

Connecting personality and ideology as antecedents of group-based empathy and schadenfreude

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NOTE: This is an unpublished preprint currently under review. This preprint is a working paper shared to facilitate timely dissemination of science, and thus is subject to change.

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This research was supported in part by the National Science Foundation SBE Postdoctoral Fellowship under Grant No. SBE- 2104211. We honor the memory of the late Jim Sidanius, without whom this research would not have been conducted. Neither the study design or analysis plan were pre-registered; all study materials, data, code, and supplementary materials can be found on OSF at the following link:

https://osf.io/dqp2x/?view_only=d138a0f4f8fe419ba97e11afdb7d18f6.

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Abstract

Empathy and schadenfreude are emotions that often lead to moral prosocial behaviors or harmful spiteful behaviors, respectively. An outstanding question is what motivates people's feelings of empathy and schadenfreude towards people from different groups. Here we test two prominent motivators of emotions: personality and ideology. Previous work has found that people's ideological orientations towards respecting traditionalism (RWA) and preferences about group-based hierarchy (SDO) can impact intergroup emotions. Further, low agreeableness, low openness to experiences, and high conscientiousness uniquely engender SDO and RWA. In the research presented here ($N = 492$), we examine the relationship between personality, ideology, and emotions, arguing that SDO and RWA will predict reduced empathy and increased schadenfreude but towards different groups. SDO will predict reduced empathy and increased schadenfreude towards low-status groups while RWA will predict reduced empathy and increased schadenfreude towards threatening groups. We further extend past work by investigating a third ideology (left-wing authoritarianism), exploring its relationship with personality and emotions. We find broad support for our expectation that the relationship between personality and emotions, as well as ideology and emotions, depends on the specific group in question.

Keywords: social dominance orientation, right wing authoritarianism, left wing authoritarianism, empathy, schadenfreude, personality

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Empathy—the cognitive capacity to understand, as well as the affective resonance with the emotional experiences of others (Weisz & Cikara, 2021)—has been targeted as a key player in ameliorating intergroup conflict. Feeling empathy towards outgroups and low-status groups has relevant prosocial consequences, like increased support for policies that help marginalized groups (Sparkman et al., 2019), greater donations to those less fortunate (Freeman et al., 2009), and even greater willingness to incur harm to the self to avoid harming others (FeldmanHall et al., 2015). Given that empathy often inhibits behaviors that are harmful to others and promotes moral inclinations (Tangney et al., 2007), a lack of empathy towards members of outgroups is often a precursor to intergroup conflict. Indeed, empathy is often reduced in intergroup settings (Cikara et al., 2014), especially competitive ones, highlighting why empathy is often induced in intergroup interventions (Batson & Ahmad, 2009).

Empathy's impact on intergroup processes might be limited, however, to situations where the relevant outcome is helpful, communal, or prosocial. Research on empathy suggests that the *lack* of empathy towards outgroups is often insufficient to motivate violence and harm. For example, there is a relatively small correlation between empathy and aggressive behaviors in general (Vachon et al., 2014), suggesting that the lack of empathy is not sufficient for hostile intergroup violence. The absence of empathy is apathy or indifference, but not antipathy (Hortensius & de Gelder, 2018). In other words, not feeling empathy for others might make individuals less likely to engage in prosocial moral behaviors, but not necessarily more likely to engage in harmful, immoral behaviors.

Instead, feeling counter-empathy—an emotional response that is the opposite of the assumed emotional state of another—is likely uniquely related to increased engagement in intergroup violence, relative to empathy. Counter-empathy can lower people’s aversion to harming others (Cikara, 2015) as well as increase the reward associated with the harm (Chiao et al., 2009; Cikara et al., 2011). Counter-empathy consists of two distinct emotions: *schadenfreude*, or feeling positively at another group’s misfortune, and *gluckschmerz*, feeling negatively about another group’s fortune (Leach et al., 2003; Smith & van Dijk, 2018). Given the importance of emotional responses in cases of harm, much of the work to date on counter-empathic emotions has focused on *schadenfreude*, which is a spiteful emotion that can be difficult to admit feeling. However, people tend to feel *schadenfreude* when they believe a person or a group deserves their misfortune, or even when that misfortune can lead to a boon for themselves and their ingroup. This is why *schadenfreude* is heightened during conflict and in competitive settings (Cikara et al., 2014).

In sum, both empathy and *schadenfreude* are morality-relevant emotions that can lead to behaviors that increase or decrease intergroup conflict and discrimination (Hudson et al., 2019; Lucas & Kteily, 2018). What is still being elucidated are the antecedents of feeling empathy and *schadenfreude*, both in general as well as within intergroup contexts. Here we focus on interpersonal antecedents of empathy and *schadenfreude*, namely ideology and personality, which have been shown to predict consequential intergroup outcomes in past research.

