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Deconstructing the association between psychopathy and political orientation: Is it attributable to moral intuitions or moral competency?



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ARTICLE INFO	A B S T R A C T
<i>Keywords</i> : Psychopathy Political affiliation Moral intuitions Moral judgment	Past research has found evidence for an association between psychopathy and political orientation. We suggest this relationship could be explained by individual differences in psychopathic traits and location along the conservative-liberal continuum corresponds to similar variability in moral competence or reliance on certain moral intuitions. To explore these possibilities, two direct replication studies were conducted in which measures of psychopathy, political orientation, moral competency, and moral intuitions were administered to two samples of Amazon Mechanical Turk participants ($N = 240$ in Study 1, $N = 224$ in Study 2). After aggregating the data, multiple regression analyses revealed Cold-heartedness, but not Fearless Dominance or Self-Centered
	differences in prioritizing individuating moral intuitions, as opposed to binding moral intuitions. Neither psy-

1. Introduction

American politics have become increasingly polarized (Brewer, 2005; Duca & Saving, 2016; McCarty, Poole, & Rosenthal, 2006; Poole & Rosenthal, 2007) and researchers have attributed this division to increasingly partisan media sources (Duca & Saving, 2016; Prior, 2013). While increased partisanship may strengthen party affiliation and attachment (Lupu, 2013) and clarify voter preferences (Lupu, 2015), it is also associated with adverse consequences, such as legislative gridlock, economic decline, and mass political disengagement (Brown, Touchton, & Whitney, 2011; Frye, 2002).

The increasing divide between conservatives and liberals was especially evident during the 2016 Presidential Election Campaign, in which both primary presidential candidates were characterized by their counterparts as immoral, callous, narcissistic, and psychopathic. The serious and persisting nature of these allegations is important to consider. Although partisans are quick to characterize their opposing party as having psychopathic traits, little research has examined whether there is an association between psychopathy and political orientation; more specifically, we found only one study examining this association. Specifically, using the Psychopathic Personality Inventory-Revised (PPI-R) and a continuous bipolar scale (1 = very liberal, 5 = very conservative), Lilienfeld, Latzman, Watts, Smith, and Dutton (2014) measured psychopathy and political orientation in a sample of 3388 community participants. Their results revealed small positive correlations between three psychopathic traits (Fearless Dominance, Self-Centered Egoism, and Cold-heartedness) and political conservatism (rs = 0.16, 0.19, and 0.20, respectively).

1.1. Political orientation and moral decision-making

chopathic traits nor political orientation were appreciably associated with moral competency.

Although little research has examined the relation between political orientation and psychopathy, studies have evaluated the relationship between political orientation (i.e., liberal versus conservative) and moral judgment (Alker & Poppen, 1973; Emler, Renwick, & Malone, 1983; Fishkin, Keniston, & MacKinnon, 1973; Gross, 1996; Raaijmakers, Verbogt, & Volleberg, 1998; Rest, 1976). Many of these studies measured moral judgment by presenting participants with Kohlberg (1963/2008) moral dilemmas. These studies revealed a consistent difference in the moral reasoning of self-identified liberals and conservatives. Specifically, liberals tend to engage in post-conventional moral reasoning to a greater degree and conventional moral reasoning to a lesser degree than conservatives. However, it is important to consider many of these studies are older and the way they categorized or defined liberals versus conservatives was unclear or inconsistent.

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1.2. Psychopathy and moral decision-making

In a recent meta-analysis, Marshall, Watts, and Lilienfeld (2018) evaluated the relation between psychopathy and abnormal moral judgment by examining 23 studies (N = 4376) examining various measures of psychopathy (e.g., PPI-R, SRP), and moral judgment tasks (e.g., Sacrificial Moral Dilemmas, Kohlbergian moral reasoning tasks). Overall, they found psychopathy was positively associated with utilitarian moral reasoning and negatively associated with post-conventional reasoning on Kohlbergian moral reasoning tasks, although effects were small and not always significant depending on the type of moral reasoning measures used. The authors concluded that, in relation to psychopathy, "pronounced and overarching" moral judgment deficits were not found, suggesting reports of marked deficits may be inflated, perhaps owing to publication biases (Marshall et al., 2018, p. 8). Additionally, the measures used in these studies may reflect moral reasoning preference (e.g., preference for conventional over post-conventional forms of reasoning) as opposed to general moral reasoning ability/competence. Moreover, the associations involved psychopathy scores based on aggregation across multiple psychopathic trait indexes. Thus, it is unclear whether negative associations between psychopathy and moral reasoning in previous research indicate psychopathy is associated with (a) lower moral reasoning competency versus preference for certain forms of moral reasoning, and (b) the extent to which these associations are specific to certain psychopathic traits or to a broad range of psychopathic traits.

