


The Father's Love: Collective Narcissism and Defensive Reactions to Allegations about Pope John
Paul II in Polish Public Opinion

Author Affiliation Notes:

AGNIESZKA GOLEC DE ZAVALA*: Reader, Department of Psychology, Goldsmiths,
University of London, London, UK

 <https://orcid.org/0000-0002-7631-9486>

CHRISTOPHER M. FEDERICO: Professor, Departments of Political Science and Psychology,
University of Minnesota–Twin Cities, Minneapolis, MN, US

 <https://orcid.org/0000-0002-7917-1659>

Corresponding Author Note:

Corresponding author: Agnieszka Golec de Zavala, Department of Psychology Goldsmiths,
University of London, New Cross, London SE14 6NW; email: agnieszka.golec@gmail.com.

Supplementary Material

Supplementary Material may be found in the online version of this article: <https://doi.org...>

Acknowledgments:

The authors would like to thank Tomasz Baran at Ariadna Research Panel for his help collecting the data.

Data Availability Statement:

REPLICATION DATA AND DOCUMENTATION are openly available at <https://osf.io/4ug35/>

Abstract

Recent allegations that pope John Paul II turned a blind eye to clergy sexual abuse as archbishop and pope have ignited much controversy in Poland. In this study, we utilize data from an original representative survey of Polish adults to examine predictors of defensive political reactions to these allegations. We hypothesized that national and Catholic collective narcissism (an exaggerated belief in ingroup greatness that requires consistent external validation) would predict defensive attitudes in the face of the allegation, and that non-narcissistic ingroup satisfaction with national and Polish identities would be less related to defensive attitudes. Using a variety of statistical approaches, we find support for these predictions among Polish Catholics.

Keywords: religion, collective narcissism, in-group satisfaction

Political discourse in Poland have organized national identity around the authority of the Roman Catholic Church and the late pope John Paul II (Ayoub and Chataille 2020; Graf and Korolczuk 2022; Topidi 2019). In consequence, the definition of national identity has become a contentious issue in Poland. Whereas the right fuses national and religious identity on the basis of a perceived opposition between “traditional” Catholic morality and the decadent and demoralised “West”, the center and the left oppose the complete identification of the state and public life with Catholicism. Studies have demonstrated a strong association between Polish and Catholic identity, especially when it manifests as national and Catholic *collective narcissism*, a belief in Catholic Poland’s unique greatness that should be but is not sufficiently venerated by others (Federico et al. 2023; Mole et al. 2022).

Moral claims associated with Catholic identity (and thus Polish identity) have recently come under threat in the face of evidence of systemic problems with sexual abuse in the Catholic Church (e.g., CIASE Final Report 2021; IICSA 2022; McPhillips 2016). A recent book, *Maxima Culpa*, and a documentary aired by independent Polish broadcaster TVN have alleged that pope John Paul II himself failed to take action despite knowing of sexual abuse as archbishop of Krakow and later as pontiff. In this study, we use data from an original national survey of Polish adults to examine the hypothesis that collective narcissism with respect to Polish national identity and Catholic identity would predict defensive opinions about the allegations about John Paul II and would do so more strongly than non-narcissistic ingroup satisfaction regarding the same identities.

Defending the Pope

The book *Maxima Culpa* alleging pope John Paul II’s inaction in the face of sexual abuse of children was published in Poland in early 2023. It was authored by Ekke Overbeek, a Dutch journalist living in Poland who writes about problems of sexual abuse and pedophilia in the Catholic Church. The book presents evidence that Karol Wojtyla knew about pedophilia and sexual violence

in the Catholic Church and protected priest-perpetrators in his capacity as archbishop of Krakow and as pope. Although similar allegations have been a matter of public knowledge for decades (Dale and Alpert 2007), the book caused a heated political debate in Poland in the wake of the parliamentary election in fall 2023.

In public commentary, defensive reactions have taken the form of refusal to acknowledge the accusations, denial of their veracity, and hostile opposition to what is perceived as an insult to Poles and Poland. Conservative commentators challenged the reliability of the evidence and the authors, accusing them of politically motivated “manipulation of the facts” (Walker and Piasecka 2023). Sectors of the Church and the conservative-nationalist Law and Justice (PiS) party mobilised supporters to march in protest against the book and its allegations. The lower house of the Polish Parliament (Sejm) passed a resolution “in defense of the good name of pope John Paul II.” Among other things, the resolution stated: “We will not allow the image of a man whom the whole free world recognises as a pillar of victory over the empire of evil to be destroyed. Pope John Paul II is a symbol of Poland’s regaining its independence and liberation from the Russian sphere of influence” (Walker and Piasecka 2023).

Conservative-nationalist politicians openly attacked the sources of the allegations, attributing to them hostile intentions against the church and Poland. The leader of the ruling Law and Justice Party, Jarosław Kaczyński, interpreted the allegations against the pope as an attack on Polish identity by unnamed but hostile forces, saying: “The attacks against John Paul II are the next stage of a huge undertaking aimed at destroying traditional values, existing ways of perceiving reality, and then building a new culture and forging a new man on their ruins” (*Notes from Poland*, 7 March 2023). Liberal and centrist politicians with ties to the church have also attempted to deny, relativize and diminish the pope’s responsibility. For example, historian and former Solidarity-era dissident Adam Michnik commented on the pope’s role, “There are no people who do not make mistakes...I believe

not many people know what really happened...Social awareness was different in those times” (*Gazeta Wyborcza*, 17 February 2023).

In the present study, we argue that defensive reactions to evidence that abuse was known and covered up by pope John Paul II should be associated with national and Catholic collective narcissism (CN), but less strongly (or not at all) with non-narcissistic ingroup satisfaction (IS) with the Polish nation and Catholicism. We derive these predictions from the theory of collective narcissism (Golec de Zavala 2011, 2023a,b), which posits that collective narcissists are preoccupied with protection of the ingroup’s grandiose image because their narcissistic superiority needs are invested in the ingroup. Below we explain why it is important to differentiate collective narcissism in research on the role of ingroup identity in predicting political behavior.

Collective Narcissism

Collective narcissism (CN) is an evaluative aspect of ingroup identification. It is also an expression of the narcissistic need to be recognized as better than others on the social level of the self (Golec de Zavala 2011; 2023a; Golec de Zavala et al. 2019; Golec de Zavala and Keenan 2021). Its conceptual differentiation from other aspects of ingroup identification allow for more fine-grained analyses and more precise understanding of specific social-identity motives involved in political behavior (Golec de Zavala 2023a,b). To illustrate, we compare and contrast CN and individual narcissism and review research in which previously inconclusive findings were clarified by differentiating CN from other aspects of ingroup identification.

Individual versus collective narcissism. The need to be recognized as superior is a crucial characteristic of the narcissistic personality disorder, a “pervasive pattern of grandiosity (in fantasy or behavior), a constant need for admiration, and lack of empathy” (APA 2013, 669). Non-clinical definitions of narcissistic personality also emphasize its excessive self-love and inflated self-views that require continual external validation (Crocker and Park 2004). Narcissistic personality is

characterized by “entitled self-importance” (Krizan and Herlache 2018), “egocentric exceptionalism” and “social selfishness” (Sedikides 2021). It is also associated with interpersonal aggression (Du et al. 2022; Kjærviik and Bushman 2021). CN and individual narcissism are modestly correlated (at about 0.20; Golec de Zavala et al. 2019, 2023a). They are conceptually, empirically, and functionally distinct (Golec de Zavala 2011, 2023a; Golec de Zavala et al. 2023a). Collective narcissists satisfy the need to be regarded as better than others by monitoring and aggrandizing the image of the ingroup. While individual narcissism predicts interpersonal aggression, CN predicts prejudice and intergroup aggression, especially in the context of threats to the image of the ingroup (Golec de Zavala et al. 2009, 2013, 2016; Hase et al. 2021).