Ideology’s Impact on Empathy and Schadenfreude

Past work has identified two main ideological culprits—social dominance orientation (SDO; Ho et al., 2015; Sidanius & Pratto, 1999) and right-wing authoritarianism (RWA; Altemeyer, 1988)—that can explain a substantial amount of variance in people’s discriminatory attitudes and behaviors (Duckitt, 2006; Duckitt et al., 2002). SDO measures the extent to which

individuals engage in group hierarchical thinking, such that some groups of people deserve to be at the top of society while others deserve to be at the bottom. People with higher levels of SDO see the world in a competitive manner, believing that groups should engage in dominance struggle for supremacy, with some groups naturally being more superior than others. RWA is a similar but separate ideology. It measures the extent to which individuals engage in authoritative thinking, such that people should obey radical movement leaders (i.e., submission), identify enemies that must be destroyed (i.e., aggression), and strongly commit to a dogmatic party line (i.e., conventionalism). RWA measures radicalized support of existing authority, which is often conflated with political conservatism. However, authoritarianism can manifest in radicalized *opposition* to existing authority, which has been captured in a new construct called left-wing authoritarianism (LWA; Costello et al., 2022). LWA also reflects authoritative thinking, but in line with dismantling the status quo rather than supporting it.

There is relatively little work connecting SDO and RWA to empathy and schadenfreude; however, the most well-studied combination has been SDO and empathy. A survey of the literature shows an overall negative relationship between SDO and empathy, such that those who believe in group inequality generally feel less empathy. The negative connection between SDO and empathy has been shown with general levels of empathy (Bäckström & Björklund, 2007; Nicol & Rounding, 2013) as well as longitudinally (Sidanius et al., 2013), and is exacerbated when empathy is assessed towards outgroups and low-status groups (Hudson et al., 2019, 2020). However, SDO is *positively* related to empathy when felt towards groups that have higher status in America (Lucas & Kteily, 2018), suggesting a caveat to this generalization that considers the synergy between the target and the desire to support existing hierarchy. There is also evidence for a general negative relationship between RWA and empathy (Álvarez-Castillo et al., 2018;

Choma et al., 2019; Onraet et al., 2017). SEM models find the correlation between RWA and general empathy to be modest (ranging between $r = -.14$ and $r = -.28$) and smaller than the associations of general empathy with SDO (r s ranging from $-.39$ – $-.49$) (Álvarez-Castillo et al., 2018; Bäckström & Björklund, 2007; Nicol & Rounding, 2013).

In terms of the connections between ideology and general schadenfreude, there is a single published manuscript to our knowledge that has directly investigated the connections, and only with SDO. Researchers found a positive relationship between SDO and group-based schadenfreude in general but especially towards racial and novel outgroups (Hudson et al., 2019). Unpublished studies have corroborated this finding as well for low-status groups (Hudson et al., 2020, 2022). Theoretically, schadenfreude should be associated with higher levels of SDO, but not necessarily RWA. Schadenfreude is felt most keenly in competitive threatening contexts (Smith & van Dijk, 2018) rather than dangerous ones. Further, SDO measures a chronic dog-eat-dog worldview, suggesting a baseline positive relationship between SDO and schadenfreude. In past research when groups were competing for a prize, SDO was more positively associated with outgroup schadenfreude than compared to when groups were cooperating (Hudson et al., 2019). As another piece of evidence, in a series of studies examining construct validity of LWA (Costello et al., 2022), RWA was negatively, rather than positively, correlated with a measure of partisan schadenfreude. As participants' levels of RWA increased, they were less likely to feel schadenfreude towards political outgroups. These findings together suggest a nonexistent, or perhaps weakly negative relationship between RWA and general schadenfreude.

The existing work on LWA, empathy, and schadenfreude is almost purely hypothetical as the existence of a left-wing form of authoritarianism was seen as a myth (Stone, 1980) until recently. However, the small amount of evidence that does exist indicates that LWA will likely

have a similar relationship as SDO to schadenfreude, but the opposite relationship as SDO to empathy. Both LWA and SDO has been found to be positively related to partisan schadenfreude, with LWA having a stronger positive correlation than did SDO (Costello et al., 2022). Given the items within the LWA scale, this positive relationship is not surprising, as many items seem to revel in the misfortunes of groups that uphold conventionalism. Sample items such as “certain elements in our society must be made to pay for the violence of their ancestors” and “I hate being around non-progressive people,” are in line with a virulent antipathy towards large parts of society. In terms of empathy, those who have higher levels of LWA want to eliminate inequality, which is in line with a more prosocial view of the world. In fact, some of the items in the scale are worded to be the direct opposite that of SDO (e.g., “If I could remake society, I would put members of historically and presently marginalized groups at the top”) suggesting that LWA might be positively associated with general empathy.

Thus far, we have reviewed theoretical and empirical evidence in support for the relationship between ideology and general levels of empathy and schadenfreude. However, these relationships should be group specific, as not all social groups uphold the beliefs rooted in the ideologies in the same way. Groups that threaten the existing hierarchy are similar but distinct from groups that threaten conformity to the status quo, suggesting SDO and RWA will have overlapping but distinct impacts on intergroup outcomes. This argument is formalized within the dual process motivational model of prejudice (DPM: Duckitt et al., 2002; Duckitt & Sibley, 2016), which argues that SDO primarily relates to prejudice and discrimination towards groups seen as competitive and low-status, while RWA primarily relates to these outcomes towards groups seen as dangerous and threatening.