1.3. Political orientation, psychopathy, and moral intuition

Taken together, the research on political orientation and moral decision-making and research on psychopathy and moral decisionmaking suggests those higher in psychopathy and conservatism may reason about moral situations differently than those lower in psychopathy and conservatism. However, recent theoretical and empirical work on moral intuitions provides a second explanation for the association. According to Haidt and colleagues (Haidt, 2012; Haidt & Graham, 2007), humans, independent of culture, are predisposed to organize their sense of morality using five themes: Harm (i.e., preventing harm to others), Fairness (i.e., preserving fairness, equal rights, and justice), In-Group Loyalty (i.e., practicing loyalty toward one's ingroup), Authority (i.e., respecting authority within hierarchical relationships), and Purity (i.e., minimizing/avoiding repugnant states, behavior, and objects). These themes are thought to be experienced intuitively/affectively and are not simply the result of cognitive deliberation. As such, it is hypothesized that people first experience an intuition that certain behaviors are "wrong" or "immoral" and subsequently rely on cognitive deliberation to justify their moral positions (Haidt & Joseph, 2004).

Research suggests liberals and conservatives prioritize different sets of moral intuitions (Graham, Haidt, & Nosek, 2009; Haidt, 2012; Rempala, Okdie, & Garvey, 2016). Specifically, liberals tend to rely on the "individuating" moral intuitions of Harm and Fairness when determining immoral behavior. In contrast, conservatives tend to consider all moral intuitions equally when evaluating the morality of behaviors (Haidt, 2012). As such, liberals tend to value "individuating" moral intuitions (e.g., Harm and Fairness) more than conservatives, whereas conservatives value "binding" (In-Group Loyalty, Authority, Sanctity) and individuating moral intuitions equally (Graham et al., 2009).

Moral intuitions have also been associated with psychopathy. For instance, in their meta-analysis, Marshall et al. (2018) examined the association between measures of psychopathy (computed after aggregating across subscales) and measures of five moral foundations. Findings revealed negative associations between psychopathy and all five moral foundations. The magnitude of association was highest for Harm and Fairness (r = -0.26 and r = -0.17, respectively) and lowest for Purity, Authority, and In-Group Loyalty (r = -0.15, r = -0.14, and

r = -0.07, respectively). Overall, those lower in conservatism and in psychopathy tend to rely more on individuating moral intuitions of Harm and Fairness. Although those higher in conservatism also tend to rely on binding moral intuitions of Ingroup Loyalty, Authority, and Purity, evidence is less clear with regard to psychopathy. Thus, it is unclear whether the association between political orientation and psychopathy could be explained by differences in reliance on individuating versus binding moral intuitions.

2. Present research

The purpose of these two studies was to examine the relations among psychopathy, political orientation, moral intuition, and moral competency. We are aware of no research simultaneously examining the complex interrelations among these constructs. In our review, we found one study (Lilienfeld et al., 2014) examining the relation between psychopathy and political orientation and the majority of research assessing the relation between political orientation and moral decisionmaking is dated (Alker & Poppen, 1973; Emler et al., 1983; Fishkin et al., 1973; Gross, 1996; Raaijmakers et al., 1998; Rest, 1976). Additionally, most early studies assessed political orientation by using voter preferences, which is problematic, as some voters may not understand why they vote in the manner they do; as such, subjective voter preferences may be an insensitive measure of liberal/conservative political orientation (Rempala et al., 2016).

Previous research examining either political orientation or psychopathy and moral reasoning also is limited, such that it has relied on moral reasoning measures that may indicate preference for certain forms of reasoning as opposed to competence or ability to engage in moral reasoning. One last limitation with existing literature is a general reliance on aggregate measures of psychopathy that permit no consideration of trait-specific links between psychopathy and political orientation, moral reasoning, and moral intuition. The present research addressed these limitations by measuring perceived political orientation and moral intuitions directly, using a well-established measure of psychopathic traits, and including a measure of moral reasoning designed to evaluate moral reasoning competency. Finally, both studies were direct replications, permitting identification of the degree of consistency in associations among the various constructs. It is worth noting the data for Study 1 was collected prior to the 2016 Presidential Election while the data for Study 2 was collected following the 2016 Presidential Election. Given the contentious nature of the 2016 election, as well as the possibility that some voters may not have been honest regarding their political attitudes, the second study served as a followup study to assess the stability of the assessed constructs.

3. Method

3.1. Participants (Study 1)

Participants in Study 1 were recruited from Amazon Mechanical Turk (Mturk) between March 8, 2016 and March 14, 2016. The sample consisted of 265 individuals from the United States who were compensated 55 cents for completing the study. Twenty-three participants were excluded from analyses due to substantial missing data on one or more variables. Two participants were excluded for indicating a gender other than male or female, and, therefore, could not be categorized using a binary male-female control variable. The majority of the remaining 240 participants identified as female (n = 147; 61.3%) and Caucasian (n = 192; 80.0%). The mean age was approximately 40 years old (M = 40.36; SD = 14.74). See Table 1 for more detailed demographic information.

3.2. Participants (Study 2)

Participants in Study 2 were recruited from Mturk between August

Table 1

Sample demographics.

