Article

Does a Left-Wing Political Orientation Really Go Along With Greater Prosociality? A Large-Scale Empirical Investigation

Bernhard Schubach[1] and Isabel Thielmann[2]

Abstract
The notion that political orientation is linked to prosociality has been voiced by many, suggesting that supporters of left-wing parties and ideologies may favor prosociality more than supporters of right-wing parties and ideologies. However, evidence for this proposition is inconclusive. We conducted a large-scale, preregistered analysis of the relation between political orientation and prosociality in a heterogeneous German sample ($189 \leq n \leq 1{,}836$) using five different measures of political orientation, six incentivized economic game paradigms to measure prosocial behavior, and 10 measures of trait prosociality. Whereas we found only weak support for left-wing political preferences to be associated with more prosocial behavior, stronger evidence for said link was apparent for trait prosociality. Overall, our study suggests that political orientation and prosociality are indeed linked, thus supporting theoretical arguments. However, this link is relatively weak and depends on the way prosociality is measured.

Keywords
political orientation, prosocial behavior, personality, social value orientation, economic games

The importance of politics for our everyday life is evident. Whether it be the laws in force, the maintenance of infrastructure, or the taxation of work and products—all these issues are subject to political regulations. In turn, most people identify with a certain political orientation, usually on a left-to-right scale, and this self-placement correlates strongly with voting behavior ($r > .90$; Jost, 2006). Political orientation also affects a variety of other behaviors. For example, individuals move to neighborhoods with similar political ideologies (Motyl et al., 2014) and donate to different organizations, with left-leaning individuals donating more to international charity and right-leaning individuals donating more to national charity (Pizziol et al., 2023). Essentially, political orientation shapes our decisions.

A plausible reason why political orientation affects individuals' decisions lies in its relation to a variety of attitudes about societal structure more generally. One such attitude pertains to social welfare, that is, the extent to which individuals value the well-being of the society and its members at large, even at own costs.[1] Traditionally, left-wing parties advocate social welfare, such as financial support for the unemployed or a minimum wage, which often comes at a cost to the members of a society because it requires higher taxes (Hoenig et al., 2023). In line with this notion, supporters of left-wing parties are usually more favorable toward social welfare (and social justice) than supporters of right-wing parties (Jost et al., 2008).

The concept of social welfare is also at the heart of prosocial behavior, defined as any behavior that is voluntary and intentional and results in benefits for others (Eisenberg & Miller, 1987). Oftentimes, prosocial behaviors incur individual costs because individuals can only benefit others by investing their own resources, such as time or money (Pfattheicher et al., 2022). By implication, individuals favoring left-wing ideologies should be more prosocial because they should be more willing to invest personal resources to benefit others and society at large. Correspondingly, various studies addressed the relation between political orientation and prosocial behavior. Critically, however, these studies produced mixed findings, thus leaving the question whether political orientation and prosocial behavior are

[1]University of Bonn and University of Hagen, Germany
[2]Max Planck Institute for the Study of Crime, Security and Law, Freiburg, Germany

Corresponding Author:
Isabel Thielmann, Independent Research Group "Personality, Identity, and Crime", Max Planck Institute for the Study of Crime, Security and Law, Günterstalstr. 73, Freiburg 79100, Germany.
Email: i.thielmann@csl.mpg.de

linked essentially unanswered. The current work aimed at clarifying this issue using a large data set containing various measures of both political orientation and prosociality, including costly prosocial behavior.

Political Orientation and Prosocial Behavior

The link between political orientation and prosociality has been investigated in different ways, for example, using economic games, which allow measuring prosocial behavior in controlled experimental settings. These games model interdependent situations with at least two individuals ("players") whose decisions affect each other's outcomes (Murnighan & Wang, 2016; Thielmann, Spadaro & Balliet, et al., 2020; van Dijk & De Dreu, 2021). These outcomes are usually monetary, thus rendering behavior consequential and "real."

Evidence on the relation between political orientation and prosocial behavior in economic games is, however, mixed. For example, one study measuring prosocial behavior across various games (e.g., Trust Game, Dictator Game) with a large ($N = 991$) representative sample in New Zealand found left-wing ideologies to be positively related to prosocial behavior (Claessens et al., 2023). By contrast, in another large study with a Danish representative sample ($N = 1,926$; Fosgaard et al., 2019), left-wing political ideology was only related to prosocial behavior in a Public Goods Game when players could take away money from others but not when they could give money to them. Mixed results also occurred in a study by Dawes et al. (2012); here, Dictator Game giving was only positively linked to support of left-wing ideologies in Canadian and Swedish samples, but not in a British sample. Several other studies (e.g., Anderson et al., 2005; Hernández-Lagos & Minor, 2020), in turn, found no link between political orientation and prosocial behavior in said games.

Then again, evidence based on Social Value Orientation (SVO)—"the weights people assign to their own and others' outcomes in situations of interdependence" (Balliet et al., 2009, p. 533), which is traditionally measured using Dictator Game-like decisions (Murphy et al., 2011; van Lange et al., 1997)—paints a clearer picture. SVO has been consistently positively linked to a left-wing political orientation (Balliet et al., 2018; Chirumbolo et al., 2016; Sheldon & Nichols, 2009; van Lange et al., 2012), although effect sizes were generally small.