Thus, while SDO might be negatively related to empathy overall, we would expect that SDO would be positively related to empathy for groups in line with the ideology, or groups at the top of the hierarchy. Similarly, while RWA is likely not related to schadenfreude overall, we would expect RWA to be positively related to schadenfreude for groups that are dangerous to the existing status quo. In the same way that RWA and SDO's relationships with empathy and schadenfreude should be group specific, we expect LWA to be positively related to empathy, and negatively related to schadenfreude, for marginalized groups. The marginalized groups that dismantle the existing status quo (relevant to RWA) are often the same groups that threaten hierarchy (relevant to SDO), suggesting that LWA would be positively related to empathy for competitive as well as dangerous groups.

Personality's Impact on Ideology and Emotions

Personality have been shown to be another antecedent to empathy and schadenfreude, in addition to ideology (De Raad & Kokkonen, 2000; Duckitt & Sibley, 2010; Mooradian et al., 2011; C. Sibley & Duckitt, 2009; Wang et al., 2019). There are several models of assessing personality, with one primary model being the Big Five model of personality (John & Srivastava, 1999; McCrae & John, 1992). The Big Five model contains five personality facets: openness to experiences (i.e., measuring people's spontaneity and creativity), conscientiousness (i.e., measuring people's thoughtfulness, detail-orientation, and impulse control), extraversion (i.e., measuring people's optimistic and social nature), agreeableness (i.e., measuring people's trusting and compliant nature), and neuroticism (i.e., measuring people's proclivity towards anxiety and negative emotionality).

Of all the personality facets, a greater level of agreeableness is most associated with empathy (Graziano et al., 2007; Habashi et al., 2016; Melchers et al., 2016), and to a lesser

degree, heightened openness to experiences (Mooradian et al., 2011). There is less work on the personality correlates of schadenfreude, but what does exist suggest that schadenfreude should be positively related to neuroticism, as schadenfreude has been most connected with the Dark Triad personality traits (e.g., narcissism, psychopathy, and Machiavellianism; Wang et al., 2019). In addition, schadenfreude should be negatively related to agreeableness (Greenier, 2018), conscientiousness (Crysel & Webster, 2018), and perhaps openness to experiences (Crysel & Webster, 2018). Across the studies that have examined personality correlates of empathy and schadenfreude, extraversion is almost never related.

There is also extensive work on the personality antecedents of ideology. Past work has found that low agreeableness marks a person with high levels of SDO (and perhaps low levels of openness to experiences; Akrami & Ekehammar, 2006; Ho et al., 2015; Nicol & De France, 2016) while low openness to experiences and high conscientiousness engenders RWA (Duckitt & Sibley, 2010; Sibley & Duckitt, 2009). LWA is hypothesized to be negatively related to agreeableness and conscientiousness, while positively related to negative emotionality (Costello et al., 2022).

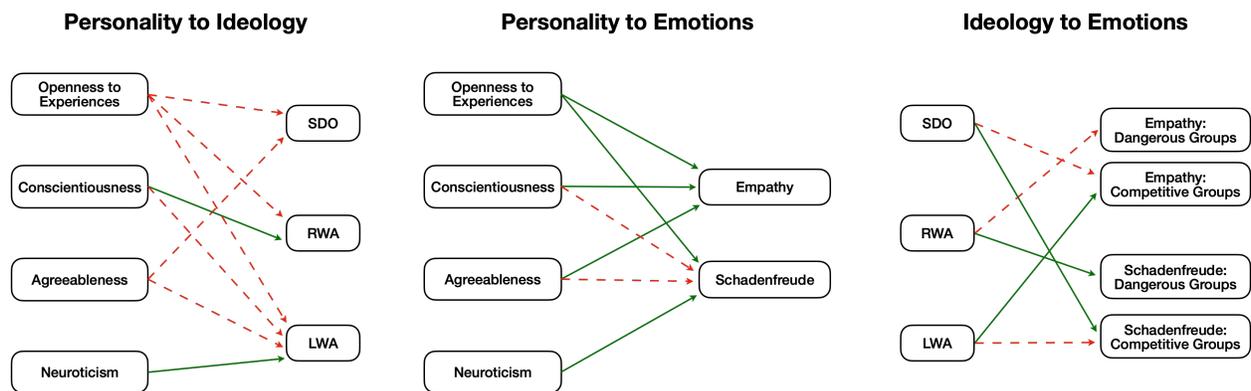
Current research

In past research, the DPM has been used to examine intergroup emotions like anger, fear, and disgust (Álvarez-Castillo et al., 2018; Levin et al., 2013; Matthews & Levin, 2012; Shaffer & Duckitt, 2013). There is limited research though examining morality-related emotions such as empathy and schadenfreude. Furthermore, the DPM has not yet included LWA, although it is a form of authoritarianism that share similar roots to SDO and RWA. Thus, in this work we extend the DPM in two important ways (Figure 1), examining the connections between personality, ideology, and morality-related emotions. First, we investigated whether the relationships

between SDO/RWA and emotions change depending on the social group. Second, we explored LWA in terms of personality and intergroup outcomes, seeing if LWA's relationships with empathy and schadenfreude are also sensitive to the specific group in question. We also replicated past work assessing the personality correlates of ideology and emotions. Across all three ideologies, we assessed relationships with both general forms of empathy and schadenfreude as well as group-specific forms.

