EMPIRICAL ARTICLE

Political Attitudes and Moral Decisions, Not Personality, Predict 2020 US Presidential Choice

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ABSTRACT

When personality psychologists examine political behaviour, including voting, they usually focus on a narrow range of variables, thereby undermining the breadth of our knowledge. We asked 280 participants who they voted for (or would have) in the 2020 US presidential election and inquired as to their 'dark' personality (i.e., psychopathy, sadism, narcissism, and Machiavellianism) and 'light' (i.e., Kantianism, humanism, and faith in humanity) personality traits, political attitudes (i.e., social dominance orientation, right-wing authoritarianism, and left-wing authoritarianism), and how many times people chose each of the six moral foundations (i.e., care, fairness, loyalty, purity, liberty, and hierarchy). We found that personality traits (as distal systems) were negligibly important in presidential choice, moral choices (as parallel-yet-related choices) had some utility especially in relation to voting for a third-party candidate, and political attitudes (as proximal predictors) had the broadest and strongest associations. In addition, we found that third-party voters showed stronger concerns for purity than Biden supporters, and greater concerns for fairness than Trump supporters. Our results focus on how dispositional measures can add to standard sociodemographic predictors used by pollsters, politicians, and pundits.

1 | Introduction

Psychologists, pundits, political scientists, and pollsters share a common concern. All want to understand what explains political behaviours, including but not limited to who people vote for in national and local elections. Understanding who votes for whom and why has important implications for prejudice, economics, and public protests (Brown-Iannuzzi et al. 2017). Most pollsters and political scientists focus on sociodemographic details[1] like race, region, age, and sex, whereas psychologists examine how contextual factors such as threats (Getmansky and Zeithoff 2014) and personality traits predict aspects of political behaviours and attitudes (Wang 2016). As personality psychologists, we

believe that political behaviours should (at least in part) be the consequence of internal dispositions like personality, morality, and attitudes. However, research in this area is limited in several ways. First, conceptualising people's political nature has relied on simplistic binary political distinctions such as left-wing and right-wing (Moshagen et al. 2024) which are only particularly useful in two-party systems like in the USA. Second, party identification is more about group membership (Bornschier et al. 2021) than actual political behaviours like voting or electoral choice. Third, examinations of personality predictors tend be (1) focused on the Big Five traits (Barbaranelli et al. 2007) or political attitudes like social dominance (Pratto et al. 1994), and (2) rarely examine traits that are more narrowband (i.e., the Five

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Factor Model is a broad descriptive framework) or logically tied to politics (e.g., measures of moral values). Fourth, multivariate analyses are rather exploratory, failing to predict the relative importance of different characteristics in predicting voting behaviours, but it seems to us that conceptually closer features of people's psychology should best predict voting (e.g., political attitudes), whereas personality traits should link only weakly.

We focus on three sets of individual differences to understand voting patterns in the 2020 election in hopes of gaining insight into not only that election, but also into the 2024 November election. First, we move beyond the Big Five traits to a more robust and targeted look at the dark and light side of personality. In terms of the former, we focus on the Dark Tetrad traits of psychopathy (e.g., impulsiveness, callousness), narcissism (e.g., grandiosity, entitlement), sadism (e.g., the enjoyment of the suffering of others), and Machiavellianism (e.g., deception, pragmatism). These traits have unclear relationships with voting behaviour (Bartolo and Powell 2024), but are reliably linked to conservative (e.g., social dominance orientation) political 'syndromes'. Similarly, if right-wing attitudes predict social values like prejudice (De Zavala et al. 2017), these traits again seem relevant to understanding voting behaviour in as much as the choice of a leader has implications for how others will be treated. Therefore, we predict the Dark Tetrad traits will be associated with voting for Trump (H1).

Personality traits, as they are conceptualised in modern research, are behavioural syndromes, explaining broad patterns in attitudes, behaviours, and cognitions. However, they may be so broad as to be rather useless at predicting (especially directly) something as narrowband as electoral choice or other single events in people's lives. There are two solutions that might prove useful.