Besides prosocial behavior in economic games, the relation between political orientation and prosociality has been addressed from a trait perspective by studying political orientation in relation to personality traits capturing individual differences in prosociality. For example, Honesty-Humility, a trait encompassing sincerity, fairness, greed-avoidance, and modesty (Ashton et al., 2004), yielded a small-to-medium-sized positive correlation with a left-wing political orientation across different samples and studies (Lee et al., 2018; Zettler et al., 2020). Other studies have

likewise shown left-wing political orientation to be positively related to prosocial traits, such as Altruism and Empathy (Panno et al., 2022; Tatum & Nai, 2022; Waytz et al., 2016; Zettler et al., 2011; Zettler & Hilbig, 2010).

However, for prosocial traits as well, evidence is mixed. For example, Big Five Agreeableness, which captures individual "differences in the motivation to cooperate (vs. acting selfishly) in resource conflicts" (Denissen & Penke, 2008, p. 1285), was unrelated to political orientation in a meta-analysis across 70 studies (Sibley et al., 2012); Empathy only showed a positive correlation with left-wing political orientation when controlling for other factors (e.g., religious activities; Schieman et al., 2019; Waytz et al., 2016); and Honesty-Humility also showed a small positive correlation with conservative attitudes, which conflicts with its positive correlation with a left-wing political orientation (Zettler et al., 2020). A similarly mixed pattern is apparent for so-called "dark" traits capturing exploitative tendencies. Whereas some studies found positive correlations between dark traits (e.g., Narcissism, Machiavellianism), and a right-wing political orientation (Duspara & Greitemeyer, 2017; Hart & Stekler, 2021), other studies found null effects (Arvan, 2013; Greitemeyer, 2022).

Taken together, evidence on the relation between political orientation and prosociality—whether being measured using games or trait scales—is inconclusive. A major challenge in resolving these inconsistencies are the apparent differences in methods between studies. First, as previously summarized, studies relied on different measures of prosociality. For one, a wide range of economic games has been used, most prominently the Dictator Game, Trust Game, and Public Goods Game (e.g., Fowler & Kam, 2007; Grünhage & Reuter, 2022). Although all these games provide measures of prosocial behavior, they model different social situations and capture different aspects of prosociality. Besides games, many different traits, such as Honesty-Humility, Big Five Agreeableness, Empathy, and dark traits, have been used as measures of dispositional prosociality (vs. exploitativeness). Second, prior studies employed different measures of political orientation, including continuous left-to-right self-placement scales (e.g., Chirumbolo et al., 2016), self-reported voting decisions in a previous election (e.g., Cappelen et al., 2017), and current political party preference (e.g., Sheldon & Nichols, 2009). Correlations between these measures of political orientation are often only moderate in size (Grünhage & Reuter, 2022), suggesting that they may not be fully comparable.

The Present Study

The present investigation sought to overcome the limitations of prior research by including multiple measures of political orientation and (behavioral and dispositional) prosociality within a single longitudinal study. In a large ($N = 1,836$) and demographically heterogeneous sample, we

employed five measures of political orientation, measured prosocial behavior in six economic games, and considered 10 self-report scales of prosocial versus exploitative tendencies. Due to the mixed evidence available, we decided not to formulate hypotheses about which measures of political orientation may correlate with which measures of prosociality. Instead, we explored the relations among all 80 combinations of the five measures of political orientation and the 16 measures of prosociality. Overall, we provide the most comprehensive test of the link between political orientation and prosociality to date.

Method

Transparency and Openness

The data for the current investigation stem from the Prosocial Personality Project (PPP; Thielmann, Hilbig et al., 2020), a large-scale, longitudinal project containing multiple measures of prosociality and related concepts. Thus, the data had already been collected prior to starting the present investigation. Nonetheless, we preregistered our investigation before conducting any relevant analyses (see https://osf.io/u3kc2). A detailed documentation of the PPP including all variables assessed, information on sample compositions and prespecified exclusion criteria for all measurement occasions, and prior use of the data are available on the Open Science Framework (OSF; https://osf.io/m2abp/), as are the data, analyses, and Supplementary Tables referred to here (https://osf.io/tjw4a/).

Sample

The PPP contains multiple measurement occasions run via a professional panel provider in Germany. For the current study, we relied on data measured at Wave 1, Wave 3 (completed 61 days after Wave 1 on average), Wave 5 (completed 110 days after Wave 1 on average), and Wave 6 (completed 132 days after Wave 1 on average) of the PPP base project as well as follow-up Wave 2021-10 (completed 686 days after Wave 1 on average). Importantly, no prior investigation using subsets of data from the PPP targeted a similar research question as we do here. Participants were remunerated based on the panel provider's regulations, and they further received behavior-contingent bonus payments in the economic games (see details below).

Wave 1 of the PPP base study included a demographically diverse and approximately representative sample of the German population. A total of $N = 4,585$ participants (2,356 female, 2,223 male, 6 diverse) spanning a broad age range between 18 and 78 years ($M = 40.2$, $SD = 13.0$) and covering diverse educational backgrounds completed Wave 1. Due to the multiple waves of data collection and the prespecified exclusion criteria (see https://osf.io/m2abp/), sample sizes differed between waves and, therefore, between

analyses conducted herein (i.e., $189 \leqslant n \leqslant 1,836$). We included all data available for each combination of measures of political orientation and prosociality. Sample compositions for each wave and combination of measures are available in Tables S1 and S2 on the OSF.

