

**Morality as Coordinated Punishment: The Social Cognition of Punitive Inclinations in  
Protest Movements**

Alex Mackiel

Department of Psychology, State University of New York at New Paltz

May 2021

Morality as Coordinated Punishment: The Social Cognition of Punitive Inclinations in Protest  
Movements

Alex Mackiel

State University of New York at New Paltz

We, the thesis committee for the above candidate for the  
Master of Science degree, hereby recommend  
acceptance of this thesis.

Glenn Geher, Thesis Advisor

Department of Psychology, State University of New York at New Paltz

Matthew Wice, Thesis Committee Member

Department of Psychology, State University of New York at New Paltz

Tabitha Holmes, Thesis Committee Member

Department of Psychology, State University of New York at New Paltz

Submitted in partial fulfillment  
of the requirements for the Master of Science degree  
in Psychological Science  
at the State University of New York at New Paltz

### Abstract

In the evolutionary sciences, morality has often been researched and understood as a collection of solutions to problems of cooperation. For instance, sharing rewards fairly and equitably among a group is a solution to the problem of how to best divide resources that have been collectively earned. However, relatively little attention has been given to how punitive moral psychology is structured around solving problems of coordination and the epistemological challenges involved in determining, judging, condemning, and punishing wrongdoers in society. The current study assesses how people's desire to punish moral wrongdoers (i.e., punitive inclinations), is influenced by their belief that others share or do not share their moral judgment (moral convergence) and the number of moral offenders (an individual All Lives Matter protester vs. a group of All Lives Matter protesters). In this case, the moral wrongdoer stimulus was a scenario of an offensive and semi-violent All Lives Matter protest that was presented to participants. The central hypotheses are that leading people to believe that most others share their moral judgment of the protest scenario will significantly increase their desire to punish the protesters and that the number of protesters would have no effect on punitive inclinations. However, the results did not support these hypotheses, and alternatively show a significant interaction effect between moral convergence and size of the protest. Additional analyses show that moral convergence is a moderator of the relationship between moral judgment and punitive inclinations, that moral judgment is predictive of punitive inclinations, and that support for Black Lives Matter over All Lives Matter is associated with greater levels of moral judgment and punitive inclinations toward the offensive All Lives Matter protest scenario.

### **Morality as Coordinated Punishment: The Social Cognition of Punitive Inclinations in Protest Movements**

Morality is in large part a function of human social life and functions in response to dealing with conflict at a social level (Curry, 2016). Often, one hears of “moral preferences,” but this is somewhat oxymoronic. Morals are exactly not preferences because they are treated as objective prescriptions and prohibitions that others must abide by despite being subjectively held (Rozin, 1999). This is why people can strongly dislike broccoli, but they do not desire that others stop eating it, judge that others are immoral and wrong when they do eat it, feel outrage when others do eat it, nor are they motivated to punish those that eat it. However, we often experience this set of reactions when someone steals, commits adultery, murders, lies, and betrays (Rozin, 1999). Additionally, we often experience these reactions not just when these negative actions are done to us or close others, but also when they are done to complete strangers (Riedl et al., 2012). One distinguishing factor between these two kinds of objections, non-moral contents versus moral contents, or preferences versus values, is that values and moral contents are a basis on which people cooperate and coordinate to enforce norms and punish violators of community-held norms (Boyd & Richerson, 1992; Henrich & Boyd, 2001; Henrich et al., 2006; Raihani & Bshary, 2019; Riedl et al., 2012; Thomas et al., 2014).

A key element of successful coordination is common knowledge, which is knowing that others know we know that they know, ad infinitum (Freitas et al., 2019). In other words, common knowledge is a recursive mentalizing, representing an infinitely nested knowledge of some information between two or more individuals (Schelling, 1957). However, we represent it more simply as a cognitive state corresponding to the sense that something is public. For example, information disseminated through the news on TV or the weather would be information

that is considered common knowledge because it is known between all members of the public. Coordination and common knowledge play a prominent role in diverse social situations including activism, bystander interventions, trade, driving on the road without collisions, and communication between criminals (DeScioli & Kurzban, 2013; Freitas et al., 2019; Gambetta, 2009; Schelling, 1960; Thomas et al., 2014). However, here I explore its connections with morality, specifically, moral judgment and moral punishment.

While much research within moral psychology has shown that morality mainly functions to promote altruism and welfare outcomes and guard against harm-violations (Cury, 2016; Curry et al., 2019; Graham et al., 2009), it is unlikely that this is morality's sole function. The anthropological record shows a wide diversity of moral rules pertaining to property, food, sex, trade, violence, communication, and supernatural beliefs (Haidt, 2012; Kurzban & DeScioli, 2016; Shweder, Much, Mahapatra, & Park, 1997). However, what all of these diverse moral rules share is that they are common knowledge among all members of the particular community to which the moral rule belongs (Kurzban & DeScioli, 2016; Thomas et al., 2014). Additionally, they all have in common that when the behavior, practice, or action becomes moralized, people coordinate their social enforcement of moral norms and their punishment of violators who go against those norms (DeScioli & Kurzban, 2013; Kurzban & DeScioli, 2016). The social enforcement of norms and punishment of norm violators is a common and integral feature of morality that needs to be further explored.

Coordination problems occur in a wide variety of situations that require the alignment of goals, interests, or states of knowledge between two or more people (DeScioli & Kurzban, 2013). For example, one of the most common coordination problems is the problem of avoiding collisions when driving on roads (Schelling, 1960). One of the ways to solve this problem is to

make people's driving decisions contingent on a public signal, in this case, traffic lights, which serves as a focal point on which people can coordinate their driving behavior in the absence of communication. While nothing about stopping or going is inherent to the color of the light itself, if people coordinate their stopping and going on the same colors of light, they get into less collisions (DeScioli & Kurzban, 2013; Schelling, 1960).

Researchers Robert Kurzban and Peter DeScioli have proposed a similar function in moral psychology, arguing that morally relevant actions are like traffic lights that serve as public signals, allowing bystanders to coordinate their side-taking decisions when conflicts break out in society (DeScioli & Kurzban, 2013; Kurzban & DeScioli, 2016). However, there are other coordination problems inherent to moral social behavior besides choosing sides. For example, the problem of punishment. How do people collectively decide that someone has committed a moral violation? How does one effectively punish members of their community that engage in wrongdoing?