2 | From Moral Values to Moral Choices

First, we can examine traits that are also narrowband, ideally ones that are at the heart of what divides people politically, like moral values (Graham et al. 2013). Moral Foundations Theory proposes a moral reasoning framework containing six core universal principles—*Care* (i.e., protecting others, preventing harm), *Fairness* (i.e., justice and equal treatment), *Loyalty* (i.e., standing with one's group), *Authority* (i.e., respecting hierarchy and rules), *Purity* (i.e., avoiding contamination, valuing sanctity), and *Liberty* (i.e., resisting oppression, valuing freedom)—that inform values and ethical intuitions. These foundations are thought to be creating the 'first draft' of the moral mind. Accordingly, they are linked to neurological processes and are universal. Yet, the cultural environment is shaping, amplifying, or suppressing certain foundations depending on the local norms, practices, and developmental experiences. For example, a child raised in a traditional Hindu community may develop strong authority-respecting behaviours, such as bowing to elders or religious figures. In contrast, a child raised in a secular American household might grow up with weaker sensitivity to authority and instead adopt more anti-authoritarian values. While evolution may provide the basic capacity to learn morality, culture shapes how that capacity develops into different moral beliefs across societies (Graham et al. 2013) and, thus, may have implications for voting behaviour. The first two (i.e., individualising

moral values) have been linked to a liberal/progressive orientation, whereas the latter three (i.e., binding moral values) in self-report and neurological studies (Hopp et al. 2023). However, most research has relied on self-report methods and a focus on attitudes (i.e., expressed preferences). Instead, we rely on a behavioroid task whereby people must choose (i.e., revealed preferences) between the different moral values, and the times each is chosen serve as a behavioural assessment to be correlated with electoral choice, thereby revealing moral priorities over moral ideals (we hope). We expect those who voted for Trump (H2) to choose the binding moral values more (i.e., the conservative ones) whereas those who voted for Biden (H3) to choose the individualising values more (i.e., the progressive ones).

As a second way to deal with the potentially problematically utility of broadband traits, we also consider traits that are (1) narrower in scope and (2) conceptually closer to the outcome at hand, voting in this case. Specifically, we focus on two conservative political attitudes—social dominance orientation (Pratto et al. 1994) and right-wing authoritarianism (Altemeyer 1996)—and the less well-known (and potential 'Loch Ness monster'; Conway et al. 2018) trait associated with progressive political biases of left-wing authoritarianism (Costello et al. 2022). Individual differences in social dominance orientation reflect a person's support of between- and within-group social hierarchy and predicts outcomes like discriminatory attitudes towards refugees (Cowling et al. 2019). Right- and left-wing authoritarianism—as we consider them here—are mirror-images of each other (politically and psychometrically) where the former describes someone who believes it is important to submit and fight for authority and to favour and protect the status quo, whereas the latter describes someone who rejects these same ideas. Those characterised by the former tend to hold pro-capitalist attitudes, to be religious, and favour punishment systems (Duckitt 2006, 2009). Those characterised by the latter tend to be less rigid in their thinking, are emotionally motivated, and prefer left-leaning political systems (Costello et al. 2022). Taking this into account, we predict that those who voted for Trump (H4) will be more right-wing authoritarian and in favour of social dominance than those who voted for Biden, whereas the reverse will be observed for left-wing authoritarianism (H5).

And last, one of the greatest enigmas and often thorns in the sides of American politics is people's choice in a third-party candidate. Such people may be engaging in a protest vote or true independents that find themselves 'politically homeless' in the polarised political landscape of the US Either way, they may serve as a psychological middle-ground as independents (H6).

Here we detail our attempt to understand who people voted for in the US presidential election in 2020. We assess effects for personality, political attitudes, and moral decisions in those who voted for Biden, Trump, and an 'other' candidate to explore voting behaviour in people in general and in men and women independently. We expect personality traits to account for the least variance in voting behaviour because they are so broad in nature (H7); we expect political attitudes to be the best predictors of voting behaviour because of the relationship between attitudes and behaviours (H7a); and we expect moral choices to be in between the two because of the adjacent nature of moral choices with political choices (H7b).

