent, even for third-party judges.

In the present studies we investigate these possibilities. We embed moral scenarios in peace and war contexts, and orthogonally manipulate the ingroup and outgroup identity of the moral agents and victims involved (all studies) *as well as* the social identity relations between third-party judge and both agents and victims. (Study 2). In this way we can investigate differences in moral judgment across war and peace contexts that are independent of the effect of ingroup bias.

The Structure of Moral Events in War

Investigating the third-party perspective also allows us to ask interesting further questions about moral judgments in war, relevant to psychological theory. Much work on judgments about harms has focused on the role of perceived causes and intentions in structuring moral events (Cushman, 2008; Cushman, Young, & Hauser, 2006; Watkins & Laham, 2016). One way of probing the structure of moral events is to use pairs of hypothetical “trolley dilemmas”. Trolley dilemmas are scenarios which involve a trade-off between the lives of one person versus more (often five) people. In the classic “switch” version (Foot, 1978), the lives of five people are endangered by a runaway trolley, rushing towards them. The five can be saved, however, by switching the trolley onto a side

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track. There is one person on the side track, who will be killed if the trolley is switched. Despite this, a majority of people say that switching the trolley – killing one person, but saving five – is the morally appropriate choice (Hauser, Cushman, Young, Jin, & Mikhail, 2007). Altering the scenario somewhat – such that now, the five people can only be saved by pushing one large heavy person into the path of the trolley (thus derailing it) – dramatically changes the judgment. In this scenario – commonly referred to as the “footbridge” version – most people say it is morally *unacceptable* to derail the trolley (Hauser et al., 2007; Thomson, 1985).

This difference in judgment across switch and footbridge scenarios is robust, and has been the focus of much attention in moral psychology (Cushman, 2014). Explanations put forward for the difference include factors such as the distinction between personal and impersonal force (Greene, Sommerville, Nystrom, Darley, & Cohen, 2001), the locus of action (Wiegmann & Waldmann, 2014), the contact principle (Cushman et al., 2006), intention (Cushman et al., 2006; Feltz & May, 2017), and, relatedly, the doctrine of double effect (to which we will return; Mikhail, 2011; Watkins & Laham, 2016). In studying these and other factors proposed to underlie moral judgments, researchers often develop variations on trolley problems: New pairs of hypothetical dilemma scenarios that capture the factor under investigation. Of particular interest to the present inquiry, these scenarios are occasionally set in a war context (Colby & Kohlberg, 1987; Phillips & Young, 2011; Piazza, Sousa, & Holbrook, 2013; Uhlmann, Pizzaro, Tannenbaum, & Ditto, 2009). However, in extant studies war is typically not directly pertinent to the research question; rather, pairs of scenarios are assumed to be instantiations of more general categories. The implicit assumption underlying this use of scenarios set in war is that the factors, or moral principles, under investigation are not substantially affected by the war context; that generalizations can be made from one context to another. Directly comparing judgments of switch to footbridge, in a war context compared to a peace context, provides an important test of whether this assumption is warranted.

To illustrate, consider one proposed explanation for the robust difference between switch and footbridge, the doctrine of double effect (DDE). The DDE is a principle of moral judgment, the first formulation of which is usually credited to Thomas Aquinas: “Nothing hinders one act from having two effects, only one of which is intended, while the other is beside the intention. Now moral acts take their species according to what is intended, and not according to what is beside the intention” (*Summa Theologica*, II-II, Qu 64, Art. 7, co.; see also McIntyre, 2014). People do indeed make moral judgments that are consistent with the DDE. Killing is generally judged as more morally wrong when the harm is intended as a means to a desired end, than when the harm occurs as an unintended but foreseen side-effect of achieving the desired end (Feltz & May, 2017). In trolley problem dilemmas, this is thought to provide one explanation for why moral judgments are harsher in the footbridge scenario – where the one person is being killed as a means to an end, and the DDE is violated – than in the switch scenario – where the one person is being killed as a side effect, and the DDE is upheld

(Cushman, 2008, 2014). Although the end is the same in both cases (five people are saved), this difference in structure is argued to lead to differences in moral judgment (Mikhail, 2011).

But how might the DDE differ in a war context? The war context places greater constraints on actors' (i.e., soldiers') intentions, and the relationship between means, ends, and side-effects is complicated by the causal and intentional structure surrounding wars (e.g., Ryan, 2008). Indeed, while discussing the DDE, Aquinas gives an example of "a soldier fighting against the foe" as somebody who may be permitted to kill in the service of a "public good", suggesting that soldiers, when they kill in war, always uphold the DDE. War thus appears to have the potential to restructure perceptions of cause and intention behind the moral event of killing, which would lead to changes in moral judgment compared to the same event in peace.

The point here is not that we believe that the DDE is necessarily the only, or the best, explanation for the difference in responses to switch and footbridge scenarios. The point is that the perceived structure of events taking place in a war context may be different from that of events taking place in a peace context. This difference would be supported by a pattern of results in which the difference between responses to switch and footbridge scenarios is moderated by context (peace vs. war). We select switch and footbridge (rather than a more minimal pair of scenarios) because of the robust differences in moral judgments found across these two scenarios; and we focus our discussion on the DDE because of its close ties to the logic of war: In addition to being mentioned by Aquinas, the DDE is frequently evoked as justification for the "collateral damage" that occurs during war, including unintentional civilian deaths (Maiese, 2003; McIntyre, 2014; Orend, 2013; Walzer, 2006). Despite this affinity, the DDE has not yet been studied in a war context. In fact, to our knowledge, no previous research directly compares moral judgments in peace and war. Doing so provides an important first test of whether moral principles can be assumed to be invariant across these two distinct contexts, and has the potential to elucidate boundary conditions on moral principles hitherto only studied in peace.

Overview of Studies and Hypotheses

Across 3 studies, participants responded to trolley problem scenarios in both peace and war, in one of three intergroup conditions which varied the social identities of the actors and victims in the scenarios (outlined below, and see Figure 1). Using these trolley dilemmas allows us to achieve the three primary aims of the present study: (1) To capitalize on the fact that trolley dilemmas involve killing (the central morally questionable act in war); (2) to enable us to easily manipulate ingroup versus outgroup identities in order to disentangle effects of context from ingroup bias; and (3) to focus on the difference between switch and footbridge (which is well established in moral psychology, and which instantiates a moral principle (the DDE) that has been argued to be central to the logic of war).

We expected to see a difference in moral judgments, such that, all else equal, killing one person to save five would be judged more permissible in war than in peace (H1). We also

investigated two factors intrinsically related to war, which may interact with the war context to result in a shift in moral judgments. The first is the intergroup nature of war: We expected that it would be particularly permissible to kill *outgroup* members in war, indicated by a context by intergroup condition interaction (H2). This interaction between intergroup condition and context may hold even when the judge (participant) is a third-party observer to the conflict (Studies 2 and 3), indicating a context-based shift in moral judgment independent of an *ingroup* bias. The second factor is the structure of the moral event: If war influences how the trade-off in lives is construed, we should observe a context by scenario interaction (H3). For example, if soldiers' killing in war is seen as overall less "intentional" than killing in peace, responses to the footbridge scenario would converge on responses to the switch scenario in war compared to in peace.

