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Dark personality traits, political values, and prejudice: Testing a dual process model of prejudice towards refugees[☆]

Magdalena Żemojtel-Piotrowska^{a,*}, Artur Sawicki^b, Peter K. Jonason^{a,c}^a University of Cardinal Stefan Wyszyński in Warsaw, Poland^b University of Gdańsk, Poland^c University of Padova, Italy

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ABSTRACT

There are two classes of explanations of prejudice: situational and personality. In a sample of Polish community members ($n = 394$), we tried to understand individual differences in prejudice towards refugees (i.e., classical and modern prejudice along with social distance) by considering the role of individual differences in the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism), collective narcissism (i.e., agentic and communal), social dominance, and authoritarianism. Both the Dark Triad traits and collective narcissism were associated with prejudice towards refugees among Poles, but the association for the former was fully mediated by social dominance—an effect that was stronger in men—whereas the association for the latter was partially mediated by authoritarianism—an effect that was stronger in women. We discuss our findings referring to a dual process model of prejudice.

Prejudice is the tendency to devalue others and to favor one's own group. One manifestation of prejudice that warrants attention in contemporary events is towards refugees, or citizens from one country who have been displaced to another country. Social psychologists examining attitudes towards refugees emphasize the role of contexts that create or exacerbate prejudice (Hodson & Dhont, 2015). In contrast, personality psychologists try to understand the personogenic reasons people may be prejudiced, including towards refugees (Piotrowski, Różycka-Tran, Baran, & Żemojtel-Piotrowska, 2019). From this view, situational factors may matter, but there may also be latent tendencies in people that lead some to adopt more prejudicial attitudes at the dispositional level. Moreover, these prejudice-enabling dispositions may undermine social and political movements to improve the treatment and integration of vulnerable groups into the countries they find themselves in. In particular, we attempted to understand the role of personality in predicting prejudice towards refugees, in a country—Poland—that has refused the admittance of refugees.

According to the integrated threat theory of prejudice, negative attitudes towards others stem from four sources: (1) perceiving the group as symbolic, (2) perceiving the group as a realistic threat, (3) negative stereotypes, and (4) intergroup anxiety (Stephan & Stephan,

1996). Most work trying to examine the personogenic predictors of prejudice tend to focus on political personality traits (Duckitt & Sibley, 2010), associated with perceiving situations as antagonistic (Piotrowski et al., 2019). The most notable of these traits are social dominance and authoritarianism (Altemeyer, 1988; Pratto, Sidanius, Stallworth, & Malle, 1994). The latter is related to perceptions of the world as a dangerous place whereas the former is related to perceptions of the world as a competitive place (Jonason, Underhill, & Navarrete, 2020; Sibley & Duckitt, 2010). This dual process model of prejudice seems to be particularly promising as a theoretical framework to understand prejudice (Claessens, Fischer, Chaudhuri, Sibley, & Atkinson, 2020), however, it often is focused exclusively on either (1) the distal forces of the Big Five traits or (2) the proximal forces of social dominance and authoritarianism as predictors (Duckitt & Sibley, 2010; Hodson & Dhont, 2015).

There are other, more nefarious forces worth considering to understand prejudice. Dark Triad personality traits: narcissism (e.g., grandiosity and self-centeredness), Machiavellianism (e.g., cynicism and manipulateness), and psychopathy (e.g., callousness with impulsive tendencies) are related to various tendencies that may enable prejudicial attitudes, interpersonal antagonism (Jones & Neria, 2015)

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* Corresponding author at: Institute of Psychology, Cardinal Stefan Wyszyński University in Warsaw, Woycickiego 1/3 Street, 01-938 Warsaw, Poland.

E-mail address: m.zemojtel-piotrowska@uksw.edu.pl (M. Żemojtel-Piotrowska).

