



## Full Length Article

Political ideology predicts attitudes toward moral transgressors<sup>☆</sup>Colin Tucker Smith<sup>a,\*</sup>, Kate A. Ratliff<sup>a</sup>, Liz Redford<sup>a</sup>, Jesse Graham<sup>b</sup><sup>a</sup> Department of Psychology, University of Florida, United States<sup>b</sup> Eccles School of Business, University of Utah, United State

## ARTICLE INFO

## Article history:

Received 17 May 2018

Revised 14 January 2019

Accepted 2 April 2019

Available online 3 April 2019

## Keywords:

Impression formation

Political ideology

Moral Foundations Theory

Morality

Attitudes

## ABSTRACT

We combine recent theoretical advances in the study of morality with a growing interest in the predictive power of political ideology to test new hypotheses concerning impression formation. In two experiments (total  $N = 3881$ ), newly-formed attitudes depended upon United States citizens' political ideology and the moral content of the attitude induction. Specifically, when forming impressions of a person violating moral foundations of Care/Fairness, political liberals disliked the person more than did conservatives. In contrast, when forming impressions of a person violating moral foundations of Loyalty/Authority/Purity, conservatives disliked the person more than did liberals. This work establishes that ideological differences are important not only for long-standing attitudes and judgments, but create attitudinal divides at the earliest stages of evaluation.

© 2019 Elsevier Inc. All rights reserved.

## 1. Introduction

During a 2016 preseason game in the National Football League, San Francisco quarterback Colin Kaepernick did not stand during the national anthem. He later indicated his actions were because he could not support a country that oppresses Black people and other people of color (Wyche, 2016). During subsequent weeks, other people followed his lead, including professional athletes from other teams and sports and student-athletes in colleges and high schools. At the same time, many Americans did not support his protest – within weeks he had become the league's least-liked player, based on a representative poll of Americans (Rovell, 2016). The spreading mix of support and dislike may be emblematic of a cultural divide in the United States, one in which people's impressions of Kaepernick are based on whether they see him as advocating for racial fairness or expressing disloyalty to his country. In the current work, we demonstrate that such politically-based differences in perceivers' moral reasoning can lead to opposite-valenced attitudes toward targets.

Growing evidence notes reliable patterns of differences between liberals and conservatives on a wide array of subjects.

For example, liberals and conservatives differ in physiological responses to threat (Oxley et al., 2008), sensitivity to disgust (Inbar, Pizarro, & Bloom, 2009; Inbar, Pizarro, Iyer, & Haidt, 2012), strategies at making simple categorizations (Talhelm et al., 2015), and how they decorate their living and working spaces (Carney, Jost, Gosling, & Potter, 2008). Directly related to the current work, a small body of research has accumulated regarding differences in ideology and impression formation. Understanding how impression formation operates is essential because it is the initial link on the chain from attitudes to behaviors. In addition, there is a fundamental overlap between the processes involved in impression formation and those involved in stereotyping (Schneid and Carlston, 2015). If the same stimulus leads people to form different attitudes and stereotypes based on their political ideology, this may go a long way toward explaining observed differences in the thoughts, feelings, and behaviors of liberals and conservatives. To date, research into the interplay of ideology and impression formation has focused on differences between liberals and conservatives regarding their reaction to positive and negative information in general (e.g., Carraro, Castelli, & Macchiella, 2011; Hibbing, Smith, & Alford, 2014). For example, when learning new information, conservatives are more likely than liberals to overweight negative information about novel stimuli (Fazio, Pietri, Rocklage, & Shook, 2015; Shook & Fazio, 2009). In addition, conservatives show less evidence of conditioning than liberals in response to positive stimuli (Shook & Clay, 2011).

In sum, there are documented differences in how liberals and conservatives form impressions, but the evidence remains sparse, outdated, and limited to simple effects of valence. In the current

<sup>☆</sup> This research was supported by Project Implicit. The second and third authors are paid consultants of Project Implicit, Inc., a non-profit organization that includes in its mission "to develop and deliver methods for investigating and applying phenomena of implicit social cognition, including especially phenomena of implicit bias based on age, race, gender or other factors."

\* Corresponding author at: Department of Psychology, University of Florida, P.O. Box 112250, Gainesville, FL 32611-2250, United States.

E-mail address: [colinsmith@ufl.edu](mailto:colinsmith@ufl.edu) (C.T. Smith).

work, we move in a new direction. Namely, previous work has addressed only stimulus *valence* and has not addressed whether differences in stimulus *content* may also elicit evaluations that differ based on political ideology. As such, in the current work, we hold valence constant and manipulate moral information to test for potential differences in liberals' and conservatives' attitude formation. This choice of direction was inspired by Moral Foundations Theory (Graham et al., 2013; Haidt & Joseph, 2004) and, in particular, evidence that moral judgements can differ along lines of political ideology (Graham, Haidt, & Nosek, 2009). Specifically, Graham et al. (2009) found that liberal morality is especially focused on issues of Care and Fairness. In contrast, political conservatives find issues of Loyalty, Authority, and Purity to be of more moral concern than liberals do. Relatedly, in one study, political ideology correlated modestly with "moral sentiments" (i.e., responses to whether something is "morally bad or wrong" or "morally good or right") toward an item labelled "Respect traditions" (Study 3: Frimer, Gaucher, & Schaefer, 2014). Also of note, another recent investigation using a trait-rating procedure in which 20 of the words were related to the five moral foundations found that people treat each of the moral foundations as relevant to evaluations of liking (Hartley et al., 2016). However, in that work, no analyses were reported testing whether results were moderated by ideology, so it remains only as evidence that each of the moral foundations can predict ratings of liking.