Study 1

Method

Participants. We recruited 263 people (144 women, 116 men, 3 other; $M_{\text{age}} = 29.9$ years, $SD = 11.0$), the majority of whom reported a Western heritage (50% Australian, 39% North American, 8% Western European, 3% other).² This data was collected before the first author was aware of new guidelines about power (e.g., Funder, Levine, Mackie, Morf, Sansone, Vazire, & West, 2013), and thus no a priori power analysis was performed. However, with a sample size of 87 (in the control condition; see below) and $\alpha = .05$, we would have an 80% likelihood of detecting a small to medium effect (Cohen's $d = 0.30$) in a paired samples t-test (H1). We stopped data collection before analyzing the data. The procedures used in this study were reviewed and approved by the Human Research Ethics Committee at the University of Melbourne.

Materials and procedure. This study used a 3 (Intergroup condition: control vs. outgroup sacrifice vs. ingroup sacrifice) by (2) (Context: peace vs. war) by (2) (Scenario: switch vs. footbridge) mixed-design, with repeated measures on the latter two factors. After providing consent and reporting gender and age, participants were randomly assigned to one of three intergroup conditions which systematically varied the group identities (ingroup vs. outgroup) of the agents and potential victims in the trolley scenarios (see Figure 1).

[Insert Figure 1 here]

In order to manipulate group identity, participants were first given some background information which introduced two hypothetical countries, "Country X" and "Country Y" (context manipulation highlighted in bold):

Imagine that there are two countries, Country X and Country Y. You are a citizen of Country X, but otherwise the exact same person you are now (i.e., you have the same family, same job, living situation, attitudes, etc.). Country X and Country Y are currently at [**war/peace**]. Please keep this in mind while reading and responding to the following scenario.

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In the *control* condition, the participant (judge), the moral agent, the five people on the track, and the one potential victim were all described as being from Country X: That is, all the actors and potential victims were ingroup members of the participant. In the *outgroup sacrifice* condition, the one potential victim in the scenario was described as being from an outgroup (Country Y, grey figures in Figure 1), while the agent, the five potential victims, and the participant were from Country X (ingroup). In the *ingroup sacrifice* condition the one potential victim, the agent, and the participant were described as being from Country X (ingroup), but the five people on the track were from the outgroup, Country Y. In Study 1, participants were thus always asked to make judgments about the potential actions of an ingroup member (i.e., the agent was always from Country X), but the moral trade-off involved different combinations of ingroup and outgroup members as potential victims.

[Table 1 goes here]

Each participant responded to both versions of the trolley problem scenario (switch and footbridge, see Table 1) in both contexts (war and peace). In the war context, the people in the scenario – the moral agent, the five people on the track, and the one potential victim – were described as “soldiers” and referred to using the masculine third person pronoun, whereas in the peace context, they were introduced as “civilians”, and then referred to as “men”. We specified that both the civilians and the soldiers were male, as most soldiers are male (Office of the Deputy Assistant Secretary of Defense, 2013). Scenario and context order was counterbalanced across participants.

Each scenario appeared individually, and was followed by three moral judgment items. Following the recommendations of Kahane and Shackel (2010), judgments about both action and inaction were elicited, and therefore the three questions were: 1) It is morally wrong for [agent] to throw the [switch/man]; 2) It is morally wrong for [agent] to *not* throw the [switch/man]; and 3) [Agent] is morally required to throw the [switch/man], (1 = *strongly disagree*, 6 = *strongly agree*). Full Materials for this and the following studies are available in the Supplemental Materials and on the Open Science Framework (OSF); <https://osf.io/dj8xs>.

Results and Discussion

After reverse scoring the first item (“It is morally wrong for [agent] to throw the [switch/man]”), the three moral judgments formed a scale with good internal reliability (Cronbach’s α s from .702 to .901 across conditions). We therefore combined these into a composite *moral acceptability* score, with higher values indicating that sacrificing one to save five was deemed more morally acceptable. This measure was analyzed in a 3 (Intergroup condition: control vs. outgroup sacrifice vs. ingroup sacrifice) by 2 (Context: peace vs. war) by 2 (Scenario: switch vs. footbridge) mixed-design ANOVA with repeated measures on the context and scenario factors. Main effects and descriptive statistics are summarized in Table 2.

[Table 2 goes here]

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In line with previous research, the scenario main effect indicated that participants judged that pushing the man off the footbridge was less morally acceptable than throwing the switch, $F(1, 260) = 226.92, p < .001, \eta_p^2 = .47$. The main effects of context and intergroup condition were not significant; however, there was a significant interaction between context and intergroup condition, $F(1, 260) = 22.08, p < .001, \eta_p^2 = .15$, suggesting that the difference between judgments in war and peace depended on intergroup condition (as hypothesized, H2). The hypothesized interaction between scenario and context was not significant, $F(1, 260) = 2.26, p = .134, \eta_p^2 < .01$ (H3). No other interactions were significant, all $F_s < 1.19, p_s > .301$.

To explore the context by intergroup condition interaction, we compared moral judgments in peace and war, within each intergroup condition. Results of paired-sample t -tests for the difference between war and peace, in each intergroup condition, are summarized in Table 3.

[Table 3 goes here]

In the control condition, a paired samples t -test showed that people found the trade-off of one life for five slightly more acceptable in war than in peace $t(79) = 2.05, p = .044, d = 0.22$. In other words, in support of H1, the war context per se shifted judgments of harm such that killing one person (and saving five) was seen as more acceptable in war than in peace. In the outgroup sacrifice condition, killing one outgroup member to save five ingroup members was more acceptable in war than in peace, $t(92) = 5.05, p < .001, d = 0.53$. We note that, comparing this result to the result in the control condition appears to indicate that although the war context, as such, shifts moral judgments in favor of the trade-off, the intergroup conflict aspect also plays a substantial role, more than doubling the size of the effect.

In the ingroup sacrifice condition, there was again a significant effect of context, $t(89) = 3.29, p < .001, d = 0.34$, but this effect was in the opposite direction to that in the outgroup sacrifice and control conditions. In war, people judged it *less* acceptable to kill one ingroup member to save five outgroup members, than in peace. In this condition, then, the tendency to favor ingroup lives overrode the utilitarian calculus of $5 > 1$; in war (more so than in peace), participants preferred to let the five outgroup members on the track die.

In sum, and consistent with hypotheses, participants were sensitive to the war context per se (H1): In the control condition participants judged the sacrifice of one to save five more acceptable in war than in peace. Further, ingroup bias influenced moral judgments more in war than in peace, demonstrating that heightened sensitivity to intergroup boundaries may be one driver of altered moral judgments in war (H2). This finding is consistent with previous research showing that ingroup favoritism is heightened when two groups are in conflict (Pratto & Glasford, 2008, Stephan & Stephan, 2000). Finally, we found no clear evidence that context altered the perceived structure of the moral event: Context did not interact with scenario, thus H3 was not supported.

Study 2

In Study 2 we sought to replicate the effects of Study 1, but also to expand them to a purely third-party perspective. Although participants in Study 1 were positioned outside of the scenario (i.e., as bystanders), they were always ingroup members of the moral agent. Under such conditions, it makes sense that an ingroup bias would appear in moral judgment. In Study 2, we therefore also included a condition in which the participant was described as being from a third country, neutral to the conflict. If the effects of intergroup context in Study 1 were at least partly driven by ingroup favoritism, we may observe a smaller (or no) intergroup condition by context interaction when the participant is judging the scenario as a third party, from an “outsider” perspective. If however, these effects were driven by the war context making more salient the intergroup nature of the scenario (and the conflict-related norms pertinent to intergroup relations), then we should see a similar interaction between intergroup condition and context for third-party (outsider) and ingroup (insider) judges. In other words, in the context of a 3 (Intergroup condition: control vs. outgroup sacrifice vs. ingroup sacrifice) by 2 (Perspective: insider vs. outsider) by Context (2) (Context: peace vs. war) by 2 (Scenario: switch vs. footbridge) mixed design, an ingroup bias account would predict an intergroup condition by perspective by context interaction, whereas a norm salience account would predict only a two-way intergroup condition by context interaction. Study 2 tested between these accounts; we had no clear a priori expectation.