	Study 1		Study 2		
	Frequency	Percent	Frequency	Percent	
Gender					
Male	93	38.8	83	37.1	
Female	147	61.3	141	62.9	
Race					
Caucasian	192	80	153	68.3	
African American	18	7.5	24	10.7	
Asian	12	5	20	8.9	
Hispanic	6	2.5	10	4.5	
America Indian/Alaskan Native	4	1.7	2	0.9	
Native Hawaiian/Pacific Islander	2	0.8	0	0.0	
Multiracial	5	2.1	14	6.3	
Did not Respond	1	0.4	1	0.4	

23, 2017 and August 25, 2017. The sample consisted of 252 individuals from the United States who were compensated 55 cents for taking part in the study. Twenty-seven participants were excluded from data analyses due to missing a large number of responses to one or more variables and one participant was excluded for identifying as a gender other than male or female. The majority of the remaining 224 participants identified as female (n = 141; 62.9%) and Caucasian (n = 153; 68.3%). The mean age was approximately 37 years old (M = 37.21; SD = 12.22). See Table 1 for more detailed demographic information.

3.3. Procedure

In both studies, participants completed a series of internet-based measures via Qualtrics software. A web link to the survey was available to the Mturk research participation pool. The order of questionnaire administration was randomized. Participants received an introduction explaining that the purpose of the study was to assess the relationship between personality and decision-making.

3.4. Measures

3.4.1. Psychopathic Personality Inventory-Revised-Short Form (PPI-R-SF)

Psychopathic traits were measured using the PPI-R-SF (Lilienfeld & Hess, 2001), a 56-item, self-report measure of psychopathic traits with items answered on a four-point scale (1 = false, 4 = true). In nonclinical samples, the PPI-R-SF exhibits the same higher-order three factor structure (i.e., Fearless Dominance, Self-Centered Impulsivity, and Coldheartedness) and uses the same eight content scales from the full PPI-R. Although the Cold-heartedness subscale does not load onto other scales (i.e., Fearless Dominance and Self-Centered Impulsivity), it was included based on its resemblance to the affective facet of psychopathy (Berg, Hecht, Latzman, & Lilienfeld, 2015; Neumann, Malterer, & Newman, 2008). The Fearless Dominance factor is composed of the Social Influence, Fearlessness, and Stress Immunity subscales, whereas the Self-Centered Impulsivity factor is composed of the Machiavellian Egocentricity, Rebellious Nonconformity, Blame Externalization, and Carefree Nonplanfulness subscales (Lilienfeld & Widows, 2005). The Fearless Dominance factor reflects low levels of tension and anxiety and high levels of physical risk-taking and interpersonal dominance; the Self-Centered Impulsivity factor reflects high levels of impulsivity, blame externalization, and self-centeredness; and the Cold-heartedness subscale reflects high levels of callousness and an absence of guilt (Lilienfeld & Widows, 2005). The PPI-R-SF has been well validated in community and undergraduate samples (Lilienfeld et al., 2014; Lilienfeld & Hess, 2001). The means, standard deviations, and internal consistencies of the PPI-R-SF total and scale scores are included in Table 2.

Table 2

Descriptive	statistics	and	internal	consistency	for	variables	in	Study	1
(N = 240) a	nd Study 2	2 (N =	= 224).						

Measure	M (SD)		Cronbach's	α
	Study 1	Study 2	Study 1	Study 2
FD	46.73 (9.78)	47.08 (10.38)	0.83	0.86
SCI	51.00 (11.86)	53.73 (11.96)	0.87	0.88
COLD	13.97 (4.09)	14.24 (3.78)	0.79	0.78
Liberal	4.20 (1.84)	4.26 (1.66)		
Moral	14.16 (16.05)	16.12 (19.66)	0.84	0.82
HARM	4.59 (0.87)	4.48 (0.87)	0.75	0.71
FAIR	4.55 (0.85)	4.47(0.79)	0.70	0.72
INGR	3.41 (1.01)	3.35 (0.90)	0.77	0.70
AUTH	3.81 (1.00)	3.80 (0.86)	0.76	0.71
PUR	3.50 (1.36)	3.48 (1.18)	0.88	0.83

Note: FD = Fearless Dominance. SCI = Self-Centered Impulsivity. COLD = Cold-heartedness. Liberal = Perceived degree of liberalism versus conservatism; higher scores indicate higher liberalism and lower scores indicate higher conservatism. Moral = Moral competency C-Index score. FAIR = Fairness. INGR = In-Group Loyalty. AUTH = Authority. PUR = Purity.

3.4.2. Moral Foundations Questionnaire (MFQ)

Political orientation was measured using the MFQ (Graham et al., 2011), a 30-item, self-report measure of moral intuitions with items answered on a five-point scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*). Participants evaluated how each item is "relevant to their thinking" when making moral decisions and indicated their agreement or disagreement with questions such as "one of the worst things a person could do is hurt a defenseless animal." The MFQ is composed of five moral foundations (with six items each): Harm (i.e., ability to feel the pain of others), Fairness (i.e., reciprocal altruism or concerns about justice, rights, and autonomy), In-Group Loyalty (i.e., patriotism and self-sacrifice for group), Authority (i.e., leadership and followership), and Purity (i.e., striving to live a noble life). The means, standard deviations, and internal consistencies of the MFQ scales are included in Table 2.