Collective narcissism and other aspects of ingroup identification. CN is an individual difference that characterizes people with a relative degree of stability across social identities, time, and situations (Golec de Zavala, 2023a). The tendency to endorse CN with reference to one group predicts a tendency to do so with reference to other social groups with similar consequences for intergroup behavior (Golec de Zavala and Keenan, 2023; Mole et al. 2022). While CN is an aspect of ingroup identification, it does not predict the same attitudes as other aspects of ingroup identification, such as strength of ingroup identification (the extent to which ingroup membership is important to the self; Leach et al. 2008) or identity fusion (visceral overlap between the ingroup and the self, Swann and Buhrmester 2015). Unlike those aspects of ingroup identification (see Branscombe et al. 1999), CN is not associated with ingroup loyalty and solidarity. Instead, collective narcissists use their ingroup instrumentally (Federico et al. 2021; Golec de Zavala 2011; Golec de Zavala and Keenan 2021). Collective narcissists are willing to harm ingroup members to maintain their grandiose ingroup image (Gronfeld et al. 2022; Mashuri et al. 2020). Importantly, CN predicts outcomes not predicted by positive but non-narcissistic forms of ingroup evaluation (Golec de Zavala 2011, 2023a). Specifically, CN—but not individual narcissism, self-esteem, strength of ingroup

identification, or ingroup satisfaction (i.e., non-narcissistic positive ingroup evaluation)—predicts retaliatory intergroup hostility in response to ingroup criticism (Golec de Zavala et al. 2013; 2016; see also Bushman and Baumeister 1998). We discuss this more below.

In the context of national identity, research on collective narcissism has also distinguished CN from other forms of positive attitude towards the nation. National collective narcissism is similar to *blind patriotism*, unquestioning positive evaluation of the nation (Schatz et al. 1999). However, unlike blind patriots, who refuse to acknowledge ingroup criticism, collective narcissists are *hypersensitive* to it. CN predicts retaliatory intergroup hostility independently of blind patriotism (Golec de Zavala et al. 2009, 2013). National CN is also correlated with but distinct from *nationalism*, an orientation toward national dominance (Federico et al. 2022; Kosterman and Feshbach 1989), though CN reflects a more defensive desire for national superiority (Golec de Zavala et al. 2009; 2019). National CN is also distinct from *patriotism* or simple pride in one's national identity, a construct referred to as *national ingroup satisfaction* in the literature on collective narcissism (a feeling of pride in the nation; Kosterman and Feshbach 1989; see also de Figueiredo and Elkins 1999; Federico et al. 2022; Golec de Zavala et al. 2019). The three concepts pertain to different aspects of positive attitude towards the nation. Though positively related, they are empirically distinguishable and relate to different (and sometimes opposed) kinds of political attitudes (Golec de Zavala et al. 2009; 2016; Schatz et al. 1999), as discussed below.

Thus, studies that do not consider CN alongside other constructs related to group identification may provide a misleading picture of how ingroup identification relates to political behaviors. In the present study, we demonstrate that this is the case when examining the relationship between national and Catholic identity and responses to the allegations about pope John Paul II among Poles.

Collective Narcissism and Defensive Reactions to Allegations about Pope John Paul II

In line with previous CN research (for review see, Golec de Zavala et al., 2019; 2020; 2023b), our examination of this relationship centers on the distinction between CN and ingroup satisfaction (IS), pride in belonging to a positively evaluated ingroup (Leach, et al., 2008). As explained in detail elsewhere (Golec de Zavala, 2011; 2023a; Golec de Zavala et al., 2020), CN and IS pertain to positive ingroup evaluation. Conceptually they overlap in a positive regard for the ingroup which is exaggerated and contingent on external recognition in case of CN but not IS. Reactions to threats to the ingroup image should be predicted specifically by those aspects of ingroup identification that pertain to positive evaluation of the ingroup. Even more specifically, they should be predicted by CN but not IS. This hypothesis is backed by research that linked CN specifically (in comparison to other aspects of ingroup identification and positive evaluation of the ingroup) to motivated bias in information processing (Golec de Zavala, 2020; Sternisko et al. 2022), to a tendency to suppress ingroup criticism by coercive means (Golec de Zavala et al. 2013, 2016), to a tendency to deflect the criticism of the ingroup by attributing the criticism to immoral and hostile intentions towards the ingroup and by conspiratorial ideation (Bocian et al. 2021; Dyduch-Hazar et al. 2019; Golec de Zavala et al. 2022; Golec de Zavala and Federico 2018; Mashuri et al. 2020).

Collective narcissists' exaggerated absorption with protection of the self and the ingroup's image impairs their ability to reflectively engage with group-relevant criticism. CN biases information processing to arrive at the specific conclusion that the ingroup is exceptional and explain why it is not universally admired by others (Golec de Zavala 2020, 2023a). This is illustrated by a robust association between CN and group-serving conspiracy theories (Golec de Zavala et al. 2022). CN is also associated with biased evaluations of people's actions, depending on whether the actions are perpetrated by the ingroup or the outgroup (Bocian et al. 2021; Golec de Zavala et al., 2009; Golec de Zavala 2022; 2023b; West et al. 2022). CN, but not IS, is linked to denial of collective political responsibility for past transgressions by the ingroup (Dyduch-Hazar et al. 2019;

Kazarovytska and Imhoff, 2022). CN is also associated with a tendency to deflect ingroup criticism by shifting political blame onto others. This is reflected in collective narcissists' antagonistic mindset, their tendency to attribute hostile intentions and conspiratorial plans to others, blaming them for the ingroup's own aggression (Golec de Zavala et al. 2011; 2023a).

While CN is associated with exaggerated hostile reactions to critical reflection about the ingroup, non-narcissistic IS is not. IS is usually not associated with biased political information processing, net of CN (Golec de Zavala et al. 2022; Golec de Zavala 2023a). Moreover, IS often mitigates the association between CN and antagonistic political beliefs about intergroup relations and outgroups (Golec de Zavala 2023a), nationalism (Federico et al. 2022), and intergroup hostility and prejudice (Golec de Zavala et al. 2009, 2013b). This suggests that national and Catholic CN should be more likely than national and Catholic IS to predict a defensive approach to criticism of pope John Paul II.

Overview and Hypotheses

Based on these considerations, we explore the relationship between national and Catholic CN and IS and defensive responses to the recent allegations about pope John Paul II's inaction in response to sexual abuse cases among Poles in this study. We examine three hypotheses:

H1: Net of national ingroup satisfaction and demographic controls, national collective narcissism will predict defensive responses to the allegations about pope John Paul II.

H2: Net of Catholic ingroup satisfaction and demographic controls, Catholic collective narcissism will predict defensive responses to the allegations about pope John Paul II.

H3: Within each identity type (national or Catholic), collective narcissism will make a stronger net contribution to predicting defensive responses to the allegations about pope John Paul II than ingroup satisfaction does.

We examined these hypotheses using data from an original survey of Polish adults. Focusing on self-identified Catholics, we compare the relative predictive power of national and Catholic CN and IS using a variety of methods, including dominance analysis, Bayesian model comparisons, and a supervised learning algorithm (multivariate random forests regression).

Data and Methods

Data

The data were from a cross-sectional survey of Polish adults collected online during March of 2023 through the Ariadna Research Panel using computer-assisted web interviewing. The survey was conducted in Polish. The full survey reached a representative sample of 1,019 individuals (543 women, 476 men) with ages ranging from 18 to 84 years ($M=45.98$, $SD=16.17$). Age, gender, town were selected to reflect the population of Polish adults over 18 years old. We used only those who self-identified as Roman Catholic in the actual analyses. This final sample ($N=811$; 431 women, 380 men) ranged between 18-84 years in age ($M=46.21$, $SD=15.67$). We followed JARS (Kazak, 2018).. Additional information about the sample, along with power analyses, can be found in the Supplementary Material.¹

Measures

Our measures are described below. Unless otherwise indicated, all variables were recoded to run from 0 to 1 for ease of interpretation. Summary statistics are based on scales using the 0-1 recodings. Additional information on the measures can be found in the Supplementary Material.

¹ Sample sizes for specific analyses are smaller due to missing cases on some variables.