The finding that a coordination function likely underlies moral judgment and punishment helps to explain why moral contents vary capriciously across cultures, from the obvious harm-violations, such as murder and property violations, to the rather non-obvious, culturally contingent moral violations such as food taboos. This is because coordination is independent from the particularities of the medium itself (e.g., recall the arbitrariness of the traffic light) and only requires common knowledge of what the sign is signaling. What the sign is and what it signals—that is, the moral action and its meaning, respectively—will likely differ across cultures depending on its particular norms and institutions, which developed under particular ecological, social, historical, and political contexts. Additionally, this coordination function explains why actions rather than consequences of actions are central to moral social cognition, the action is

publicly observable and therefore a basis for coordination (DeScioli & Kurzban, 2013; Kurzban & DeScioli, 2016).

Additionally, theoretical models of evolutionary cooperative dynamics show that coordinated punishment of defectors can sustain cooperation under conditions that best approximate ancestral human conditions (Boyd, et al., 2003). In particular, Boyd et al. (2003) demonstrate that the costs of punishing defectors decrease as the number of punishers increase. This shows that punishment is most stable and effective when multiple individuals coordinate. These parameters also show that the willingness to engage in punishment is contingent on the expected effectiveness of punishment in inducing cooperation, a finding that confirms ethnographic evidence that punishment is often coordinated by means of communication between punishers, such as gossip (Boehm, 2019; Boyd et al., 2003; Dunbar, 2004; Wiessner, 2005).

Moreover, and consistent with this morality-as-coordinated-punishment perspective, moralization of moral offences and moral offenders is involved in broadcasting these violations publicly, in a phenomenon known as moral grandstanding (Grubbs et al., 2019; Tosi & Warmke, 2016), and in moral outrage (Crockett, 2017). Additionally, this public-broadcasting nature of morality functions to make the offender's violation common knowledge, therefore, effectively enabling coordinated punishment of the offender by third parties.

One study assessed the role of common knowledge in moral behavior by focusing on moralization in social networks and how that relates to the emergence of violence in protests (Mooijman et al., 2018). Based on an analysis of moral language in tweets and three behavioral experiments they found that violence during protests can be understood as a function of the degree to which people see the protest as a moral issue (moralization) and the degree to which

people believe that others share these moral attitudes (moral convergence). In one of the three behavioral experiments they conducted, the researchers presented participants with an excerpt describing the Unite the Right rally in Charlottesville, Virginia, USA. Participants then rated the degree to which they believed this rally and their reaction to it was a moral issue. They were then presented with the moral convergence manipulation where they were either told that most others agreed (high convergence condition) or that most others disagreed (low convergence condition) with their moral attitudes about the rally. The researchers were interested in seeing how this convergence manipulation would influence participants acceptance of violence against the far-right protesters. They found that participants thought violence was more acceptable when they moralized the protest. This effect of moralization on violence was moderated by the extent to which participants believed others agreed with their moral attitudes such that moralization predicted violence only when there was high moral convergence—that is, when participants believed that most others agreed with their moral attitudes (Mooijman et al., 2018). This finding relates to the connection between morality, coordination, and punishment since common knowledge of the participants moral attitudes toward the far-right rally was needed in order for participants to accept violence against the far-right protesters.

Based on these various previous studies, it seems that the willingness of people to engage in moral judgment and to morally punish others, and the degree to which they do, will be influenced by their knowledge that others share their moral beliefs regarding a specific person or situation (i.e., whether one's moral beliefs are common knowledge). If individuals know that other peoples' moral beliefs converge with their own about a wrongdoer, then it is expected that they would be more willing to engage in moral punishment of the wrongdoer. Agreeing to engage in punishment of a wrongdoer is a kind of coordination game in which the best strategy

for an individual is the one that best converges with what everyone else believes. And what everyone else believes is the key information out in the environment that people should take into account when deciding whether to punish another person. Because meting out punishment is a costly endeavor, knowing that most others agree with one's moral beliefs (i.e., there is high moral convergence) should increase people's punitive inclinations.

In recent years, the Black Lives Matter (BLM) movement has gained momentum in light of and as a response to racially motivated policing, structural racism, police brutality, among other issues. One oppositional response to the BLM movement has been the rise of the All Lives Matter (ALM) movement, a seemingly innocuous movement from its literal meaning, that in actuality has been associated with far-right and even white supremacist ideals and goals. The current study expands on Mooijman et al. (2018) and other previous research by centering the focus of moral attention on a timely and politically polarizing situation involving an ALM counter protest to a BLM event. This ALM counter protest was an actual event that occurred in Loomis, California in 2020; however, in the current study the description given to participants exaggerates its offensive nature as to make it an unambiguously morally offensive situation.

The current study predicts that the desire to punish these offensive protesters (i.e., punitive inclinations) will be moderated by the degree to which one believes others share his or her moral beliefs about the offender. Specifically, when people believe most others share their moral beliefs about the offender, they will be more likely to punish the offender, and when people believe most others do not share their moral beliefs about the offender, they will be less likely to punish the offender. Additionally, information about whether participants tend to agree more with the ALM movement, or the BLM movement will be taken into account because that is

likely to influence people's levels of moral judgment and punitive inclinations toward an offensive ALM protest situation.

The current study also expands on previous literature by manipulating whether the morally offensive party is a group of protesters or an individual protester and assessing whether that has differential effects on participants' punitive inclinations. I hypothesize that there will be no difference in levels of punitive inclinations between the group versus the individual condition. However, I believe it is important to include this variable in order to ensure that the effect of moral convergence on punitive inclinations is not specific to either a group of moral offenders or an individual moral offender but is shown in both conditions. Mooijman et al. (2018) only assessed moral attitudes toward protesters (a group) however if this theory of coordinated punishment is valid, people should show the same suite of moral cognitions and behaviors for an individual offender. I adopt some of the methods from Mooijman et al. (2018), with some modifications to test these hypotheses in the current study.

## **Methods**

### **Participants**

Data from a total of 833 participants were recruited from a variety of sources including the SUNY New Paltz SONA system, social media, and email. In all cases, a link to the study on Qualtrics was sent to participants. Student participants that took the study through the SUNY New Paltz SONA system received one psychology course credit as compensation for their participation. After removing those who did not fully complete the study and pass the manipulation check, a total of 362 participants, the final sample consisted of 471 participants (332 females,  $M_{age} = 23.20$ ).