3.4.3. Moral Competence Test (MCT)

Moral decision-making was measured using the MCT (Lind, 1978, 2014), a 28-item, self-report measure with items answered on a 9-point scale (-4 = I completely reject, +4 = I completely accept). Participants read a vignette of two moral scenarios and rated the acceptability of each proceeding moral argument (e.g., do you accept or reject the following arguments in favor of the two workers' behavior? Suppose someone argued they were right because they did not cause much damage to the company). We used the C-index of the MCT, which reflects the ability to judge arguments according to their moral quality based on ratings of questions about different moral scenarios. The C-index is calculated based the total pattern of responses, yielding an overall score of "moral competence¹" (Lind, 2014). The C-score is classified according to its value: low, 1-9; medium, 10-29; high, 30-49; and very high, > 50 points. The MCT has been well-validated in different cultures and languages (Lind, 2005). For example, the C-Index is positively associated with democratic attitudes and negatively associated with dogmatic attitudes, external locus of control, and intolerance for ambiguity (Lind, Hartmann, & Wakenhut, 1985) and positively associated with other measures of moral judgment (Ishida, 2006). Although the overall moral competence (based on C-Index scores) of the current participants was diverse, the majority of the scores fell in the low (49%) and medium (36%) ranges. Six percent of scores fell in the high range and 4% fell in the very high range. The mean, standard deviations and internal consistency of the C-Index is included in Table 2.

¹ The extent to which a person's overall response variance is associated with the stage of reasoning to which arguments are keyed.

'able 3	
Evariate correlations between measures (with MFQ value scores) in Study 1 ($N = 240$) and Study 2 ($N = 224$).	

Measure	Gender	FD	SCI	COLD	Liberal	Moral	HARM	FAIR	INGR	AUTH	PUR
Gender	-	0.22*	0.03	0.14*	-0.09	-0.08	-0.21*	-0.09	0.10	0.03	-0.05
FD	0.21*	-	0.09	0.21*	-0.06	-0.07	-0.11	-0.13*	0.05	-0.05	-0.04
SCI	0.10	0.19*	-	0.12	0.04	0.02	-0.22*	-0.17*	0.07	-0.12	-0.04
COLD	0.31*	0.20*	0.23*	-	-0.21*	0.09	-0.47*	-0.40*	0.06	0.07	-0.01
Liberal	-0.02	-0.03	-0.08	-0.10	-	0.06	0.21*	0.30*	-0.37*	-0.36*	-0.39*
Moral	0.04	0.06	-0.10	-0.02	0.04	-	-0.03	0.05	-0.16*	0.00	-0.03
HARM	-0.22*	-0.18*	-0.27*	-0.59*	0.25*	0.06	-	0.61*	0.10	0.14*	0.13
FAIR	-0.07	-0.20*	-0.17*	-0.50*	0.32*	0.11	0.70*	-	-0.08	0.03	0.01
INGR	-0.06	0.07	0.08	-0.21*	-0.34*	-0.17*	0.22*	0.14*	-	0.64*	0.57*
AUTH	-0.08	0.01	-0.09	-0.22*	-0.38*	-0.11	0.24*	0.12	0.72*	-	0.68*
PUR	-0.09	0.01	-0.09	-0.20*	-0.46*	-0.17*	0.13*	0.07	0.58*	0.74*	-

Notes. *p < .05. Study 1 results below the diagonal, Study 2 results above the diagonal. Gender (0 = female, 1 = male). FD = Fearless Dominance. SCI = Self-Centered Impulsivity. COLD = Cold-heartedness. Liberal = Perceived degree of liberalism versus conservatism; higher scores indicate higher liberalism and lower scores indicate higher conservatism. Moral = Moral competency C-Index score. FAIR = Fairness. INGR = In-Group Loyalty. AUTH = Authority. PUR = Purity.

3.4.4. Demographics

Participants completed a demographic questionnaire and were asked to indicate their political orientation on a 7-point scale (1 = Very conservative, 7 = Very liberal).²

4. Results

4.1. Descriptive statistics

None of the distributions for the analyzed variables were markedly skewed in either study. Descriptive statistics for measures in each study are reported in Table 2.

4.2. Correlations

Zero-order correlations between all pairs of variables in both studies are reported in Table 3. The association between liberalism and the psychopathic traits of Fearless Dominance and Self-Centered Impulsivity were consistently small in both studies, -0.08 < rs <-0.03. The association between Cold-heartedness and liberalism was r = -0.10 in Study 1 and r = -0.21 in Study 2. All three psychopathic traits showed weak associations with moral competency scores in both studies, -0.10 < rs < 0.09. Moreover, liberalism showed little association with moral competency in either study, r = 0.04 for Study 1 and r = 0.06 for Study 2.