Dependent variables. The survey included a total of 16 items aimed at measuring respondents' defensive attitudes toward allegations about pope John Paul's II role in handling clergy abuse.² Seven measured the extent to which respondents felt offended by the book *Maxima Culpa* on the allegations. These items formed a reliable scale and were combined into a single measure we labeled *Book Offensiveness*. Example items included, "The book 'Maxima Culpa' about the knowledge and role of pope John Paul II in covering up sexual crimes in the Catholic Church offends Poland and Poles." All items were recoded so that higher scores indicated greater offensiveness and then averaged ($\alpha=0.90$, $M=0.49$, $SD=0.25$). Eight items measured agreement with various statements deflecting blame from or denying missteps by pope John Paul II. These included items measuring denial ("Karol Wojtyla took decisive steps against priests accused of pedophilia"), conspiratorial attributions ("The accusations against John Paul II of covering up pedophilia in the Catholic Church are a left-wing conspiracy"), and deflection ("The imperfection of the pope allows him to be revered even more"). These items also formed a reliable scale, so they were combined into a measure we labeled *Blame Defection*. The items were recoded so high scores indicated greater blame deflection and averaged; the scale was then recoded to run from 0 to 1 ($\alpha=0.79$, $M=0.47$, $SD=0.19$).

National collective narcissism and *Catholic collective narcissism* were measured using five-item versions of the Collective Narcissism Scale (Golec de Zavala et al. 2009, 2013). The text of these items were similar for both versions of the scale, except that the national version referred to "Poland" ("Poland deserves special treatment") and the Catholic version referred to "Catholics" (

² One of the 16 items was aimed at measuring blame deflection but did not correlate highly with the other items in that scale (or the book offensiveness scale). This item was not used in the final analyses. Including it in the deflection and denial scale does not change the results substantively. More information can be found in Part 1 of the Supplementary Material.

“Catholics deserve special treatment”). Responses were given on a seven-point scale anchored at the ends by “definitely no” (1) to “definitely yes” (7). Scores on the items were averaged and recoded to run from 0 to 1. Higher scores indicate high levels of each type of collective narcissism ($\alpha=0.93$, $M=0.54$, $SD=0.25$, for national CN; $\alpha=0.94$, $M=0.45$, $SD=0.27$, for Catholic CN).

National ingroup satisfaction and *Catholic ingroup satisfaction* were measured using four standard items (Leach et al. 2008). The text of the items was similar for both versions, except that the national version referred to “Poles” and being “Polish” (e.g., “I am glad to be Polish”) and the Catholic version referred to “Catholics” and being “Catholic” (e.g., “I am glad to be Catholic”). Scores on the items in each scale were averaged and recoded to run from 0 to 1. Higher scores indicate high levels of each variant of ingroup satisfaction ($\alpha = 0.94$, $M=0.69$, $SD=0.23$, for national IS; $\alpha = 0.95$, $M=0.57$, $SD=0.27$, for Catholic IS).³

A measure of *ideology* was also included to account for the relationship between liberal-conservative identification and religious attitudes in Poland (Topidi 2019; see also Golec de Zavala 2023a). This was measured using a single item (“How do you assess your political beliefs in general?”), with a 5-point response scale: liberal; rather liberal; hard to say, a bit conservative, a bit liberal; rather conservative; and conservative. Scores were recoded to run from 0-1, with high scores indicating greater conservative identification ($M=0.50$, $SD=0.26$).

³ As a robustness check using an alternative operationalization of non-narcissistic group identification, we repeated all key analyses using measures of strength of national identification (national ID) and strength of Catholic identification (Catholic ID). These analyses produced virtually identical results. They are summarized in detail in the Supplementary Material.

Finally, four *demographic covariates* were considered. These included: *age* (in years), a dummy variable indicating *male* gender (1=yes, 0=no), *education* (six ordered categories, recoded to run from 0 to 1), and *income* (nine ordered categories, recoded to run from 0 to 1).

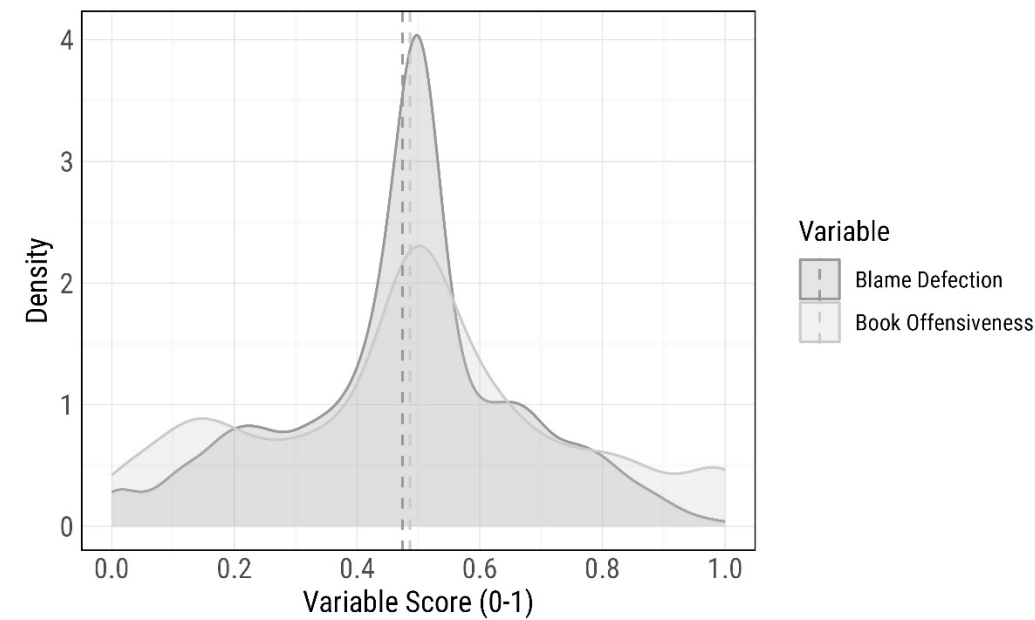
Results

Descriptive Analyses

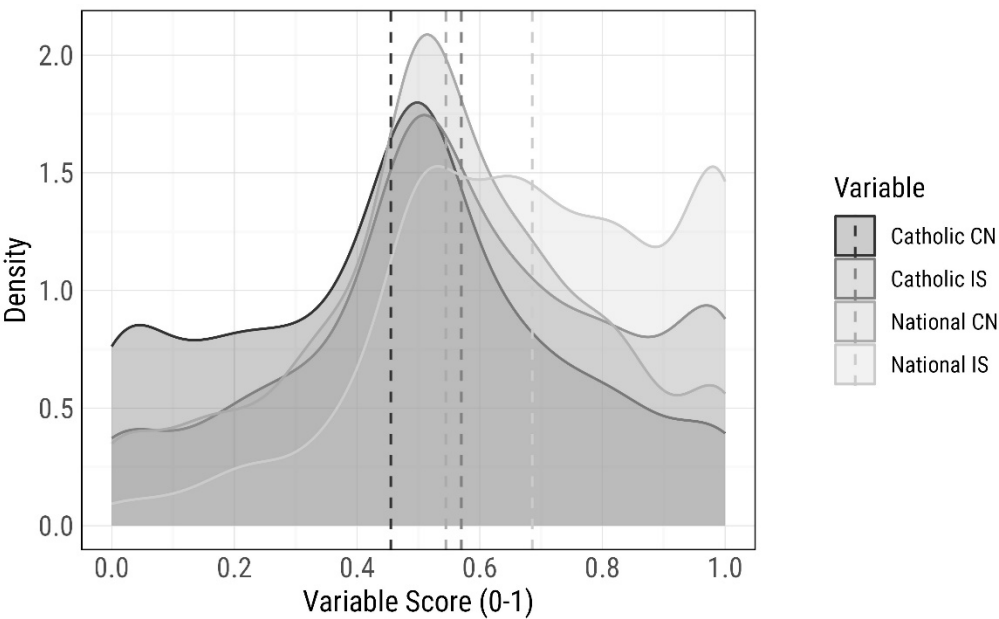
As a first step, we looked at the descriptive characteristics and pairwise correlations for our main variables. Figure 1 presents density plots for the dependent variables (top panel) and key independent variables (bottom panel). The two dependent variables had similar means ($M=0.49$ for Book Offensiveness, $M=0.47$ for Blame Deflection), though scores were more variable and less concentrated in the center of the distribution for Book Offensiveness.