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and limited empathy (Wai & Tiliopoulos, 2012). While nowhere near as exhaustive as work on the Big Five traits (Hodson & Dhont, 2015), there is considerable evidence that these traits are related to different manifestations and measures of prejudice. The Dark Triad traits may (1) be higher in members of the KKK in America (Jones, 2013, 2) account for additional variance in prejudice above the Big Five traits (Hodson, Hogg, & Mac Innis, 2009, 3) lead to an aversion of outgroup others (based on sex and race) via competition (i.e., social dominance) for psychopathy and prejudice and fear of outsiders (i.e., right wing authoritarianism) for Machiavellianism (Jonason et al., 2020). However, the samples used were exclusively Western and never (as far as we know) examined prejudice towards refugees, limiting the generalizability of this research. Therefore, we attempt to replicate the associations between the Dark Triad traits and prejudice but have the target of the prejudice as refugees among Poles.

The Dark Triad traits describe within-person individual differences. The measures ask about how individuals evaluate themselves. In contrast, other traits may describe individual differences in how people view others, for our purposes, we contend that agentic (Golec de Zavala, 2018) and communal (Żemojtel-Piotrowska et al., 2020) collective narcissism may be just such traits. Collective narcissism can be defined as unrealistic beliefs for in-group greatness, accompanied by hypersensitivity to insults from others (Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009). These beliefs and this hypersensitivity can result in out-group hostility (Golec de Zavala, Cichocka, & Bilewicz, 2013) as created by agentic and communal in-group enhancement to protect one's views of their cherished in-group (Żemojtel-Piotrowska et al., 2020). Undoubtedly, like the Dark Triad traits, collective narcissism is associated with negative attitudes towards others (Golec de Zavala et al., 2009, 2013). Prior research examining the links between collective narcissism and prejudice is limited in (1) its reliance on only one aspect of collective narcissism and prejudice, (2) focusing on narcissism at the statistical or methodological exclusion of psychopathy and Machiavellianism, (3) testing the rather antiquated and Freudian notion that those with low self-esteem use prejudice as a compensatory mechanism, (4) relying on convenience samples, and (5) focusing on immigrants which are not identical to refugees (Cichocka, Dhont, & Makwana, 2017). Therefore, we also expect to replicate the associations between three measures of prejudice and agentic and communal collective narcissism but do so in the context of refugees in a community sample of Poles.

To date, few studies have tried to integrate collective narcissism, the Dark Triad traits, and political personality traits to explain variance in prejudice (Cichocka et al., 2017), let alone in relation to refugees. Instead, most work has taken a piecemeal approach to understanding smaller portions/manifestations of this puzzle. We attempt to build the case for and test a dual process model (Claessens et al., 2020), akin to work that has focused on the Big Five traits (Duckitt & Sibley, 2010; Sibley & Duckitt, 2010), that describes two paths to prejudice (see Fig. 1). We postulate two different mechanisms responsible for the way the Dark Triad traits and collective narcissism account for individual differences in prejudice towards immigrants (and perhaps in general). The Dark Triad traits might be linked to prejudice mostly through their competitive nature (Cichocka et al., 2017). Prejudice may be driven by perceptions of between-group competition and desires for personal dominance over others, and traits like the Dark Triad may orient people towards being competitive for selfish ends (Jonason et al., 2020). In contrast, collective narcissism is associated with authoritarianism and manifests itself in intergroup hostility stemming from perceiving others as a threat (Cichocka et al., 2017; Golec de Zavala et al., 2009, 2013). Right wing authoritarians are concerned with maintaining tradition, are resistant to change, and view the world as threatening which are group-oriented values (Claessens et al., 2020). Therefore, despite both traits being likely to lead to increased prejudice towards refugees (and perhaps in general), they do so through different (and even independent) mechanisms (i.e., mediation).