Regarding associations between psychopathic traits and moral foundation measures, both Fearless Dominance and Self-Centered Impulsivity generally exhibited appreciable negative associations with Harm and Fairness, -0.27 < rs < -0.11, but not with Authority, Ingroup, or Purity, -0.12 < rs < 0.08 in both studies. Cold-heart-edness was appreciably negatively associated with all moral foundation measures in Study 1, -0.59 < rs < -0.20. In Study 2, Cold-heart-edness was negatively associated with Harm (r = -0.47) and Fairness (r = -0.40), but not appreciably associated with the other moral foundation measures, -0.01 < rs < 0.07.

4.3. Multiple regressions

In each study, multiple regressions were conducted examining the degree of trait-specific associations of psychopathy with (a) liberalism, (b) moral competency, and (c) each moral foundation measure. In each regression, gender and the three psychopathic traits were used to simultaneously predict each outcome measure (liberalism score, C-index

score, or moral foundation score). For these analyses, assuming $\alpha = 0.05$, statistical power for standardized beta parameters of $\beta = 0.10$, $\beta = 0.15$, and $\beta = 0.20$ are approximately 0.33, 0.63, and 0.87 for Study 1, and 0.31, 0.60, and 0.84, for Study 2.

Given that both studies were direct replications, we also conducted the multiple regression analyses again after aggregating data across both studies. For these analyses, assuming $\alpha = 0.05$, statistical power for standardized beta parameters of $\beta = 0.10$, $\beta = 0.15$, and $\beta = 0.20$ are approximately 0.57, 0.89, and 0.99, respectively. Although the results of all analyses are reported in the tables, a detailed description is provided only of the aggregated study results given their higher statistical power.

4.3.1. Prediction of liberalism

Table 4 lists standardized beta weights representing the independent prediction of liberalism by gender and each psychopathic trait in Study 1, Study 2, and the aggregated data. As shown in the table, the prediction of the variables as a set was $R^2 = 0.01$ and $R^2 = 0.05$ in Study 1 and Study 2, respectively. Independent prediction by each psychopathic trait ranged from -0.21 to 0.07 across both studies. Examination of the aggregate findings revealed small but meaningful prediction of liberalism by the set of predictors, $R^2 = 0.02$, F(4, 457) = 2.48, p = .05, but only Cold-heartedness was a substantive independent predictor, $\beta = -0.14$, p = .006. Fearless Dominance and Self-Centered Impulsivity showed virtually no association with liberalism as independent predictors, $\beta = -0.01$ and $\beta = 0.01$, p = .85. Findings are consistent with previous work suggesting small negative associations between psychopathy and liberalism (Lilienfeld et al., 2014). However, these findings suggest it is specific to the association between liberalism and the psychopathic trait of Cold-heartedness.

4.3.2. Prediction of moral competency

Table 4 also lists standardized beta weights representing the independent prediction of moral competency by gender and each psychopathic trait in Study 1, Study 2, and the aggregated data. As shown in the table, the prediction of the variables as a set was $R^2 = 0.02$ in both studies. Independent prediction by each psychopathic trait ranged from -0.11 to 0.12 across both studies. Examination of the aggregate findings revealed virtually no meaningful prediction of moral competency by the set of predictors, $R^2 = 0.00$, F(4, 459) = 0.44, p = .78. Similarly, none of the psychopathic traits was a substantive independent predictor of moral competency, $-0.03 < \beta s < 0.05$, ps > 0.27. These findings suggest even though previous research has found evidence that psychopathy is associated with moral decisionmaking, this association is not due to differences in ability or competency in making moral judgments.

 $^{^{2}}$ Each of the authors rated their own political affiliation and their scores are anonymously presented as follows: 6, 2, 3, and 6 (average political affiliation score = 4.25).

Table 4

Standardized betas for the simultaneous prediction of liberalism and moral competency by psychopathic traits controlling for gender in Study 1 (N = 240), Study 2 (N = 224), and aggregated data (N = 464).

Predictor	Liberalism	Moral Competency
Study 1 (R ²)	0.01	0.02
Gender	0.01	0.05
FD	0.00	0.08
SCI	-0.06	-0.11
COLD	-0.09	-0.03
Study 2 (R ²)	0.05*	0.02
Gender	-0.06	-0.08
FD	-0.01	-0.08
SCI	0.07	0.02
COLD	-0.21^{*}	0.12
Aggregate (R ²)	0.02*	0.00
Gender	-0.02	-0.03
FD	-0.01	-0.01
SCI	0.01	-0.03
COLD	-0.14*	0.05

Notes. Gender (0 = female, 1 = male). FD = Fearless Dominance. SCI = Self-Centered Impulsivity. COLD = Cold-heartedness. Liberal = Perceived degree of liberalism versus conservatism; higher scores indicate higher liberalism and lower scores indicate higher conservatism. Moral = Moral competency C-Index score. FAIR = Fairness. INGR = In-Group Loyalty. AUTH = Authority. PUR = Purity.