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There are noted sex differences in moral values, in the Dark Triad traits, and political attitudes (Jonason et al. 2015; Jonason, Underhill et al. 2020; Jonason, Żemojtel-Piotrowska et al. 2020) and women tend to vote 'left' more often than 'men' do.[2] Collectively, men are reliably 'darker' in their personalities, more 'conservative' in their political attitudes, and 'binding' in their moral values than women are. Women, in contrast, have more progressive and caring political attitudes, personality traits, and moral values. At a mechanistic level, these effects may be driven by women's greater empathy (Christov-Moore et al. 2014) which may account for their voting behaviour (Morris 2020). These may be a function of learned/evolved biases that emphasise the protection afforded by group living for women (e.g., allomothering) and emphasise organised, team-based systems in men (e.g., hunting parties, military regiments). However, this research tends to rely on idealised expressions of values because responses to each moral value are independent, meaning they fail to capture moral dilemmas between different moral values. Therefore, in the present study, we aim to replicate sex differences in moral values as captured in revealed as opposed to expressed preferences (RQ1) and we explore whether these sex differences depend on (i.e., interact with) presidential choice (RQ2).

Additionally, if so-called dark side traits play a role, it would seem logical that so-called light side traits do so as well, in this case in the form of the Light Triad (Kaufman et al. 2019) traits of *Kantianism* (e.g., 'treating people as ends onto themselves, not as mere means to an end'), *humanism* (e.g., 'valuing the dignity and worth of each individual'), and *faith in humanity* (e.g., 'believing in the fundamental goodness of humans'). These values come from humanistic and positive psychology approaches to human nature. Those characterised by these traits tend to be characterised by valuing and protecting individuals from harm, values that may be more common among left-leaning people than right-leaning ones (Kugler et al. 2014). If so, we would expect the Light Triad traits to be associated with voting for Biden (RQ3), however, as far as we know, these traits have not been studied in relation to voting behaviour or political attitudes more broadly.

In this exploratory study, we attempt to understand who people chose (or would have chosen) in the 2020 US presidential election from the perspective of personality psychology. In so doing, we examine three levels of variables that might be of relevance: basic personality traits in the form of the Dark Triad traits, moral values from Moral Foundations Theory, and political-adjacent social attitudes like social dominance orientation and authoritarianism. We consider how these patterns may differ in men and women as well, and we turn special attention to the 'enigma' of third-party voting in the United States.

3 | Method

3.1 | Participants and Procedure

Participants were 289 volunteers (nine provided incomplete data and were removed prior to analyses) from the United States (55% female), aged 19–75 ($M = 38.25$; $SD = 12.97$), recruited through the Prolific platform, who were paid (£23.10/h) to complete an online survey. Participants reported whom they voted for in the

US presidential election in 2020 and in case they did not vote, they were instructed to indicate for whom they would have voted (Biden = 179 [43% male], Trump = 51 [61% male], Other = 50 [38% male]).[3] Upon completion, participants were debriefed and thanked. This project was approved by the ethics committee at Uniwersytet Kardynała Stefana Wyszyńskiego (KEiB 24/2020). The hypotheses were not registered but the data is available on the Open Science Framework.[4] We adopt an exploratory approach—relaxing the standard 0.05 familywise error rate—to investigate the potential associations among dark and light personality traits, moral foundations, and sex differences in voting attitudes. Given that our goal was to generate hypotheses and uncover new patterns that may inform future, more targeted research, we erred on the side of inclusion of both 'significant' (p's < 0.05) and 'near-significant' (p's < 0.10) effects.

3.2 | Measure

Individual differences in moral values were assessed in a task we developed. The specific moral values were taken from established Moral Foundations measures (e.g., Graham et al. 2013), but we did not rely on Likert response scales. To standardise understanding of each moral value, we provided brief definitions of each. The task has participants choosing one of two moral values like 'care' versus 'fairness', in terms of which was more important to them. The behavioroid task allowed us to capture revealed moral priorities not expressed moral values. The measure is scored by counting how many times each value was chosen; the more often something was chosen, the more important it was to people.

We measured 'darker' and 'lighter' aspects of personality with the 28-item Short Dark Tetrad (Paulhus et al. 2021) and the 12-item Light Triad scale (Kaufman et al. 2019). Participants reported their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with items capturing individual differences in narcissism (e.g., 'Flattery is a good way to get people on your side'), psychopathy (e.g., 'I have a unique talent for persuading people'), Machiavellianism (e.g., 'It's not wise to let people know your secrets'), sadism (e.g., 'Some people deserve to suffer'), Kantianism (e.g., 'treating people as ends onto themselves, not as mere means to an end'), humanism (e.g., 'valuing the dignity and worth of each individual'), and faith in humanity (e.g., 'believing in the fundamental goodness of humans'). Items were averaged to create indices of all seven.