Method

Participants. We recruited 557 people (334 women, 215 men, 8 other, $M_{\text{age}} = 36.7$ years, $SD = 10.9$) through social media. Participants thus participated voluntarily and completed the study online at their personal computers. The majority of participants reported a Western heritage (50% Australian/New Zealander, 19% North American, 19% Western European, 12% other). Again, no a priori power analysis was performed for the present studies. However, with a sample size of 185 (average per intergroup condition) and an α -level of .05, we would have a roughly 90% likelihood of detecting a small to medium effect (Cohen's $d = 0.25$) in a paired samples t-test (H1), for a range of correlations between measures. The procedures used in this study were also reviewed and approved by the Human Research Ethics Committee at the University of Melbourne.

Materials and procedure. After consenting, participants were randomly assigned to one of three intergroup conditions (control, outgroup sacrifice, and ingroup sacrifice), as in Study 1. In addition, participants were allocated to either the *insider* perspective or *outsider* perspective (see Figure 1). Each participant responded to either the switch or the footbridge versions of the trolley problems scenarios (in contrast to Study 1, scenario was a between-subjects factor), in both war and peace (thus context remained a within-subjects factor).

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The intergroup condition manipulation was the same as in Study 1. However, in order to also manipulate the perspective factor, the background information given to participants in the outsider perspective was slightly altered (differences from insider perspective and Study 1 in italics):

Imagine that there are *three* countries, Country X, Country Y, and Country Z. You are a citizen of *Country Z*, but otherwise the exact same person you are now (i.e., you have the same family, same job, living situation, attitudes, etc.). Country X and Country Y are currently at [**war/peace**]. Please keep this in mind while reading and responding to the following scenarios.

Each scenario appeared individually, and was followed by three moral judgment outcome questions, as in Study 1. Contrary to in Study 1, after reverse scoring the first question (“It is morally wrong for [agent] to throw the switch”) the three moral judgments did not consistently form a scale with good internal reliability (Cronbach’s α s from .385 to .881, see Table S2). The moral judgments were therefore analyzed separately. The results for each question were similar enough that to ease reader burden, only results pertaining to the item “It is morally wrong for [agent] to throw the [switch/man]” are reported here.³ For consistency with Study 1, the reverse-scored version of the wrongness judgment is used. In other words, higher numbers indicate greater endorsement of the choice to sacrifice one life for five.

Results and Discussion

Responses were subjected to a 3 (Intergroup condition: control vs. outgroup sacrifice vs. ingroup sacrifice) by 2 (Perspective: insider vs. outsider) by Context (2) (Context: peace vs. war) by 2 (Scenario: switch vs. footbridge) mixed design ANOVA. Main effects and descriptive statistics are summarized in Table 4. The interactions of interest are discussed in turn below.

[Table 4 goes here]

Intergroup condition by context: Replicating Study 1. In the present study, the main effect of context was not significant, $F(1, 545) = 3.28, p = .071, \eta_p^2 = .01$. Contrary to Study 1, however, in this study there was small main effect of intergroup condition, $F(2, 545) = 5.61, p < .01, \eta_p^2 = .02$. Consistent with Study 1 and previous research, we again observed a main effect of scenario, $F(1, 545) = 436.23, p < .001, \eta_p^2 = .45$. These main effects were qualified by a significant context by intergroup condition interaction, $F(1, 545) = 31.01, p < .001, \eta_p^2 = .10$, as well as a significant three-way interaction between scenario, context, and intergroup condition, $F(1, 545) = 5.18, p < .01, \eta_p^2 = .02$. No further interactions were significant, all F s $< 2.4, p > .094$ (see below for further exploration of the perspective factor).

To explore these interactions (in dialogue with Study 1), we first conducted paired samples t -tests on the context factor within each intergroup condition (see Table 5, and cf. Table 3 for Study 1 results). Then, in order to further investigate the 3 way interaction with scenario, we also ran a series of (2)(Context: peace vs. war) by 2 (Scenario: switch vs. footbridge) mixed-design ANOVAs with repeated measures on the context factor, for each intergroup condition separately.

[Table 5 goes here]

In the control condition, as in Study 1, participants found the trade-off of one life for five more acceptable in war than in peace, $F(1, 188) = 6.98, p < .01, \eta_p^2 = 0.04$. In this condition, the context by scenario interaction was not significant, $F(1, 188) = 0.84, p = .362, \eta_p^2 < .01$. In the outgroup sacrifice condition, and again as in Study 1, killing the one person was also seen as more acceptable in war than in peace, $F(1, 185) = 30.03, p < .001, \eta_p^2 = 0.14$. In this condition, context also interacted with scenario, $F(1, 185) = 12.95, p < .001, \eta_p^2 = .07$, such that the difference between switch and footbridge was bigger in peace (Switch: $M = 4.36, SD = 1.30$; Footbridge: $M = 2.02, SD = 1.16$; $t(187) = 12.98, p < .001$) than in war (Switch: $M = 4.55, SD = 1.29$; Footbridge: $M = 2.94, SD = 1.54$; $t(187) = 7.826, p < .001$), as hypothesized (H3).

In the ingroup sacrifice condition, participants were asked about the moral acceptability of killing one *ingroup* member in order to save five *outgroup* members. In this condition, there was again a main effect of context, $F(1, 172) = 18.55, p < .001, \eta_p^2 = 0.10$, but, as in Study 1, this effect was in the opposite direction to in outgroup sacrifice and control conditions. In this condition the tendency to favor ingroup lives overrode the utilitarian calculus of $5 > 1$, leading people to be *less* likely to endorse sacrificing one life for five in war. As in the outgroup sacrifice condition, however (and contrary to Study 1), context here also interacted with scenario, $F(1, 172) = 17.71, p < .001, \eta_p^2 = 0.09$. The interaction was again such that the difference between switch and footbridge was bigger in peace (Switch: $M = 4.79, SD = 1.29$; Footbridge: $M = 2.16, SD = 1.16$; $t(174) = 14.16, p < .001$) than in war (Switch: $M = 3.93, SD = 1.47$; Footbridge: $M = 2.15, SD = 1.24$; $t(174) = 8.72, p < .001$). The interaction between scenario and context is summarized in Table 6. These results are consistent with the possibility that the perceived intentional structure of the switch and footbridge scenarios is different across war and peace (H3).

[Table 6 goes here]

A novel factor: Perspective. In the omnibus ANOVA, perspective yielded a marginally significant main effect, $F(1, 545) = 3.69, p = .055, \eta_p^2 = .01$. Those who were “insiders” (i.e., from Country X, the same country as the moral agent) endorsed the sacrificial choice less overall than did “outsiders”. No interactions involving perspective were significant (all F s $< 2.4, p$ s $> .094$). However, the main question of interest with regard to perspective, was whether the context by intergroup condition interaction would emerge for both “insiders” and “outsiders” (H4), and we therefore nonetheless analyzed each perspective separately. The insider perspective is identical to Study 1, and indeed, here context and intergroup condition interacted, $F(1, 276) = 19.61, p < .001, \eta_p^2 = .12$. The outsider perspective is the novel perspective for the present study, and again, context and intergroup condition interacted in the same pattern as in the insider perspective and Study 1, $F(1, 269) = 12.17, p < .001, \eta_p^2 = .08$. Descriptive statistics are provided in Table 7.