Figure 1

Schematic of Anticipated Relationships Between Personality, Ideology, and Emotions



Note: red/dashed lines represent a hypothesized negative relationship, while the green/solid lines represent a hypothesized positive relationship. While we measure extraversion, we don't expect extraversion to relate to ideology or emotions.

We hypothesize that SDO, RWA, and LWA will have distinct relationships with general empathy and schadenfreude (H1). SDO will be negatively related to empathy and positively related to schadenfreude, RWA will be negatively related to empathy and weakly negative or unrelated to schadenfreude, while LWA will be positively related to both empathy and schadenfreude. Given past research, we expect SDO to have a particularly strong relationship with both general empathy and schadenfreude, at least compared to RWA and perhaps compared to LWA.

More germane to the current research, we further predict that each ideology will be more strongly related to empathy and schadenfreude for groups that align with the ideology, such that there will be less empathy and more schadenfreude towards groups that are antithetical to the ideological belief system (H2). SDO will predict reduced empathy and increased schadenfreude towards competitive and/or low-status groups (compared to RWA) while RWA will predict reduced empathy and increased schadenfreude towards threatening groups (compared to SDO). In exploratory analyses, we test the relationship between LWA and group-specific empathy and schadenfreude, expecting LWA to be positively related to empathy, and negatively related to schadenfreude, for both dangerous and competitive groups. We do not have strong hypotheses as to whether these relationships will be stronger or weaker compared to SDO and RWA. If we find support for these two hypotheses, that suggests that understanding people's ideology isn't enough to predict how they will likely react to specific groups. Instead, group-specific empathy and schadenfreude depends on how the group reinforces, or contradicts, the beliefs embedded within the ideology.

Next, we predict that each ideology will have different personality correlates (H3). SDO will be negatively related to agreeableness, and to a lesser degree, openness to experience. Low openness to experience and high conscientiousness will relate to greater levels of RWA. Finally, LWA will be negatively related to conscientiousness and agreeableness, and positively related to negative emotionality. Last, we predict that general, as well as group specific forms of empathy and schadenfreude will relate to personality facets (H4). More specifically, various forms of empathy will be associated with increased levels of agreeableness and openness to experiences, while the schadenfreude measures will be associated with increased neuroticism, and reduced conscientiousness, agreeableness, and openness to experiences. If we find that some groups'

empathy and schadenfreude personality correlates differ from the broader group, that again suggests that broad measures of empathy and schadenfreude might fall short in predicting how individuals will react in specific situations. All the study materials, data, analysis code, and supplementary materials are publicly available and can be found on OSF [here](#).

Pilot Study: Selecting Groups

Our hypotheses hinge upon social groups that differ in their perceived threat and competitiveness. To find said groups, we ran a pilot study similar to Duckitt and colleagues, (2006) in which we assessed the extent to which 30 social groups in America were seen as threatening or competitive (see supplementary materials for full list of social groups and analyses). We recruited an initial sample of 315 participants from Prolific.co and paid them \$0.75 for a six-minute study. After removing participants who did not finish the study, participants who said they did not complete the survey carefully, and trials marked as spam by Qualtrics, we were left with 302 participants, 219 of which self-identified as White. The sample was balanced in terms of gender, comprised of 152 self-identified men, 146 self-identified women, and four participants who identified as something other than man or woman. The sample was also balanced in terms of political party identification, with 150 participants identifying as a member of the Democratic party and 144 identified as a member of the Republican party. In terms of age, the mean of the sample was 37.62, $SD = 13.73$.

Participants answered threat and competition questions for all groups in a counterbalanced order. To assess threat, participants responded to the prompt “To what extent are these social groups likely seen by the **AVERAGE American** [emphasis present for participants] as being likely ‘to threaten, disrupt, or violate mainstream American society’s conventional norms, values, and traditions.’” Competition was assessed with the prompt “To

what extent are these social groups likely seen by the **AVERAGE American** [emphasis present for participants] as being, or representing, ‘social groups or categories of persons likely to be generally viewed as socially disadvantaged, subordinate, low in power, influence, and prestige in American society’” (Duckitt et al., 2006). Both the threat and competition questions were answered on a 1 (definitely not) to 9 (definitely yes) scale. After completing the threat and competition questions for the 30 groups, participants indicated one group that they thought were the “most likely to threaten, disrupt, or violate mainstream American society’s conventional norms and values as well as one group that had the “least amount of “power, prestige, and influence in American society” in two open-ended response questions.

Our goal was to select four social groups with differing perceptions of threat and competition: a group that was perceived as more threatening than competitive, a group that was more competitive than threatening, a group that was both threatening and competitive, and a group that was neither threatening nor competitive. Based on participants’ answers, we chose the following social groups: homeless people, drug dealers, undocumented immigrants, and medical specialists. Homeless people were rated significantly more competitive ($M = 7.53$) than threatening ($M = 5.34$), $t(300) = -13.90$, $p < .001$, $d = -1.01$, although both competition ($t(300) = 21.16$, $p < .001$, $d = 1.22$) and threat ($t(300) = 2.89$, $p = .010$, $d = 0.15$) ratings were significantly above the midpoint (i.e., 5). Thus, we expect that SDO and LWA as ideologies will be more related to participants’ levels of empathy and schadenfreude towards this group compared to RWA. In contrast, drug dealers were rated significantly more threatening ($M = 7.37$) than competitive ($M = 5.53$), $t(300) = 10.77$, $p < .001$, $d = 0.82$, again although both competition ($t(300) = 3.56$, $p = .001$, $d = 0.20$) and threat ($t(300) = 22.51$, $p < .001$, $d = 1.30$) ratings. Thus, we expect that RWA, compared to SDO and LWA, will be more related to participants’ levels of

empathy and schadenfreude. While the threat ratings for homeless people, and the competitive ratings for drug dealers were larger than the midpoint, the differences were negligible or small.