Importantly, recent research has highlighted morality's prominence in impression formation more generally (Brambilla & Leach, 2014; Goodwin, 2015). For example, information about the moral traits of honesty, sincerity, and trustworthiness predict evaluations better than information about social warmth or competence (Brambilla, Sacchi, Rusconi, Cherubini, & Yzerbyt, 2012; Leach, Ellemers, & Barreto, 2007) and, when forming evaluations, people use information about morality more than information about competence (Wojciszke, Bazinska, & Jaworski, 1998) or warmth (Brambilla, Rusconi, Sacchi, & Cherubini, 2011; Goodwin, Piazza, & Rozin, 2014; Pagliaro, Brambilla, Sacchi, D'Angelo, & Ellemers, 2013). In short, people rely on moral information when forming impressions about others. That the type of information considered "moral" depends upon one's political ideology has so far remained a neglected observation in the area of impression formation. However, it could have critical consequences.

## 2. Overview of the present research

The current research uses these politically-based differences to test whether the content of moralities matter in predicting the direction and strength of impression formation. In sum, given (1) recent evidence that morality holds a fundamental place in impression formation and (2) known political differences in the bases of morality, we predict that liberals and conservatives will form different impressions of individuals based on the moral transgressions those individuals commit. This work differs from previous research in at least two critical ways, providing a novel contribution to the literature. Previous research has demonstrated conditions under which political ideology influences people's views that particular behaviors are more or less relevant for their own morality (Graham et al., 2009; Graham, Nosek, & Haidt, 2012). Our experiments, instead, test whether political ideology influences the quality of newly formed attitudes toward a target based on his morally-relevant behavior. In other words, the focus is on the transgressor (rather than the transgression) and on attitudes (rather than moral relevance). Thus, we demonstrate how people actually *use* morally relevant information when evaluating others.

In two experiments, we test the hypothesis that conservatives would judge a target more negatively than liberals if the target vio-

lates the moral foundations of Loyalty, Authority, and Purity and that liberals would judge a target more negatively than conservatives if the target violates Care and Fairness foundations.

## 3. Experiment 1

### 3.1. Method

#### 3.1.1. Participants

Participants were 1890 volunteers at the Project Implicit website (<https://implicit.harvard.edu>; Nosek, 2005) who were randomly assigned to this experiment from a pool of approximately 10 studies and who were at least 18 years old, a U.S. citizen, and reported data for all measures included in analyses. The mean age was 32.6 years, ( $SD = 13.9$ ), the majority were women (67.1% women) and the mean political ideology was  $-0.73$  ( $SD = 1.65$ ) on a scale ranging from Strongly Liberal ( $-3$ ) to Strongly Conservative ( $+3$ ). Participant race was as follows: 68.9% White, 11.1% Black or African American, 6.6% More than one race – Other, 4.9% Other or Unknown, 2.4% East Asian, 2.2% South Asian, 2.1% More than one race – Black/White, 0.7% American Indian/Alaska Native, and 0.6% Native Hawaiian or other Pacific Islander. As there was little precedent for this work, we simply chose 2000 as a round number that we deemed sufficiently large. Post-hoc power analyses reveal >99% power to detect all tested effects. We did not look at data until the experiment was completed and removed from the servers.

#### 3.1.2. Materials

*Attitude induction.* Participants were told that the purpose of the experiment was to investigate impression formation. They then received information about a fictitious person named 'Reemolap' accompanied by an image of Reemolap (as in Ratliff & Nosek, 2010). In both conditions, participants read 10 unique sentences, each of which was presented twice. The order of the 20 sentences they read was fully random. Crucially, the moral content of these sentences differed by condition (See Appendix for full text of all sentences used in this and the subsequent experiment). In the Care/Fairness (CF) condition, participants read sentences describing violations of the Care and Fairness moral foundations (e.g., "Reemolap made cruel remarks to an overweight person about her appearance"). In the Loyalty/Authority/Purity (LAP) condition, participants read sentences describing violations of Loyalty, Authority, and Purity foundations (e.g., "Reemolap injected drugs into his arm with a syringe"). Text of the attitude induction stimuli was modified from items used in the Moral Foundations Questionnaire (Graham et al., 2011); for example, the original item "Whether or not someone made cruel remarks to an overweight person about her appearance" became the induction stimulus "Reemolap made cruel remarks to an overweight person about her appearance".

*Political Ideology.* Participants were asked the following question: "If you were forced to choose, would you consider yourself to be a conservative or a liberal?". This forced-choice measure correlated at  $r = 0.68$  (Experiment 1) and  $r = 0.67$  (Experiment 2) with the continuous measure of ideology gathered at the time that participants registered for an account at Project Implicit. The forced-choice measure has the advantage of being collected at the time of data collection for all participants (whereas the continuous item could have been gathered at any time over the past two decades). However, it does not distinguish between "Extreme" versus "Slight" liberals or conservatives and, therefore, cannot answer questions of whether effects are stronger as ideology becomes more extreme. The pattern of effects is the same in both experiments when analyses substitute the continuous measure; a full

write-up of those results are available at the project page (<https://osf.io/cfkmw/>).