[Table 7 goes here]

Summary. Overall, the main results from Study 1 were replicated: Participants deemed sacrificial acts of killing more acceptable in war than in peace. However, this tendency was stronger in war when the single victim was from the outgroup, and the five people were from the ingroup, demonstrating heightened sensitivity to group distinctions in war. One novel factor, perspective, was also analyzed in the present study. It was marginally significant in the overall omnibus ANOVA; however it did not interact with the other factors. This suggests that the effect of the war context in interaction with intergroup condition is not merely an effect of *ingroup* bias, but rather a broader acceptance of intergroup discrimination in war: Even third-party judges believe that it is more acceptable, in war than in peace, for a moral agent to trade outgroup lives for their own ingroup lives.

Finally, in the present study we found a context by scenario interaction, which we had not observed in Study 1. This interaction was in the expected direction, with a smaller difference between switch and footbridge in war than in peace. This suggests that participants may perceive the intentional structure of these moral scenarios differently in war than in peace, and we follow this finding up (with a larger sample) in the third and final study.

Study 3

In study 3 we sought to replicate the focal effect – the context by intergroup condition interaction – of the two previous studies. In addition, thus far we have found mixed evidence for a scenario by context interaction. In the present study we therefore recruited a larger sample, to achieve greater power to investigate this interaction.

Method

Participants. We attempted to recruit 800 participants (all U.S. residents) through Amazon Mechanical Turk (AMT; Buhrmester, Kwang, & Gosling, 2001) however due to an unknown error only 793 responses were recorded (376 women, 409 men, 7 other, 1 missing; $M_{\text{age}} = 35.46$ years, $SD = 11.02$). This number of responses provides 80% power to detect the smallest effect observed in the previous studies, $\eta_p^2 = .01$, at $\alpha = .05$, in a mixed-effects ANOVA. Participants were compensated for their time. This study was granted exempt status by the Institutional Review Board at the University of Pennsylvania. Full Materials and de-identified raw data for this study is available for download from the OSF, at <https://osf.io/dj8xs/>.

Materials and procedure. This study used a 3 (intergroup condition: control vs. outgroup sacrifice vs. ingroup sacrifice) by 2 (context: peace vs. war) by 2 (scenario: switch vs. footbridge) mixed design, with repeated measures on the context factor (as in Study 2). Participants were first randomly assigned to one of three intergroup conditions, and responded to either the switch or the footbridge scenario, in both war and peace (as in Study 2). In this study, the background information presented to all participants was the same as in the “outsider” perspective in Study 2; that is, participants were told they were from a third country, external to the conflict, and made judgments about scenarios involving actors from “Country X” and “Country Y”. The order of war and peace contexts was counterbalanced across participants. In a minor change from the previous studies, the

three moral judgment outcome measures were presented to participants in a random order, and the response scale had 7 points (rather than 6). In addition, we emphasized to participants that there were no “right or wrong answers”, and asked them to provide their honest opinions.

Results and Discussion

After reverse-scoring the first question, the three moral judgments formed a scale with good internal reliability (Cronbach's α : war context = .826; peace context = .815), and were therefore combined as in Study 1 into a moral acceptability score. This measure was first analyzed in a mixed-design ANOVA with repeated measures on the context factor. Main effects and descriptive statistics are summarized in Table 8.

[Table 8 goes here]

The context by intergroup condition interaction was again significant, $F(2, 787) = 43.567, p < .001, \eta_p^2 = .10$, and the pattern of results identical to in the two previous studies. These results are therefore summarized in Table 9, but not reiterated here.

Of particular interest to the present study, the scenario by context condition was also significant in the omnibus ANOVA, $F(1, 787) = 5.666, p = .018, \eta_p^2 = .01$. No further interactions were significant (all F s < 0.99 , all p s $> .373$).

[Table 9 goes here]

In keeping with Study 2, and as hypothesized (H3), the difference between switch and footbridge was larger in the peace context (Switch: $M = 3.95, SD = 1.42$; Footbridge: $M = 2.96, SD = 1.51$; $t(791) = 9.43, p < .001$) than in the war context (Switch: $M = 3.94, SD = 1.47$; Footbridge: $M = 3.14, SD = 1.53$; $t(791) = 7.55, p < .001$). Descriptive statistics illustrating this interaction are provided in Table 10 (cf. Table 6). The null results for the interaction in Study 1 notwithstanding, it appears as that context (peace vs. war) moderates the effect of scenario (switch vs. footbridge) on moral judgments.

[Table 10 goes here]

General Discussion

All studies in the present paper show that moral judgments about harmful actions differ between war and peace contexts. First, even when all the actors involved were from the same country (i.e., the control condition), participants consistently judged that trading one life to save many was more morally acceptable in war than in peace. In the present study we also considered two aspects of the war context which may account for these context effects. We found both that the intergroup aspect of war had a significant impact on moral judgments, and that there is evidence for differences in the perceived structure of the moral event in war compared to in peace.

Intergroup Influences on Moral Judgment in War

Although the war context itself shifted judgments in favor of trading one life for five, this effect was substantially stronger when the trade-off also involved the agent's favoring of his own

ingroup. In the outgroup sacrifice condition, participants were more likely to endorse sacrificing one (outgroup member) to save five (ingroup members) in war than in peace. In the ingroup sacrifice condition, by contrast, participants were more likely to endorse letting the trolley kill five (outgroup members) and thus spare one (ingroup member) in war than in peace. This finding is consistent with previous research demonstrating heightened ingroup bias during intergroup conflict (e.g., Pratto & Glasford, 2008).

Given the large body of research on ingroup bias, this finding may not be particularly surprising. However, the results of Study 3 and those in the “outsider” perspective in Study 2 undermine a strict ingroup bias account. Given that the ingroup favoring pattern of acceptability judgments emerged both for insiders (ingroup judges) in Studies 1 and 2, *and* for outsiders (third-party judges) in Studies 2 and 3, this suggests that participants were more sensitive to group boundaries and group-favoring actions in war, independent of ingroup favoritism as such. Previous research on (support for) war has largely focused on a group member’s evaluation of their *own* group’s actions (e.g., Pratto & Glasford, 2008). The current work, however, shows that while ingroup bias may well be heightened in war, third-party observers also appear to show a heightened *acceptance of* ingroup bias in war contexts. The war context does not merely shift moral judgments in a (collectively) self-interested way, but also provides a broader intergroup frame in which group-defensive actions are deemed more morally acceptable in general (see Fiske & Rai, 2014, for a similar theoretical argument).

The Structure of the Moral Event

In the present research we also suggested that war may influence how people construe the structure of moral events. Specifically, we considered how context might impact the construal of the doctrine of double effect (DDE). In Study 1, we found no evidence that the war context qualified the construal of the moral event, as there was no interaction between scenario and context.⁴ In Studies 2 and 3, however, scenario and context interacted as predicted – the difference between switch and footbridge was generally smaller in war than in peace. One interpretation of this is that the war context renders the underlying causal and intentional structures of switch and footbridge more similar.⁵

Explaining this interaction in terms of the DDE, it may be the case that killing in war (compared to in peace) is overall perceived as a “side-effect” of a broader aim, meaning that the DDE would be upheld in *both* footbridge and switch scenarios (and leading to the pattern of results observed in the present studies). An alternative but related explanation may be that due to the soldiers’ position in the command hierarchy, their actions are seen as less intentional overall, again rendering footbridge more similar to switch scenarios. Further research could investigate precisely *how* the perceived moral event structure differs across war and peace contexts; in the present study we have taken the first step of demonstrating that it *does*. One approach would be to more directly assess the construed structure of the moral event (see Watkins & Laham, 2016) – for example by asking

participants about the perceived intentions of the soldiers – rather than simply inferring such perceived structure from responses to two different scenarios, as was done in the present studies.