In the current study, we attempt to replicate work on the roles of the Dark Triad traits and collective narcissism in accounting for individual differences in prejudice (Cichocka et al., 2017). Unlike prior work, we measure prejudice in the forms of classical, modern, and social distance. We also hope to test a dual process model that links group-focused individual differences (i.e., collective narcissism) to prejudice through right-wing authoritarianism and links person-focused individual differences (i.e., the Dark Triad traits) to prejudice through social dominance. Importantly, we do this in a unique context and towards unique targets in a country that is unfriendly to refugees (Piotrowski et al., 2019).

1. Method

1.1. Participants and procedure

We administered a three-wave survey¹ to a nationally representative sample of 659 Polish adults using the Ariadna Internet research service.² Once we included only participants who participated in all three waves and took the measures we are concerned with here, our final sample was 394 participants (190 women, 204 men) aged 18 to 82 years ($M_{\text{age}} = 45.99$ years, $SD_{\text{age}} = 14.93$). Despite the removal of these participants, our sample was adequately powered based on recent power analyses in this area (Golec et al., 2019) and simulations in personality psychology (Schönbrodt & Perugini, 2013). Participants were initially informed as to the nature of the study, provided tick-box consent, completed the weekly measures (randomized presentation of scales within weeks), and in each wave, participants were thanked and debriefed for their participation. This study was approved by the ethics committee at the first author's former institution (UG1/2016). Data and further details are available at: https://osf.io/yqckf/?view_only=2d9c17dd6db84356b235ca1caf4ce3c6.

1.2. Measures

Agentic and communal collective narcissism were measured (wave 1) with the (9 items) Agentic Collective Narcissism Scale (Golec de Zavala et al., 2009) and the (7 items) Collective Communal Narcissism Inventory (Żemojtel-Piotrowska et al., 2020). Participants were asked how much they agreed (1 = *definitely disagree*, 7 = *definitely agree*) with statements for the former (e.g., "I wish other groups would more quickly recognize authority of my group") and the latter (e.g., "My group is extraordinarily friendly toward other groups."); we removed one item (i.e., "If my group had more to say, the world would be a better place.") from the former to reduce redundancy and potential multicollinearity with an item from the latter (i.e., "My group will make the world a better place."). Responses were averaged to create indexes of each type of collective narcissism.

The Dark Triad traits were measured (wave 3) with the Polish translation (Czarna, Jonason, Dufner, & Kossowska, 2016) of the Dark Triad Dirty Dozen scale (Jonason & Webster, 2010). The scale is composed of four items measuring psychopathy (e.g., "I tend to lack remorse."), narcissism (e.g., "I tend to seek prestige or status."),³ and Machiavellianism (e.g., "I tend to manipulate others to get my way."). Participants were asked how much they agreed with the statements (1 = *strongly disagree*, 5 = *strongly agree*) which were averaged to create indexes of each trait.

¹ Data was collected in three waves—with one week in between—to reduce common method bias (Podsakoff, Mac Kenzie, & Podsakoff, 2012).

² Explanation: this second (not cited in the current paper) manuscript is under rewriting. We will refer to the current study if we successfully publish this new paper. Please remove this footnote.

³ We refer to this as "personal narcissism" below to avoid confusion with the two other forms of narcissism we are measuring.