**Negativity toward Reemolap.** The dependent variable was evaluations of Reemolap. Participants used a 7-point scale to report their attitude toward Reemolap on four evaluative dimensions: unpleasant/pleasant, unlikeable/likeable, negative/positive, and good/bad. Scores were coded as follows: Very pleasant = -3, Moderately pleasant = -2, Slightly pleasant = -1, Neither pleasant nor unpleasant = 0, Slightly unpleasant = +1, Moderately unpleasant = +2, Very unpleasant = +3. Participants did not see the numbers that correspond to the response labels. As responses to the four items were highly related in both conditions (CF:  $\alpha = 0.87$ , LAP:  $\alpha = 0.92$ ), we combined them into a single score with higher scores indicating greater negativity toward Reemolap. In this way higher scores indicate more consistency with the (negative) attitude induction.

### 3.1.3. Procedure

Participants completed demographic measures upon registering at the Project Implicit website. After consenting to participation in this experiment, participants were randomly assigned to the attitude induction in which Reemolap violated either CF foundations or LAP foundations. After reading the full set of 20 sentences, all participants self-reported their attitude toward Reemolap. Finally, participants reported their political ideology (i.e., Conservative vs. Liberal). Participants also completed three other measures which are not included in the current analyses; specifically participants completed an implicit measure of attitudes toward Reemolap – included because participants at Project Implicit have the expectation of learning about their implicit attitudes – and two items asking about their previous participation in research studies on Project Implicit. All materials and cleaned data are available on the project page on the Open Science Framework (<https://osf.io/cfkmw/>). At the end of the experiment, participants were thanked and debriefed.

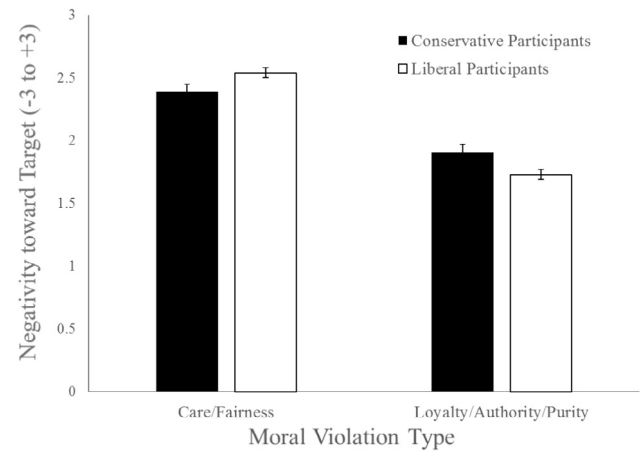
### 3.2. Results and discussion

Data were analyzed with a 2 (Ideology: Conservative vs. Liberal) X 2 (Moral violation: CF vs. LAP) between-subjects ANOVA on negativity toward Reemolap. The overall model was significant,  $F(3, 1886) = 99.63, p < .0001, R^2 = 0.14$ .

Participants were more negative toward the transgressor (i.e., Reemolap) in the CF violation condition ( $M = 2.50, SD = 0.76$ ) than in the LAP violation condition ( $M = 1.79, SD = 1.05$ ),  $F(1, 1886) = 211.52, p < .0001$ , Cohen's  $d = 0.78$  (95%  $CI_d = 0.68, 0.87$ ). Political identification was not a significant predictor of attitudes toward Reemolap,  $F(1, 1886) = 0.18, p = .67$ , Cohen's  $d = 0.01$  (95%  $CI_d = -0.08, 0.11$ ).

In support of the central hypothesis, these results were qualified by a significant interaction between moral violation condition and political ideology,  $F(1, 1886) = 14.38, p = .0002, \eta^2 = 0.01$ ; see Fig. 1.

When splitting by the type of Moral Violation, in the LAP violation condition, conservatives reported more negative attitudes ( $M = 1.91, SD = 1.04$ ) than did liberals ( $M = 1.73, SD = 1.04$ ),  $t(934) = 2.60, p = .009$ , Cohen's  $d = 0.17$  (95%  $CI$  around  $d$ : 0.04, 0.31). Conversely, in the CF violation condition, liberals reported more negative attitudes ( $M = 2.54, SD = 0.70$ ) than did conservatives ( $M = 2.39, SD = 0.88$ ),  $t(952) = 2.85, p = .004$ , Cohen's  $d = 0.20$  (95%  $CI$  around  $d$ : 0.06, 0.33). The interaction can also be probed by Political Ideology; although both conservatives and liberals disliked the target more when committing CF violations than LAP violations, that difference was nearly twice as large for liberals  $t(1267) = 16.48, p < .0001$ , Cohen's  $d = 0.92$  (95%  $CI$  around  $d$ : 0.81, 1.04) as for conservatives,  $t(619) = 6.20, p < .0001$ , Cohen's



**Fig. 1.** Negativity toward moral transgressor by moral violation type and political ideology in Experiment 1. Error bars represent standard error around the mean. Note. Scale ranges from -3 = Very positive to +3 = Very negative, where 0 = Neither positive nor negative. As such, higher positive scores are in line with the negativity of the attitude induction.

$d = 0.50$  (95%  $CI$  around  $d$ : 0.34, 0.66). This experiment demonstrates for the first time that political ideology interacts with moral content in predicting the extremity of a newly-formed attitude toward a moral transgressor. Specifically, when an actor commits moral transgressions that violate the values of Loyalty, Authority and Purity, they are disliked more by conservatives than by liberals. Conversely, when moral transgressions violate the values of Care and Fairness, the actor is disliked more by liberals than by conservatives.