While there are good reasons for focusing on the DDE when investigating moral judgments in war (e.g., Maiese, 2003; Orend, 2013), and good reasons for choosing the well-studied switch and footbridge scenarios, this narrow focus is also a limitation of the present studies. Other moral principles, instantiated in other scenarios, could also be studied to give a fuller account of the psychology of moral judgments in war, and illuminate potential boundary conditions on moral psychological explanations for these principles (see also Watkins, 2016). For example, the contact principle (Cushman et al., 2006) and the preference for indirect harm (Paharia, Kassam, Greene, & Bazerman, 2009; Rozyman & Baron, 2002) both suggest that as causal and physical distance between perpetrator and victim increases, moral condemnation decreases. Emerging military technologies such as drones are enabling wars to be fought from a greater and greater distance, with potential implications for moral judgment (Chamayou, 2015), and this is another interesting avenue for future research.

Limitations and Future Directions

The finding that trading one life to save many was more morally acceptable in war than in peace is consistent with the philosophical argument that utilitarianism – maximizing positive outcomes – is the ethical system which currently best captures our “morality of war”, as indicated by the Laws of Armed Conflict and International Humanitarian Law (Tännsjö, 2015). However, the preference for saving five lives in trolley problems should not necessarily be interpreted as indicating support for utilitarianism overall (Conway & Gawronski, 2013; Crone & Laham, 2017; Kahane, 2015; Kahane, Everett, Earp, Farias, & Savulescu, 2015). In the trolley problems used in the present study, acceptance of causing harm (i.e., killing one) is directly contrasted with the desire to save five people, and these two processes have not been disentangled in the present studies. The war context may produce a greater acceptance of causing harm (i.e., killing one soldier) compared to peace; *and* simultaneously reduce the desire to save the five people (soldiers). If the war context triggers both of these effects, the net effect on moral judgments – the difference in moral acceptability judgments across war and peace – will be an underestimate of the true effect of war. To more fully capture these underlying psychological differences between war and peace contexts, future studies could employ a process dissociation approach (Conway & Gawronski, 2013), or investigate a broader range of outcomes, including for example affective reactions to harm or concern for moral rules in war.⁶

Implications

A number of researchers have begun to investigate how social contexts may influence moral judgment, whether those social contexts are grounded in groups (Carnes et al, 2015; Ellemers & van den Bos, 2009) or relationships (Fiske & Rai, 2014; Simpson et al., 2016), and the present study fits within this burgeoning body of research. In the present studies we found that the intergroup nature of war influenced people’s moral judgments about harm in war – even if they belonged to neither of the

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two groups actually at war – and that the usually robust difference between switch and footbridge scenarios was attenuated in the war context. One implication of these findings is that some caution may be warranted when making generalizations to morality writ large on the basis of war-related scenarios (see also Bauman, McGraw, Bartels, & Warren, 2014; Bloom, 2011).

The implications of the present study also stretch beyond moral psychology. Soldiers, philosophers, journalists and other scholars have long observed how starkly different the war context is to the peace context, including the moral aspects of this context (Harrison, 2002; Henckaerts & Doswald-Beck, 2005; James, 1910/1968; Shue, 2008). Different legal rules apply in war compared to peace (e.g., Customary International Humanitarian Law, Henckaerts & Doswald-Beck, 2005), and different ethical theories of war map out how people *should* make moral judgments in war (Orend, 2013). Whether moral psychology can contribute to the “oughts” of moral philosophy is an open question (e.g., Berker, 2009; Greene, 2003), but it is certainly the case that some philosophers are interested in, and utilize, lay intuitions in their theorizing (Cushman, 2014; Kahane, 2013). Ethical theories of war, specifically, are often presented as aiming to “regulate warfare, to limit its occasions, and to regulate its conduct and legitimate scope” (Walzer & Margalit, 2009, p.3). Philosophers of war may thus want to take into account how people in general think about (the intergroup nature of) war, lest they design moral frameworks that conflict with human moral psychology.

Conclusion

Killing is wrong... unless they kill in large numbers and to the sound of trumpets. In the present study, there are no trumpets. We have, however, demonstrated that “large numbers” – or rather, the intergroup nature of war – shifts moral judgments about harm in war, relative to moral judgments of the same event in peace. For researchers interested in the morality of war, showing that this intergroup effect occurs even for third-party observers is an important first step in mapping out the pattern of moral judgment made in war. For researchers interested in morality in general, on the other hand, the present research adds to the growing emphasis on the contextually bound nature of moral judgment. Trumpets or no, war provides a starkly different context for morality compared to peace, with commensurate effects on judgments.

References

- Aquinas, Thomas, Saint. (13th c). *Summa Theologica*, II-II, Qu 64, Art .7, co. Retrieved February 7, 2018, from <http://www.newadvent.org/summa/3064.htm#article7>
- Aquino, K., Reed, A., Thau, S., & Freeman, D. (2007). A grotesque and dark beauty: How moral identity and mechanisms of moral disengagement influence cognitive and emotional reactions to war. *Journal of Experimental Social Psychology*, 43(3), 385-392.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology*, 71(2), 364-374.

THE INFLUENCE OF WAR ON MORAL JUDGMENTS

- Bauman, C. W., McGraw, A. P., Bartels, D. M., & Warren, C. (2014). Revisiting external validity: Concerns about trolley problems and other sacrificial dilemmas in moral psychology. *Social and Personality Psychology Compass*, 8(9), 536-554.
- Berker, S. (2009). The normative insignificance of neuroscience. *Philosophy & Public Affairs*, 37(4), 293-329.
- Bloom, P. (2011). Family, community, trolley problems, and the crisis in moral psychology. *The Yale Review*, 99(2), 26-43.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1), 3-5.
- Carnes, N. C., Lickel, B., & Janoff-Bulman, R. (2015). Shared perceptions: Morality is embedded in social contexts. *Personality and Social Psychology Bulletin*, 41(3), 351-362.
- Castano, E., & Giner-Sorolla, R. (2006). Not quite human: Infrahumanization in response to collective responsibility for intergroup killing. *Journal of Personality and Social Psychology*, 90(5), 804-818.
- Chamayou, G. (2015). *Drone theory*. London, UK: Penguin Books.
- Cikara, M., Botvinick, M. M., & Fiske, S. T. (2011). Us versus them social identity shapes neural responses to intergroup competition and harm. *Psychological Science*, 22(3), 306-313.
- Colby, A., & Kohlberg, L. (1987). *The measurement of moral judgment* (Vols. 1-2). Cambridge, UK: Cambridge University Press.
- Conway, P., & Gawronski, B. (2013). Deontological and utilitarian inclinations in moral decision making: A process dissociation approach. *Journal of Personality and Social Psychology*, 104(2), 216-235.
- Crone, D. L., & Laham, S. M. (2017). Utilitarian preferences or action preferences? Deconfounding action and moral code in sacrificial dilemmas. *Personality and Individual Differences*, 104, 476-481.
- Cushman, F. (2008). Crime and punishment: Distinguishing the roles of causal and intentional analyses in moral judgment. *Cognition*, 108(2), 353-380.
- Cushman, F. (2014). The psychological origins of the doctrine of double effect. *Criminal Law and Philosophy*, 10(4), 763-776.
- Cushman, F., Young, L., & Hauser, M. (2006). The role of conscious reasoning and intuition in moral judgment testing three principles of harm. *Psychological Science*, 17(12), 1082-1089.
- Ellemers, N., & van den Bos, K. (2012). Morality in groups: On the social- regulatory functions of right and wrong. *Social and Personality Psychology Compass*, 6(12), 878-889.