* *p* < .05.

Table 5

Standardized betas for the simultaneous prediction of each moral foundation value by psychopathic traits controlling for gender in Study 1 (N = 240, Study 2 (N = 224), and aggregated data (N = 464).

Predictor	HARM	FAIR	INGR	AUTH	PUR
Study 1 (R ²) Gender	0.37* -0.03	0.27* 0.11	0.07* - 0.02	0.06* -0.03	0.05* - 0.03
FD	-0.04	-0.11	0.10	0.07	0.07
SCI	-0.14*	-0.05	0.12	-0.05	-0.05
COLD	-0.54*	-0.50*	-0.25*	-0.22*	-0.20*
Study 2 (R ²⁾	0.26*	0.18*	0.02	0.03	0.00
Gender	-0.15*	-0.03	0.09	0.04	-0.04
FD	0.02	-0.04	0.02	-0.07	-0.02
SCI	-0.16*	-0.12	0.06	-0.13	-0.04
COLD	-0.43*	-0.37*	0.03	0.09	0.01
Aggregate (R ²)	0.32*	0.22*	0.02*	0.02	0.02
Gender	-0.09*	0.04	0.02	-0.01	-0.05
FD	-0.01	-0.08	0.07	0.01	0.03
SCI	-0.16*	-0.09*	0.08	-0.09	-0.05
COLD	-0.48*	-0.43*	-0.13*	-0.08	-0.11*

Notes. *p < .05. Gender (0 = female, 1 = male). FD = Fearless Dominance. SCI = Self-Centered Impulsivity. COLD = Cold-heartedness. Liberal = Perceived degree of liberalism versus conservatism; higher scores indicate higher liberalism and lower scores indicate higher conservatism. Moral = Moral competency C-Index score. FAIR = Fairness. INGR = In-Group Loyalty. AUTH = Authority. PUR = Purity.

4.3.3. Prediction of moral foundation values

Table 5 lists standardized beta weights representing the independent prediction of each of the moral foundation value measures by gender and each psychopathic trait in Study 1, Study 2, and the aggregated data. As shown in the table, the prediction of Harm by the variables as a set was $R^2 = 0.37$ and $R^2 = 0.26$ in Study 1 and Study 2, respectively. Independent prediction by each psychopathic trait ranged from -0.54 to 0.02 across both studies. Examination of the aggregate findings revealed substantive prediction of Harm by the set of predictors, $R^2 = 0.32$, F(4, 459) = 53.37, p < .001. Both Cold-heartedness and Self-Centered Impulsivity were substantive independent predictors, $\beta = -0.48$, p < .001, and $\beta = -0.16$, p < .001, respectively. Fearless Dominance showed little association with Harm as an independent predictor, $\beta = -0.01$, p = .87.

The prediction of Fairness by the variables as a set was $R^2 = 0.27$ and $R^2 = 0.18$ in Study 1 and Study 2, respectively. Independent prediction by each psychopathic trait ranged from -0.50 to -0.04 across both studies. Examination of aggregate findings revealed substantive prediction of Fairness by the set of predictors $R^2 = 0.22$, *F*(4, 459) = 32.62, *p* < .001. Both Cold-heartedness and Self-Centered Impulsivity were meaningful independent predictors, $\beta = -0.43$, *p* < .001, and $\beta = -0.09$, *p* < .04, respectively. Fearless Dominance showed some association with Fairness, although it was not statistically significant, $\beta = -0.08$, *p* = .08.

For each of the remaining moral foundation values, prediction by the variables as a set ranged from $R^2 = 0.05$ to $R^2 = 0.07$ in Study 1 and from $R^2 = 0.00$ to $R^2 = 0.03$ in Study 2. Independent prediction by each psychopathic trait ranged from -0.25 to 0.12 across both studies. Examination of the aggregate findings revealed prediction of In-Group Loyalty by the set of predictors $R^2 = 0.02$, F(4, 459) = 2.66, p = .04. Prediction by the set of predictors was similar but not statistically significant for Authority and Purity, $R^2 = 0.02$, F(4, 459) = 2.05, p = .09and $R^2 = 0.02$, F(4, 459) = 2.21, p = .07, respectively. Cold-heartedness was a meaningful independent predictor of In-Group Loyalty and Purity, $\beta = -0.13$, p < .009, and $\beta = -0.11$, p = .03, respectively. Although negatively associated with Authority, Cold-heartedness was not a statistically significant independent predictor, $\beta = -0.08$, p = .09. Self-Centered Impulsivity showed little association with Purity, $\beta = -0.05$, p = .31, but was associated with In-Group Loyalty and Authority, although not significantly, $\beta = 0.08$, p = .08 and $\beta = -0.09$, p = .06, respectively. Finally, Fearless Dominance showed little association with In-Group Loyalty, Authority, or Purity, $0.01 < \beta s < 0.07, ps > 0.15.$

Overall, findings suggest psychopathy predicts endorsement of moral foundation values, but this prediction is due primarily to Coldheartedness. Specifically, Cold-heartedness was a substantive negative predictor of Harm and Fairness. It also was a meaningful independent negative predictor of In-Group Loyalty and Purity, but the magnitude of association was smaller. Self-Centered Impulsivity also was a negative predictor of Harm and Fairness, but the magnitude of each effect was small. Fearless Dominance failed to meaningfully predict any of the moral foundation values.