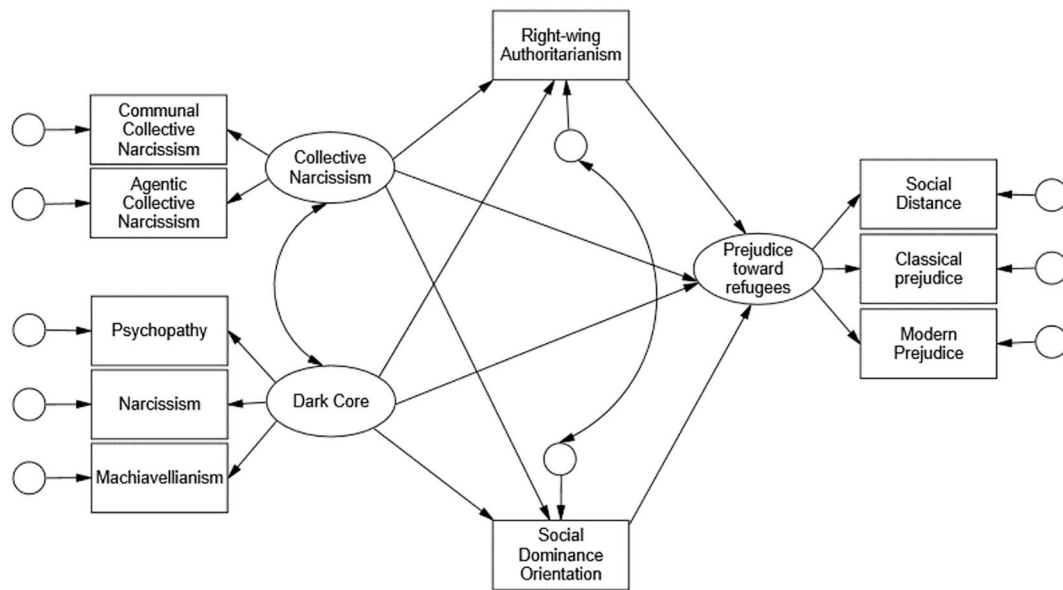


Fig. 1. A dual process model describing the paths from group-focused and individual-focused traits to predict prejudice towards refugees through authoritarianism and social dominance.

Prejudice was measured (wave 2) using the Polish translation (Piotrowski et al., 2019) of the Classical (8 items) and Modern (9 items) Racial Prejudice Scale (Akrami, Ekehammar, & Araya, 2000); we converted the items to refer to refugees for our present purposes. Participants were asked their agreement (1 = *strongly disagree*, 5 = *strongly agree*) with items for classical prejudice (e.g., “Refugees do not keep their homes clean.”) and modern prejudice (e.g., “Refugees are becoming too demanding in pressing for equal rights.”). Importantly, we originally had unacceptably low internal consistency for the modern prejudice scale ($\alpha = 0.54$) so we excluded the problematic (based on low inter-item correlations) item (i.e., “It’s easy to understand why refugees are demanding equal rights.”), which improved the internal consistency to a more acceptable level ($\alpha = 0.66$) for analyses.

Prejudicial behavioral intentions were captured (wave 2) using the Polish translation (Golec de Zavala et al., 2013) of the 5-item social distance scale (Bogardus, 1925). Participants reported how likely (1 = *definitely yes*, 5 = *definitely no*) they were to commit the behaviors expressed in each item (e.g., “Would you accept a refugee as a close neighbour?”). Items were averaged to create an index of the social distance people try to maintain from refugees in Poland.

Authoritarian beliefs were measured (wave 2) with the Polish version (Radkiewicz, 2011) of the 20-item Right-Wing Authoritarianism scale (Altemeyer, 1988). Participants were asked their agreement (1 = *strongly disagree*, 7 = *strongly agree*) with the items (e.g., “The proper key to a good life is discipline and obedience.”) which were averaged to create an index of individual differences in authoritarianism.

To measure individual differences in how people think about the appropriate relative positions of groups (wave 2) we used the Polish version (Duriez, Van Hiel, & Kossowska, 2005) of the 10-item Social Dominance Orientation scale (Pratto et al., 1994). Participants rated their agreement (1 = *strongly opposed*, 5 = *strongly in favor*) with the items (e.g., “Better groups should dominate over others.”) which were averaged to create an index of individual differences in social dominance.

2. Results

Table 1 contains descriptive statistics, Cronbach’s α s, and zero-order correlations for the aforementioned variables along with sex

differences. As would be expected, the Dark Triad traits were correlated with each other and men scored higher than women did in the traits. Similarly, men had stronger social dominance and social distancing tendencies than women did. Social distance was correlated with the Dark Triad traits, authoritarianism, social dominance, and both forms of prejudice. Modern prejudice was correlated with authoritarianism, social dominance, and both forms of prejudice. Classic prejudice was correlated with Machiavellianism, authoritarianism, social dominance, and both forms of prejudice. Social dominance was correlated with the Dark Triad traits. Only agentic collective narcissism was associated with personal narcissism.