THE INFLUENCE OF WAR ON MORAL JUDGMENTS

- Feltz, A., & May, J. (2017). The means/side-effect distinction in moral cognition: A meta-analysis. *Cognition, 166*, 314-327.
- Fiske, A. P., & Rai, T. S. (2014). *Virtuous violence: Hurting and killing to create, sustain, end, and honor social relationships*. Cambridge, UK: Cambridge University Press.
- Foot, P. (1978). The problem of abortion and negative and positive duty: A reply to James LeRoy Smith. *Journal of Medicine and Philosophy, 3*(3), 253-255.
- Funder, D. C., Levine, J. M., Mackie, D. M., Morf, C. C., Vazire, S., & West, S. G. (2013). Improving the dependability of research in personality and social psychology recommendations for research and educational practice. *Personality and Social Psychology Review, 18*(1), 3-12.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology, 96*(5), 1029-1046.
- Gray, K., & Keeney, J. E. (2015). Impure or just weird? Scenario sampling bias raises questions about the foundation of morality. *Social Psychological and Personality Science, 6*(8), 859-868.
- Greene, J. (2003). From neural 'is' to moral 'ought': What are the moral implications of neuroscientific moral psychology? *Nature Reviews Neuroscience, 4*(10), 846-850.
- Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science, 293*(5537), 2105-2108.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review, 108*(4), 814-834.
- Harrison, C. Y. (2002). *Generals die in bed: A story from the trenches*. Melbourne, Australia: Penguin Books.
- Hauser, M., Cushman, F., Young, L., Kang-Xing Jin, R., & Mikhail, J. (2007). A dissociation between moral judgments and justifications. *Mind & Language, 22*(1), 1-21.
- Henckaerts, J.-M., & Doswald-Beck, L. (2005). *Customary international humanitarian law: Rules*. Cambridge, UK: Cambridge University Press.
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology, 53*(1), 575-604.
- Hobbes, T. (2005). Leviathan. In G. A. J. Rogers & K. Schuhmann (Eds.), *Leviathan: A critical edition*. New York, USA: Continuum International Publishing Group. (Original work published in 1651)
- Hofmann, W., Wisneski, D. C., Brandt, M. J., & Skitka, L. J. (2014). Morality in everyday life. *Science, 345*(6202), 1340-1343.

THE INFLUENCE OF WAR ON MORAL JUDGMENTS

- Horgan, J. (2012). *The end of war*. New York, USA: McSweeney's.
- James, W. (1968). The moral equivalent of war. In L. Bramson & G. W. Goethals (Eds.), *War: Studies from sociology and anthropology* (pp. 100-120). New York, USA: Basic Books. (Original work published in 1910)
- Kahane, G. (2013). The armchair and the trolley: An argument for experimental ethics. *Philosophical Studies*, 162(2), 421-445.
- Kahane, G. (2015). Sidetracked by trolleys: Why sacrificial moral dilemmas tell us little (or nothing) about utilitarian judgment. *Social Neuroscience*, 10(5), 551-560.
- Kahane, G., Everett, J. A., Earp, B. D., Farias, M., & Savulescu, J. (2015). 'Utilitarian' judgments in sacrificial moral dilemmas do not reflect impartial concern for the greater good. *Cognition*, 134, 193-209.
- Kahane, G., & Shackel, N. (2010). Methodological issues in the neuroscience of moral judgement. *Mind & Language*, 25(5), 561-582.
- Leidner, B., & Castano, E. (2012). Morality shifting in the context of intergroup violence. *European Journal of Social Psychology*, 42(1), 82-91.
- Leidner, B., Castano, E., Zaiser, E., & Giner-Sorolla, R. (2010). Ingroup glorification, moral disengagement, and justice in the context of collective violence. *Personality and Social Psychology Bulletin*, 36(8), 1115-1129.
- Maiese, M. (2003, June 1). Fighting well and limited war. *Beyond Intractability*. Retrieved April 30, 2015, from <http://www.beyondintractability.org/essay/jus-in-bello>
- McIntyre, A. (2014). Doctrine of double effect. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Winter 2014 ed.). Retrieved February 7, 2018, from <http://plato.stanford.edu/archives/win2014/entries/double-effect/>
- McMahan, J. (2009). *Killing in war*. Oxford, UK: Oxford University Press.
- McMahan, J. (2010). The just distribution of harm between combatants and noncombatants. *Philosophy & Public Affairs*, 38(4), 342-379.
- Mikhail, J. (2011). *Elements of moral cognition: Rawls' linguistic analogy and the cognitive science of moral and legal judgment*. New York, NY: Cambridge University Press.
- Morris, S. B., & DeShon, R. P. (2002). Combining effect size estimates in meta-analysis with repeated measures and independent-groups designs. *Psychological Methods*, 7(1), 105-125.

THE INFLUENCE OF WAR ON MORAL JUDGMENTS

- Office of the Deputy Assistant Secretary of Defense (Military Community and Family Policy). (2013). *2013 Demographics: Profile of the military community*. Retrieved February 7, 2018, from Military OneSource: http://www.militaryonesource.mil/footer?content_id=267470
- Orend, B. (2013). *The morality of war*. (2nd ed.) Ontario, Canada: Broadview Press.
- Paharia, N., Kassam, K. S., Greene, J. D., & Bazerman, M. H. (2009). Dirty work, clean hands: The moral psychology of indirect agency. *Organizational Behavior and Human Decision Processes*, *109*(2), 134-141.
- Phillips, J. & Young, L. (2011). Apparent paradoxes in moral reasoning: Or how you forced him to do it, even though he wasn't forced to do it. *Proceedings of the Thirty-Third Annual Conference of the Cognitive Science Society*.
- Piazza, J., Sousa, P., & Holbrook, C. (2013). Authority dependence and judgments of utilitarian harm. *Cognition*, *128*(3), 261-270.
- Pratto, F., & Glasford, D. E. (2008). Ethnocentrism and the value of a human life. *Journal of Personality and Social Psychology*, *95*(6), 1411.
- Royzman, E. B., & Baron, J. (2002). The preference for indirect harm. *Social Justice Research*, *15*(2), 165-184.
- Ryan, C. (2008). Moral Equality, Victimhood, and the Sovereignty Symmetry Problem. In D. Rodin & H. Shue (Eds.), *Just and Unjust Warriors: The Moral and Legal Status of Soldiers* (pp. 131-153). Oxford, UK: Oxford University Press.
- Schabas, W. A. (2011). *An introduction to the international criminal court*. Cambridge, UK: Cambridge University Press.
- Shue, H. (2008). Do we need a 'Morality of War'? In D. Rodin & H. Shue, (Eds.), *Just and unjust warriors: The moral and legal status of soldiers*, (pp. 87-111). Oxford, UK: Oxford University Press.
- Simpson, A., & Laham, S. M. (2015). Individual differences in relational construal are associated with variability in moral judgment. *Personality and Individual Differences*, *74*, 49-54.
- Simpson, A., Laham, S., & Fiske, A. P. (2016). Wrongness in different relationships: Relational context effects on moral judgment. *The Journal of Social Psychology*, *156*(6), 594-609.
- Sousa, P., Holbrook, C., & Piazza, J. (2009). The morality of harm. *Cognition*, *113*(1), 80-92.
- Sousa, P., & Piazza, J. (2014). Harmful transgressions qua moral transgressions: A deflationary view. *Thinking & Reasoning*, *20*(1), 99-128.