Turning to the independent variables, respondents expressed higher levels of ingroup satisfaction than collective narcissism for national identity ($M=0.69$ versus $M=0.54$), $t(810)=21.20$, $p<0.001$; and Catholic identity ($M=0.57$ versus $M=0.45$), $t(810)=19.59$, $p<0.001$. Respondents also expressed a higher level of CN for national identity than for Catholic identity, $t(810)=12.38$, $p<0.001$; and a higher level of IS for national identity than for Catholic identity, $t(810)=13.88$, $p<0.001$. Thus, ingroup satisfaction is more pronounced than collective narcissism across identities in our sample, and both collective narcissism and ingroup satisfaction were felt more strongly for national than for religious identity.

Dependent Variables



Key Independent Variables



Source: 2023 Polish Cross-Sectional Survey (Catholics)

Figure 1. Density plots for dependent variables and key independent variables. Dotted lines show means for the indicated variable.

Table 1 provides correlations among the dependent variables and key independent variables. National CN, national IS, Catholic CN, and Catholic IS were all positively correlated with one another ($r_s > 0.50$, $p_s < 0.001$).⁴ They were also positively correlated with both dependent variables ($r_s > 0.50$, $p_s < 0.001$), though the relationships were stronger for the CN variables than the ingroup satisfaction variables and for the Catholic-identity variables than for the national-identity variables. The CN and IS variables were also all correlated with ideology ($r_s > 0.35$, $p_s < 0.001$).⁵

[INSERT TABLE 1 ABOUT HERE]

National and Catholic Collective Narcissism and Responses to the Allegations About Pope John Paul II

⁴ Though they are not the same, the literature on collective narcissism tends to find that those high in CN are typically high in IS (Golec de Zavala et al. 2019). For the national-identity variables, 50.3% who scored above the midpoint of CN were also above the midpoint on IS. For the Catholic-identity variables, 35.27% the midpoint of CN were also above the midpoint on IS.

⁵ To confirm that national CN, national IS, Catholic CN, and Catholic IS corresponded to distinct constructs, we estimated a four-factor measurement model. This model provided an excellent fit to the data, and a superior fit to a two-factor model that allowed the CN and IS items for each identity (national or Catholic) to load on the same factor. Full details can be found in section 4 of the Supplementary Material.

Hypothesis 1 suggests that national CN will predict negative responses to the allegations about pope John Paul II, net of national ingroup satisfaction and various controls. To examine this prediction, we estimated two ordinary least-squares regression models using the Book Offensiveness and Blame Defection measures as dependent variables. In each model, the outcome was regressed on national CN, national IS, ideology, and the demographic controls (male gender, age, education, and urban residence). HC3 robust standard errors were used in all models (Long and Ervin 2000). Coefficient estimates for the two models are visualized in the top panels of Figure 2.⁶ National CN was strongly and significantly related to both judgments of *Maxima Culpa* as offensive ($b=0.50$, $p<0.001$) and blame defection and denial ($b=0.24$, $p<0.001$) net of the covariates, as expected. These estimates indicate that going from the minimum to the maximum level of national CN is associated with 50% and 34% increases in offensiveness judgments and blame defection, all other things being equal. National IS was unrelated to offensiveness judgments ($b=-0.003$, $p>0.250$), though it had a net positive relationship with blame defection ($b=0.10$, $p=0.005$)—relationships that were weaker than those involving national CN. Lastly, conservative ideology was positively associated with both Book Offensiveness ($b=0.26$, $p<0.001$) and Blame Defection ($b=0.25$, $p<0.001$).

In turn, Hypothesis 2 suggests that Catholic CN will predict negative responses to the allegations about pope John Paul II, net of Catholic ingroup satisfaction and various controls. To test this, we estimated two OLS regressions similar to those performed for national CN and IS, with Catholic CN and IS substituted. The results are summarized in the middle panels of Figure 2. Catholic CN had a stronger positive relationship with both judgments of the book *Maxima Culpa* as offensive ($b=0.56$, $p<0.001$) and blame defection ($b=0.27$, $p<0.001$) net of the covariates, as

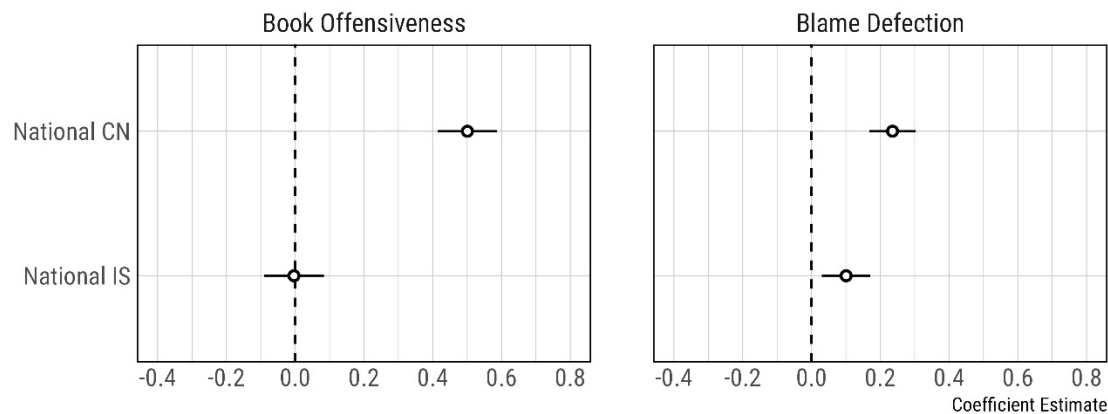
⁶ Complete estimates for all models in this section are shown in section 2 of the Supplementary Material.

expected by Hypothesis 1. These estimates indicate that going from the lowest to the highest level of Catholic CN is associated with 56% and 27% increases in offensiveness judgments and blame defection, controlling for the covariates. Catholic IS was unrelated to perceived book offensiveness ($b=0.02, p>0.25$), but it was positively related to blame defection ($b=0.12, p=0.001$). Again, these relationships were weaker in magnitude than the corresponding Catholic CN estimates. Conservative ideology was again associated with Book Offensiveness ($b=0.16, p<0.001$) and Blame Defection ($b=0.18, p<0.001$).

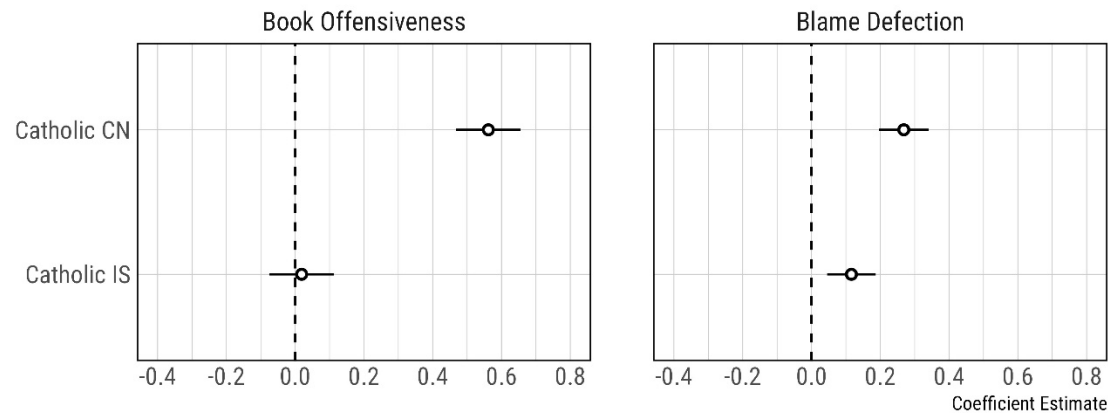
Finally, we estimated OLS regressions predicting each dependent variable from national CN and IS, Catholic CN and IS, and the covariates at the same time. These models are visualized in the bottom panel of Figure 2. Both national CN ($b=0.22, p<0.001$) and Catholic CN ($b=0.41, p<0.001$) predicted perceived book offensiveness in the full model, whereas neither national IS ($b=-0.02, p>0.25$) nor Catholic IS ($b=0.05, p>0.25$) did. Results were similar in the Blame Deflection model, though the estimate for national CN was only marginally significant ($b=0.08, p=0.07$; in comparison to $b=0.22, p<0.001$, for Catholic CN). Though national IS was unrelated to blame defection ($b=0.06, p=0.10$), Catholic IS was positively related to it (though its relationship was smaller than that of Catholic CN; $b=0.10, p=0.02$). Ideological conservatism was positively related to Book Offensiveness ($b=0.14, p<0.001$) and Blame Defection ($b=0.17, p<0.001$).