Measures

Political Orientation. The PPP contains five measures of political orientation. Two of them referred to support for specific political parties as assessed by voting behavior in the previous federal election in Germany ("Bundestagswahl") in 2021 and the preferred party among the primary parties represented in the German federal parliament (CDU/CSU, SPD, Bündnis 90/Die Grünen, FDP, Alternative für Deutschland, and Die Linke). Following prior research according to which these parties can be arranged on a continuum (Grünhage & Reuter, 2022), we coded participants' responses on an ordinal scale from 1 (*very left-wing*) to 6 (*very right-wing*), with 1 = *Die Linke*, 2 = *Bündnis 90/Die Grünen*, 3 = *SPD*, 4 = *CDU/CSU*, 5 = *FDP*, and 6 = *Alternative für Deutschland*. The other three measures referred to political orientation regarding three domains, namely, general political orientation, social and cultural issues, and economic issues. Responses were collected on a 7-point scale ranging from 1 = *very left-wing* to 7 = *very right-wing*. In general, higher scores on our political orientation measures indicate greater support for right-wing ideologies or parties, respectively. The five measures of political orientation correlated strongly with each other (i.e., $.58 \leqslant r \leqslant .88$; see Table 1), yielding a sample size-weighted average correlation (Field, 2001) of $\bar{r} = .73$.

Economic Games. We selected six game paradigms from the PPP measuring prosocial versus exploitative behavior: the SVO Slider, which was measured at Wave 5, the Public Goods Game, Trust Game (as trustor and trustee), and Volunteer's Dilemmas, which were measured at Wave 6 in a between-subjects manner (i.e., each participant completed only one game), and the Dictator Game, which was measured in follow-up Wave 2021-10. All games were incentivized to provide measures of actual behavior, meaning that participants and their randomly assigned interaction partner(s) received a bonus payment corresponding to their own and the partners' decisions. Incentives were paid anonymously by the panel provider. Correlations between decisions in the games are provided in Table 2.

SVO. SVO was measured using the six primary items from the SVO Slider (Murphy et al., 2011). Each item involves a choice between nine options representing different resource allocations between the participant and another unknown person (ranging from 15 to 100 points, with 10 points worth 0.20€). Based on these choices, individuals' location on the self-other allocation plane can be computed,

Table 1. *Descriptive Statistics and Intercorrelations Between All Measures of Political Orientation Included*

Measure of political orientation	M	SD	Correlations			
			1	2	3	4
1. General political orientation	3.70	1.07				
2. Social and cultural political orientation	3.58	1.15	.84*** [.83, .86] (1,835)			
3. Economic political orientation	3.83	1.07	.79*** [.76, .80] (1,835)	.71*** [.69, .74] (1,836)		
4. Voting decision			.67*** [.64, .70] (1,551)	.64*** [.61, .67] (1,551)	.58*** [.54, .61] (1,551)	
5. Party preference			.67*** [.65, .70] (1,802)	.64*** [.61, .66] (1,802)	.58*** [.55, .61] (1,802)	.88*** [.86, .90] (1,547)

Note. We computed Spearman's rho for all correlations involving voting decision and party preference because both are ordinal variables (which is also why mean scores and standard deviations cannot be readily computed). 95% CIs in brackets; sample sizes in parentheses.
***$p < .001$.

Table 2. *Descriptive Statistics and Intercorrelations Between All Economic Games Measuring Prosocial Behavior Included*

Game	M	Range	SD	Correlations					
				1	2	3	4	5	6
1. Social Value Orientation	31.91	−16.26 to 61.39	11.1	—(2,707)					
2. Public Goods Game	1.97	0 to 4	1.04	.19** [.09, .29] (349)	—(470)				
3. Trust Game trustor	1.61	0 to 3	0.78	.27*** [.17, .36] (357)	NA[a] (0)	—(464)			
4. Trust Game trustee	46.89	0 to 100	19.39	.30*** [.20, .39] (370)	NA[a] (0)	NA[a] (0)	—(457)		
5. Volunteer's Dilemma				.01* [.01, .02] (344)	NA[a] (0)	NA[a] (0)	NA[a] (0)	—(433)	
6. Dictator Game	0.95	−1 to 3	0.58	.24*** [.19, .28] (1,556)	.11 [−.02, .22] (251)	.22*** [.10, .33] (261)	.16** [.04, .27] (269)	.19 [−.06, .41] (226)	—(1,875)

Note. We computed odds ratios (ORs) for all correlation with the volunteer's dilemma and transformed the OR into Pearson's r for better comparability. 95% CIs in brackets; sample sizes in parentheses.
[a]The Public Goods Game, Trust Game trustor, Trust Game trustee, and Volunteer's Dilemma were measured in a between-subject design. Therefore, correlations between these measures cannot be computed.
*$p < .05$. **$p < .01$. ***$p < .001$.

as expressed by the SVO angle ranging from −16.26° (perfect competitor) to 61.39° (perfect altruist). Thus, a higher SVO angle indicates greater prosociality. To incentivize choices, after completing data collection, participants were randomly assigned to either the role of the sender or the receiver and randomly matched with a person in the opposite role. One of the six choices was randomly selected for payment. Participants were fully aware of this procedure in advance. They could earn between 0.30 and 2€.