### **Design**

The following study manipulated two independent variables: whether the offender is a group of individuals or just one individual, and the degree to which others share one's moral beliefs about the offenders. And so, there are four conditions to which participants were randomly assigned: (1) Group vs. individual; and (2) high vs. low moral convergence. And so, this is a 2 (group vs individual) x 2 (high vs. low convergence) between-subjects design, where the dependent variable is the level of punitive inclinations for the ALM protest scenario. All of the conditions were randomized. I expect that the level of punitive inclinations for the ALM protest scenario will be higher for individuals in the high-convergence condition compared to the low-convergence condition. I expect there to be no difference between the group and the individual offender conditions. Lastly, I do not expect any interaction effects.

Additionally, I conducted correlational, regression, and independent-samples t-test analyses to assess the relationship between moral judgment and punitive inclinations, mean differences in punitive inclinations and moral judgment between ALM-supporters and BLM-supporters, mean differences in social and economic conservatism (SEC) between ALM-supporters and BLM-supporters, and the relationship between SEC, moral judgment, and punitive inclinations. For the regression analyses, I expect punitive inclinations for the ALM protest to be predicted by the degree of moral judgment of the ALM protest; I expect there to be significantly higher levels of punitive inclinations and moral judgment for the ALM protest among the BLM-supporters compared to the ALM-supporters; I expect there to be significantly higher levels of SEC among the ALM-supporters compared to the BLM-supporters; and lastly, I expect there to be a significant negative relationships between levels of SEC, and moral judgment and punitive inclinations for the ALM protest.

## **Materials**

All of the study materials were administered to participants through Qualtrics. All participants were first asked about their agreement with the BLM movement versus the ALM movement. The question read as follows: *Which of the following two movements do you agree with more? All Lives Matter or Black Lives Matter?* Participants in the *group* condition were presented with a scenario describing an offensive and semi-violent All Lives Matter protest group (see Appendix A). Participants in the *individual* condition were presented with a scenario describing an offensive and semi-violent All Lives Matter individual protester (see Appendix A). After reading the scenario, participants in both conditions completed a single-item statement assessing the degree to which they think the ALM scenario is morally wrong on a Likert scale from 1 (strongly disagree) to 7 (strongly agree). The item read as follows: *To what extent do you agree with the following statement: All Lives Matter protesters are morally wrong.* After rating their level of moral judgment, participants were presented with the convergence manipulation. Participants were presented with a statement that either said that *most* people agreed or said that a *minority* of people agreed with their level of moral judgment of the ALM protestors (see Appendix B). Immediately after the convergence manipulation, participants were then presented with the dependent variable, the punishment scale (Cronbach's  $\alpha = .85$ ) assessing their levels of punitive inclinations toward the ALM protest movement (see Appendix C). Participants completed demographic questions as well as the 12-item Social and Economic Conservatism Scale (Cronbach's  $\alpha = .86$ ) from Everett (2013). Lastly, all participants were debriefed (see Appendix D).

### **Procedure**

All participants first specified whether they agreed more with the ALM movement or the BLM movement. They were then presented with either the scenario of an offensive individual

ALM protestor or a scenario of an offensive group of ALM protesters. All participants were then asked to rate their level of negative moral judgment of the ALM protest scenario. After rating their moral judgment, they were presented with the convergence manipulation regarding whether most people agree, or a minority of people agree with their moral judgment. Immediately after the convergence manipulation, participants completed the scale assessing their levels of punitive inclinations toward the ALM protest scenario. They then answered questions assessing their demographic information and their political beliefs. Lastly, they completed a manipulation check measuring the extent to which they believed the manipulation and then were debriefed.

## Results

### Main Analyses

#### *Effect of Moral Convergence and Protest Size on Punitive Inclinations*

A between-groups factorial ANOVA was conducted to compare the main effects of protest size (group of protesters versus an individual protester) and moral convergence (high versus low moral convergence) on the level of punitive inclinations for the ALM protest. Additionally, we assessed the interaction effect between the variables of protest size and moral convergence on the level of punitive inclinations. In contrast to my hypotheses, we found no main effects of either protest size ( $F(1, 467) = .054, p = .817$ ) or moral convergence on punitive inclinations ( $F(1, 467) = .653, p = .420$ ). And, we did not find a significant interaction effect between protest size and convergence of moral beliefs on the level of punitive inclinations ( $F(1, 467) = 2.298, p = .130$ ). And so, in conclusion, the between-subjects factorial ANOVA of protest size and moral convergence on punitive inclinations yielded no significant effects. Therefore, we took a closer look at the factor structure of the dependent variable to verify the scale construction.

### ***Factor Analysis of Punishment Scale***

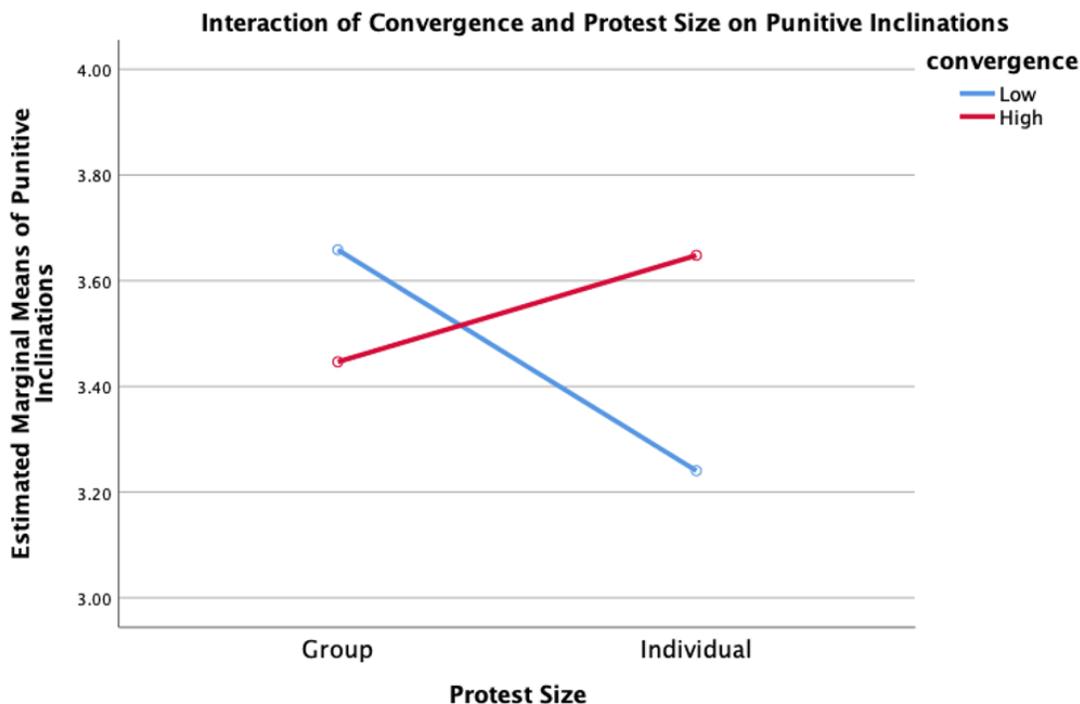
A factor analysis using the principal component analysis method was conducted to examine whether scores on eight punishment-relevant items from a composite punishment scale correspond to a fewer number of underlying factors. The analysis extracted two factors with eigenvalues that are greater than 1.0. The first of these factors accounted for 51.59% of the total variability in scores while the second factor accounted for 20.05% of the total variability in scores. The component matrix suggests that the first factor corresponds to a general factor given the relatively high loadings for all eight of the scale items (all between .60 and .85). The second factor corresponds to the first four items of the scale given the relatively high loadings for the first four items on the scale. These four scale items are also conceptually related and somewhat distinct from the other items since they ask about one's agreement with less violent forms of punishment. These empirical and conceptual findings justified the creation of a modified punishment composite measure, a non-violent punishment measure, if you will, that only contained the following four scale items: "To what extent do you agree with the following statements specifically regarding the scenario you read": (1) It is acceptable to punish All Lives Matter protesters; (2) It is acceptable to shun All Lives Matter protesters; (3) All Lives Matter protesters ought to be jailed; and (4) It is acceptable to exclude All Lives Matter protesters (Cronbach's  $\alpha = .841$ ).