4.3.4. Prediction of liberalism controlling for binding and individuating moral values

Cold-heartedness was the single psychopathic trait consistently negatively associated with liberalism and with individuating moral values (Harm and Fairness) in both studies. Thus, we examined the extent to which the association between Cold-heartedness and liberalism was due to lower endorsement of individuating moral values by conducting three additional multiple regression analyses for each study and the aggregated data. In one analysis, a model consisting of gender, the three psychopathic traits, and the two individuating moral foundation values (i.e., Harm and Fairness) were included as predictors. In the second analysis, the three binding moral foundation values (i.e., In-Group, Authority, Purity) were included along with gender and the psychopathic traits as predictors. In the third analysis, all moral foundation values were included as predictors along with gender and the psychopathic traits. These analyses permitted an examination of how the standardized beta weight representing the prediction of liberalism by Cold-heartedness (shown in Table 4, liberalism column) was influenced by including the different sets of moral foundation values as co-predictors.

The first two of these analyses are summarized in Table 6 and the third analysis is summarized in Table 7. As noted earlier (Table 4), when controlling for gender and the other two psychopathic traits, the aggregated association between Cold-heartedness and liberalism was $\beta = -0.14$, p = .006. When the binding traits were used as simultaneous predictors (Table 6), the association remained negative and

Table 6

Standardized betas for the simultaneous prediction of liberalism by psychopathic traits controlling for gender and either individuating or binding moral foundation values in Study 1 (N = 239), Study 2 (N = 223), and aggregated data (N = 462).

Predictor	Study 1	Study 2	Aggregate
Model 1 (R ²)	0.11*	0.11*	0.10*
Gender	-0.02	-0.06	-0.03
FD	0.04	0.01	0.01
SCI	-0.03	0.11	0.04
COLD	0.12	-0.11	0.01
HARM	0.11	-0.01	0.05
FAIRNESS	0.30*	0.28*	0.29*
Model 2 (R ²⁾	0.26*	0.23*	0.24*
Gender	-0.00	-0.06	-0.03
FD	0.04	-0.01	0.01
SCI	-0.07	0.07	0.00
COLD	-0.20*	-0.20*	-0.20^{*}
INGR	-0.10	-0.18^{*}	-0.14^{*}
AUTH	-0.06	-0.06	-0.06
PUR	-0.40*	-0.24^{*}	-0.32^{*}

Notes. Gender (0 = female, 1 = male). FD = Fearless Dominance. SCI = Self-Centered Impulsivity. COLD = Cold-heartedness. Liberal = Perceived degree of liberalism versus conservatism; higher scores indicate higher liberalism and lower scores indicate higher conservatism. Moral = Moral competency C-Index score. FAIR = Fairness. INGR = In-Group Loyalty. AUTH = Authority. PUR = Purity.

* p < .05.

Table 7

Standardized betas for the simultaneous prediction of liberalism by psychopathic traits controlling for gender and all moral foundation values in Study 1 (N = 239), Study 2 (N = 223), and aggregated data (N = 462).

Predictor	Study 1	Study 2	Aggregate
Model 1 (R ²) Gender FD SCI COLD	0.37* - 0.03 0.08 - 0.03 0.02	0.33* - 0.03 - 0.01 0.11 - 0.07	0.33* -0.03 0.03 0.04 -0.02
HARM	0.18*	0.12	0.15*
FAIRNESS INGR AUTH PUR	0.26* - 0.15 - 0.09 - 0.34*	0.21* - 0.16* - 0.11 - 0.24*	-0.13^{*} -0.10 -0.30^{*}

Notes. Gender (0 = female, 1 = male). FD = Fearless Dominance. SCI = Self-Centered Impulsivity. COLD = Cold-heartedness. Liberal = Perceived degree of liberalism versus conservatism; higher scores indicate higher liberalism and lower scores indicate higher conservatism. Moral = Moral competency C-Index score. FAIR = Fairness. INGR = In-Group Loyalty. AUTH = Authority. PUR = Purity.

* p < .05.

increased in magnitude, $\beta = -0.20$, p < .001. However, when individuating traits were used as simultaneous predictors (Table 6), the association between Cold-heartedness and liberalism was essentially eliminated, $\beta = 0.01$, p = .88. When all moral foundation values were used as simultaneous predictors (Table 7), the association was similarly eliminated, $\beta = -0.02$, p = .63. Thus, findings suggest the negative association between Cold-heartedness and political orientation is primarily due to the association of both constructs to endorsement of moral foundation values, specifically the individuating moral foundation values of Harm and Fairness.