Public Goods Game. In the Public Goods Game (Samuelson, 1954), participants were assigned to groups of four. Each group member received an endowment of 4€ and could decide how much of this, if any, to contribute to a group account (in 0.50€ increments). Money contributed was doubled and equally shared among all group members. The amount of money contributed to the group account served as the measure of prosocial behavior. Bonus payments were determined based on the decisions of all four

participants assigned to the same group. Thus, participants could earn between 2€ (if they themselves invested 4€ and all others invested nothing) and 10€ (if they themselves invested nothing, but all others invested 4€).

Trust Game. In the Trust Game (Berg et al., 1995), participants were randomly assigned to the role of either the trustor or the trustee, who both received an endowment of 3€. Trustors could decide how much of their endowment, if any, to transfer to the trustee (in 0.50€ increments). The transferred amount was tripled. Given that transfers by the trustor increased the trustee's potential outcome, they can be considered a measure of prosocial behavior. Trustees, in turn, could decide how much of the tripled transfer to return to the trustor. Given that trustees did not know the trustor's decision at the time of decision-making, responses were collected using the strategy method (Selten, 1967): Trustees indicated for each possible transfer by the trustor how much they would return (in 0.50€ increments). For example, for a 0.50€ transfer by the trustor, the trustee could return between 0€ and 3*0.50€ = 1.50€. Based on the trustee's responses, we computed the average proportion the trustee returned across all six potential transfers as a measure of prosocial behavior. A value of 0 indicates that the trustee did not return any money to the trustor in any trial, whereas a value of 100 indicates that the trustee returned the entire (tripled) transfer in all trials. After data collection was completed, each trustor was randomly matched with one trustee to determine their bonus. The trustee's choice matching the trustor's actual transfer was selected to compute the final payoffs. Participants could earn between 0€ and 12€ in this game.

Volunteer's Dilemma. In the Volunteer's Dilemma (Diekmann, 1985), participants were randomly assigned to groups of four. Each group member independently decided whether to volunteer for the group, that is, to invest 2€ to secure 4€ for all group members, whereas the volunteer ended up with 2€. Critically, if no one volunteered, all group members received 0€. Thus, depending on their own and the other group members' decisions, bonus payments amounted to 0€ (no one volunteered), 2€ (the participant volunteered), or 4€ (the participant did not volunteer, but at least one other group member did). The binary decision to volunteer versus refrain from it served as the measure of prosocial behavior.

Dictator Game. The PPP implemented a take-some variant of the Dictator Game (Bardsley, 2008; List, 2007) in which the dictator received an initial endowment of 3€ and the recipient of 1€. The dictator could then either give (part or all) of their 3€ to the recipient or take away (part or all) of the 1€ from the recipient, in 0.10€ increments. All participants acted as dictators to measure their prosocial behavior. After completing data collection, however, participants were randomly assigned to either the role of the dictator or the recipient and paid according to the dictator's decision. Participants could thus earn between 0€ and 4€.

Trait Prosociality. Waves 1 and 3 of the PPP included multiple traits capturing individual differences in prosociality versus exploitativeness. Of these, we selected 10 traits for the current investigation (see Table 3).[2] First, we included traits showing a significant correlation with prosocial behavior in the meta-analysis by Thielmann, Spadaro & Balliet (2020). However, for the sake of parsimony, we refrained from including any specific dark traits that showed a significant meta-analytic correlation, but rather included the Dark Factor of Personality, which describes the underlying dispositional basis of *all* dark traits (Moshagen et al., 2018). In addition to these traits, we included Selfishness, Exploitativeness, and Social Welfare Concerns based on their strong conceptual links with (non-)exploitation (note that these traits were not included in the meta-analysis by Thielmann, Spadaro & Balliet, 2020). All traits were measured using established scales (see Table 3, including sample items) in German and responses were collected on 5-point Likert-type scales ranging from 1 = *strongly disagree* to 5 = *strongly agree*. As displayed in Table 4, all trait measures were intercorrelated, yielding mostly medium to large effect sizes (i.e., 24 $\leq |r| \leq$ .74).

Results

To quantify the association between political orientation and prosociality, we computed zero-order correlations for all 80 combinations of measures of political orientation and prosociality. Thus, we rely on Pearson's r as our main effect size. For the Volunteer's Dilemma, which yields a binary outcome, we first computed odds ratios and transformed these into Pearson's r for the sake of comparability with other effect sizes. For voting behavior and party preference as indicators of political orientation, we relied on Spearman's rho because both indicators are ordinal. Given that the sample sizes differed between analyses, we base our conclusions on effect sizes rather than statistical significance and consider $r \geq |.10|$ as evidence for a meaningful relation, as preregistered.

Table 5 shows the correlations between political orientation and prosocial behavior in economic games. As is apparent, only SVO showed meaningful correlations with multiple (i.e., four out of five) measures of political orientation. Besides that, only the relations between voting in the last federal election and contributions in the Public Goods Game and between current party preference and giving in the Dictator Game exceeded the criterion for a meaningful correlation. Of note, all these meaningful correlations were negative, indicating that supporters of left-wing ideologies or parties behaved more prosocially than supporters of right-wing ideologies or parties. However, all effects were small (i.e., $-.15 \leq r \leq -.11$). As a robustness check, we

Table 3. *Prosociality-Related Traits Along with Their Definitions and Operationalizations in the Prosocial Personality Project (PPP)*