### ***Effect of Moral Convergence and Protest Size on Non-violent Punitive Inclination***

A between-groups factorial ANOVA was conducted to compare the main effects of protest size (group of protesters versus an individual protester) and moral convergence (high versus low moral convergence) on the level of punitive inclinations for the ALM protest. Additionally, we assessed the interaction effect between the variables of protest size and moral

convergence on punitive inclinations. In contrast to my hypotheses, we found no main effects of either protest size ( $F(1, 466) = .12, p = .786$ ) or moral convergence on the level of punitive inclinations for the ALM protest ( $F(1, 466) = .100, p = .805$ ). However, we did find a significant interaction effect (see Figure 1) between protest size and moral convergence on the level of punitive inclinations ( $F(1, 466) = 4.77, p = .029; \eta^2 = .01$ ). A post-hoc analysis of the interaction effect, using the Bonferroni method, showed that there was a significant difference in the level of punitive inclinations between the group of protesters and the individual protester conditions in the low moral convergence ( $p = .041$ ) condition but not in the high moral convergence condition ( $p = .308$ ). Specifically, participants were more likely to have punitive inclinations toward the group of ALM protesters compared to the individual ALM protester, but only when participants believed that few others shared their moral beliefs (i.e., were in the low moral convergence condition).

**Figure 1**



*Note.* This graph shows the interaction between protest size and moral convergence on punitive inclinations.

### ***Levels of Moral Judgment Predicts Punitive Inclinations***

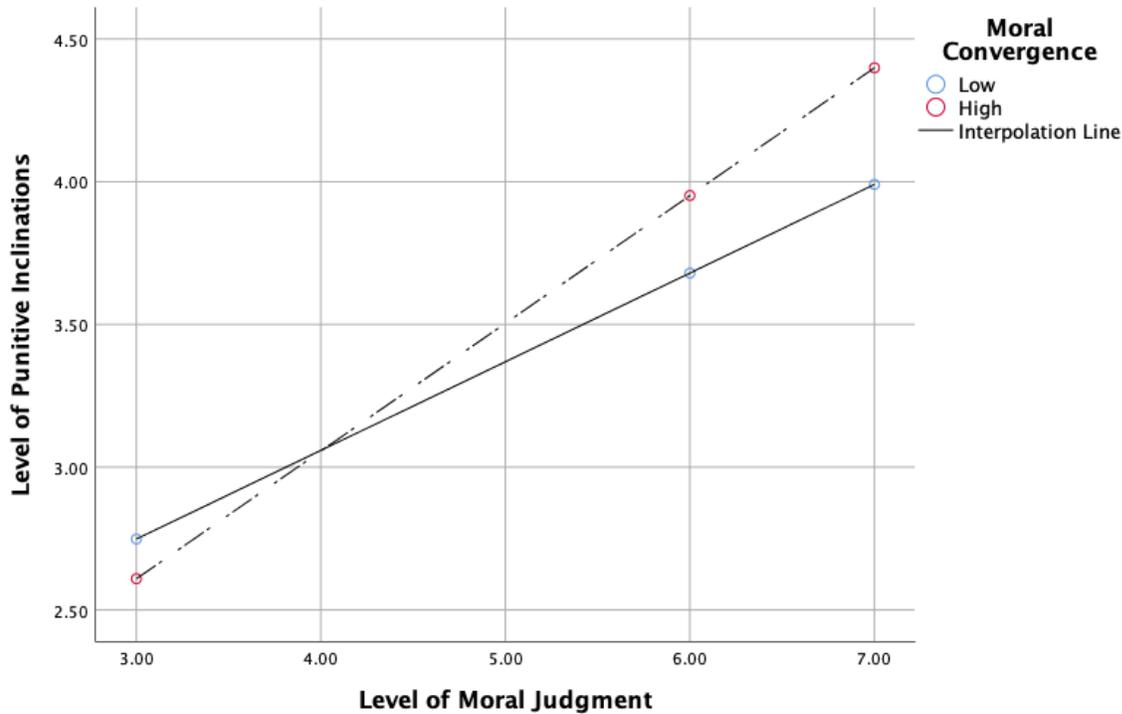
A simple linear regression was conducted to predict the outcome variable of the total amount of punitive inclinations based on the predictor variable of the level of moral judgment of the ALM protesters. A significant regression model was found ( $F(1, 467) = 125.78, p < .001$ ) with an  $R^2$  of .212. For every one-unit increase in moral judgment, levels of punitive inclinations increased by .381. This finding shows that the degree to which participants thought that the ALM protest was morally wrong was significantly predictive of their inclinations to punish ( $t = 11.22, p < .001$ ).