THE INFLUENCE OF WAR ON MORAL JUDGMENTS

- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp, (Ed.), *Reducing prejudice and discrimination*, (pp. 23-45). London, UK: Psychology Press.
- Tännsjö, T. (2015). Killing in war. In Tännsjö, T. (Ed.). *Taking life: Three theories on the ethics of killing*, (pp. 213-238). Oxford, UK: Oxford University Press.
- Thomson, J. J. (1985). Double effect, triple effect and the trolley problem: Squaring the circle in looping cases. *Yale Law Journal*, 94(6), 1395-1415.
- Uhlmann, E. L., Pizarro, D. A., Tannenbaum, D., & Ditto, P. H. (2009). The motivated use of moral principles. *Judgment and Decision Making*, 4(6), 476-491.
- Walzer, M. (2006). *Just and unjust wars: A moral argument with historical illustrations* (4th ed.). New York, USA: Basic Books.
- Walzer, M. & Margalit, A. (2009). Israel: Civilians and combatants. *The New York Review of Books*, 56, 3-4.
- Watkins, H. M. (2016). *The moral psychology of killing in war* (Doctoral dissertation, The University of Melbourne, Australia).
- Watkins, H. M., & Laham, S. M. (2016). An investigation of the use of linguistic probes “by” and “in order to” in assessing moral grammar. *Thinking & Reasoning*, 22(1), 16-30.
- Wiegmann, A., & Waldmann, M. R. (2014). Transfer effects between moral dilemmas: A causal model theory. *Cognition*, 131(1), 28-43.
- Wimmer, A. (2014). War. *Annual Review of Sociology*, 40, 173-97.

Footnotes

¹ Although we generally frame this paper as being specifically about *war* compared to *peace*, this is partly an incidental result of the fact that the vast majority of moral psychology research is set in a neutral (“peace”) context, and this body of research forms a natural comparison, or baseline, for the present study. Another way to view the present paper, however, is simply as a comparison between two different contexts; in which case the question of whether war or peace is the “default” may depend on your optimism or pessimism about human nature (e.g., Hobbes, 1651/2005).

² Studies 1 and 2 reported in this paper were conducted as part of the first author’s PhD thesis. As part of this thesis, a number of additional measures (including individual difference measures) were collected as well, which will not be reported here. Interested readers are referred to Watkins (2016). Electronic copies of the anonymized raw data for Studies 1 and 2 are available from the first author upon request. Participants in Study 1 were recruited either through a Research

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Participation Program, or through social media, and thus participated either for partial fulfilment of course requirements or voluntarily, respectively. Unfortunately the first author has misplaced the record of which participants were recruited using which method, which means we are unable to compare these groups. However, from memory only approximately 40 participants were recruited through RPP (this was part of the reason for changing recruitment strategies in the first place); thus no formal comparison of the recruitment strategies would have been possible.

³ The results of the other two questions (“It is morally wrong for [agent] to *not* throw the switch” and “[Agent] is morally required to throw the switch”) are moved to Supplemental Materials. The patterns of results for these items were almost identical to those reported in the main manuscript.

⁴ However, in this study, the smaller sample size reduced our power to detect such an effect.

⁵ Another reason why this effect may have emerged in Studies 2 and 3 but not in Study 1, may be that the within-subjects nature of this factor in Study 1 made explicit comparison between switch and footbridge more likely, thus amplifying perceived differences between the scenarios. In Studies 2 and 3, on the other hand, participants judged either switch *or* footbridge; no explicit comparison would have been possible, thus opening up each scenario to a range of additional influences (such as context). Note likewise that the within-subject manipulation of context (war vs. peace) may also have made explicit comparison between peace and war more likely, thus amplifying perceived differences between these two contexts. Future study should employ a between-subjects design to investigate this possibility.

⁶ We thank an anonymous reviewer for pointing out this possibility and avenue for future studies.

Table 1

Summary of Switch and Footbridge Trolley Problem Scenarios, Used in All Studies.

Background information	Switch scenario	Footbridge scenario
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<p>[Agent] is a citizen of your country, Country X. One day on his daily walk, he crosses a bridge over some train tracks. While on the bridge, he notices that a driverless freight train is approaching, out of control. It is heading straight towards five men, citizens of Country X, who are walking across the tracks below [agent]. The freight train is moving so fast that they will not be able to get off the track in time.</p>	<p>[Agent] is standing next to a switch. If he throws the switch, it will turn the train onto a side track, thereby preventing it from killing the five men.</p> <p>There is another citizen from Country X standing on the side track with his back turned. [Agent] can throw the switch, killing the one man from Country X; or he can refrain from doing this, letting the five men from Country X die.</p>	<p>[Agent] is standing next to another man, also a citizen from Country X. This man is large and heavy enough that if [agent] throws him off the bridge into the path of the train, he will stop the train, thereby preventing it from killing the five men from Country X.</p> <p>[Agent] can throw the man from Country X off the bridge, killing him; or he can refrain from doing this, letting the five men from Country X die.</p>
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Note. This table represents the scenarios as presented to participants in the control condition, when Country X and Country Y were at peace. In this intergroup condition, participants were described as being from Country X, as were the five and one potential victims. See Figure 1 for an illustration. Scenarios adapted from Mikhail (2011).

Table 2
Summary of Descriptive Statistics and Main Effects of Each Factor Manipulated in Study 1.

	<i>M (SD)</i>	Main effects		
		(omnibus ANOVA)		
Scenario		<i>F</i> (1, 260)	<i>p</i>	η_p^2
Switch	3.39 (1.05)	226.915	<.001	.47
Footbridge	2.58 (1.12)			
Context		<i>F</i> (1, 260)	<i>p</i>	η_p^2
Peace	2.95 (1.04)	2.038	.155	.01
War	3.02 (1.14)			
Intergroup Condition		<i>F</i> (2, 260)	<i>p</i>	η_p^2
Control	3.04 (0.97)	1.987	.139	.02
Outgroup sacrifice	3.10 (1.12)			

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Ingroup sacrifice 2.82 (0.86)

Note. Higher numbers indicate that sacrificing one person (and saving five) was deemed more morally acceptable (scale of 1–6).

Table 3
Summary of Descriptive Statistics and Simple Effects of Context (Peace vs. War), Within Each Intergroup Condition, Study 1.