## 4. Experiment 2

Experiment 1 showed that manipulations of moral violation content affected liberals' and conservatives' attitude formation about a novel individual in opposite ways. In a second experiment, we tested whether the observed effects also obtained when we did not specify the content of the moral violations. By leaving the transgressions relatively content-free, we allowed participants to generate their own mental content rather than supplying potentially leading instantiations of each moral foundation. For example, in Experiment 1, one of the five ways in which we operationalized the moral foundation of Fairness was via the item "Reemolap only hired people of his own race". Of note, (1) the image of Reemolap accompanying that text indicated that Reemolap is arguably a White person and (2) political conservatives report stronger preferences toward a number of lower status groups (e.g., Nosek et al., 2007). As such, the observed difference in attitudes may be due to the extent to which issues of race differentially map onto issues of fairness (i.e., moreso for liberals than for conservatives) than due to differences in fairness per se. Including an attitude induction that is general in content, therefore, will help rule out the argument that one or more of our items were overtly politicized in nature. In addition, this conceptual replication would increase our confidence that the effect is genuine and generalizes past the specifics of any one set of stimuli.

### 4.1. Method

#### 4.1.1. Participants

Participants were 1969 volunteers at the Project Implicit website who were randomly assigned to this experiment from a pool of approximately 10 studies. Participants were included in analysis if they were at least 18, a U.S. citizen, and had completed all

relevant measures. Average age of the participants was 30.8 years ( $SD = 13.4$ ). The majority were women (64.3%) and the mean political ideology was  $M = -0.70$  ( $SD = 1.61$ ) on a scale ranging from Strongly Liberal ( $-3$ ) to Strongly Conservative ( $+3$ ). Participant race was as follows: 71.7% White, 10.7% Black or African American, 4.9% More than one race – Other, 4.7% Other or Unknown, 3.0% East Asian, 1.9% South Asian, 1.7% More than one race – Black/White, 0.8% American Indian/Alaska Native, and 0.6% Native Hawaiian or other Pacific Islander. In keeping with Experiment 1, we again chose 2000 participants as a suitable number. Post-hoc power analyses reveal >99% power to detect all tested effects. We did not look at data until the experiment was completed and removed from the servers.

#### 4.1.2. Materials

All materials were identical to Experiment 1 with the exception of an additional manipulation in the attitude induction procedure. Participants were randomly assigned to either read about specific behavioral violations of moral foundations as in Experiment 1 (e.g., *Reemolap cursed his parents to their face*) or to read about general behavioral violations (e.g., *Reemolap showed a lack of respect for authority*). There were six different general violations, each of which was presented three times in a fully random order (see Appendix for text of all statements). As such, the design is a 2 (Type of Moral Violation: CF vs. LAP)  $\times$  2 (Specificity of Violations: General vs. Specific)  $\times$  2 (Political Ideology: Conservative vs. Liberal) design with all variables varying between participants. Reliability for the attitude measure was high and consistent across the four manipulated conditions (CF/General:  $\alpha = 0.87$ , CF/Specific:  $\alpha = 0.89$ , LAP/General:  $\alpha = 0.92$ , LAP/Specific:  $\alpha = 0.90$ ).

#### 4.2. Results and discussion

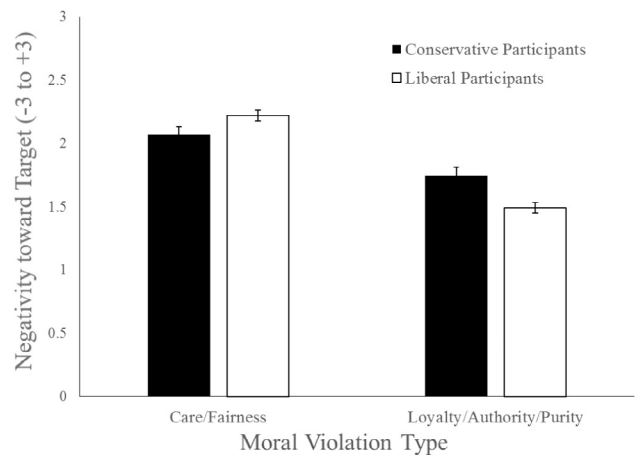
Using a between-subjects ANOVA on negativity toward Reemolap, the overall 2 (Type of Moral Violation: CF vs. LAP)  $\times$  2 (Political Ideology: Conservative vs. Liberal)  $\times$  2 (Specificity of Violations: General vs. Specific) model was significant,  $F(7, 1961) = 26.69$ ,  $p < .0001$ ,  $R^2 = 0.09$ . The 3-way interaction did not reach significance,  $F(1, 1961) = 1.61$ ,  $p = .20$ , indicating that whether the moral violations were general or specific did not impact the pattern of results. As such, we collapsed across levels of that variable in subsequent reporting of results.