Trait	Definition	Measure	German version	Example item
Altruism	A disposition that leads people who have more of it to be more compassionate and caring toward others in distress (Batson et al., 1986, p. 212)	Prosocialness Scale (Caprara et al., 2005)	Own translation	I am pleased to help my friends/colleagues in their activities
Big Five Agreeableness	[Individual] differences in the motivation to cooperate (vs. acting selfishly) in resource conflicts (Denissen & Penke, 2008, p. 1285)	NEO Five Factor Inventory (Costa & McCrae, 1992)	Borkenau and Ostendorf (2008)	I try to be courteous to everyone I meet
Dark Factor	Individual differences in the tendency to maximize one's individual utility—disregarding, accepting, or malevolently provoking disutility for others—accompanied by beliefs that serve as justifications (Moshagen et al., 2018, p. 656)	D-70 (Moshagen et al., 2020)	Own translation	My own pleasure is all that matters
Empathy	A comprehension of other people's experience (cognitive empathy) as well as the ability to vicariously experience the emotional experience of others (affective empathy) (Reniers et al., 2011, p. 85)	Interpersonal Reactivity Index, Empathic Concern und Perspective Taking subscales (Davis, 1983)	Grimm (2015); Paulus (2009)	I often have tender, concerned feelings for people less fortunate than me
Exploitativeness	The state, condition, quality, or degree of unfairly or cynically using another person or group for profit or advantage (Brunell et al., 2013, p. 2)	Interpersonal Exploitativeness Scale (Brunell et al., 2013)	Own translation	I'm perfectly willing to profit at the expense of others
Greed	An insatiable desire for more resources, monetary, or other (Krekels & Pandelaere, 2015, p. 225)	Dispositional Greed Scale (Seuntjens et al., 2015)	Own translation	One can never have too much money
Guilt Proneness	Predisposition to experience negative feelings about personal wrongdoing, even when the wrongdoing is private (Cohen et al., 2012, p. 355)	Five-Item Guilt Proneness Scale (Cohen et al., 2014)	Items 1–4: Bracht and Regner (2013) Item 5: own translation	After realizing you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money?
Honesty-Humility	The tendency to be fair and genuine in dealing with others, in the sense of cooperating with others even when one might exploit them without suffering retaliation (Ashton & Lee, 2007, p. 156)	HEXACO-60 (Ashton & Lee, 2009)	Moshagen et al. (2014)	I would never accept a bribe, even if it were very large
Selfishness	An inordinate focus on one's own welfare, regardless of the well-being of others (Raine & Uh, 2019, p. 503)	Selfishness Questionnaire (Raine & Uh, 2019)	Own translation	I'm not too concerned about what is best for society in general
Social Welfare Concerns	The extent to which people are concerned with the welfare of our society in general (Haesevoets et al., 2018, p. 423)	Theories of Self-Relative-to-Other Behavior Scale, Prosocial subscale (Gerbasi & Prentice, 2013)	Own translation	It is the total amount of benefit that everyone receives that matters most

Note. "Own translation" means that a scale has been translated for use in the PPP using a common forward-backward translation approach.

Table 4. *Descriptive Statistics, Internal Consistency Reliabilities (Cronbach's Alpha), and Intercorrelations Between All Trait Measures of Prosociality*

Trait	M	SD	1	2	3	4	5	6	7	8	9	10
1. Altruism	3.67	0.59	*.93* (2,961)									
2. Big Five Agreeableness	3.74	0.49	.48*** [.45, .51] (2,961)	*.80* (4,585)								
3. Dark Factor	2.17	0.45	−.54*** [−.56, −.51] (2,961)	−.69*** [−.70, −.67] (4,585)	*.95* (4,585)							
4. Empathy	3.65	0.51	.74*** [.72, .75] (2,912)	.52*** [.49, .55] (2,996)	−.59*** [−.62, −.57] (2,996)	*.86* (2,996)						
5. Exploitativeness	1.77	0.69	−.47*** [−.50, −.44] (2,921)	−.53*** [−.56, −.50] (3,009)	.68*** [.66, .70] (3,009)	−.54*** [−.56, −.51] (2,948)	*.86* (3,009)					
6. Greed	2.41	0.78	−.30*** [−.33, −.26] (2,919)	−.38*** [−.41, −.35] (3,007)	.51*** [.48, .53] (3,007)	−.33*** [−.36, −.30] (2,943)	.49*** [.46, .51] (2,965)	*.86* (3,007)				
7. Guilt Proneness	3.96	0.83	.45*** [.42, .48] (2,956)	.38*** [.35, .41] (3,064)	−.55*** [−.57, −.52] (3,064)	.46*** [.44, .49] (2,991)	−.49*** [−.52, −.46] (3,003)	−.30*** [−.33, −.27] (3,002)	*.80* (3,064)			
8. Honesty-Humility	3.59	0.63	.30*** [.27, .34] (2,961)	.44*** [.42, .46] (4,585)	−.65*** [−.67, −.63] (4,585)	.34*** [.31, .37] (2,996)	−.52*** [−.55, −.50] (3,009)	−.54*** [−.57, −.52] (3,007)	.46*** [.43, .49] (3,064)	*.75* (4,585)		
9. Selfishness	2.45	0.64	−.57*** [−.60, −.55] (2,948)	−.56*** [−.59, −.54] (3,047)	.70*** [.68, .72] (3,047)	−.58*** [−.61, −.56] (2,983)	.70*** [.68, .72] (2,992)	.54*** [.51, .56] (2,990)	−.56*** [−.58, −.53] (3,043)	−.57*** [−.59, −.55] (3,047)	*.93* (3,047)	
10. Social Welfare Concerns	3.46	0.69	.50*** [.48, .53] (2,953)	.30*** [.27, .33] (3,053)	−.38*** [−.41, −.35] (3,053)	.47*** [.44, .49] (2,982)	−.33*** [−.37, −.30] (3,000)	−.24*** [−.28, −.21] (2,992)	.31*** [.28, .34] (3,048)	.27*** [.24, .30] (3,053)	−.39*** [−.42, −.36] (3,031)	*.71* (3,053)