	<i>M (SD)</i>	Simple effects			Mean difference (95% CIs)	
		(Students' <i>t</i> -test, Cohen's <i>d</i>)				
Control		<i>t</i> (79)	<i>p</i>	<i>d</i>		
Peace	2.99 (0.97)	2.05	.044	0.22	0.104 (0.002, 0.205)	
War	3.09 (1.02)					
Outgroup sacrifice		<i>t</i> (92)	<i>p</i>	<i>d</i>		
Peace	2.87 (1.13)	5.05	<.001	0.53	0.466 (0.283, 0.649)	
War	3.34 (1.27)					
Ingroup sacrifice		<i>t</i> (89)	<i>p</i>	<i>d</i>		
Peace	3.00 (1.03)	3.29	<.001	0.34	-0.350 (0.561, 0.139)	
War	2.65 (0.97)					

Note. Higher numbers indicate that sacrificing one person (and saving five) was deemed more morally acceptable (scale of 1–6). CI = Confidence Interval. Cohen's *d* is corrected for correlation between means (Morris & DeShon, 2002). No correction for multiple comparisons was applied to the *p*-values.

Table 4
Summary of Descriptive Statistics and Main Effects of Each Factor Manipulated in Study 2.

	<i>M (SD)</i>	Main effects		
		(omnibus ANOVA)		
Scenario		<i>F</i> (1, 545)	<i>p</i>	η_p^2
Switch	4.46 (1.11)	436.231	<.001	.45

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Footbridge	2.46 (1.15)				
Context		$F(1, 545)$	p	η_p^2	
Peace	3.37 (1.66)	3.279	.071	.01	
War	3.49 (1.61)				
Perspective		$F(1, 545)$	p	η_p^2	
Insider	3.33 (1.53)	3.694	.055	.01	
Outsider	3.53 (1.48)				
Intergroup Condition		$F(2, 545)$	p	η_p^2	
Control	3.62 (1.43)	5.612	.004	.02	
Outgroup sacrifice	3.55 (1.50)				
Ingroup sacrifice	3.09 (1.56)				

Note. Higher numbers indicate that sacrificing one person (and saving five) was deemed more morally acceptable. In this study, only the first moral judgment was analyzed.

Table 5

Summary of Descriptive Statistics and Simple Effects of Context (Peace vs. War), Within Each Intergroup Condition, Study 2.

	$M (SD)$	Simple effects			Mean difference (95% CI)
		$t(191)$	p	d	
Control		$t(191)$	p	d	
Peace	3.55 (1.50)	2.678	.008	.19	0.151 (0.040, 0.262)
War	3.70 (1.46)				
Outgroup sacrifice		$t(188)$	p	d	
Peace	3.29 (1.70)	5.084	<.001	.37	0.524 (0.321, 0.727)
War	3.81 (1.61)				
Ingroup sacrifice		$t(175)$	p	d	
Peace	3.28 (1.78)	3.629	<.001	.28	-0.369 (-0.570, -0.168)
War	2.91 (1.60)				

Note. Higher numbers indicate that sacrificing one person (and saving five) was deemed more morally acceptable. In this study, only the first moral judgment was analyzed. Cohen's d is corrected for correlation between means (Morris & DeShon, 2002). CI = Confidence Interval. No correction for multiple comparisons was applied to the p -values.

Table 6

Mean Moral Judgments (SD) Illustrating the Interaction Between Scenario and Context, Study 2.

	Context		Total
	Peace	War	
Scenario			
Switch	4.53 (1.24)	4.39 (1.31)	4.46 (1.11)
Footbridge	2.29 (1.22)	2.63 (1.38)	2.46 (1.15)
Total	3.37 (1.66)	3.49 (1.61)	

Note. Higher numbers indicate that sacrificing one person (and saving five) was deemed more morally acceptable (scale of 1-6). In this study, only the first moral judgment was analyzed.

Table 7

Summary of Moral Judgments Across Perspective (Insider vs. Outsider), Organized by Intergroup Condition and Context

	Perspective	
	Insider	Outsider
Control		
Peace	3.54 (1.53)	3.55 (1.47)
War	3.68 (1.47)	3.72 (1.46)
Outgroup sacrifice		
Peace	3.22 (1.63)	3.35 (1.77)
War	3.71 (1.68)	3.90 (1.56)
Ingroup sacrifice		
Peace	3.00 (1.78)	3.53 (1.75)
War	2.69 (1.62)	3.11 (1.57)

Note. Higher numbers indicate that sacrificing one person (and saving five) was deemed more morally acceptable (scale of 1-6). In this study, only the first

moral judgment was analyzed.

Table 8
Summary of Descriptive Statistics and Main Effects of Each Factor Manipulated in Study 3.

	<i>M(SD)</i>	Main effects		
		(omnibus ANOVA)		
Scenario		<i>F</i> (1, 787)	<i>p</i>	η_p^2
Switch	3.95 (1.28)	85.762	<.001	.10
Footbridge	3.05 (1.41)			
Context		<i>F</i> (1, 787)	<i>p</i>	η_p^2
Peace	3.45 (1.55)	5.063	.025	.01
War	3.54 (1.55)			
Intergroup Condition		<i>F</i> (2, 787)	<i>p</i>	η_p^2
Control	3.43 (1.51)	6.047	.002	.02
Outgroup sacrifice	3.75 (1.45)			
Ingroup sacrifice	3.32 (1.26)			

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Note. Higher numbers indicate that sacrificing one person (and saving five) was deemed more morally acceptable (scale of 1-7).

Table 9
Summary of Descriptive Statistics and Simple Effects of Context (Peace vs. War), Within Each Intergroup Condition, in Study 3.

	<i>M (SD)</i>	Simple effects				
		(Students' <i>t</i> -test, Cohen's <i>d</i>)			Mean difference (95% CI)	
Control		<i>t</i> (265)	<i>p</i>	<i>d</i>		
Peace	3.38 (1.57)	2.044	.042	.12	0.104	(0.004, 0.204)
War	3.48 (1.56)					
Outgroup sacrifice		<i>t</i> (258)	<i>p</i>	<i>d</i>		
Peace	3.47 (1.57)	6.618	<.001	.41	0.562	(0.395, 0.730)
War	4.03 (1.64)					
Ingroup sacrifice		<i>t</i> (267)	<i>p</i>	<i>d</i>		
Peace	3.51 (1.50)	4.945	<.001	.30	-0.389	(-0.544, -0.234)
War	3.13 (1.32)					

Note. Higher numbers indicate that sacrificing one person (and saving five) was deemed more morally acceptable (scale of 1-7). CI = Confidence Interval. Cohen's *d* is corrected for correlation between means (Morris & DeShon, 2002). No correction for multiple comparisons was applied to the *p*-values.

Table 10
Mean Moral Judgments (SD) Illustrating the Interaction Between Scenario and Context, Study 3.

Scenario	Context		Total
	Peace	War	
Switch	3.95 (1.42)	3.94 (1.47)	3.95 (1.28)
Footbridge	2.96 (1.51)	3.14 (1.53)	3.05 (1.41)
Total	3.45 (1.55)	3.54 (1.55)	

Note. Higher numbers indicate that sacrificing one person (and saving

five) was deemed more morally acceptable (scale of 1-7).

Intergroup Condition	Configuration of Ingroup/Outgroup Identity	Participant Perspective	
		Study 1/2	Study 2/3
Control			
Outgroup sacrifice (1 potential victim is from the outgroup)			
Ingroup sacrifice (5 people on the track are from the outgroup)			

Figure 1. Schematic representation of the three intergroup conditions and perspectives in the present studies. (Only the switch scenario is represented here; see Table 1 for wording of both switch and footbridge scenarios.) In Study 1 the participant is always described as being from “Country X”; the same country as the agent, indicated by black figures above. In Study 2, the participant is allocated to either an “insider” perspective (from Country X) or an “outsider” perspective (from a different country altogether; indicated by striped figures above). In Study 3, the participant is always described as being from the third country, external to the conflict.