Undocumented immigrants were rated similarly threatening ($M = 6.26$) and competitive ($M = 6.78$), if slightly more competitive than threatening, $t(300) = 3.40, p = .001, d = 0.25$, and both ratings were above the midpoint; Threat: $t(300) = 10.33, p < .001, d = 0.60$; Competition: $t(300) = 14.52, p < .001, d = 0.84$. For undocumented immigrants, we expect that all three ideologies would be strongly related to participants' levels of empathy and schadenfreude. Finally, medical specialists were rated as equally competitive ($M = 2.26$) and threatening ($M = 2.28$), $t(300) = 0.16, p = .873, d = 0.01$, and below the midpoint; $t(300) = -28.54, p < .001, d = -1.65$; Competition: $t(300) = -26.19, p < .001, d = -1.51$. For this group, we don't expect SDO, RWA, nor LWA to relate to participants' levels of empathy and schadenfreude.

Main Study: Testing Dual Process Motivational Model in Four Groups

Methods

Participants

Given correlations stabilize around 250 data points (Schönbrodt & Perugini, 2013), we decided to recruit twice that number for adequate power. Simulations on SEMs have found that the sample size to have adequate power can range between 30-460 subjects, (Wolf et al., 2013), placing our goal of 500 subjects at the top of that threshold. We managed to recruit 534 initial participants from Amazon Mechanical Turk from CloudResearch.com for a 15-min study, paying them \$2.00. After removing the participants that didn't complete all study measurements, we were left with 492 participants. Most participants self-identified as White ($n = 344$), while 53 identified as Black, 29 as Latino, 23 as Asian, three as Native American, one as Middle Eastern, and 33 as multiracial. Six participants declined to provide their race. The sample predominantly

identified as woman, with 176 identifying as men, seven as nonbinary or gender queer, and two declining to answer. The mean age of the sample was 36.71, $SD = 11.52$, and most participants identified more on the liberal side ($n = 229$) than the conservative side ($n = 141$) of the political spectrum.

Procedures

After reading the consent document, participants completed three sets of questionnaires in a fixed order. Participants first completed the personality questionnaire, then moved onto the ideology questions, filling out the SDO, RWA, and LWA scales in a randomized order. Finally, participants completed the trait and state empathy questionnaires in a randomized order, followed by an exploratory ecological dominance orientation¹ item and demographics.

Measures

Personality. We measured participants personality using a shortened version of the non-commercial Big Five scale. Participants answered the same six items for each dimension as Sibley and Duckitt (2009) (i.e., openness to new experiences, conscientiousness, extraversion, agreeableness, and neuroticism/negative emotionality), indicating to what extent the statements accurately described them or not on a 1 (extremely inaccurate) to 7 (extremely accurate) scale. Sample items included “am full of ideas” (i.e., openness to new experiences), “am always prepared” (i.e., conscientiousness), “start conversations” (i.e., extraversion), “sympathize with others’ feelings” (i.e., agreeableness), and “get stressed out easily” (i.e., neuroticism). Each dimension was coded such that higher numbers corresponded to greater presence of the personality type and all scales were reliable: Openness to Experiences: $\alpha = .79$, $M = 5.37$, $SD = 1.11$; Conscientiousness: $\alpha = .76$, $M = 4.89$, $SD = 1.23$; Extraversion: $\alpha = .83$, $M = 3.57$, $SD =$

¹ We measured ecological dominance orientation (Uenal et al., 2022) as an exploratory measure. We do not discuss it further.

1.42; Agreeableness: $\alpha = .79$, $M = 5.46$, $SD = 1.13$; and Neuroticism: $\alpha = .85$, $M = 3.86$, $SD = 1.42$. Finally, an EFA supports a five-factor solution by personality dimension, with each factor explaining between 8 – 10% of the variance.

Social Dominance Orientation. We measured SDO using a shortened eight-item scale (Ho et al., 2012) to assess the extent to which individuals see group relationships in a hierarchical fashion. A sample item includes “An ideal society requires some groups to be on top and others to be on the bottom.” The scale was anchored from 1 (Strongly Oppose) to 7 (Strongly Favor) and was reliable, $\alpha = .88$, $M = 2.51$, $SD = 1.20$.

Authoritarianism. We measured authoritarianism in two ways: right-wing (RWA) and left-wing (LWA) authoritarianism. We used the shortened 15-item RWA (Zakrisson, 2005) scale and the shortened 22-item LWA scale (Costello et al., 2022; Costello & Lilienfeld, 2020), both anchored from 1 (Strongly disagree) to 7 (Strongly agree). Sample items from RWA and LWA included “Our country needs a powerful leader, in order to destroy the radical and immoral currents prevailing in society today” and “Certain elements in our society must be made to pay for the violence of their ancestors”, respectively. Both scales were reliable, with RWA obtaining a Cronbach’s alpha of .86 ($M = 3.40$, $SD = 1.01$) and LWA an alpha of .95 ($M = 3.41$, $SD = 1.27$). LWA and RWA were negatively correlated, $r(489) = -.29$, $p < .001$, which is in line with past findings (Costello et al., 2022).