Individual differences in political attitudes were measured with the 10-item version (Duckitt 2006) of the Social Dominance Orientation scale (Pratto et al. 1994), the 12-item version (Duckitt 2006) of the Right-Wing Authoritarianism scale (Altemeyer 1996), and the 20-item Left-Wing Authoritarianism scale (Conway et al. 2018). For all three, participants reported their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with items for individual differences in social dominance orientation (e.g., 'Some groups are simply inferior to other groups'), traditional authoritarianism (e.g., 'The real keys to the 'good life' are obedience, discipline, and sticking to the straight and narrow', reflecting a preference for enforcing traditional norms and hierarchical order), and progressive authoritarianism (e.g., 'Christian fundamentalists are just as healthy and moral as anybody else', reflecting the authoritarian preference of progressive values such as

equality and social justice; Costello et al. 2022). Items were averaged to create scales for all three.

4 | Results

In Table 1 we report the descriptive statistics, correlations, and internal consistency estimates of the variables used, but we do not dwell on these effects here. In Table 2 we report the main effects for participant's sex and whom they voted for (or would have) in the 2020 Presidential race in the United States. While not the focus of this study, men, in contrast to women, were more Machiavellian, narcissistic, sadistic, psychopathic, held a social dominance orientation, and chose purity and liberty more often, whereas women were more humanistic, Kantian, and chose care more often.[5] Relying on pairwise comparisons, we also found that those who voted for Biden were more left-wing authoritarian (large η_p^2) and chose care and fairness (both medium η_p^2) moral values more than people who voted for Trump, corresponding to H5 and H3. Biden voters also were more left-wing authoritarian, chose care more often, and were more Kantian than people who voted for some other candidate (large, medium, and small η_p^2). Next, corresponding to H4, people who voted for Trump were right-wing authoritarian (large η_p^2) and held a social dominance orientation (large η_p^2) more so than people who voted for Biden and some other candidate. In addition, people who preferred Trump were more Kantian (small η_p^2) than individuals who voted for some other candidate. Trump supporters also chose purity and liberty more than Biden supporters (medium and small η_p^2), partially supporting H2. Last, people who voted for some other candidate were more psychopathic, had a social dominance orientation, right-wing authoritarianism, and chose purity (respectively: small, large, large, and medium η_p^2) more than those who voted for Biden; also, people who preferred some other candidate were more psychopathic, left-wing authoritarian, and chose fairness more than people who preferred Trump, corresponding to H6 (small, large, and medium η_p^2). As shown in Table 2, personality traits explained the least variance in voting behaviour (H7), political attitudes were the strongest predictors (H7a), and moral choices fell in between (H7b).

Also, based on our exploratory intentions (RQ2), we detected an interaction for the moral foundation of care ($F[2, 274] = 3.51$, $p < 0.05$, $\eta_p^2 = 0.03$) and three near-significant ones for fairness ($F[2, 274] = 2.51$, $p < 0.09$, $\eta_p^2 = 0.02$), purity ($F[2, 274] = 2.73$, $p < 0.07$, $\eta_p^2 = 0.02$), and liberty ($F[2, 274] = 2.63$, $p < 0.08$, $\eta_p^2 = 0.02$). As shown in Figure 1, we found no sex differences in how often people chose care among those who voted for Biden ($p < 0.20$), but women chose care more often than men did if they voted for Trump ($p < 0.01$) or some other candidate ($p < 0.05$). In addition, men who voted for Biden chose care more than men who voted for Trump ($p < 0.01$) or some other candidate ($p < 0.05$; Figure 1a). Across the three other moral foundations, there were sex differences as well. Accordingly, men who supported Biden chose fairness more than men who supported Trump ($p < 0.01$) as men who supported some other candidate chose fairness more than men who voted for Trump ($p < 0.01$). Next, women who supported Biden chose fairness more than women who voted for Trump ($p < 0.01$) and women who supported some other candidate ($p < 0.05$; Figure 1b). Men who supported Trump

chose purity more than women ($p < 0.05$), and men who voted for Trump chose purity more than men who voted for Biden ($p < 0.01$) and some other candidate ($p < 0.07$; Figure 1c). Last, men chose liberty more often than women if they voted for some other candidate ($p < 0.05$), and men who supported Trump chose liberty more than men who supported Biden ($p < 0.01$), and men who supported some other candidate chose liberty more than men who voted for Biden ($p < 0.05$; Figure 1d).