As in Experiment 1, Moral Violation condition was a significant predictor of attitudes such that participants were more negative toward the transgressor in the CF condition ( $M = 2.17$ ,  $SD = 0.97$ ) than in the LAP condition ( $M = 1.56$ ,  $SD = 1.13$ ),  $F(1, 1961) = 106.08$ ,  $p < .0001$ ,  $d = 0.58$  (95%  $CI_d$ : 0.49, 0.67); whether violations were general or specific in nature did not impact attitudes,  $F(1, 1961) = 0.83$ ,  $p = .36$ ,  $d = 0.01$  (95%  $CI_d$ :  $-0.08$ , 0.10). Also as in Experiment 1, political identification was not a significant predictor of attitudes toward Reemolap,  $F(1, 1961) = 1.27$ ,  $p = .26$ ,  $d = -0.04$  (95%  $CI_d$ :  $-0.14$ , 0.06).

Replicating our central hypothesis, attitudes were again significantly predicted by the interaction between Moral Violation and Political Ideology,  $F(1, 1961) = 16.09$ ,  $p < .0001$ ,  $\eta^2 = 0.01$ ; see Fig. 2.

Probing the interaction reveals the identical pattern to Experiment 1. Specifically, in the LAP violation condition, conservatives had more negative attitudes ( $M = 1.75$ ,  $SD = 1.10$ ) than liberals ( $M = 1.49$ ,  $SD = 1.13$ ),  $t(986) = 3.39$ ,  $p = .0007$ ,  $d = 0.23$  (95%  $CI_d$ : 0.10, 0.37), whereas in the CF violation condition, liberals had more negative attitudes ( $M = 2.22$ ,  $SD = 0.96$ ) than conservatives ( $M = 2.07$ ,  $SD = 1.00$ ),  $t(979) = 2.27$ ,  $p = .023$ ,  $d = 0.16$  (95%  $CI_d$ : 0.02, 0.30).

Probing the interaction in the second way additionally replicates the pattern of results from Experiment 1; although both con-



**Fig. 2.** Negativity toward moral transgressor by moral violation type and political ideology in Experiment 2. Error bars represent standard error around the mean. Note. Scale ranges from  $-3 =$  Very positive to  $+3 =$  Very negative, where  $0 =$  Neither positive nor negative. As such, higher positive scores are in line with the negativity of the attitude induction.

servatives and liberals dislike the target more when he commits CF violations than IAP violations, that difference is more than twice as large for liberals  $t(1364) = 12.96$ ,  $p < .0001$ ,  $d = 0.70$  (95%  $CI_d$ : 0.59, 0.81) as for conservatives,  $t(601) = 3.74$ ,  $p = .0002$ ,  $d = 0.30$  (95%  $CI_d$ : 0.14, 0.47).

Experiment 2 replicated Experiment 1s pattern of results using a more general version of moral violations. Namely, liberal participants disliked someone more than conservative participants did when that person committed moral transgressions of Care and Fairness, whereas conservatives disliked them more than liberals did when they committed transgressions of Loyalty, Authority, and Purity.

## 5. General discussion

The current work tethers recent theoretical advances in moral psychology to psychology's long-standing interest in impression formation and provides new evidence indicating that different people can be exposed to identical information and end up with distinct attitudes. Specifically, political ideology interacts with the content of moral violations in predicting newly-formed attitudes toward moral violators. Whereas conservatives make more negative judgments than liberals if the target violates Loyalty, Authority, and Purity foundations, liberals make more negative judgments than conservatives if the target violates Care and Fairness foundations. The fact that actions that are, on their surface, *literally identical*, lead to discrepant evaluations of the actor performing those actions based only on an observer's political ideology has profound implications for our social worlds.

These findings echo and extend previous work indicating differences in how liberals and conservatives form impressions (e.g., Fazio et al., 2015; Shook & Clay, 2011; Shook & Fazio, 2009). Although previous research focused on political differences in sensitivity to negative stimuli, they did not examine potential differences in stimuli content. The current research advances this work by revealing that political ideology interacts meaningfully with moral content in predicting the direction and extremity of evaluations. Of note, "identical information" of negative valence is not identical; its weighting depends on one's ideology.

In addition, these findings extend Moral Foundations Theory – which holds that ideology drives the type of information one considers to be morally-relevant – more deeply into the psychological

understanding of attitude formation by demonstrating that impressions reveal the unique moral values of the observer—values that can be rooted in ideological differences. Moreover, the current studies indicate that ideological differences in morality exist not only for established culture-war issues, but can be seen in newly-formed attitudes about novel actions and individuals.

Attitudes based in moral conviction are particularly consequential. Once formed, attitudes that one views as morally-relevant are better predictors of interpersonal behaviors (such as social distancing) than equally strong non-moral attitudes (Skitka, Bauman, & Sargis, 2005). Additionally, people value moral information more than competence information when forming attitudes (De Bruin & Van Lange, 2000). Indeed, moral traits hold an anchoring position in lay theories of what makes up a human's identity (Strohinger & Nichols, 2014). The consequences of evaluations based on morality make it all the more important to understand the moral roots of evaluations.

We reliably demonstrated that perceiver political orientation influences the extent of negativity toward a target who behaves in ways that violate moral foundations. Political liberals form more negative evaluations than political conservatives of someone who transgresses against the moral foundations of Care and Fairness; political conservatives form more negative evaluations than political liberals of someone who transgresses against Loyalty, Authority, and Purity. This is the first time such an effect has been demonstrated. It is true that a number of previous investigations have shown that political ideology predicts moral judgements (e.g., Frimer et al., 2014; Graham et al., 2009; Graham et al., 2012). However, those judgements have always been of the moral relevance or goodness of an action, concept, or group. Instead, we have shown that moral actions lead to different attitudes based on the political ideology of the participant. The explanation upon which we based the current experiments is one of underlying political differences in moral foundations. That said, the stimuli we used – which previous research has shown to differ along ideological lines in terms of perceived moral relevance – also differ in other ways. As such, we cannot yet rule out several additional and interesting potential mechanisms.