Thus, the models in Figure 2 are supportive of Hypotheses 1 and 2.

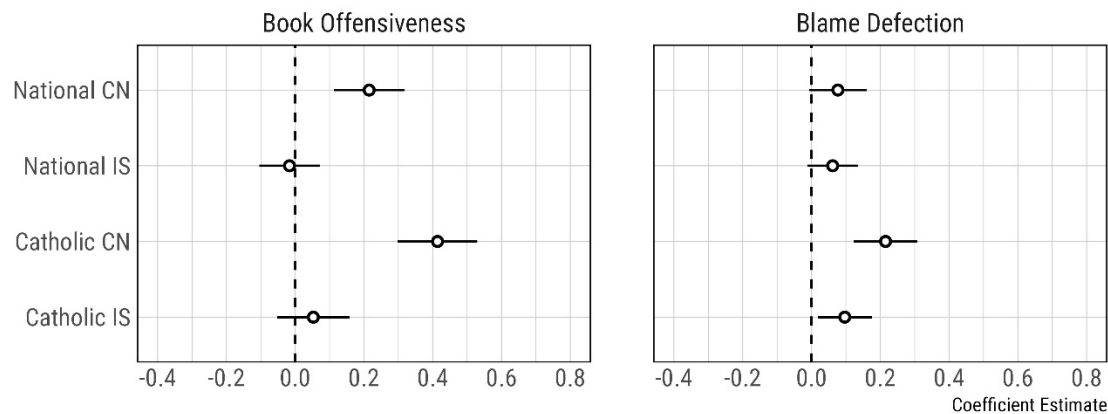
National Identity



Catholic Identity



National and Catholic Identity



Source: 2023 Polish Cross-Sectional Survey (Catholics)

Figure 2. Book offensiveness and blame defection as a function (1) national identity variables, (2) Catholic identity variables, and (3) both national and Catholic identity variables. The error bars indicate 95% CIs around the predictions. Predicted values based on estimates for each outcome from Tables S1, S2, and S3.

The Relative Predictive Power of Collective Narcissism Versus Ingroup Satisfaction

Hypothesis 3 suggests that CN will predict defensive responses to the allegations about pope John Paul II more strongly than ingroup satisfaction within each identity type (national or Catholic). Looking at the differences in the magnitudes of the estimates for the CN and IS variables in the models in Figure 2, we see a pattern that is broadly congruent with this prediction. In order to more formally test it, we conducted a series of dominance analyses and computed Bayes Factors for relevant comparisons of the contributions of both variables in each of the above models. These analyses are summarized in Table 2.

We look first at the models focusing only on national or Catholic identity. The *dominance statistic* is the average net contribution to model R^2 made by a predictor to models constructed from all possible subsets of the other $k-1$ predictors. A predictor completely dominates another if it provides a larger net contribution to R^2 than the other predictors across all models constructed from all possible subsets of predictors (Luchman 2013). Looking at the top and middle panels of Table 2, the dominance statistics for national CN were larger than those for national IS and the dominance statistics for Catholic CN were larger than those for Catholic IS (middle panel). With the exception of national CN in the Blame Defection model, the dominance statistics for each kind of CN were larger than those for ideology.

[INSERT TABLE 2 ABOUT HERE]

In turn, we computed Bayes Factors comparing each model with all coefficients freely estimated (H_1) to a null model (H_0) that fixed the coefficient for either CN or IS to zero. These Bayes Factors indicate relative likelihood of the two models given the data and prior expectations. Using categories suggested by Wetzels et al. (2011), there was decisive evidence for the target models that freely estimated CN over models fixing CN to zero. In contrast, evidence for models freely estimating the IS coefficients versus models fixing IS to zero was weaker; the smaller Bayes Factors provided decisive evidence in only one case. In all cases, the Bayes Factor for full models that freely estimated the ideology coefficient suggested decisive evidence for that model versus a null model that constrained ideology to zero.

Finally, we conducted the same analyses for the models containing both national and Catholic CN and IS. These are summarized in the bottom panel of Table 2. The CN variable had a larger dominance statistic than its IS counterpart for each identity in both models. Moreover, for CN and IS, the Catholic versions of the variables had larger dominance statistics than their national counterparts. With the exception of national CN in the Blame Defection model, the dominance statistics for each kind of CN were also larger than those for ideology. For the full models, we computed Bayes Factors comparing the full model with all coefficients freely estimated (H_1) to a null model (H_0) that fixed the coefficients for either (1) national and Catholic CN or national and (2) Catholic IS to zero. As above, there was decisive evidence for the target models that freely estimated both CN coefficients over models that fixed the CN coefficients to zero; the relevant Bayes Factors were very large in both cases. Again, evidence for the models freely estimating both IS coefficients versus models that fixed the IS coefficients to zero was weaker in comparison; the Bayes Factors provided “very strong” evidence only for Blame Deflection. Finally, the Bayes Factor for the full

models that freely estimated the ideology coefficient suggested decisive evidence for that model versus a null model that constrained the ideology coefficient to zero.

As an additional comparison of the relative predictive power of the CN and IS variables, we conducted three multivariate random forest regression analyses that jointly predicted both dependent variables at the same time (Breiman 2001). These analyses focused on (1) national CN and IS only, (2) Catholic CN and IS only, and (3) both national CN and IS and Catholic CN and IS. Ideology and the other covariates were included in each analysis. The multivariate random forest model is a supervised learning algorithm that begins with a set of input variables (the predictors) and a set of output variables (the two dependent variables) and finds the weighted combination of inputs that best predicts the outputs (accounting for correlation among the outputs). The procedure first “grows a forest” of decision trees from bootstrapped subsamples of the data and random samples of the input variables; the quality of each tree’s predictions are compared to actual outcome values in “out of bag” cases not included in the bootstrap samples. The output of the trees is then combined. For each outcome, a measure of the predictive importance of each input variable is obtained by computing the percentage increase in mean square generated by randomly permuting the scores on that input variable. These statistics for each variable can then be averaged over all output variables to measure variable importance (Ishawaran, Lue, and Kogalur 2021). These statistics provide a non-parametric estimate of the predictive importance of each variable, while avoiding overfitting and accommodating nonlinear relationships between the input and output variables (Breiman 2001). Figure 3 provides variable-importance estimates for each predictor in the three models.⁷

⁷ The random forest models were conducted in R using the `rfsrc` function from the `randomForestSRC` package. 500 trees were grown in each model, and the Mahalanobis splitting rule was specified (Ishawaran et al. 2021). Note that while global summary statistics for random forest models reproduce exactly, the precise variable estimates do not due to Monte Carlo effects

The random-forest models focusing only on national CN and IS or Catholic CN and IS are shown in the top and middle of Figure 3. These models produced multivariate R^2 statistics of 0.41 and 0.52, respectively. These models indicate that national CN (23.47% increase in MSE) and Catholic CN (34.9% increase in MSE) were the most important predictors. National IS (4.6%) and Catholic IS (10.2%) and ideology (7.1% in the national identity analysis, 4.1% in the Catholic identity analysis) were less important in comparison.

The random-forest model including all substantive variables (national CN and IS and Catholic CN and IS) is shown in the bottom panel of Figure 3. This model produced a multivariate R^2 statistic of 0.54. Within each identity, CN is a more important predictor (5.3% for national CN, 23% for Catholic CN) than its IS counterpart (1.6% for national IS, 8.10% for Catholic IS). The Catholic identity variables (23% for Catholic CN, 8.1% for Catholic IS) were also more important than their national counterparts (5.3% for national CN, 2% for national IS). Ideology (2.8%) was a less important predictor than all identity variables except for national IS (2%). Overall, Catholic CN was the strongest input variable predictor of the two output variables (23%), again pointing to the especially important role of religious CN.

Figure 3. Variable importance estimates from multivariate random forest models for national CN and IS (top), Catholic CN and IS (middle), and both national and Catholic CN and IS (bottom).