Note. All traits were measured on a 5-point Likert-type scales ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Cronbach's alpha estimates of internal consistency are shown on the diagonal in italics. 95% CIs in brackets; sample sizes in parentheses.
***p < .001.

Table 5. *Correlations Between Measures of Political Orientation and Prosocial Behavior in Economic Games*

Variable	General political orientation	Social and cultural political orientation	Economic political orientation	Voting decision	Party preference
Social Value Orientation	−.11***	−.12***	−.06*	−.15***	−.15***
	[−.16, −.06]	[−.17, −.07]	[−.11, −.01]	[−.21, −.10]	[−.20, −.10]
	(1,522)	(1,523)	(1,523)	(1,299)	(1,494)
Public Goods Game	−.07	−.05	.04	−.11	−.08
	[−.19, .06]	[−.18, .07]	[−.08, .17]	[−.25, .03]	[−.20, .05]
	(245)	(245)	(245)	(198)	(239)
Trust Game trustor	−.01	−.06	−.04	−.09	−.07
	[−.14, .11]	[−.18, .07]	[−.16, .08]	[−.22, .05]	[−.20, .05]
	(257)	(257)	(257)	(221)	(254)
Trust Game trustee	−.02	−.02	−.05	−.07	−.02
	[−.14, .10]	[−.14, .10]	[−.17, .07]	[−.19, .06]	[−.14, .10]
	(262)	(262)	(262)	(227)	(258)
Volunteer's Dilemma	−.02	−.04	.00	.00	.00
	[−.14, .10]	[−.15, .08]	[−.12, .12]	[−.09, .09]	[−.08, .09]
	(223)	(223)	(223)	(189)	(219)
Dictator Game	−.09***	−.08***	−.08***	−.07**	−.11***
	[−.14, −.05]	[−.13, −.04]	[−.12, −.03]	[−.13, −.02]	[−.15, −.06]
	(1,835)	(1,836)	(1,836)	(1,551)	(1,802)

Note. Measures of political orientation were answered on a 7-point scale from 1 = *very left-wing* to 7 = *very right-wing*. For voting decision and party preference, 1 indicates preference for the most left-wing party (i.e., Die Linke) and 6 indicates preference for the most right-wing party (i.e., Alternative für Deutschland). We computed odds ratios for all correlations with binary choices in the Volunteer's Dilemma and transformed them into Pearson's *r* for better comparability. We computed Spearman's rho for all correlations involving voting decision and party preference. Effect sizes of $r \geq |.10|$ are printed bold. 95% CIs in brackets; sample sizes in parentheses.
*$p < .05$. **$p < .01$. ***$p < .001$.

further exploratorily computed partial correlations between political orientation and prosocial behavior controlling for gender and age (see Table S3 in the Supplemental Materials). Importantly, all effect sizes remained essentially unaltered, leading to the same conclusions.

Regarding trait prosociality, evidence for a link with political orientation was more consistent across indicators. As summarized in Table 6, all correlations except for the one between party preference and Guilt Proneness exceeded our predefined criterion for a meaningful effect. Whereas all traits capturing prosociality were negatively correlated with political orientation (i.e., $-.23 \leq r \leq -.09$), all traits capturing exploitativeness were positively correlated with political orientation (i.e., $.17 \leq r \leq .25$). By implication, supporters of left-wing ideologies or parties tended to have higher trait prosociality scores than supporters of right-wing ideologies or parties. All effects were small- to medium-sized. As with prosocial behavior, we additionally (exploratorily) computed partial correlations controlling for age and gender. Except for one change, all results remained the same (see Table S5 in the Supplemental Materials). Only the correlation between Guilt Proneness and voting behavior fell below the predefined criterion for a meaningful correlation (i.e., $r \geq .10$) once adjusting for age and gender. Furthermore, we conducted exploratory multiple regression analyses to assess the unique predictive power of each trait on the different measures of political orientation, while controlling for age and gender. As summarized in Table S7 in the Supplemental Materials, several traits showed unique

relations over and above other traits, with Big Five Agreeableness, the Dark Factor, Greed, Selfishness, and Social Welfare Concerns yielding the most consistent effects.

Aggregate Analyses

To gain a better understanding of the average effect size of the relation between political orientation and prosociality, we finally computed the mean (partial) correlations of political orientation with prosocial behavior and trait prosociality, respectively, following Field (2001). This analysis was not preregistered. To this end, we first recoded all traits capturing exploitative tendencies to allow pooling them with the traits capturing prosocial tendencies. Then, we pooled the partial correlations across the five indicators of political orientation for each game and each trait separately, weighted by sample size. Finally, we calculated the sample size-weighted average correlations across the games and trait prosociality scales, respectively, yielding $\bar{r} = -.09$ ($p < .001$) for the relation between political orientation and prosocial behavior in economic games and $\bar{r} = -.17$ ($p < .001$) for the relation between political orientation and trait prosociality.