### 5.1. Additional potential mechanisms for the observed effects

For one, both the specific and general violations of Care and Fairness may be more interpersonally-relevant than the specific and general violations of Loyalty, Authority, and Purity. For example, “Reemolap was cruel” (Care violation) likely has more interpersonal implications as compared to “Reemolap failed to conform to the traditions of society” (Authority violation). Given that our outcome is an impression of a person, one could expect that violations that had interpersonal implications might lead to more negative impressions than violations that were less interpersonally-relevant. And, indeed, we did see a main effect such that evaluations were more negative for CF violations than for LAP violations. However, our hypotheses related to the interaction of the violations with political ideology. In order for this alternate mechanism to explain our data, it would need to interact with political ideology. We are not aware of evidence that political liberals are more influenced than political conservatives by interpersonal information. Nor do we know of evidence that political conservatives are more influenced than political liberals by information that is relatively removed from interpersonal concerns. However, such data would certainly be interesting. One could test this competing account by also manipulating the level of interpersonal-relevance of the foundations. Specifically, by creating Care and Fairness violations that are less interpersonal and Loyalty, Authority, and Purity violations that are more related to

interpersonal concerns, the impact of this potentially confounding variable could be tested.

Second, a similar claim could be made with regard to the Care/Fairness violations being more affective in nature (i.e., relating to feelings and emotions) whereas the Loyalty/Authority/Purity violations may be more cognitive in nature (i.e., relating to thoughts and beliefs). As with the interpersonal nature of the items, we did not collect ratings of the stimuli's relevance to affect or cognition; however, it is similarly easy to find prototypical examples from the lists from the standpoint of face validity. Indeed, were we to follow recommendations related to affect and cognition (Crites, Fabrigar, & Petty, 1994), an item such as “Reemolap showed a lack of respect for authority” (Authority violation) would be an excellent item for a cognitive scale, whereas “Reemolap made someone suffer emotionally” (Care violation) would be an equally good item for an affective scale. There is longstanding disagreement over whether affective information of cognitive information leads to stronger evaluations. However, researchers often refer to the “matching hypothesis” (e.g., Fabrigar & Petty, 1999) wherein affective evaluations are more strongly impacted by affective information whereas cognitive evaluations are more strongly impacted by cognitive information. Our measures are arguably more affective than cognitive (in the sense of Crites et al., 1994). As such, the main effect of CF violations (which may be more affective) leading to stronger negative evaluations than LAP violations (which may be more cognitive) could potentially be explained by this alternate mechanism. However, as with the interpersonal explanation above, this would have to interact with political ideology in order to explain our central hypotheses. Specifically, in order to explain the current data, political liberals would need to be more impacted than political conservatives by affective information. Additionally, political conservatives would need to be more impacted than political liberals by cognitive information. Again, we do not know of data that suggests this pattern, though it would be notable if true and worth testing in future.

Also relevant to the topic of potential mechanisms underlying the observed effects is work that suggests that the moral foundation of authority may be more relevant to conservatives than to liberals for reasons outside of the construct of authority per se (Frimer et al., 2014). Namely, liberals judge obedience to authority to be more morally relevant than conservatives do when the authority is liberal (e.g., civil rights activist). Further, that work indicated that, on the whole, unnamed authorities tend to be perceived as being relatively conservative, which the authors argue means that the concept of authority, when lacking a modifier, equates to “conservative authority”. Thus, according to these findings, the statement “Reemolap showed a lack of respect for authority” equates to “Reemolap showed a lack of respect for conservative authority”. In this way, conservatives might not like Reemolap due more to his opposition to “conservative” than to “authority” in some kind of neutral, symbolic form. It seems sensible that this phenomenon could contribute to the observed results, although it is only relevant for the LAP condition.

Finally, given that people have at least some ability to report the moral foundations profile of both liberals and conservatives (Bruchmann, Koopmann-Holm, & Scherer, 2018; Graham et al., 2012), we cannot rule out the possibility that participants concluded that the target who violated Care and Fairness was conservative whereas the target who violated Loyalty, Authority, and Purity was liberal. Thus, our obtained results could also be explained via an ingroup preference. To be clear, this explanation still requires the differences engendered via moral foundations theory. After all, that information is what would lead to the inference regarding the target's political ideology. However, the explanation would not be solely about differences in moral foundations

but, instead, would additionally recruit theorizing regarding intergroup biases.

### 5.2. Limitations

The current research advances understanding of morality and political cognition, but it also has limitations. First, it relies on a sample of citizens of the United States. Although political differences in moral foundations – especially regarding Authority and Purity – have generalized to other countries and areas of the world (Graham et al., 2011), we cannot yet be sure that our results will generalize outside of our specific sample of U.S. citizens. Second, foundations were grouped together – Care with Fairness, and Loyalty with Authority and Purity. These groupings align, theoretically and empirically, with the foundations endorsed by liberals and conservatives respectively (Graham et al., 2009). However, future work should explore whether single foundations drive the observed effects, or if alternate groupings of foundations are impactful. Third, we investigated only attitudes formed in response to violations, and not those formed in responses to morally praiseworthy behavior. We focused on violations because of previous work showing an asymmetry in diagnosticity: negativity is more important than positivity (e.g., Skowronski & Carlston, 1987; Mende-Siedlecki, Baron, & Todorov, 2013; Rozin & Royzman, 2001). However, it could be informative to explore attitude formation in response to behaviors which uphold, rather than violate, moral foundations, or to behaviors which violate one foundation while upholding another.