Given what we revealed above and to test the dual process model we proposed (see Fig. 1), we used Structural Equation Modelling (SEM), where we used latent variables of collective narcissism (indicated by both forms of collective narcissism), a dark core (indicated by psychopathy, narcissism, and Machiavellianism), and prejudice (indicated by social distance, classical prejudice, and modern prejudice). Authoritarianism and social dominance were treated as potential, multiple mediators. We used Robust Maximum Likelihood estimator in MPlus (Muthén & Muthén, 1998-2017) and relied on common cut-off recommendations for fit (Byrne, 1994): Comparative Fit Index (CFI) > 0.90, Root Mean Square Error of Approximation (RMSEA) < 0.08, and Standardized Root Mean Square Residual (SRMR) < 0.10.

The tested model (see Fig. 2) fit the data well ($\chi^2_{(27)} = 55.18$, $p < .01$, RMSEA < 0.06 [0.03, 0.07], CFI = 0.98, SRMR < 0.04). Authoritarianism (but not social dominance) partially mediated the relationship between collective narcissism and prejudice. On the other hand, the relationship between the Dark Core and prejudice was partially mediated by social dominance orientation. This model was robust ($\Delta\chi^2_{(10)} = 11.86$, $p < .30$, Δ RMSEA < 0.01, Δ CFI < 0.01) across the sexes in unconstrained ($\chi^2_{(64)} = 103.15$, $p < .01$, RMSEA < 0.06 [0.04, 0.08], CFI = 0.98, SRMR < 0.06) and constrained ($\chi^2_{(74)} = 114.66$, $p < .01$, RMSEA < 0.06 [0.03, 0.07], CFI = 0.98, SRMR < 0.07) models. Despite this, there were some differences in the path coefficients that warrant reporting (see Table 2). The relationship between collective narcissism and prejudice was fully mediated by authoritarianism in women and partially mediated by authoritarianism in men. The relationship between the Dark Core and prejudice was partially mediated by social dominance only in men, perhaps, because of the weak relationship between social dominance and prejudice in women

Table 1
Descriptive statistics, sex differences, and correlations among our variables.

	1	2	3	4	5	6	7	8	9	10
1. Communal Collective Narcissism										
2. Agentic Collective Narcissism	.80**									
3. Psychopathy	.12*	0.08								
4. Narcissism	.16**	.13**	.80**							
5. Machiavellianism	0.06	0.04	.80**	.75**						
6. Authoritarianism	.54**	.50**	.12*	.16**	0.10					
7. Social Dominance	.12*	0.07	.37**	.37**	.35**	.21**				
8. Social Distance	.39**	.37**	.19**	.19**	.21**	.49**	.25**			
9. Classical Prejudice	.31**	.35**	0.05	0.06	0.08	.45**	.20**	.70**		
10. Modern Prejudice	.36**	.35**	0.04	0.07	0.10	.49**	.21**	.61**	.74**	
Cronbach's α	0.88	0.96	0.78	0.86	0.83	0.82	0.88	0.96	0.87	0.66
Overall: <i>M</i> (SD)	3.74 (1.44)	4.05 (1.16)	2.39 (0.75)	2.56 (0.82)	2.45 (0.84)	3.71 (0.76)	2.44 (0.67)	3.01 (1.07)	3.11 (0.80)	3.06 (0.61)
Men: <i>M</i> (SD)	4.13 (1.14)	3.83 (1.50)	2.52 (0.70)	2.71 (0.76)	2.54 (0.83)	3.78 (0.76)	2.54 (0.70)	3.08 (1.05)	3.19 (0.81)	3.14 (0.65)
Women: <i>M</i> (SD)	3.97 (1.17)	3.64 (1.37)	2.25 (0.78)	2.40 (0.85)	2.35 (0.85)	3.64 (0.76)	2.33 (0.63)	2.93 (1.08)	3.02 (0.79)	2.98 (0.56)
<i>t</i> -test	1.40	1.31	3.54**	3.80**	2.21*	1.77	3.20**	1.40	2.13*	2.58*
Cohen's <i>d</i>	0.14	0.13	0.36	0.38	0.22	0.18	0.32	0.14	0.22	0.26

* $p < .05$.
** $p < .01$.