### ***Moral Convergence Moderates Relationship between Moral Judgment and Punitive***

#### ***Inclinations***

A moderation analysis using the PROCESS macro (Preacher & Hayes, 2004) revealed that the interaction between moral judgment and moral convergence was a significant moderator of punitive inclinations,  $b = .14, t(465) = 2.02, p = .04$ . High moral convergence predicted a stronger relationship between moral judgment and punitive inclinations,  $b = .45, t(465) = 9.63, p < .001$  compared to low moral convergence,  $b = .31, t(465) = 6.72, p < .001$ . Therefore, moral convergence was a significant moderator of the relationship between moral judgment and punitive inclinations, ( $F(3, 465) = 44.19, p < .001$ ), where this moderation model explains 22.18% of the variance in punitive inclinations (see Figure 2).

### **Figure 2**



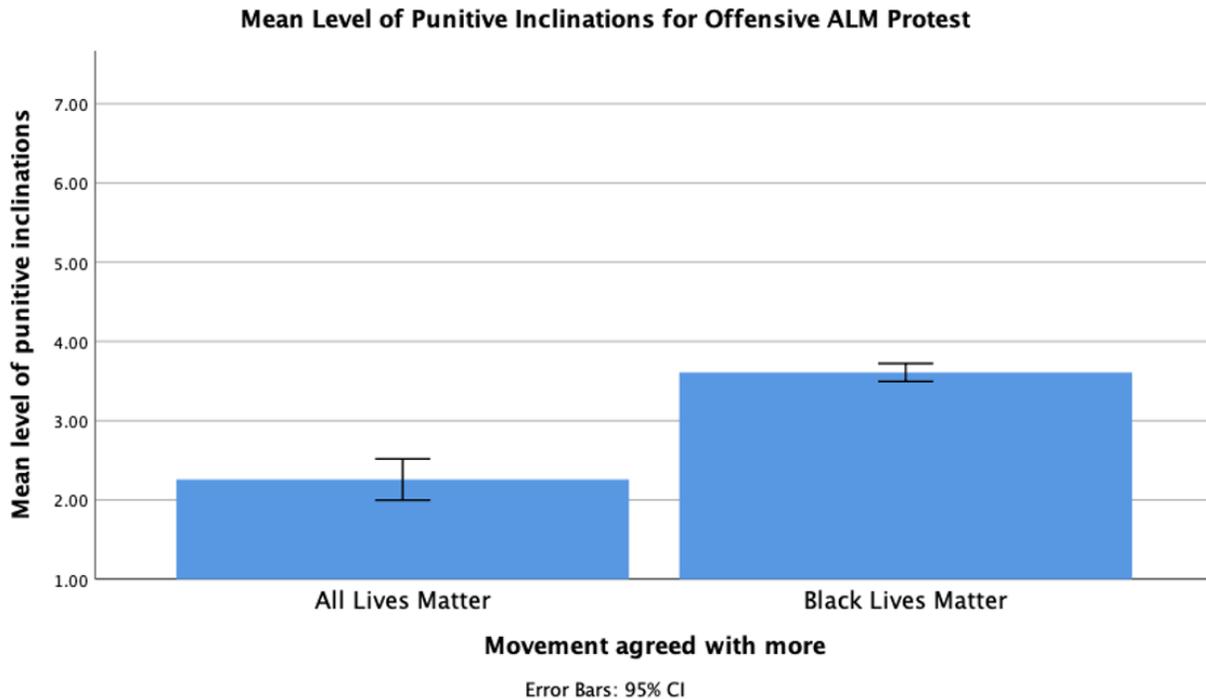
*Note.* This line graph shows the different relationships between moral judgment and punitive inclinations for the All Lives Matter protest between those in the high and low moral convergence conditions.

### ***BLM-Supporters Showed More Punitive Inclinations Toward Protest***

An independent-samples t-test analysis was conducted to assess how levels of punitive inclinations for the ALM protester situation would differ based on whether people agreed more with the ALM movement or agreed more with BLM movement. There was a significant difference in levels of punitive inclinations for the ALM protester situation between those who agreed more with the ALM movement ( $M = 2.38, SD = 1.27$ ) and those who agreed more with the BLM movement ( $M = 3.70, SD = 1.50$ )  $t(93.07) = -7.47, d = 0.94, p < .001$ . For those who agreed more with the ALM movement, on average they *disagreed* with the punitive statements toward the All Lives Matter protesters. For those who agreed more with the BLM movement, on

average they *neither agreed nor disagreed* with the punitive statements towards the All Lives Matter protesters (see Figure 3).

**Figure 3**



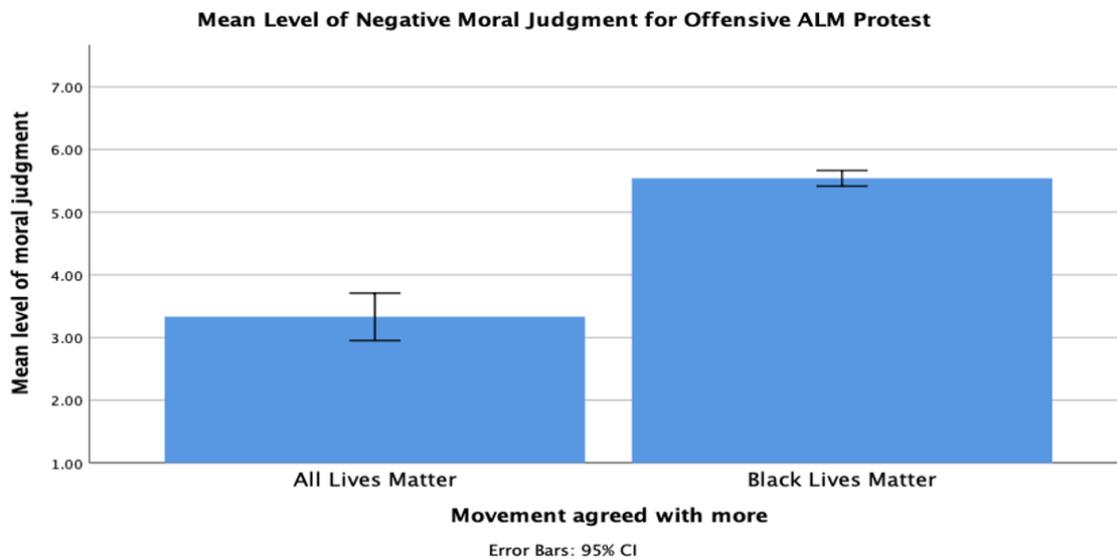
*Note.* This bar graph shows the mean level of punitive inclinations toward the offensive All Lives Matter protest for participants who agreed more with the All Lives Matter movement versus participants who agreed more with the Black Lives Matter movement.