### 5.3. Conclusion

In sum, the current work advances our understanding of impression formation, morality, and political cognition by showing that political ideology interacts with moral content to influence formation of new attitudes. It reveals that morality and ideology are mutually dependent. Morality is central, what is morally relevant differs across people. Given the importance that people place on morality, the current research helps explain how an act deemed morally irrelevant—or even praiseworthy—to a liberal may incite outrage among members of the political right and vice versa.

### Acknowledgements

The studies included in this manuscript were not pre-registered.

Contributions of authors is as follows: Kate Ratliff and Jesse Graham designed the studies and collected the data; Colin Smith analyzed the data and wrote the initial full draft of the manuscript; all four authors contributed significantly to the writing.

### Appendix A. Attitude induction stimuli

Specific Behaviors (Experiment 1 and Experiment 2), each presented twice

#### Loyalty/Authority/Purity Violations

Reemolap insulted the founders of his country  
 Reemolap wrote 666 in hymnals and bibles in church pews  
 Reemolap cursed his parents to their face  
 Reemolap chose to have a surgery that split his tongue in two  
 Reemolap eats in the same place he goes to the bathroom  
 Reemolap injected drugs into his arm with a syringe  
 Reemolap criticized his country on a foreign television program  
 Reemolap ate a candy bar from the trash

Reemolap rarely showers and always smells bad  
 Reemolap cooked and ate his dog after it died of natural causes

#### Care/Fairness Violations

Reemolap made cruel remarks to an overweight person about her appearance  
 Reemolap parked his car in a space reserved for the handicapped  
 Reemolap hurt someone's feelings by making fun of them  
 Reemolap only hired people of his own race  
 Reemolap cheated at a game of cards  
 Reemolap cut in front of someone in line waiting to buy tickets  
 Reemolap talked during a movie even though he knew it disturbed others  
 Reemolap took more than his fair share of the profits  
 Reemolap punched someone who bumped into him at a bar  
 Reemolap marched in a White Power KKK rally  
 General Behaviors (Experiment 2), each presented three times

#### Loyalty/Authority/Purity Violations

Reemolap betrayed his group  
 Reemolap showed a lack of loyalty  
 Reemolap showed a lack of respect for authority  
 Reemolap failed to conform to the traditions of society  
 Reemolap violated standards of purity and decency  
 Reemolap did something disgusting

#### Care/Fairness Violations

Reemolap made someone suffer emotionally  
 Reemolap failed to care for someone who was weak and vulnerable  
 Reemolap was cruel  
 Reemolap treated some people differently than others  
 Reemolap acted unfairly  
 Reemolap denied someone his or her rights

### Appendix B. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jrp.2019.04.002>.

### References

- Brambilla, M., & Leach, C. W. (2014). On the importance of being moral: The distinctive role of morality in social judgment. *Social Cognition, 32*, 397–408.
- Brambilla, M., Rusconi, P., Sacchi, S., & Cherubini, P. (2011). Looking for honesty: The primary role of morality (vs. sociability and competence) in information gathering. *European Journal of Social Psychology, 41*, 135–143.
- Brambilla, M., Sacchi, S., Rusconi, P., Cherubini, P., & Yzerbyt, V. Y. (2012). You want to give a good impression? Be honest! Moral traits dominate group impression formation. *British Journal of Social Psychology, 51*, 149–166.
- Bruchmann, K., Koopmann-Holm, B., & Scherer, A. (2018). Seeing beyond political affiliations: The mediating role of perceived moral foundations on the partisan similarity-liking effect. *PLoS One, 13*(8), e0202101.
- Carney, D. R., Jost, J. T., Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology, 29*, 807–840.
- Carraro, L., Castelli, L., & Macchiella, C. (2011). The automatic conservative: Ideology-based attentional asymmetries in the processing of valenced information. *PLoS One, 6*(11), e26456.
- Crites, S. L., Fabrigar, L. R., & Petty, R. E. (1994). Measuring the affective and cognitive properties of attitudes: Conceptual and methodological issues. *Personality and Social Psychology Bulletin, 20*, 619–634.
- De Bruin, E. N., & Van Lange, P. A. (2000). What people look for in others: Influences of the perceiver and the perceived on information selection. *Personality and Social Psychology Bulletin, 26*, 206–219.
- Fabrigar, L. R., & Petty, R. E. (1999). The role of the affective and cognitive bases of attitudes in susceptibility to affectively and cognitively based persuasion. *Personality and Social Psychology Bulletin, 25*, 363–381.
- Fazio, R. H., Pietri, E. S., Rocklage, M. D., & Shook, N. J. (2015). Positive versus negative valence: Asymmetries in attitude formation and generalization as fundamental individual differences. *Advances in Experimental Social Psychology, 51*, 97–146.