Discussion

associated with the random selection of predictors in the construction of each tree. Nevertheless, the relative importance of the predictors in the models remains stable.

In this study, we examined how different forms of Polish and Catholic ingroup positivity are related to Poles' defensive reactions to allegations that pope John Paul II failed to take action against sexual abuse in the Catholic Church. Results from an original national survey of Poles confirmed our prediction that national and Catholic CN would predict defensive responses to the allegations. Moreover, dominance analyses, Bayes Factor estimates, and multivariate random-forest models all converged on a common conclusion that national and Catholic CN predict defensive responses more strongly than national and Catholic IS. Finally, when both identities were compared, Catholic CN and Catholic IS were more strongly related to defensive reactions than their national-identity equivalents. In general, Catholic IS and CN explained a tendency to deflect blame. In turn, the tendency to feel the ingroup was offended by the allegations against the pope was predicted predominantly by Catholic CN. Thus, while both CN and IS within Catholic identity seem to be involved in blame deflection, only CN explains a tendency to feel offended by the allegations, with national IS playing little role.

In the Name of the Father

Our findings align with previous results indicating that national CN is more strongly related than national IS to uncritical sociopolitical attachment to religious symbols and authorities in Poland (Federico et al., 2023; Mole et al., 2022). Our results also align with previous findings indicating that CN, but not IS, predicts a tendency to take political offense at insults to an exaggerated ingroup image (Golec de Zavala et al. 2009, 2016). While previous studies demonstrated that national CN predicts hypersensitivity to ingroup offense, the present analyses suggest this association extends to attitudes and beliefs specifically linked to religious identity.

Moreover, our findings comport with previous results indicating that collective narcissists are willing to pay a high political price to protect the good name of a valued ingroup authority (e.g., Golec de Zavala et al. 2016; Jasko et al. 2020; Mashuri et al. 2020; Yustisia et al. 2020). While our

results thus reveal patterns that seem typical for those high in CN, striking in this case is that Catholic collective narcissists are motivated to protect an ingroup authority that enabled a crime that is among the most grave in Polish Catholic morality: harming children. Analogous results have been also reported by Marchlewska and colleagues (2022), who found an association between Catholic CN and a tendency to blame the victims of sexual abuse by Catholic priests.

Such findings paint a troubling political picture. They suggest that there is little that can stand in the way of collective narcissists' desire to protect the ingroup's image. Narratives of ingroup image protection are used to justify collective narcissists' intergroup aggression. In this vein, other findings suggest that CN is associated with support for political violence instigated by leaders such as Donald Trump (Keenan and Golec de Zavala 2021) and Vladimir Putin (Golec de Zavala 2023a; Brown and Marinthe 2023). The tendency toward cruelty appears elsewhere as well: CN is associated with high levels of need for chaos and destruction and with right-wing and left-wing authoritarian aggression (Golec de Zavala 2023a).

The Role of Catholic and National Ingroup Satisfaction

In contrast to previous findings suggesting that the tendency to protect the ingroup's image was positively related to CN but unrelated (or negatively related; Marchlewska et al. 2022) to other aspects of positive ingroup evaluation, our results indicate that Catholic IS was positively related to deflecting the allegations against the pope. It has been argued that CN and IS are associated with different political understandings of the content of ingroup identity (Golec de Zavala 2011, 2023a; Golec de Zavala et al, 2019; Golec de Zavala and Keenan, 2021; Golec de Zavala and Lantos 2020). Our findings suggest that the specific social or political identity that CN and IS is assessed with regard to may also matter. For example, previous studies showed that male CN and male IS both predicted benevolent sexism (Golec de Zavala and Bierwiazzonek 2021). Together, these results

raise questions about what the consequences of CN versus IS are in the context of intersecting social and political identities (see Golec de Zavala 2023b).

The present results align with an interpretation of CN as motivated social and political cognition (Golec de Zavala 2020, 2023a). Together with previous findings, the present results suggest that the information processing of collective narcissists seems to be motivated by a need to arrive at the conclusion that aggressive political efforts are necessary to protect the ingroup's image. One way of reaching this conclusion is to frame criticism of the ingroup as an "insult" intended to humiliate the ingroup. The sense of humiliation is one of the most important emotions motivating political hostility in the name of the ingroup (McCauley 2017). While Catholic IS was associated with politically-defensive reactions to the allegations against the pope, it did not predict the feeling that the ingroup was insulted by the allegations. While deflection does not help groups to constructively deal with criticism, these results suggest that IS is at least not associated with emotional processing that is likely to mobilize hostile retaliatory responses in political contexts. Another important result in our data is that Polish national IS was not predictive of defensive reactions to the allegations against the religious authority. This aligns with previous findings suggesting that national IS seems to be a positive resource for ingroup solidarity (e.g. Federico et al. 2021), tolerance (Verkuyten et al., 2022), self-critical forms of ingroup loyalty (Golec de Zavala et al. 2009), well-being of group members (Golec de Zavala 2019; Golec de Zavala et al. 2020), and avoidance of political conflict (Golec de Zavala and Keenan 2023).

Limitations

Our study is not without its limitations. Our results are observational and cannot assess causality. We expect that general constructs like CN and IS (as they pertain to a variety of social and political identities) are likely to be prior to highly-specific attitudes like evaluations of the allegations about John Paul II, but cross-sectional data cannot address the directionality of the relationship.

Future studies should use longitudinal or experimental designs to better address causality. Our goal in the present study was more modest: to map out the relative ability of national and Catholic CN and IS to predict political reactions to allegations about a figure revered in multiple group contexts.

References

- Ayoub, P. M., and Chetaille, A. 2020. "Movement/countermovement interaction and instrumental framing in a multi-level world: rooting Polish lesbian and gay activism." *Social Movement Studies*, 19(1), 21-37. <https://doi.org/10.1080/14742837.2017.1338941>
- Bagci, Sabahat C., Sofia Stathi, and Agnieszka Golec de Zavala. (2021). "Social Identity Threat Across Group Status: Links To Psychological Well-Being And Intergroup Bias Through Collective Narcissism And Ingroup Satisfaction," *Cultural Diversity and Ethnic Minority Psychology* 29: 208-220 <https://doi.org/10.1037/cdp0000509>

- Bocian, Konrad, Aleksandra Cichocka, and Bogdan Wojciszke. 2021. "Moral Tribalism: Moral Judgments of Actions Supporting Ingroup Interests Depend on Collective Narcissism," *Journal of Experimental Social Psychology* 93: 104098. <https://doi.org/10.1016/j.jesp.2020.104098>
- Breiman, Leo. 2001. Random forests. *Machine Learning* 45: 5-32.
- CIASE Final Report (2021) <https://www.ciase.fr/medias/Ciase-Final-Report-5-october-2021-english-version.pdf> Downloaded 7/06/2023
- Cichocka, Aleksandra, and Aleksandra Cislak. 2020. "Nationalism as Collective Narcissism," *Current Opinion in Behavioral Sciences* 34: 69–74.
- Cichocka, Aleksandra, Konrad Bocian, Mikolaj Winiewski, and Flavio Azevedo. 2022. "Not Racist, But...?: Beliefs About Immigration Restrictions, Collective Narcissism, and Justification of Ethnic Extremism," *Political Psychology* 43: 1217–1234. <https://doi.org/10.1111/pops.12813>
- Cichocka, Aleksandra, Agnieszka Golec de Zavala, Marta Marchlewska, Michal Bilewicz, Manana Jaworska, and Mateusz Olechowski. 2018. "Personal control decreases narcissistic but increases non-narcissistic in-group positivity," *Journal of Personality* 86: 465-480
- Cichocka, Aleksandra, Marta Marchlewska, Agnieszka Golec de Zavala, and Mateusz Olechowski. 2016. "'They Will Not Control Us': In-Group Positivity And Belief In Intergroup Conspiracies," *British Journal of Psychology* 107: 556–576. doi:10.1111/bjop.12158
- Dale, K.A. and J. L. Alpert. 2007 "Hiding behind the cloth: child sexual abuse and the Catholic Church." *Journal of Child Sex Abuse* 16(3):59-74. doi: 10.1300/J070v16n03_04. PMID: 18032240.
- Dyduch-Hazar, Karolina, Blazej Mrozinski, and Agnieszka Golec de Zavala. 2019. "Collective Narcissism And In-Group Satisfaction Predict Opposite Attitudes Toward Refugees Via