5 | Discussion

Western societies and peoples are divided by politics. Moreover, the outcomes of political elections are far more pressing in tumultuous times with ongoing conflicts such as in Ukraine and Rafah. Additionally, American political outcomes have sweeping implications for the globe in terms of economics and other sociological issues. In this study, we attempted to understand—from the perspective of individual differences—what might account for whether people voted for Biden, Trump, or a third-party candidate in the 2020 US presidential election.

Our results largely confirmed our predictions. First, personality traits—light or dark—proved rather useless in predicting for whom people voted. This means that H1, suggesting a preference for Trump among those high in dark traits, and our exploratory expectation of higher light traits among Biden supporters (RQ3), were not supported. Second, those who voted for Biden tended to be characterised by left-wing authoritarianism and the moral choices of maximising caring and fairness. These findings align with previous research showing that liberals tend to prioritise compassion and care for vulnerable groups more than conservatives do (Graham et al. 2013). Their stronger valuation of fairness may also reflect a greater concern with equality and the protection of marginalised groups. Alternatively, we found that those who voted for Trump were characterised by right-wing authoritarian and social dominance attitudes alongside purity and liberty. Although the liberty foundation is usually linked to libertarian concerns (Graham et al. 2013), its role in support for Trump may reflect a broader concern with government control or limits on personal freedom, especially around issues like COVID-19 rules, gun rights, or political correctness. Choosing purity more in Trump voters may reflect concern over moral or cultural 'contamination', including immigration and gender roles. In addition, albeit exploratory in nature, we provide some provisional insight into the enigma of American third-party voters. While our assessment of this leaves something to be desired, choosing a candidate other than the two primary ones was associated with psychopathy, which may reflect an anti-conformist or rebellious sentiment towards social conventions (Jonason, Koehn, et al. 2020). Relative to those who chose Biden, those who voted for a third-party candidate also held stronger conservative attitudes (i.e., social dominance, right-wing authority) and puritanical moral values, whereas relative to those who voted for Trump, those who voted for a third-party candidate also held stronger left-wing authoritarian attitudes and chose fairness as a moral value more. This suggests that these third-party voters may vote against a candidate who shares their political values on moral grounds and vote against those who differ from them based on the voter's authoritarian political attitudes.

TABLE 1 | Correlations and descriptive statistics for personality, political attitudes, and moral decisions.

|	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Machiavellianism	—															
2. Narcissism	0.32**	—														
3. Sadism	0.39**	0.33**	—													
4. Psychopathy	0.24**	0.27**	0.52**	—												
5. Humanism	−0.07	0.13*	−0.22**	−0.14*	—											
6. Kantianism	−0.31**	−0.21**	−0.26**	−0.29**	0.35**	—										
7. Faith in humanity	−0.20**	0.13*	−0.23**	−0.18**	0.46**	0.19**	—									
8. LWA	0.03	−0.03	−0.03	−0.01	−0.05	−0.02	−0.08	—								
9. RWA	0.08	0.21**	0.07	0.01	−0.08	−0.08	0.03	−0.64**	—							
10. SDO	0.19**	0.25**	0.21**	0.34**	−0.22**	−0.25**	−0.03	−0.32**	0.49**	—						
11. Care	−0.10	−0.22**	−0.23**	−0.20**	0.17**	0.25**	0.04	0.26**	−0.35**	−0.34**	—					
12. Fairness	−0.05	−0.11†	−0.12*	−0.18**	0.05	−0.04	0.12*	0.23**	−0.26**	−0.34**	0.05	—				
13. Purity	0.08	0.17**	0.11†	0.12*	−0.08	−0.03	0.04	−0.27**	0.45**	0.34**	−0.24**	−0.17**	—			
14. Liberty	<−0.01	0.01	0.12*	0.05	−0.10	−0.06	−0.14*	−0.18**	0.03	0.07	−0.35**	−0.32**	−0.26**	—		
15. Authority	<0.01	0.06	0.04	0.11†	−0.01	−0.03	−0.08	0.06	0.02	0.07	−0.18**	−0.10†	−0.30**	0.01	—	
16. Loyalty	0.05	0.09	0.06	0.11†	−0.02	−0.09	−0.07	−0.04	0.07	0.16**	−0.29**	−0.31**	−0.16**	−0.21**	−0.09	—
Cronbach's α	0.75	0.81	0.81	0.75	0.73	0.67	0.79	0.89	0.91	0.88	—	—	—	—	—	—
Mean (SD)	3.18 (0.69)	2.59 (0.75)	2.16 (0.80)	1.88 (0.63)	3.98 (0.61)	4.13 (0.61)	3.44 (0.80)	3.09 (0.67)	2.23 (0.82)	1.91 (0.71)	3.79 (1.18)	3.80 (1.01)	1.26 (1.21)	3.14 (1.28)	0.54 (0.77)	2.47 (1.18)