General Empathy. We measured general empathy using the 16-item Toronto Empathy Questionnaire (Spreng et al., 2009), assessed on a 1 (Never) to 5 (Always) scale. Participants were asked to read each statement and rate how frequently they felt or acted in the manner described. Sample items included “When someone else is feeling excited, I tend to get excited too” and “I remain unaffected when someone close to me is happy” (reverse-coded). Higher

numbers represented greater levels of general empathy. The scale was reliable, $\alpha = .89$, $M = 3.92$, $SD = 0.62$. We chose this version of general empathy as past work had measured it in conjunction with the general measure of schadenfreude outlined below (Crysel & Webster, 2018).

General Schadenfreude. We measured general levels of schadenfreude using a 12-item scale (Crysel & Webster, 2018) anchored from 1 (Strongly disagree) to 7 (Strongly agree). Sample items included “I enjoy reading ‘most embarrassing moment’ stories” and “I do not enjoy seeing someone's computer crash” (reverse-coded). Higher numbers represented greater levels of general schadenfreude. The scale was reliable, $\alpha = .82$, $M = 3.16$, $SD = 0.94$.

Target Specific Empathy and Schadenfreude. To measure empathy and schadenfreude towards our four social groups, we combined two general empathy and schadenfreude scales and adapted them to reflect more specific emotions. For empathy, we adapted the empathic concern subscale (four items) of the Brief Form of the Interpersonal Reactivity Index (Davis, 1983; Ingoglia et al., 2016), altering the scale to reflect empathy towards our targets. For example, one original item read “When I see someone being taken advantage of, I feel kind of protective toward them”. We changed the item to read “When I see a **[drug dealer]** being taken advantage of, I feel kind of protective toward them” in the drug dealer questionnaire. For schadenfreude, we adapted Leach and Spears (2009) four-item schadenfreude measure, changing the portion that discussed “successful people” to one of the four targets in the study. For example, the item that originally read “It feels good to see very successful people encounter a little difficulty” was changed to “It feels good to see **[undocumented immigrants]** encounter a little difficulty.” For each item, the specific group being assessed was bolded in the sentence and measured on a 1 (Strongly disagree) – 7 (Strongly agree) scale.

significant relationship with both empathy and schadenfreude, RWA was significantly related only to empathy, and LWA was not significantly related to either emotion.

Group-Specific Empathy. Next, we examined the correlations for specific competitive and dangerous groups, finding overall support for Hypothesis 2. SDO ($r = -.42$) had a stronger relationship with empathy for the homeless than did RWA ($r = -.13$), $t(492) = 6.90$, $p < .001$, as well as for medical specialists (SDO $r = -.16$; RWA $r = -.06$), $t(492) = 2.19$, $p = .029$. In contrast, RWA and SDO were equally related to empathy for undocumented immigrants (SDO $r = -.50$; RWA $r = -.44$), $t(492) = 1.66$, $p = .098$, while RWA was more strongly related to empathy for drug dealers (SDO $r = -.01$; RWA $r = -.17$), $t(492) = -3.52$, $p < .001$.

LWA ($r = .26$) was more strongly correlated with homeless empathy than homeless empathy was with RWA ($r = -.13$), $t(492) = -2.56$, $p = .011$. This was true as well for medical specialists (LWA $r = .23$), $t(492) = -3.16$, $p = .002$, as well as drug dealers, (LWA $r = .46$), $t(492) = -6.16$, $p < .001$. In contrast, LWA ($r = .46$) and RWA were correlated with undocumented immigrant empathy to the same extent, $t(492) = -0.62$, $p = .534$, although in different directions. LWA was positively related to empathy towards undocumented immigrants while RWA was negatively related. In contrast, SDO was still more strongly related to empathy compared to LWA, at least for empathy towards the homeless, $t(492) = -3.19$, $p = .001$. However, LWA was more strongly correlated with empathy towards drug dealers than was SDO, $t(492) = 9.87$, $p < .001$. Finally, SDO and LWA were correlated with empathy towards undocumented immigrants, $t(492) = -0.82$, $p = .413$, and medical specialists, $t(492) = 1.32$, $p = .188$, to the same extent.

In short, SDO was more strongly related to empathy towards competitive groups than was RWA, while RWA was more related to empathy for dangerous groups. LWA was not

related to general empathy compared to RWA but was more related, and in positive directions, to all group-specific empathy measures. Regarding SDO and LWA, LWA was only more strongly related to empathy for the group that was not competitive but dangerous. Otherwise, SDO was more strongly related to empathy or equally as related to empathy, as LWA.