***BLM-Supporters Showed More Negative Moral Judgment Toward Protest***

An independent-samples t-test analysis was conducted to assess how levels of moral judgment given for the ALM protester situation would differ based on whether people agreed more with the ALM movement or agreed more with BLM movement. There was a significant difference in levels of moral judgment given for the ALM protester situation between those who agreed more with the ALM movement ( $M = 3.31, SD = 2.05$ ) and those who agreed more with the BLM movement ( $M = 5.51, SD = 1.64$ )  $t(76.33) = -8.190, d = 1.19, p < .001$ . For those who

agreed more with the ALM movement, on average they *somewhat disagreed* with the statement that All Lives Matter protesters are morally wrong. For those who agreed more with the BLM movement, on average they *agreed* with the statement that All Lives Matter protesters are morally wrong (see Figure 4).

**Figure 4**



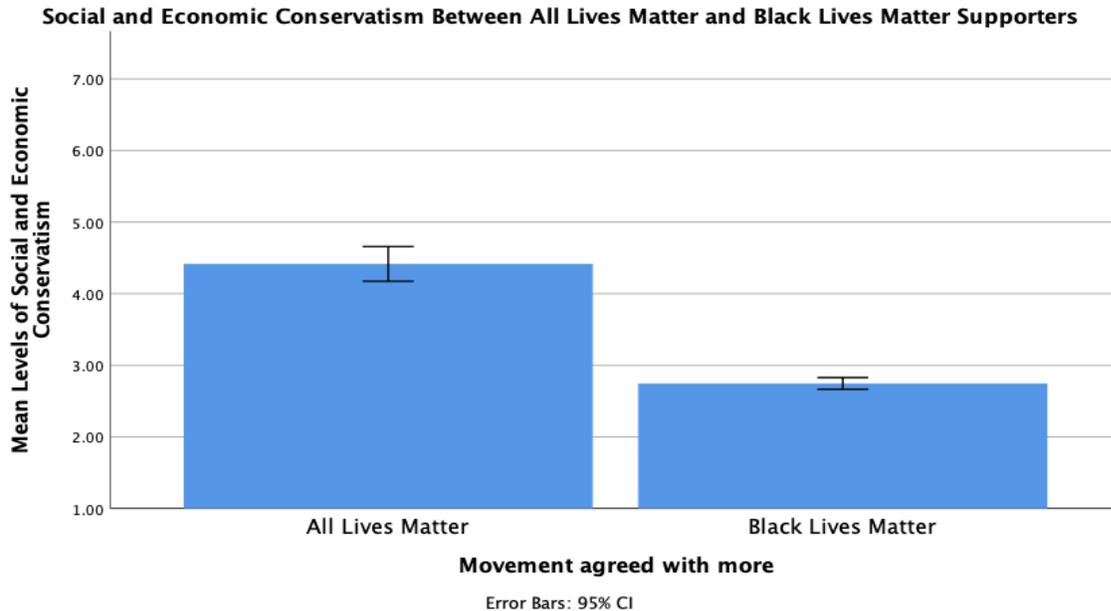
*Note.* This bar graph shows the mean level of negative moral judgment toward the offensive All Lives Matter protest for participants who agreed more with the All Lives Matter movement versus participants who agreed more with the Black Lives Matter movement.

#### ***ALM-Supporters Showed Higher Levels of Social and Economic Conservatism***

An independent-samples t-test analysis was conducted to assess how levels of social and economic conservatism would differ based on whether people agreed more with the ALM movement or agreed more with BLM movement. There was a significant difference in levels of SEC between those who agreed more with the ALM movement ( $M = 4.42, SD = .97$ ) and those who agreed more with the BLM movement ( $M = 2.75, SD = .84$ )  $t(78.57) = 13.04, p < .001, d = 1.84$ . For those who agreed more with the ALM movement, on average they *neither agreed nor disagreed* with the SEC composite measure. And for those who agreed more with the BLM

movement, on average they *somewhat disagreed* with the SEC composite measure (see Figure 5).

**Figure 5**



*Note.* This bar graph shows the mean level of social and economic conservatism between participants who agreed more with the All Lives Matter movement versus participants who agreed more with the Black Lives Matter movement.

### ***Levels of Social and Economic Conservatism Negatively Predict Punitive Inclinations and Moral Judgment***

Correlational analyses between levels of SEC, punitive inclinations, and moral judgment were conducted. A significant negative correlation of moderate size was found between SEC and punitive inclinations for the ALM protest,  $r(468) = -.42, p < .001$ . A significant negative correlation of moderate size was found between SEC and moral judgment for the ALM protest,  $r(468) = -.45, p < .001$ . Simple linear regressions were conducted to predict the outcome variables of the total amount of punitive inclinations and moral judgment of the ALM protest based on the predictor variable of levels of SEC. A significant regression was found for

predicting levels of punitive inclinations based on levels of SEC ( $F(1, 467) = 99.23, p < .001$ ) with an  $R^2$  of .18. For every one-unit increase in levels of SEC, levels of punitive inclinations for the ALM protest decreased by .625. Additionally, a significant regression was found for predicting levels of moral judgment for the ALM protest based on levels of SEC ( $F(1, 467) = 115.50, p < .001$ ) with an  $R^2$  of .20. For every one-unit increase in levels of SEC, levels of moral judgment for the ALM protest decreased by .802. These findings show that higher levels of SEC were significantly predictive of lower levels of punitive inclinations ( $t = -9.94, p < .001$ ) and moral judgment ( $t = -10.68, p < .001$ ) toward the ALM protest.

### Discussion

The primary finding in the current study is that participants had more punitive inclinations toward the ALM protest scenario when it was described as a group of protesters compared to when it was described as an individual protester, but only for those who were told that a *minority* of others shared their level of moral judgment and that others thought about the ALM protesters in a *different* way than them (i.e., when there was low moral convergence). In contrast, participants who were told that *most* others agreed with their level of moral judgment of the ALM protesters and were told that people thought about the protesters in a *similar* way as them (i.e., there was high moral convergence) showed no difference in their levels of punitive inclinations between the group of protesters and the individual protester. A potential explanation for this finding is that people feel more threatened by an offensive and semi-violent group of protesters compared to an individual protester when they feel that their own group (in this case, the people within their own nation) is disagreeing with their moral values. When people feel that their own group is excluding them, they may be somewhat more likely to endorse punishment

and have punitive inclinations against the group of protesters compared to an individual protester because the group is more threatening in the absence of a secure base.