Note: $^\dagger p < 0.10$, $*p < 0.05$, $**p < 0.01$.

Abbreviations: LWA, left-wing authoritarianism; RWA, right-wing authoritarianism; SDO, social dominance orientation.

TABLE 2 | Sex differences and voting differences in personality, political attitudes, and moral decisions.

	Mean (SD)				Mean (SD)				
	Men	Women	F	η_p^2	Biden	Trump	Other	F	η_p^2
Personality traits									
Machiavellianism (crafty)	3.35 (0.61)	3.04 (0.71)	8.56**	0.03	3.17 (0.70)	3.10 (0.72)	3.31 (0.58)	1.83	0.01
Narcissism (special)	2.71 (0.74)	2.49 (0.75)	4.14*	0.02	2.57 (0.77)	2.63 (0.65)	2.61 (0.79)	0.02	<0.01
Meanness (sadism)	2.58 (0.76)	1.82 (0.66)	54.05**	0.17	2.13 (0.82)	2.25 (0.73)	2.20 (0.82)	0.45	<0.01
Wild (psychopathy)	2.01 (0.63)	1.76 (0.60)	10.06**	0.04	1.80 (0.61)	1.90 (0.62)	2.13 (0.66)	5.73**	0.04
Humanism	3.83 (0.64)	4.11 (0.56)	15.90**	0.06	4.01 (0.58)	3.93 (0.74)	3.93 (0.60)	0.61	<0.01
Kantianism	4.08 (0.62)	4.18 (0.60)	5.56*	0.02	4.15 (0.61)	4.22 (0.64)	3.99 (0.59)	3.08*	0.02
Faith in humanity	3.41 (0.81)	3.46 (0.80)	1.28	0.01	3.45 (0.80)	3.53 (0.85)	3.32 (0.76)	1.25	0.01
Political attitudes									
Left-wing authoritarianism	2.99 (0.67)	3.16 (0.67)	0.72	<0.01	3.31 (0.63)	2.45 (0.54)	2.97 (0.47)	40.24**	0.23
Right-wing authoritarianism	2.39 (0.81)	2.11 (0.82)	3.16†	0.01	1.99 (0.73)	3.18 (0.67)	2.18 (0.57)	54.01**	0.29
Social dominance orientation	2.07 (0.76)	1.77 (0.64)	7.17**	0.03	1.66 (0.56)	2.57 (0.77)	2.09 (0.65)	41.47**	0.24
Moral decisions									
Care	3.49 (1.31)	4.05 (1.01)	19.53**	0.07	4.01 (1.09)	3.14 (1.22)	3.72 (1.23)	9.34**	0.06
Fairness	3.75 (1.16)	3.84 (0.87)	0.07	<0.01	4.01 (0.82)	3.10 (1.24)	3.78 (1.06)	15.46**	0.10
Purity	1.43 (1.34)	1.12 (1.08)	5.66*	0.02	1.03 (1.03)	1.90 (1.59)	1.42 (1.11)	9.30**	0.06
Liberty	3.32 (1.31)	2.99 (1.25)	7.57**	0.03	2.96 (1.21)	3.63 (1.46)	3.26 (1.23)	5.27**	0.04
Authority	0.57 (0.85)	0.51 (0.71)	0.62	<0.01	0.57 (0.71)	0.55 (0.97)	0.42 (0.78)	0.52	<0.01
Loyalty	2.44 (1.27)	2.49 (1.11)	2.00	0.01	2.42 (1.15)	2.69 (1.42)	2.40 (1.03)	1.40	0.01