- Attribution Of Hostility,” *Frontiers in Psychology* 10: 1901.
<https://doi.org/10.3389/fpsyg.2019.01901>
- Federico, Christopher, M., and Agnieszka Golec de Zavala. 2018. “Collective Narcissism and the 2016 US Presidential Vote,” *Public Opinion Quarterly* 82: 110–121.
<https://doi.org/10.1093/poq/nfx048>
- Federico, Christopher, M., Agnieszka Golec de Zavala, and Wen Bu. 2022. “Collective Narcissism as a Basis for Nationalism,” *Political Psychology* 44: 177-196.
- Golec de Zavala, Agnieszka. 2011. “Collective Narcissism and Intergroup Hostility: The Dark Side of ‘In-group Love.’” *Social and Personality Psychology Compass* 5: 309–320.
- Golec de Zavala, Agnieszka. 2020. “Why is Populism so Robustly Associated With Conspiratorial Thinking? Collective Narcissism and the Meaning Maintenance Model.” In *The Psychology of Political Behavior in a Time of Change: Identity in a Changing World*, eds J. Sinnott and J. Rabin, 277-290. Cham, Switzerland: Springer International Publishing.
- Golec de Zavala, A. (2022) Conditional Parochial Vicarious Ostracism: Gender Collective Narcissism Predicts Distress at the Exclusion of the Gender Ingroup in Women and Men. *Sex Roles* 87, 267–288. <https://doi.org/10.1007/s11199-022-01315-z>
- Golec de Zavala, Agnieszka. 2023a. *The Psychology of Collective Narcissism*. Routledge.
- Golec de Zavala, A. (2023b). Collective narcissism and tribal attitudes towards equality. In J. Forgas, W. Crano, & K. Fiedler (Eds.), *The psychology of tribalism*. Oxon: Taylor & Francis.
- Golec de Zavala, A. & Kean, O. (2023). Collective narcissism in advantaged and disadvantaged groups. In *The psychology of politically unstable societies. Current Issues in Political Psychology*. Edited by Kende, A. & Láštiová, B. Routledge; 2023. <https://psyarxiv.com/q43ns/>

- Golec de Zavala, Agnieszka, Kinga Bierwiazzonek, and Pawel Ciesielski. 2022. "An interpretation of meta-analytical evidence for the link between collective narcissism and conspiracy theories." *Current Opinion in Psychology* 47. <https://doi.org/10.1016/j.copsyc.2022.101360>
- Golec de Zavala, Agnieszka, and Aleksandra Cichocka. 2012. "Collective Narcissism and Anti-Semitism in Poland," *Group Processes and Intergroup Relations* 15: 213-229.
- Golec de Zavala, Agnieszka, Aleksandra Cichocka, Roy Eidelson, and Nuwan Jayawickreme. 2009. "Collective Narcissism and Its Social Consequences," *Journal of Personality and Social Psychology* 97: 1074-1096.
- Golec de Zavala, Agnieszka., Aleksandra Cichocka, and Irena Iskra-Golec. 2013. "Collective narcissism moderates the effect of in-group image threat on intergroup hostility," *Journal of Personality and Social Psychology* 104 : 1019-1039. <http://dx.doi.org/10.1037/a0032215>
- Golec de Zavala, Agnieszka., Aleksandra Cichocka and Michal Bilewicz, M. (2013). The paradox of in-group love: Differentiating collective narcissism advances understanding of the relationship between in-group and out-group attitudes. *Journal of Personality*, 81, 17-28. doi: 10.1111/j.1467-6494.2012.00779.x
- Golec de Zavala, Agnieszka, Karolina Dyduch-Hazar, and Dorottya Lantos. 2019. "Collective Narcissism: Political Consequences Of Investment Of Self-Worth Into An Ingroup's Image," *Advances in Political Psychology* 40: 37-74.
- Golec de Zavala, Agnieszka, and Christopher M. Federico. 2018. "Collective Narcissism And The Growth Of Conspiracy Thinking Over The Course Of The 2016 United States Presidential Election: A Longitudinal Analysis," *European Journal of Social Psychology* 48(7): 1011–1018. <https://doi.org/10.1002/ejsp.2496>
- Golec de Zavala Agnieszka, Christopher M. Federico, Constantine Sedikides, Rita Guerra, Dorottya Lantos, Blazej Mrozinski B, Maria Cypryanska, and Tomasz Baran. 2020. "Low Self-Esteem

- Predicts Out-Group Derogation Via Collective Narcissism, But This Relationship Is Obscured By In-Group Satisfaction,” *Journal of Personality and Social Psychology* 119: 741-764.
<http://dx.doi.org/10.1037/pspp0000260>
- Golec de Zavala, Agnieszka, and Oliver Keenan. 2021. “Collective Narcissism as a Framework for Understanding the Appeal of Right-wing Populism,” *Journal of Theoretical Social Psychology* 5: 54–64. <https://doi.org/10.1002/jts5.69>
- Golec de Zavala, Agnieszka, and Dorottya Lantos. 2020. “Collective Narcissism and its Social Consequences: The Bad and the Ugly,” *Current Directions in Psychological Science*.
- Golec de Zavala, Agnieszka, Mujda Peker, Rita Guerra, and Tomasz Baran. 2016. “Collective Narcissism Predicts Hypersensitivity to In-group Insult and Direct and Indirect Retaliatory Intergroup Hostility,” *European Journal of Personality* 30: 532–551.
- Golec de Zavala, Agnieszka, Constantine Sedikides, L. Wallrich, Rita Guerra, and Tomasz Baran. 2023. “Narcissism and prejudice.” Revised manuscript under review.
- Gronfeldt, B., Cislak, A., Sternisko, A., Eker, I., & Cichocka, A. (2022). A Small Price to Pay: National Narcissism Predicts Readiness to Sacrifice In-Group Members to Defend the In-Group’s Image. *Personality and Social Psychology Bulletin*. <https://doi.org/10.1177/01461672221074790>
- Guerra, Rita, Kinga Bierwiazzonek, Marina Ferreira, Agnieszka Golec de Zavala, Georgios Abakoumkin, Tim Wildschut, and Constantine Sedikides. 2020. “An Intergroup Approach to Collective Narcissism: Intergroup Threats and Hostility in Four European Union Countries,” *Group Processes and Intergroup Relations* 24: 415-433.
doi:10.1177/1368430220972178
- Graff, Agnieszka and Elżbieta Korolczuk. 2021. *Anti-Gender Politics in the Populist Movement*. New

York: Routledge Taylor & Francis Group.

IICSA 2022. “The Roman Catholic Church Investigation Report: Executive Summary.”

<https://www.iicsa.org.uk/reports-recommendations/publications/investigation/roman-catholic-church/executive-summary>. Downloaded 7/06/2023.

Hemant Ishwaran, Min Lu, and Udaya B. Kogalur. 2021. “randomForestSRC: getting started with randomForestSRC vignette.” <http://randomforestsrc.org/articles/getstarted.html>.

Jasko, Katarzyna, David Webber, Arie W. Kruglanski, Michele Gelfand, Muh Taufiqurrohman, Malkanthi Hettiarachchi, and Rohan Gunaratna. 2020. “Social context moderates the effects of quest for significance on violent extremism.” *Journal of Personality and Social Psychology* 118: 1165-1187.

Keenan, Oliver and Agnieszka Golec de Zavala. 2021. “Collective Narcissism and Weakening of American Democracy,” *Analyses of Social Issues and Public Policy*
<https://doi.org/10.31219/osf.io/938vy>

Leach, Colin W., Martijn van Zomeren, Sven Zebel, Michael L. W. Vliek, Sjoerd F. Pennekamp, Bertjan Doosje, Jaap W. Ouwerkerk, and Russell Spears. 2008. “Group-level Self-Definition and Self-Investment: A Hierarchical (Multicomponent) Model of In-group Identification,” *Journal of Personality and Social Psychology* 95: 144-165.