This finding suggests that in contrast to initial hypotheses and the findings of Mooijman et al. (2018), the degree to which people believe others share their moral beliefs only influences their desire to punish when they are told most others disagree with their moral beliefs. Only then did the participants show higher levels of punitive inclinations for the group of offensive ALM protesters compared to the individual offensive ALM protester. This result may shed light on a different mechanism by which moral convergence influences punishment—namely, by eliciting feelings of threat in those who perceive their beliefs to be in the minority view. This feeling of threat leads them to commit to rather than move away from their moral beliefs, driving higher levels of punitive inclinations for the relatively more threatening protest scenario of the group of protesters compared to the individual protester.

Additional analyses showed that levels of moral judgment were significantly predictive of punitive inclinations, confirming that the degree to which people judge the ALM protest to be morally wrong does positively predict their levels of punitive inclinations. Furthermore, when it came to the relationship between moral judgment and punitive inclinations, moral convergence was found to be a significant moderator of this relationship. Those in the high moral convergence condition showed a stronger relationship between their levels of moral judgment and their levels of punitive inclinations compared to those in the low moral convergence condition. In other words, when people believed that most others agreed with their moral judgment, they showed a stronger match between their moral judgment and their punitive inclinations for the ALM protest compared to those who thought most others disagreed with their moral judgment. This finding aligns with one of the results of Mooijman et al. (2018) that found moral convergence was a

moderator of the relationship between moralization and protest violence. Specifically, they found that moralization predicted violence only when there was high moral convergence—that is, when participants believed that most others agreed with their moral attitudes. Therefore, in both Mooijman et al. (2018) and in the current study, evidence was found that consensus information facilitates the connection between moral sentiments and endorsements of violence.

Additionally, the current study found that those who agreed more with the BLM movement had greater levels of punitive inclinations toward the offensive ALM protesters than those who agreed more with ALM. And those who agreed more with the BLM movement had greater levels of negative moral judgment toward the offensive ALM protesters than those who agreed more with the ALM movement. These analyses show that people's self-reported agreement with either the BLM movement or the ALM movement really do influence their moral judgments and punitive inclinations for an ALM protest event, even when the protest is described as unambiguously offensive: they were marching illegally, threatening violence, and committing extreme verbal harassment. Lastly, those who agreed more with the ALM movement showed higher levels of SEC. And higher levels of SEC correlated with and predicted lower levels of punitive inclinations and moral judgment toward the ALM protest scenario. These findings suggest that conservative beliefs may play a role in downplaying the offensiveness of the ALM protest event since higher levels of conservative beliefs were associated with a lower negative moral judgment and a lower desire to punish the offensive ALM protest event.

### **Limitations and Future Directions**

One limitation to this study is that while I explained one rationale for the interaction effect—the finding that low moral convergence resulted in significantly higher punitive inclinations for the protest scenario but only when the scenario was a group of protesters—no

formal mechanism was empirically tested for this hypothesis in the current study. And so, future research should explore the specific reasons for this interaction effect. A second limitation to this study is that a significant portion of the participants had to be filtered out of the data due to not passing the manipulation check. This fact demonstrates that the convergence manipulation was not as effective as it was intended to be and suggests that perhaps there is a better way that the moral convergence manipulation could have been implemented. For instance, a future study could use more believable information or could manipulate moral convergence in an in-lab behavioral context. A third limitation to this study is that punitive inclinations were measured only with the use of a self-report Likert scale, which might not be the most valid measure of punitive inclinations. A future study could use a more direct behavioral measure of punitive inclinations such as the ultimatum game which is an experimental economics game played by two people. One player has to decide how to divide a sum of money with the second player. If the second player rejects the proposed offer of the first player neither party gets anything. Previous studies have conceptualized rejections as punishing behavior, and so, a future study could use the ultimatum game to measure punishment in the context of ALM- and BLM-supporting players.

### **Conclusion**

Despite the limitations of the study and the fact that the results of this research did not align with the initial hypotheses, moral convergence was found to be an important factor in affecting moral psychological outcomes. Low moral convergence resulted in significantly higher punitive inclinations for the ALM protest scenario but only when the scenario described a group of protesters. This suggests that the two factors of believing that few people agree with one's

moral judgments and the target of one's moral judgment being a group rather than an individual moral offender, combine to increase one's punitive inclinations.

While moral convergence did not directly influence punitive inclinations, the moderation analysis showed that moral convergence strengthened the relationship between moral judgment and punitive inclinations. This finding suggests that people take consensus information into account in their moral decision-making, specifically when it comes to the relationship between their judgments of how morally wrong something is and their willingness to punish. These findings regarding the role that perceptions of agreement in moral beliefs play in moral decision-making may have implications in how social media interacts with moral attitudes in contributing to political polarization and protest violence.

### References

- Boehm, C. (2019). Gossip and reputation in small-scale societies: A view from evolutionary anthropology. In F. Giardini & R. Wittek (Eds.), *The Oxford Handbook of Gossip and Reputation* (p. 253-274). Oxford University Press.
- Boyd, R., & Richerson, P. J. (1992). Punishment allows the evolution of cooperation (or anything else) in sizable groups. *Ethology and Sociobiology*, 13, 171-195.
- Boyd, R., Gintis, H., Bowles, S., & Richerson, P. J. (2003). The evolution of altruistic punishment. *Proceedings of the National Academy of Sciences*, 100, 3531-3535.
- Crockett, M. J. (2017). Moral outrage in the digital age. *Nature Human Behaviour*, 1.
- Curry, O. S. (2016). Morality as cooperation: A problem-centred approach. In T. K. Shackelford & R. D. Hansen (Eds.), *Evolutionary psychology. The evolution of morality* (p. 27–51). Springer International Publishing.
- Curry, O. S., Mullins, D. A., & Whitehouse, H. (2019). Is it good to cooperate? Testing the theory of morality-as-cooperation in 60 societies. *Current Anthropology*, 60, 47-69.
- DeScioli, P., & Kurzban, R. (2013). A solution to the mysteries of morality. *Psychological Bulletin*, 139, 477–496.
- Dunbar, R. I. M. (2004). Gossip in evolutionary perspective. *Review of General Psychology*, 8, 100-110.
- Everett, J. A. (2013). The 12 item social and economic conservatism scale (SECS). *PloS one*, 8(12), e82131. <https://doi.org/10.1371/journal.pone.0082131>
- Freitas, J. D., Thomas, K., DeScioli, P., & Pinker, S. (2019). Common knowledge, coordination, and strategic mentalizing in human social life. *Proceedings of the National Academy of Sciences of the United States of America*, 116, 13751-13758.