Note: † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$.
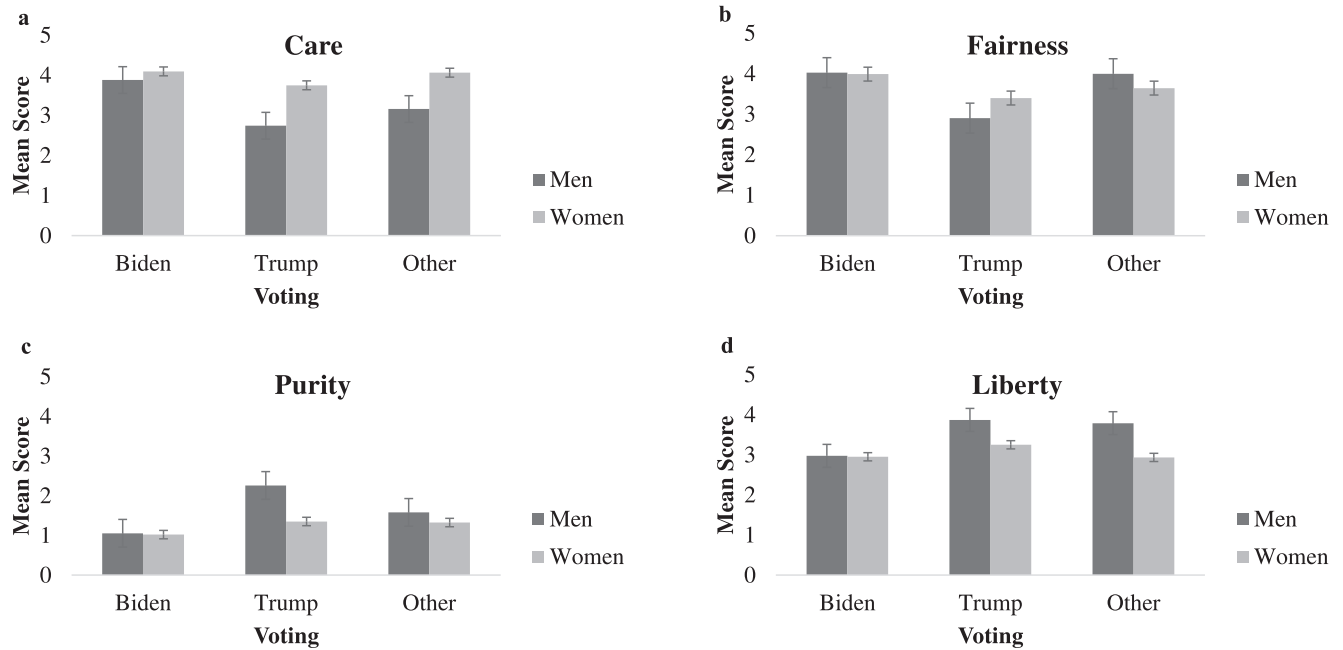
FIGURE 1 | Interactions between participant's sex and electoral choice on moral choices.

While somewhat underpowered because of our left-leaning sample, we detected evidence that the sex of the participant and electoral choice interacted to predict individual differences in moral choices which, given the novelty and potential utility of this method, we explored only. First, men and women who favoured Biden did not differ in how often they chose care, fairness, purity, or liberty. Perhaps, those who reject the idea of binary sex and support other intersectional concerns are more likely to vote for Biden (Krispenz and Bertrams 2025) may differ little on these variables than those with traditionalist views of sex/gender. That is, the former group may view men and women as more similar than the latter group, and this might minimise differences in outcomes in men and women. Among those who voted for Trump, we found that women chose the individualising value of care more than men did, whereas men chose purity more than women. That is, in these rather restricted samples, sex differences seem to partially align with prior research (Jonason et al. 2015) better than in the sample of Biden voters. Possibly, Trump voters have more traditional attitudes about sex differences, and even are 'sex difference maximalists', leading to such large sex differences that they can be detected in only 51 people. And last, among those who voted for some other candidate, women's voting was driven by concerns over care whereas men's voting was driven by liberty. This suggests that women who engage in contrarian voting may be driven by the perception that the available candidates do not go far enough in protecting vulnerable groups (e.g., women, minorities, immigrants) whereas men who engage in contrarian voting may be driven by the perception that the available candidates want to excessively restrict their freedom (i.e., libertarianism).