($r = -0.16, p < .08$). The models explained similar amounts of variance in general ($R^2 = 0.36, p < .01$), in women ($R^2 = 0.35, p < .01$), and in men ($R^2 = 0.38, p < .01$).

3. Discussion

For > 200 years, people have relied on the unidimensional political distinction common in places like the USA and Germany of left/liberal-to-right/conservative. However, this model fails to capture the nuance of people's political ideology, with libertarians (i.e., socially liberal yet fiscally conservative) serving as a notable example. Modern research (Claessens et al., 2020; Duckitt, Wagner, du Plessis, & Birum, 2002; Jonason et al., 2020; Sibley & Duckitt, 2010) suggests, instead, there may be two routes to prejudice that reflect competitive between-group relationships (i.e., social dominance) and within-group conformity and fears of outsiders (i.e., authoritarianism). However, this research (1) often focuses on the Big Five traits (Duckitt & Sibley, 2010; Hodson & Dhont, 2015, 2) rarely considers how group-focused and person-focused

traits may serve as distal predictors of prejudice through these different routes (Cichocka et al., 2017, 3) usually focuses on racial groups or immigrants in Westernized societies that are relatively open to outsiders as opposed to places like Poland that are rather hostile towards them (Piotrowski et al., 2019). In this study, we replicated and extended prior work on how dark personality traits may relate to prejudice towards outsiders, in this case towards refugees, in general and through these distinct paths in a representative sample of Poles.

We found that the Dark Triad traits and agentic and communal collective narcissism were associated with more prejudice towards refugees consistent with prior work on other forms of prejudice (Golec de Zavala et al., 2009, 2013). A classic explanation of these effects holds that socially undesirable traits like narcissism may be linked to more prejudice as a compensatory mechanism for low self-esteem (Cichocka et al., 2017). In contrast, we found that all aspects of "dark" personality were linked to prejudice which makes such an "inferiority hypothesis" unlikely given the fact that narcissism is often associated with more, not less self-esteem and the other traits have less clear associations with