- Gambetta, D. (2009). *Codes of the underworld: How criminals communicate*. Princeton University Press.
- 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*, 1029–1046.
- Grubbs, J. B., Warmke, B., Tosi, J., James, A. S., & Campbell, W. K. (2019). Moral grandstanding in public discourse: Status-seeking motives as a potential explanatory mechanism in predicting conflict. *PLoS ONE*, *14*, 1-31.
- Haidt, J. (2012). *The righteous mind: Why good people are divided by politics and religion*. Vintage.
- Henrich, J., & Boyd, R. (2001). Why people punish defectors: Weak conformist transmission can stabilize costly enforcement of norms in cooperative dilemmas. *Journal of Theoretical Biology*, *208*, 79-89.
- Henrich, J., McElreath, R., Barr, A., Ensminger, J., Barrett, C., Bolyanatz, A., Camilo, J., et al. (2006). Costly punishment across human societies. *Science*, *312*, 1767-1770.
- Kurzban, R., & DeScioli, P. (2016). Morality. In D. M. Buss (Ed.), *The Handbook of Evolutionary Psychology*, Second Edition (pp.770-787). Hoboken, NJ: Wiley.
- Mooijman, M., Hoover, J., Lin, Y., Ji, H., & Dehghani, M. (2018). Moralization in social networks and the emergence of violence during protests. *Nature Human Behaviour*, *2*, 389-396.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, *36*(4), 717-731.
- Raihani, N. J., & Bshary, R. (2019). One tool, many uses. *Evolutionary Human Sciences*, *1*, 1-

26.

- Riedl, K., Jensen, K., Call, J., & Tomasello, M. (2012). No third-party punishment in chimpanzees. *Proceedings of the National Academy of Sciences*, *109*, 14824-14829.
- Rozin, P. (1999). The process of moralization. *Psychological Science*, *10*, 218-221.
- Schelling, T. (1960). *The strategy of conflict*. Harvard University Press.
- Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). *The "big three" of morality (autonomy, community, divinity) and the "big three" explanations of suffering*. In A. M. Brandt & P. Rozin (Eds.), *Morality and health* (p. 119–169). Taylor & Frances/Routledge.
- Schelling, T. C. (1957). Bargaining, communication, and limited war. *Journal of Conflict Resolution*, *1*, 19–36.
- Thomas, K. A., DeScioli, P., Haque, O. S., & Pinker, S. (2014). The psychology of coordination and common knowledge. *Journal of Personality and Social Psychology*, *107*, 657–676.
- Tosi, J., & Warmke, B. (2016). Moral grandstanding. *Philosophy & Public Affairs*, *44*, 197-217.
- Wiessner, P. (2005). Norm enforcement among the Ju/'hoansi Bushmen: A case of strong reciprocity? *Human Nature*, *16*, 115-145.

## **Appendix A**

### **Group Scenario**

In response to a Black Lives Matter protest held in Loomis, California, a large, right-wing group protested against them at an All Lives Matter counter-protest on Saturday July 25th, 2020. The All Lives Matter protest group marched on a busy street without a legal permit and were threatening violence. Witnesses reported extreme verbal harassment.

### **Individual Scenario**

In response to a Black Lives Matter protest held in Loomis, California a single right-wing individual protested against them at an All Lives Matter counter-protest on Saturday July 25th, 2020. The individual All Lives Matter protester marched on a busy street without a legal permit and was threatening violence. Witnesses reported extreme verbal harassment.

## **Appendix B**

### **Convergence Manipulation**

#### **High Convergence**

Your attitudinal data were just compared to data from a national database that we obtained for this research. Based on comparing your moral attitudes of the All Lives Matter protest to this nationally normed dataset, most people in the United States share your particular moral values. Other people in the United States think about this protest in a similar manner compared to you.

#### **Low Convergence**

Your attitudinal data were just compared to data from a national database that we obtained for this research. Based on comparing your moral attitudes of the All Lives Matter protest to this nationally normed dataset, a minority of people in the United States share your particular moral values. Other people in the United States think about this protest in a different manner compared to you.

## Appendix C

### Punishment Scale

To what extent do you agree with the following statements:

1. It is acceptable to punish the All Lives Matter protester group (1 = strongly disagree, 7 = strongly agree)
2. It is acceptable to shun the All Lives Matter protester group (1 = strongly disagree, 7 = strongly agree)
3. The All Lives Matter protester group ought to be put in jail (1 = strongly disagree, 7 = strongly agree)
4. It is acceptable to exclude the All Lives Matter protester group from society (1 = strongly disagree, 7 = strongly agree)
5. It is acceptable to use violence against the All Lives Matter protester group (1 = strongly disagree, 7 = strongly agree)
6. The use of violence against the All Lives Matter protester group is justified (1 = strongly disagree, 7 = strongly agree)
7. Using violence against the All Lives Matter protester group is unacceptable (1 = strongly disagree, 7 = strongly agree)
8. The use of force during a protest against the All Lives Matter protester group is unacceptable even if it leads to positive change (1 = strongly disagree, 7 = strongly agree)

## **Appendix D**

### **Debriefing Form**

Thank you for your participation in this research study. For this study, it was important that we provided you with doctored information about some aspects of the study. Now that your participation is completed, we will describe the doctored information to you, why it was important to give, and answer any of your questions.

You were given information about the extent to which others agree with your moral beliefs about All Lives Matter, and this information was fabricated and served as a form of deception. In actuality, this study does not use any credible source of information about national attitudes about All Lives Matter, it was just one of the variables in our study. This deception was purely used as a way to influence perceptions regarding whether most others agree or disagree with your beliefs about the All Lives Matter group.

The main researcher conducting this study is Alexander Mackiel, a graduate student at the State University of New York at New Paltz in the Department of Psychology. If you have questions, you may contact Alexander Mackiel at [mackielal@hawkmail.newpaltz.edu](mailto:mackielal@hawkmail.newpaltz.edu). If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Chair of the Human Research Ethics Board, SUNY New Paltz at (845) 257-3282.