Discussion

The conceptual relation between political orientation and prosociality has been advocated by many (e.g., Anderson

Table 6. Correlations Between Measures of Political Orientation and Self-Reported Personality Traits Capturing Individual Differences in (Non-)Exploitation

Variable	General political orientation	Social and cultural political orientation	Economic political orientation	Voting decision	Party preference
Altruism	-.20*** [-.24, -.15] (1,506)	-.22*** [-.26, -.17] (1,506)	-.17*** [-.21, -.12] (1,506)	-.16*** [-.21, -.10] (1,288)	-.15*** [-.20, -.10] (1,477)
Big Five Agreeableness	-.12*** [-.16, -.07] (1,835)	-.13*** [-.18, -.09] (1,836)	-.11*** [-.15, -.06] (1,836)	-.12*** [-.17, -.07] (1,551)	-.12*** [-.17, -.08] (1,802)
Dark Factor	.22*** [.18, .27] (1,835)	.25*** [.20, .29] (1,836)	.19*** [.15, .24] (1,836)	.22*** [.17, .27] (1,551)	.21*** [.16, .26] (1,802)
Empathy	-.19*** [-.24, -.14] (1,525)	-.23*** [-.27, -.18] (1,525)	-.17*** [-.22, -.12] (1,525)	-.15*** [-.21, -.10] (1,298)	-.16*** [-.21, -.11] (1,496)
Exploitativeness	.20*** [.15, .24] (1,526)	.21*** [.16, .26] (1,526)	.17*** [.12, .22] (1,526)	.19*** [.14, .24] (1,303)	.17*** [.12, .22] (1,498)
Greed	.17*** [.12, .22] (1,528)	.19*** [.14, .24] (1,528)	.19*** [.14, .24] (1,528)	.18*** [.13, .23] (1,306)	.20*** [.15, .25] (1,499)
Guilt Proneness	-.10*** [-.15, -.05] (1,552)	-.11*** [-.16, -.06] (1,552)	-.11*** [-.16, -.06] (1,552)	-.10*** [-.15, -.04] (1,322)	-.09*** [-.14, -.03] (1,523)
Honesty-Humility	-.12*** [-.17, -.08] (1,835)	-.14*** [-.18, -.09] (1,836)	-.13*** [-.18, -.09] (1,836)	-.11*** [-.16, -.06] (1,551)	-.13*** [-.17, -.08] (1,802)
Selfishness	.22** [.17, .26] (1,545)	.23*** [.18, .28] (1,545)	.21*** [.16, .26] (1,545)	.21*** [.16, .26] (1,319)	.20*** [.15, .25] (1,516)
Social Welfare Concerns	-.23*** [-.28, -.18] (1,549)	-.22*** [-.26, -.17] (1,549)	-.18*** [-.23, -.13] (1,549)	-.18*** [-.23, -.12] (1,318)	-.19*** [-.24, -.14] (1,520)

Note. Effect sizes of $r \geqslant |.10|$ are printed bold. 95% CIs in brackets; sample sizes in parentheses. Results from multiple regression analyses considering all traits simultaneously as predictors of the different measures of political orientation are provided in Table S7 in the Supplemental Materials.
***p < .001.

et al., 2005; Chirumbolo et al., 2016; Grünhage & Reuter, 2022), while the empirical picture remained inconclusive. The aim of the current investigation was to resolve this inconsistency by providing a comprehensive test of the link between five measures of political orientation and 16 measures of behavioral and dispositional prosociality. Our results replicate the mixed findings from previous studies while, on the whole, providing support for a weak link between political orientation and prosociality: support of left-wing ideologies and parties tends to go along with greater prosociality. However, this tendency was only apparent for some measures of prosociality.

When prosociality was measured in economic games, we only found a few meaningful correlations with political orientation, mostly for SVO. Except for one indicator of political orientation (i.e., economic political orientation), higher (i.e., more prosocial) levels of SVO were associated with greater preference for left-wing ideologies and parties. However, effect sizes were small throughout, reaching a maximum of $r = -.15$. In turn, none of the other behavioral (game-based) measures of prosociality yielded consistent relations with political orientation. Also, the sample size-weighted average correlation of political orientation with prosocial behavior across all games employed failed to reach our predefined criterion of a meaningful effect ($r < |.10|$). Overall, these findings replicate previous research, which likewise showed most consistent links between political orientation and prosocial behavior when the latter was operationalized through SVO (Balliet et al., 2018; Chirumbolo et al., 2016; Sheldon & Nichols, 2009; van Lange et al., 2012).

When prosociality was measured using self-report trait scales, the picture was considerably clearer in favor of a substantive link between prosociality and political orientation: All but one of the 50 correlations considered were meaningful (i.e., $r \geqslant |.10|$), and all these correlations were in the same direction. That is, participants with a stronger left-wing orientation reported higher levels of trait prosociality. Effect sizes were small- to medium-sized (i.e., $.09 \leqslant |r| \leqslant .25$), yielding a sample size-weighted average correlation of $\bar{r} = -.17$. Overall, traits reflecting individual differences in prosocial versus exploitative tendencies showed consistent correlations with political orientation, more so than game-based measures of prosocial behavior.