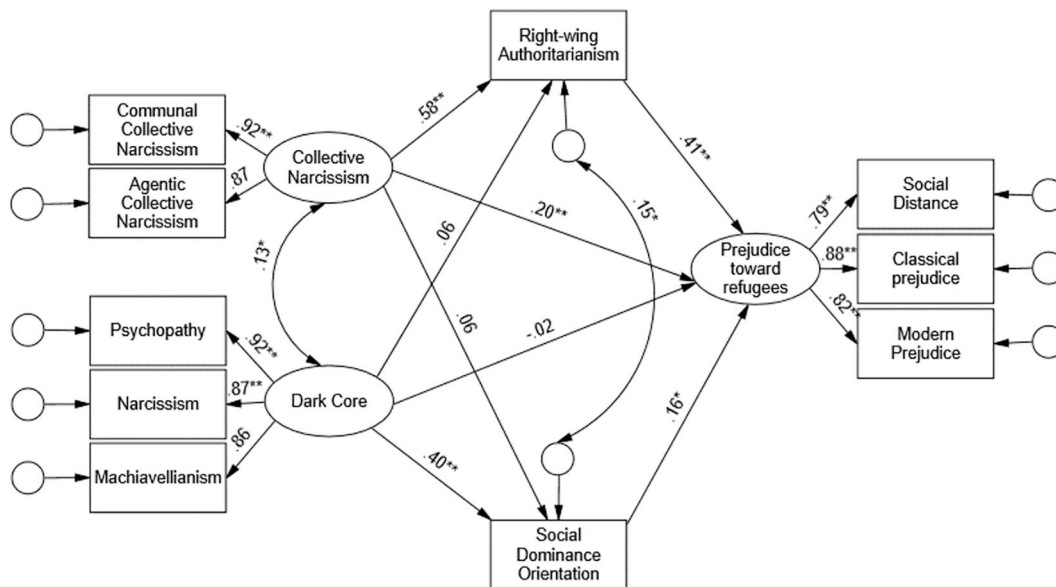


Fig. 2. Standardized path coefficients in the dual process model in which group-focused and individual-focused traits predict prejudice towards refugees through authoritarianism and social dominance.
Note. Indirect effects for collective narcissism were 0.24** via authoritarianism and 0.03 via social dominance. Indirect effects for dark core were 0.03 via authoritarianism and 0.07* via social dominance.

Table 2
Standardized path coefficients in unconstrained models.

		Men	Women
Collective Narcissism	CCN	.90**	.84**
	ACN	.90**	.92**
Dark Core	Psychopathy	.91**	.93**
	Narcissism	.85**	.89**
	Machiavellianism	.86**	.85**
Prejudice	Social distance	.80**	.77**
	Classical prejudice	.91**	.85**
	Modern prejudice	.80**	.85**
Direct effects			
Independent variable	Dependent variable	Men	Women
Collective Narcissism	Authoritarianism	.56**	.59**
Dark Core	Authoritarianism	0.06	0.05
Collective Narcissism	Social Dominance	0.00	0.13
Dark Core	Social Dominance	.38**	.38**
Collective Narcissism	Prejudice	.33**	0.05
Dark Core	Prejudice	−0.06	0.02
Authoritarianism	Prejudice	.30**	.53**
Social Dominance	Prejudice	.24**	0.07
Correlations			
Social Dominance	Authoritarianism	0.16	0.14
Collective Narcissism	Dark Core	0.00	.23**
Indirect effects on prejudice			
Independent variable	Mediator	Men	Women
Collective Narcissism	Authoritarianism	.17**	.32**
Dark Core	Authoritarianism	0.02	0.03
Collective Narcissism	Social Dominance	0.00	0.01
Dark Core	Social Dominance	.09**	0.03

Note. CCN = collective communal narcissism; CAN = agentic communal Narcissism.

* $p < .05$.

** $p < .01$.

self-esteem in any direction (e.g., Jonason & Webster, 2010). Instead, our results point to two classes of distal predictors of prejudice: person-focused and group-focused. Person-focused traits are self-evaluations of people's own dispositions and self-reports of their behaviors. In contrast, group-focused traits can also be self-reports on people's inner world, but the targets of the evaluations are another person or group. Prejudicial attitudes/behaviors can originate—as we found—along a group-oriented path through authoritarianism. Authoritarianism is a trait that encourages “circling of the wagons” to protect one's group (Jonason et al., 2020). Therefore, generalized group-support, as found in collective narcissism, is likely to lead to authoritarian values which collectively lead to prejudice. Prejudicial attitudes/behaviors can also originate—as we found—along a self-interested path through social dominance. Social dominance is a trait that captures individual differences in competitive sentiments for self-centered individuals (Claessens et al., 2020). Therefore, generalized agency—as found in the Dark Triad traits—may lead to a dispositional bias towards competition which can then lead to prejudice, especially when the outgroup is viewed as a competitor in zero-sum problems like finding work (Piotrowski et al., 2019).