6 | Limitations and Conclusions

While we present a straightforward study with a natural groups design revealing several interesting things, our study is nonetheless limited. The most pressing limitation is the comparatively low amount of people who voted for Trump or the 'other' candidate. Such a shortcoming may be a function of a more liberal group of participants being likely to participate in online research in personality psychology. Despite this, we detected the expected main effects, so we are reasonably confident in our results. Second, our study informs us on the US presidential election and not, for instance, senatorial elections in the USA or elections in other countries. Third, for ¾ of our interactions we treated 0.10 as the demarcation for rejection of the null hypothesis to adjust for weakened power associated with natural groups designs, but they could be noise. However, the effects make intuitive sense so can be reasonably trusted, in our view. Fourth, while we examined seven aspects of personality, other variables might be relevant like congruence of personal and candidates' perceived social attitudes and party identification (Wan et al. 2010), religion (Whitehead et al. 2018), ethnic identification, and group status threat (Major et al. 2018). Fifth, the Light Triad and Short Dark Tetrad measures are not only brief (which can undermine validity) but prohibit the examination of lower-order aspects of each trait. And sixth, we had the same number of people who voted for a third-party candidate as voted for Trump, suggesting that we have an over-representation of the former because all third-party candidates received less than 2% of the total vote in the same election. While this provides better statistical comparisons, it also means that our results have less ecological validity regarding this group. In short, future work needs to adopt broader/more measures, larger samples, and cross-national analyses to better address the question as to how traits—broadly defined—predict electoral choice.

Liberty, purity, loyalty, and hierarchy probably played key roles in Trump's support, especially given the economic struggles, cultural changes, national conditions, and migration issues that characterised the 2024 elections.[6] Given these issues some people may have shifted to a more right-leaning moral profile (Graham et al. 2013), essentially increasing Trump's support. This may

also be exacerbated by ex-VP Harris being (perceived to be) more left leaning than Biden, essentially pushing the moderates to vote for Trump. In conclusion, we provide novel insights into who voted for Biden, Trump, or a third-party candidate in the 2020 presidential election in the US From the perspective of personality psychology, it appears that (1) political attitudes are the primary, and perhaps, obvious predictors, (2) moral choices carry some of the load, and (3) dark and light personality traits are almost useless in determining who voted for whom. Moral choices showed extra promise, however, when trying to differentiate those who voted for a third-party candidate and in terms of sex differences in voting behaviour; they seem to be 'standing on (sex-specific) moral principles' more than anything else. While most pollsters and news outlets focus on who voted for whom, basing their assessments on sociodemographic variables assumes uniformity within these groups, we suggest that the story may be more interesting if they examined individuals' political and moral systems as well (and in the case of morality, we present a brief, simple way of doing so). These political and moral systems are likely stable individual differences that motivate people to engage in politically motivated behaviours in general.

Ethics Statement

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee at [anonymized for review] and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Consent

Informed consent was obtained from all individual adult participants.

Conflicts of Interest

The authors declare no conflicts of interest.

Endnotes

[1] https://www.pewresearch.org/politics/2023/07/12/voting-patterns-in-the-2022-elections/.

[2] https://www.pewresearch.org/politics/2023/07/12/voting-patterns-in-the-2022-elections/.

[3] Sex of the participant and electoral choice interacted ($\chi^2(2, N = 280) = 6.59$, $p < 0.04$, Cramér's $V = 0.15$) whereas about 15% more women voted for Biden than men did, 21% more men voted for Trump than women did, and 36% more women voted for a third party candidate than men did.

[4] https://osf.io/gh2xm/?view_only=2e3c435ac99c45f6a52870f9dd0dcd5b.

[5] Men were also slightly more right-wing authoritarian than women were ($p < 0.08$).

[6] https://www.pewresearch.org/politics/2023/06/21/inflation-health-costs-partisan-cooperation-among-the-nations-top-problems/.

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