Group-Specific Schadenfreude. Hypothesis 2 was confirmed for schadenfreude as well. SDO was more strongly related to schadenfreude towards the homeless ($r = .43$), $t(492) = 4.93$, $p < .001$, and undocumented immigrants ($r = .54$) compared to RWA (homeless $r = .23$; undocumented immigrants $r = .44$), $t(492) = 2.79$, $p = .007$, while RWA and SDO were equally related to empathy for drug dealers (RWA $r = .27$; SDO $r = .20$), $t(492) = -1.61$, $p = .110$, and medical specialists (RWA $r = .27$; SDO $r = .35$), $t(492) = 1.80$, $p = .072$. In contrast RWA ($r = .23$) was more strongly correlated with homeless schadenfreude than homeless schadenfreude was with LWA ($r = .09$), $t(492) = 2.66$, $p = .008$. This was also true for undocumented immigrants (LWA $r = -.11$), $t(492) = 6.78$, $p < .001$, drug dealers, (LWA $r = -.16$), $t(492) = 2.04$, $p = .042$, and medical specialists (LWA $r = .15$), $t(492) = 2.27$, $p = .024$. Finally, SDO was more strongly correlated with homeless schadenfreude than homeless schadenfreude was with LWA, $t(492) = -7.22$, $p < .001$. We found the same pattern for schadenfreude towards undocumented immigrants, $t(492) = -9.76$, $p < .001$, and medical specialists, $t(492) = -3.93$, $p < .001$. Finally, SDO and LWA were correlated with drug dealer schadenfreude to the same extent, $t(492) = -0.68$, $p = .496$.

In sum, SDO related to schadenfreude in a similar way for both forms of authoritarianism; for competitive groups, SDO had a stronger relationship with schadenfreude than did either RWA or LWA. For non-competitive groups, the relation between SDO and

emotions was the same as for either form of authoritarianism. However, RWA was more related to schadenfreude for all specific groups compared to LWA.

Correlation Patterns: Personality to Ideology

We hypothesized that SDO would be most strongly related to low agreeableness and openness to experiences, RWA would be most related to high conscientiousness and low openness to experiences, while LWA would be most related to low conscientiousness, low agreeableness, low openness to experiences, and high negative emotionality. Overall, the correlations support Hypothesis 3. SDO was negatively related to agreeableness ($r = -.27$) and openness to experiences ($r = -.20$) but also positively related to conscientiousness ($r = .13$). RWA, as predicted, was positively related to conscientiousness ($r = .22$), and negatively related to openness to experiences ($r = -.13$) only. Finally, also as predicted, LWA was negatively related to conscientiousness ($r = -.20$) and positively related to neuroticism ($r = .19$). Unexpectedly, LWA was also negatively associated with openness to experiences ($r = -.13$) and not related to agreeableness ($r = -.01$).

Correlation Patterns: Personality to Emotions

We hypothesized that empathy should be primarily related to increased agreeableness and openness to experiences, while schadenfreude should be primarily associated with decreased conscientiousness, agreeableness, and openness to experiences, as well as increased neuroticism. The results from the study largely conform to the expectations of Hypothesis 4, with some caveats. General empathy was strongly related to agreeableness ($r = .62$), moderately related to openness to experiences ($r = .34$), and slightly related to extraversion ($r = .11$), while general schadenfreude was negatively related to agreeableness ($r = -.30$), and openness to experiences (r

= -.23) but positively related to neuroticism. Conscientiousness was not related to general schadenfreude.

These patterns diverged for specific groups. Agreeableness ($r_s > .16$) and openness to experience ($r_s > .09$) were positively related to empathy towards all groups except drug dealers. Extraversion was not related to any group-specific empathy ($r_s < .06$) while conscientiousness was negatively related to empathy towards the homeless ($r = -.13$), drug dealers ($r = -.22$), and undocumented immigrants ($r = -.13$) but not medical specialists ($r = -.02$). Finally, neuroticism was positively related to empathy towards drug dealers ($r = .13$) only. We found agreeableness to be negatively related to schadenfreude towards homeless people ($r = -.36$), undocumented immigrants ($r = -.31$), and medical specialists ($r = -.27$) (but not drug dealers), while openness to experiences was negatively associated with schadenfreude towards all groups ($r_s > .11$). In contrast, neuroticism was only positively associated with schadenfreude towards medical specialists ($r = .09$).

In summary, drug dealers and medical specialists proved to be unique cases in terms of personality, being unrelated to personality facets that generally related to other forms of emotions (e.g., agreeableness and openness to experiences not relating to empathy for drug dealers) or being related to personality facets not normally associated with emotions (e.g., neuroticism being associated with empathy towards drug dealers).

General Discussion

In this study, we corroborated and extended past research on the connections between personality, ideology, and emotions, finding general support for our hypotheses. Overall, we find that while both personality and ideology related to general levels of empathy and schadenfreude as predicted, the specific target group assessed mattered. For example, as predicted SDO was

negatively related to general empathy and positively related to general schadenfreude, and to a greater degree than both RWA and LWA. However, SDO was not always more strongly related to each emotion on the group level. SDO was more strongly related to empathy, compared to RWA, only for competitive groups such as homeless people and undocumented immigrants, while RWA was more strongly related to empathy for drug dealers, or the dangerous but non-competitive group. As another example, SDO was equally associated with schadenfreude towards drug dealers as was RWA and LWA although SDO was more associated with general schadenfreude. These findings underscore the fact that the relationships between ideology and empathy/schadenfreude are not monolithic. Instead, they are sensitive to the context, related to the emotion that best maps onto ideological underpinnings.