One limitation of the dual process model is that it fails to account for the origins of these patterns. The standard social science model would suggest these patterns are based on traditions but can say nothing about why those traditions emerged as opposed to others. A more compelling argument might be offered by the interactionist, multidisciplinary field of evolutionary psychology (for a more detailed review see Claessens et al., 2020). We conjecture here about the possible evolutionary

origins of these patterns. Over the course of evolution, the human species began to live in progressively more integrated communities. These communities created new adaptive problems to solve. Other groups provided recurrent opportunities for competition and danger (Navarrete, McDonald, Molina, & Sidanius, 2010). The former would have been enabled by traits like the Dark Triad and values like social dominance. The latter would have been enabled by a tendency to act in a conservative, group-protective manner which are captured in collective narcissism and authoritarianism. Ancestral variance in these dispositions would have been selected, leading to the character traits and resulting behaviors we know today and studied here.

An important addition to support this case is the different mediation effects we found in the sexes and the pattern of sex differences we replicated. Men are more likely to have benefited from selfishness than women; women will have paid greater costs. This may be why the “competitive” pathway was present in men but not in women. That is, selection pressure would have aligned men's dispositions to protect their interests because of the reproductive returns it offers like accruing resources or competing with ingroup and outgroup males (Navarrete et al., 2010). In contrast, both sexes faced dangers from outsiders—a problem common in chimpanzees (*Pan troglodytes*) as well as humans (Wrangham & Peterson, 1996)—and thus, selection pressures might have encouraged both sexes down the “fearful” pathway. However, this path should be stronger in women than in men given that women benefited more from group-living than men did; men might even have paid more costs for not standing out enough (Jonason & Zeigler-Hill, 2018). Such theorizing is consistent with the integrated threat theory of prejudice (Stephan & Stephan, 1996) but adds deeper reasoning for why such patterns might have emerged in the first place or as opposed to some other pattern.

4. Limitations and conclusions

Even though we measured prejudice in three ways and five manifestations of “dark” individual differences in a general sample of Poles, our study was limited. First, while our sample was not strictly W.E.I.R.D., our data is confined to one, homogenous culture. However, the Polish context presents a unique way to study prejudice because unlike more multicultural societies, our sample is unlikely to have had much experience with cultural outsiders meaning that prejudicial assessments are not contaminated by any actual experiences that might promote or attenuate prejudicial attitudes. That is, the abstract nature of our assessments of prejudice may offer a purer estimate of the links between individual differences in personality, political values, and prejudice. Indeed, the correlations among the measures of prejudices may be an artifact of this; prior research suggests classical and modern prejudice are theoretically distinct (Akrami et al., 2000). Second, we relied on the Dirty Dozen measure of the Dark Triad traits for its efficiency which may have questionable validity. And yet, results were consistent with hypotheses dampening those concerns. Nevertheless, future research will need to replicate our findings using alternative, longer measures of the Dark Triad traits. Third, we had to remove two items prior to analyses, for different reasons, that may slightly change the nature of what is being measured for each trait. While we think our decisions were defensible and unlikely to have created anomalous findings, future research needs to replicate and extend our findings to make sure. And fourth, while we think the target of refugees in the Polish context is an important consideration—both in terms of research and humanitarian concerns—future research will need to test our person-centered v. group-centered approach in relation other forms of prejudice. Nevertheless, we have provided new details and a test of the dual process model of prejudice.

In conclusion, we have replicated and extended work on the role of “dark” traits in predicting prejudice. We did so in a unique cultural context using three measures of prejudice and five “dark” traits and conjectured on the evolutionary origins of the dual process model. In

short, we found there were two, independent paths to prejudice: a fear-based one that operates from ingroup favoritism (i.e., collective narcissism) through conservatism (i.e., authoritarianism) and a competition-based one that operates from personal agency (i.e., the Dark Triad traits) through competitiveness (i.e., social dominance).

CRedit authorship contribution statement

Magdalena Żemojtel-Piotrowska: Conceptualization, Data curation, Investigation, Methodology, Project administration, Resources, Funding acquisition, Supervision, Writing - original draft, Writing - review & editing. **Artur Sawicki:** Methodology, Visualization, Formal analysis, Writing - original draft. **Peter K. Jonason:** Conceptualization, Supervision, Writing - original draft, Writing - review & editing.

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