- Frimer, J. A., Gaucher, D., & Schaefer, N. K. (2014). Political conservatives' affinity for obedience to authority is loyal, not blind. *Personality and Social Psychology Bulletin*, 40, 1205–1214.
- Goodwin, G. P. (2015). Moral character in person perception. *Current Directions in Psychological Science*, 24, 38–44.
- Goodwin, G. P., Piazza, J., & Rozin, P. (2014). Moral character predominates in person perception and evaluation. *Journal of Personality and Social Psychology*, 106, 148–168.
- 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.
- Graham, J., Nosek, B. A., & Haidt, J. (2012). The moral stereotypes of liberals and conservatives: Exaggeration of differences across the political spectrum. *PLoS One*, 7(12).
- Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, 101, 366–385.
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S. P., & Ditto, P. H. (2013). Moral foundations theory: The pragmatic validity of moral pluralism. In *Advances in experimental social psychology*. Academic Press (Vol. 47, pp. 55–130).
- Haidt, J., & Joseph, C. (2004). Intuitive ethics: How innately prepared intuitions generate culturally variable virtues. *Daedalus*, 133, 55–66.
- Hartley, A. G., Furr, R. M., Helzer, E. G., Jayawickreme, E., Velasquez, K. R., & Fleeson, W. (2016). Morality's centrality to liking, respecting, and understanding others. *Social Psychological and Personality Science*, 7, 648–657.
- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014). Differences in negativity bias underlie variations in political ideology. *Behavioral and Brain Sciences*, 37, 297–307.
- Inbar, Y., Pizarro, D. A., & Bloom, P. (2009). Conservatives are more easily disgusted than liberals. *Cognition and Emotion*, 23, 714–725.
- Inbar, Y., Pizarro, D., Iyer, R., & Haidt, J. (2012). Disgust sensitivity, political conservatism, and voting. *Social Psychological and Personality Science*, 3, 537–544.
- Leach, C. W., Ellemers, N., & Barreto, M. (2007). Group virtue: The importance of morality (vs. competence and sociability) in the positive evaluation of in-groups. *Journal of Personality and Social Psychology*, 93, 234–249.
- Mende-Siedlecki, P., Baron, S. G., & Todorov, A. (2013). Diagnostic value underlies asymmetric updating of impressions in the morality and ability domains. *The Journal of Neuroscience*, 33, 19406–19415.
- Nosek, B. A., Smyth, F. L., Hansen, J. J., Devos, T., Lindner, M. M., Ranganath, K. A., ... Banaji, M. R. (2007). Pervasiveness and correlates of implicit attitudes and stereotypes. *European Review of Social Psychology*, 18, 36–88.
- Oxley, D. R., Smith, K. B., Alford, J. R., Hibbing, M. V., Miller, J. L., Scalora, M., ... Hibbing, J. R. (2008). Political attitudes vary with physiological traits. *Science*, 321, 1667–1670.
- Pagliaro, S., Brambilla, M., Sacchi, S., D'Angelo, M., & Ellemers, N. (2013). Initial impressions determine behaviours: Morality predicts the willingness to help newcomers. *Journal of Business Ethics*, 117, 37–44.
- Ratliff, K. A., & Nosek, B. A. (2010). Creating distinct implicit and explicit attitudes with an illusory correlation paradigm. *Journal of Experimental Social Psychology*, 46, 721–782.
- Rovell, D. (2016, Sept 22). Poll: Niners QB Colin Kaepernick most disliked player in league. <[http://www.espn.com/nfl/story/\\_/id/17604958/san-francisco-49ers-qb-colin-kaepernick-most-disliked-player-nfl-according-poll-e-poll-marketing-research](http://www.espn.com/nfl/story/_/id/17604958/san-francisco-49ers-qb-colin-kaepernick-most-disliked-player-nfl-according-poll-e-poll-marketing-research)>.
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5, 296–320.
- Schneid, E. D., & Carlston, D. E. (2015). When Literatures Collide: Synergies Between Stereotyping and Impression Formation. In *Social Perception from Individuals to Groups* (pp. 101–132). Psychology Press.
- Shook, N. J., & Clay, R. (2011). Valence asymmetry in attitude formation: A correlate of political ideology. *Social Psychological and Personality Science*, 2, 650–655.
- Shook, N. J., & Fazio, R. H. (2009). Political ideology, exploration of novel stimuli, and attitude formation. *Journal of Experimental Social Psychology*, 45, 995–998.
- Strohinger, N., & Nichols, S. (2014). The essential moral self. *Cognition*, 131, 159–171.
- Skitka, L. J., Bauman, C. W., & Sargis, E. G. (2005). Moral conviction: Another contributor to attitude strength or something more? *Journal of Personality and Social Psychology*, 88, 895–917.
- Skowronski, J. J., & Carlston, D. E. (1987). Social judgment and social memory: The role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology*, 52, 689–699.
- Talhelm, T., Haidt, J., Oishi, S., Zhang, X., Miao, F. F., & Chen, S. (2015). Liberals think more analytically (more “WEIRD”) than conservatives. *Personality and Social Psychology Bulletin*, 41, 250–267.
- Wojciszke, B., Bazinska, R., & Jaworski, M. (1998). On the dominance of moral categories in impression formation. *Personality and Social Psychology Bulletin*, 24, 1251–1263.
- Wyche, S. (2016, Aug 27). Colin Kaepernick explains why he sat during national anthem. Retrieved from <<http://www.nfl.com/news/story/0ap3000000691077/article/colin-kaepernick-explains-why-he-sat-during-national-anthem>>.