There was less evidence that the social group mattered for personality, as the same personality correlates of general empathy and schadenfreude were also personality correlates of the group-specific emotions, with few caveats. For example, conscientiousness was not related to general empathy or general schadenfreude but was positively related to target empathy for three out of four targets (i.e., homeless people, drug dealers, and undocumented immigrants). As another example, agreeableness was related to target empathy for all targets except drug dealers.

While the target-dependency was clearer for ideology than for personality, we did not support our hypotheses across the ideologies equally. RWA and LWA's patterns were not as consistent with hypotheses as SDO's patterns. We expected RWA to be negatively related to empathy for drug dealers and undocumented immigrants, while LWA would be positively related to empathy for homeless and undocumented immigrants. RWA was only negatively related to empathy for one dangerous group (undocumented immigrants) but not the other (drug dealers). Further, LWA was positively related to empathy for all groups, which contrasted with

its small but negative relationship with general empathy. LWA was also related to increased schadenfreude towards medical specialists and homeless people but was negatively related to schadenfreude for drug dealers and undocumented immigrants.

Thus, while we hypothesized that people with higher levels of LWA would show increased empathy and decreased schadenfreude towards the groups that people with higher levels of SDO or RWA would deem a threat to their worldview, these findings suggest that LWA might be sensitive to a third, untapped dimension. Given the wording of several LWA items that center racism and prejudice, LWA might be particularly reactive to marginalized groups most in the public eye, such as race, gender, and perhaps sexual orientation. Of the groups for which LWA showed the hypothesized negative relationship with schadenfreude (i.e., drug dealers and undocumented immigrants), these were the social groups with strong racial connotations (Ghavami & Peplau, 2013). Future research is needed to understand exactly what the effect of authoritarianism on downstream intergroup outcomes is, separated from the ideological lean towards the left or the right. While our results are consistent with SDO being most relevant for competitive groups, RWA to dangerous groups, and LWA to marginalized groups, it is still unclear what the separations of these dimensions are.

Drug dealers and medical specialists in particular highlighted the limitations of separating groups based on perceived competitiveness and dangerousness, as they were the targets for which the ideological and personality correlates were most dissimilar from predictions. What made drug dealers and medical specialists unique, although their perceived competitiveness and dangerousness were in line with expectations? While we did not measure deservingness or perceptions of fairness, it is likely that drug dealers and medical specialists are seen to be groups that are undeserving of empathy, albeit for different reasons. Drug dealers are inherently

unsympathetic targets, as they contribute to social crises of addictions and cycles of violence (McCorkle, 1993). Thus, any misfortunes that comes to drug dealers likely feel justified and should even be celebrated (e.g., decreased empathy and increased schadenfreude) In contrast, while medical specialists were perceived as low in dangerousness and competitiveness, people might not have ever wondered how much empathy or schadenfreude they felt towards medical specialists, rendering this group invisible. Thus, outcomes related to general levels of empathy and schadenfreude might only extend to specific groups insofar as they are seen as typical recipients of the emotion and deserving of it.

Overall, the results suggest that unlike anger and fear, SDO might be more related to moral emotions of empathy and schadenfreude than is RWA or LWA. Indeed, early theorizing about SDO placed a lack of concern for others as a hallmark for someone with high levels of SDO (Pratto et al., 1994), suggesting a more fundamental link between SDO and empathy overall. And as we argued in the introduction, both SDO and schadenfreude become more relevant in competitive, zero-sum situations. The stronger connection between SDO and empathic and counter-empathic emotions does not erase the fact that RWA and LWA were also target-dependent. Thus, there is evidence that the dual process model can be expanded into the realm of empathy and schadenfreude. Future studies should replicate these findings as well as assess perceived competitiveness, dangerousness, and marginalization as relevant precursors to group specific emotions.

Future research should also extend this model to behaviors. Is SDO, RWA, and LWA most predictive of intergroup behaviors towards ideology-relevant groups, and does the amount of empathy and schadenfreude felt facilitate the connection between ideology and behavior? One unpublished set of studies finds that empathy is an emotional mediator between SDO and a

decrease in support for helpful intergroup policies, while schadenfreude is an emotional mediator between SDO and an increase in support for harmful policies (Hudson et al., 2022). However, the groups tested were low status. There is an outstanding question as to whether RWA and LWA would predict a decrease in helpful behaviors and an increase in harmful behaviors, but specifically towards groups deemed as dangerous or marginalized, respectively.

Conclusion

The major limitation to this study revolves around the nature and length of the scales used. The specific measure of empathy, schadenfreude, personality, and ideologies likely influenced the results, from less precise measurements of a given construct to inconsistent results. Indeed, even in generating the predictions for the direction and strength of the correlations within this study proved difficult due to differences in past operationalization. Furthermore, the groups listed here are rooted in an U.S. context, making their generalizability suspect beyond the United States. We still believe this study has value, as it adds to the growing literature on personality, ideology, and (counter)-empathic emotions. To our knowledge this is the first study to investigate the relation between RWA and general as well as target-specific schadenfreude. Furthermore, this is one of the few studies to investigate LWA in conjunction with any group-based outcome. By understanding the precursors of empathy and schadenfreude, we are better able to leverage these emotions towards positive intergroup change.

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