How can these differences in findings between behavioral and dispositional measures of prosociality be explained? For one, all traits were measured with multiple items each, whereas most of the games were one-shot. This likely resulted in the traits being measured in more reliable ways, therefore yielding stronger correlations with the outcome at hand. In line with this reasoning, one of the game-based measures involving multiple trials (i.e., SVO) was the only one that produced consistent relations with our indicators of political orientation. Moreover, games usually capture relatively narrow aspects of prosociality because they measure prosocial behavior in specific contexts,

whereas traits reflect broader tendencies that manifest themselves across contexts. Thus, the "true" correlation between political orientation and prosociality might be underestimated when prosociality is measured via single economic games.

Regarding the different measures of political orientation, in turn, we found no noteworthy differences in their relation to prosociality. That is, the correlations between political orientation and the measures of prosociality were highly comparable across the five indicators of political orientation. In line with this, the five measures of political orientation strongly converged with one another (i.e., .58 $\leqslant r \leqslant$ .88). Thus, we conclude that the previously reported mixed findings on the relation between political orientation and prosociality are likely not attributable to the use of different measures of political orientation.

Limitations and Directions for Future Research

The following limitations of our research need to be acknowledged. First, all data were collected in Germany. This restricts the generalizability of our findings insofar as the political landscapes and the distinction between left-wing and right-wing political ideologies and parties differ between countries. For example, in the United States, Democrats (left-wing) and Republicans (right-wing) almost never cooperate, whereas in Germany, political coalitions between left- and right-wing-oriented parties are very common. Moreover, research shows that correlations between political orientation and measures of prosociality (e.g., Honesty-Humility) are stronger in more developed countries compared to less developed countries (Lee et al., 2018). Thus, it would be desirable to conduct similarly comprehensive tests of the link between political orientation and prosociality in other countries as well.

Second, participants did not have any information about their interaction partner(s) in the economic games. Since supporters of right-wing ideologies tend to be more prosocial toward ingroup members than toward other (e.g., outgroup) individuals (Pizziol et al., 2023), the absence of information about the interaction partner(s) might have led these individuals to exhibit less prosocial behavior compared to supporters of left-wing ideologies. This argument also holds for trait prosociality which usually reflects prosociality with regard to others in general rather than targeting ingroup favoritism. Future research might investigate whether supporters of left-wing ideologies are more prosocial than supporters of right-wing ideologies *in general* or whether the latter only show a stronger selectivity in prosociality, meaning they are more prosocial toward certain groups only.

Third, recent research suggests a distinction between different aspects of prosociality, namely interpersonal and ideological prosociality (Nezlek, 2022). Interpersonal prosociality refers to prosocial beliefs and behaviors affecting others directly, such as helping. As such, interpersonal prosociality closely aligns with measuring prosocial behavior in economic games. Ideological prosociality, in turn, describes beliefs and behaviors that help others on a societal level, such as beliefs about universal human rights and social (in)equality. Evidence suggests that ideological prosociality is more strongly correlated with political orientation than interpersonal prosociality (Nezlek, 2022). Future research on the link between political orientation and prosociality might therefore take this distinction into account.

Finally, our investigation is mute on the underlying processes linking prosociality to political orientation. We hope that future research will pick up on this issue to provide a better understanding of *when* and *why* prosociality and political orientation are related.

Conclusion

Our large-scale investigation of the relation between political orientation and prosociality suggests that supporters of left-wing ideologies may indeed be more prosocial than supporters of right-wing ideologies. As such, we provide further evidence that there are meaningful dispositional differences between individuals with different political orientations (Sibley et al., 2012). However, the relation between political orientation and prosociality is fragile, and discovering it may depend on the methods used to operationalize prosociality in particular. Further comprehensive testing is needed to consolidate our findings in other countries and samples and using different methods. Nonetheless, we are confident that our investigation has brought us one step closer to solving the puzzle about whether our political orientation is intertwined with how prosocial we behave toward unknown others—which we cautiously answer in the affirmative.

ORCID iD

Bernhard Schubach https://orcid.org/0009-0002-1473-4008
Isabel Thielmann https://orcid.org/0000-0002-9071-5709

Supplemental Material

The supplemental material is available in the online version of the article.

Notes

1.   We rely on a definition of social welfare rooted in the political context rather than in game theory. In game theory,

social welfare refers to situations in which the sum of outcomes for all interaction partners can be increased through cooperation. As a consequence, we also included measures of prosocial behavior that do not allow increasing social welfare in a game-theoretic sense (i.e., zero-sum games).

2. We preregistered to also include Social Dominance Orientation (SDO) and Right-Wing Authoritarianism (RWA) as measures of exploitation. However, given that SDO and RWA capture attitudes and beliefs that are closely tied to political ideologies, we eventually decided to exclude them from our main analysis. The correlations of SDO and RWA with political orientation are provided in Table S8 in the Supplemental Materials.

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Author Biographies

Bernhard Schubach is a doctoral student at the University of Bonn and the University of Hagen. His research interests lie in the field of political psychology, mainly personality correlates and changes of individual political orientation.

Isabel Thielmann is the head of the Independent Research Group "Personality, Identity, and Crime" at the Max Planck Institute for the Study of Crime, Security and Law in Freiburg, Germany. Her research addresses individual differences in prosocial and (un)ethical behavior, personality assessment, volitional personality change, person-situation interactions, and self-knowledge.