5. Discussion

The current research is among the first to examine the relations among psychopathic traits, political orientation, and moral decisionmaking in the same study. In our review of the literature, only one study (Lilienfeld et al., 2014) has assessed the relation between psychopathy and political orientation, and no previous studies have examined the extent to which the association occurs across specific psychopathic traits and what variables may account for the association. After aggregating results across two direct replication studies, the present findings revealed clear evidence of an association between psychopathy and political orientation. Importantly, the association was specific to psychopathic Cold-heartedness, such that it predicted lower liberalism/higher conservatism.

Examination of the associations of psychopathy and political orientation with moral competency revealed that moral competency could not account for the association between Cold-heartedness and political orientation. Neither political orientation nor Cold-heartedness (nor the other psychopathic traits) were substantively associated with moral competency. However, the individuating moral foundation values of Harm and Fairness appeared to fully account for the Coldheartedness-political orientation association. Controlling for measures of both moral foundation values, either by themselves or in conjunction with measures of binding moral foundation values (i.e., In-Group Loyalty, Authority, and Purity), effectively eliminated the negative association between Cold-heartedness and liberalism. Of note, statistically controlling only for binding moral values had little effect on the negative association between Cold-heartedness and liberalism (indeed, the association grew stronger).

5.1. Implications for understanding the link between psychopathy and political orientation

Two possible conclusions drawn from the present findings include that Cold-heartedness causes conservatism or that conservatism causes Cold-heartedness. However, we believe such conclusions would be erroneous for several reasons. First, the findings are based on a crosssectional design. To more firmly evaluate whether the associations reported here are causal, a longitudinal design in which Cold-heartedness and political orientation are measured over time would be required.

Second, the present evidence is not consistent with a direct causation conclusion. The reason is that Cold-heartedness and conservatism do not share the same profile of moral intuitions. In some regards, they share an inconsistent moral intuition profile. Specifically, those higher in Cold-heartedness have lower endorsement of individuating moral intuitions, much like those higher in conservatism. But, those higher in Cold-heartedness also have lower endorsement of binding moral intuitions, *unlike* those higher in conservatism. Thus, there appears disconnect between Cold-heartedness and political conservatism when one moves beyond consideration of the individuating moral intuitions and considers the wider array of moral intuitions.

A third reason to be wary of deriving a strong causal link between Cold-heartedness and political orientation is that the political orientation measure analyzed was a single item that captures the construct in a general manner. This approach is advantageous because it did not rely exclusively on self-identified political affiliation (Rempala et al., 2016). However, a disadvantage of this approach is that there is lack of clarity of what specific aspects of liberalism/conservativism are responsible for the associations found. Thus, although the present studies address limitations of previous research by using more nuanced measures of psychopathic traits as opposed to a more general measure of psychopathy, the same cannot be said regarding the measurement of political orientation. As Lilienfeld et al. (2014) pointed out, there are different facets of political orientation (e.g., economic, cultural) and thus the question remains which of these facets may be involved in the associations reported here.

5.2. Psychopathy, political orientation, and moral decision-making

To the extent that previous research has indicated an association between moral decision-making and both psychopathy and political orientation (Alker & Poppen, 1973; Blair, 1995; Emler et al., 1983; Fishkin et al., 1973; Glenn, Laufer, & Raine, 2013; Gross, 1996; Raaijmakers et al., 1998; Rest, 1976; Young, Koenigs, Kruepke, & Newman, 2012), the present findings suggest it is not due to differences in moral ability or competence. Neither of the present studies suggested an appreciable association between political orientation and moral competency. Similarly, the association between each psychopathic trait and moral competency was weak in both studies when the traits were used as simultaneous predictors of moral competency and these associations grew weaker when results were aggregated. As such, we believe the present results are inconsistent with the claim that those higher in psychopathy are deficient in their ability to engage in moral decision-making. However, it may be that such individuals, although capable of moral decision-making, do not care about the implications for others of outcomes in moral situations, or just prefer different forms of moral reasoning that those lower in psychopathy. Future research should further clarify why differences in moral decision-making exist between those lower and higher in psychopathy.

6. Limitations and future directions

Although this research is among the first to examine the relations among psychopathy, political orientation, moral intuition, and, and moral decision-making within single studies, several methodological limitations are worth noting. First, it is unclear how this research corresponds to actual voter behavior, perhaps the most important outcome of political orientation within democratic societies. Second, although designed as a measure of moral competency, the measure we used relied on a Kohlbergian conceptualization of morality in its creation. Thus, the findings may be limited in demonstrating no differences in moral competency as it applies to the types of moral dilemmas emphasized by Kohlberg. As such, it is recommended that measures of moral competency grounded in other conceptualizations of moral reasoning be employed or developed for use in conducting future research. Finally, it is recommended that future studies measure various facets of liberalism/conservatism and other trait measures of psychopathy to delineate which aspects of political orientation more strongly relate to psychopathic traits, moral intuitions, and moral decision-making.

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