Long, J. Scott, and Laura H. Ervin. 2000. “Using Heteroskedasticity Consistent Standard Errors In The Linear Regression Model,” *American Statistician* 54: 217-234.

Luchman, J. N. 2013. “DOMIN: Stata Module to Conduct Dominance Analysis.” Statistical Software Components S457629, Boston College Department of Economics, revised 04 May 2015. Retrieved from <https://ideas.repec.org/c/boc/bocode/s457629.html>.

Marchlewska, Marta, Aleksandra Cichocka, Aleksandra Furman, and Aleksandra Cislak. 2022. “Who Respects the Will of the People? Support For Democracy Is Linked To High Secure

- National Identity But Low National Narcissism,” *The British Journal of Social Psychology* 61: 599-621. doi:10.1111/bjso.12499
- Marchlewska, Marta, Aleksandra Cichocka, Filip Łozowski, Paulina Górka and Mikołaj Winiewski. 2019. “In Search Of An Imaginary Enemy: Catholic Collective Narcissism And The Endorsement Of gender Conspiracy Beliefs,” *Journal of Social Psychology* 159: 766-779, DOI: [10.1080/00224545.2019.1586637](https://doi.org/10.1080/00224545.2019.1586637)
- Marchlewska, Marta, Aleksandra Cichocka, Orestis Panayiotou, Kevin Castellanos, and Jude Batayneh, J. 2018. “Populism As Identity Politics: Perceived In-Group Disadvantage, Collective Narcissism, And Support For Populism,” *Social Psychological and Personality Science* 9: 151-162.
- Marchlewska, M., Górka, P., Molenda, Z., Lipowska, K., & Malinowska, K. (2023). The fear of confession? High Catholic collective narcissism and low secure identification with Catholics predict increased pedophilia myth acceptance. *European Journal of Social Psychology*, 53, 354– 366. <https://doi.org/10.1002/ejsp.2907>
- Mashuri, A., van Leeuwen, E., Zaduqisti, E., Sukmawati, F., Sakdiah, H., & Herani, I. (2022). The psychological antecedents of resistance to humanitarian aid. *Group Processes & Intergroup Relations*, 25(1), 280–297
<https://doi.org/10.1177/1368430220962179>
- McCauley, C. 2017. “Toward a psychology of humiliation in asymmetric conflict.” *American Psychologist* 72(3): 255-265. <https://doi.org/10.1037/amp0000063>
- McPhillips, Kathleen. 2016. “The Church, The Commission and the Truth: Inside the NSW Special Inquiry into Child Sexual Abuse.” *Journal for the Academic Study of Religion* 29(1): 30-51.

- Mole, Richard, Golec de Zavala, A. G., & Ardag, M. M. (2021). Homophobia and national collective narcissism in populist Poland. *European Journal of Sociology/ Archives Européennes de Sociologie*, 62(1), 37-70.
- Notes from Poland (7 March, 2023). “Future Pope John Paul II knew of sex abuse by priests, shows new report.” <https://notesfrompoland.com/2023/03/07/future-pope-john-paul-ii-knew-of-sex-abuse-by-priests-shows-new-report/>. Downloaded 7/06/2023.
- Sternisko, A., Cichocka, A., Cislak, A. and Van Bavel, J.J., 2023. “National narcissism predicts the belief in and the dissemination of conspiracy theories during the COVID-19 pandemic: evidence from 56 countries.” *Personality and Social Psychology Bulletin* 49(1): 48-65.
- Topidi, K. 2019. “Religious freedom, national identity, and the Polish Catholic Church: Converging visions of nation and God.” *Religions* 10: 293-312. doi: <https://doi.org/10.3390/rel10050293>.
- Verkuyten, M., Kollar, R., Gale, J., & Yogeeswaran, K. (2022). Right-wing political orientation, national identification and the acceptance of immigrants and minorities. *Personality and Individual Differences*, 184, 111217. <https://doi.org/10.1016/j.paid.2021.111217>
- West, K., Greenland, K., van Laar, C., & Barnoth, D. (2022). It's only discrimination when *they* do it to *us*: When White men use ingroup-serving double standards in definitional boundaries of discrimination. *European Journal of Social Psychology*, 52, 735– 747. <https://doi.org/10.1002/ejsp.2849>
- Wetzels R., D. Matzke, M.D. Lee, J.N., Rouder, G.J. Iverson, and E-J. Wagenmakers. 2011. “Statistical evidence in experimental psychology: An empirical comparison using 855 t tests.” *Perspectives on Psychological Science* 6: 291–298. (doi:10.1177/1745691611406923)

List of Figures

Figure 1. Density plots for dependent variables and key independent variables. Dotted lines show means for the indicated variable. (**N = 811**)

Source: 2023 Polish Cross-Sectional Survey (Catholics)

Figure 2. Book offensiveness and blame deflection as a function (1) national identity variables, (2) Catholic identity variables, and (3) both national and Catholic identity variables. The error bars indicate 95% CIs around the predictions. Predicted values based on estimates for each outcome from Tables S1, S2, and S3. (**N = 811**)

Source: 2023 Polish Cross-Sectional Survey (Catholics)

Figure 3. Variable importance estimates from multivariate random forest models for national CN and IS (top), Catholic CN and IS (middle), and both national and Catholic CN and IS (bottom). (N = 811)

Source: 2023 Polish Cross-Sectional Survey (Catholics)

Table 1. Intercorrelations for Study Variables (N = 811###)

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. National CN						
2. National IS	0.69					
3. Catholic CN	0.69	0.46				
4. Catholic IS	0.52	0.57	0.81			
5. Ideology	0.37	0.29	0.47	0.45		
6. Book Offensiveness	0.60	0.41	0.71	0.59	0.45	
7. Blame Defection	0.53	0.43	0.64	0.59	0.50	0.74

Note. Entries are Pearson correlations, and all are statistically significant with $p < 0.001$.

Table 2. Dominance Analyses and Bayes Factors for CN Versus IS Comparisons

	National Identity	
	Book Offensiveness	Blame Defection
<i>Dominance Statistics:</i>		
National CN	0.22	0.14
National IS	0.07	0.08
Ideology	0.11	0.16
<i>Bayes Factors:</i>		
Full versus $b_{NCN} = 0$	5.5×10^{29} (Decisive for H_1)	4.6×10^{10} (Decisive for H_1)
Full versus $b_{NIS} = 0$	0.03 (Anecdotal for H_0)	4.3 (Substantial for H_1)
Full versus $b_{ideology} = 0$	2.3×10^{15} (Decisive for H_1)	1.8×10^{24} (Decisive for H_1)
	Catholic Identity	
	Book Offensiveness	Blame Defection
<i>Dominance Statistics:</i>		
Catholic CN	0.28	0.20
Catholic IS	0.14	0.15
Ideology	0.08	0.12
<i>Bayes Factors:</i>		
Full versus $b_{CCN} = 0$	1.9×10^{36} (Decisive for H_1)	1.4×10^{13} (Decisive for H_1)
Full versus $b_{CIS} = 0$	0.03 (Anecdotal for H_0)	26.27 (Decisive for H_1)
Full versus $b_{ideology} = 0$	1.2×10^5 (Decisive for H_1)	1.1×10^{12} (Decisive for H_1)
	National and Catholic Identity	
	Book Offensiveness	Blame Defection
<i>Dominance Statistics:</i>		
National CN	0.12	0.08
National IS	0.04	0.05
Catholic CN	0.20	0.14
Catholic IS	0.11	0.11
Ideology	0.06	0.09
<i>Bayes Factors:</i>		
Full versus $b_{NCN} = b_{CCN} = 0$	9.6×10^{39} (Decisive for H_1)	9.1×10^{12} (Decisive for H_1)
Full versus $b_{NIS} = b_{CIS} = 0$	0.002 (Anecdotal for H_0)	38.34 (Very Strong for H_1)
Full versus $b_{ideology} = 0$	7151 (Decisive for H_1)	6.2×10^{10} (Decisive for H_1)

Note. Dominance statistics indicate the average net contribution to model R^2 made by the indicated predictor to models constructed from all possible subsets of the other $k-1$ predictors. Bayes factors indicate how much more evidence there is for the full model containing all predictors (H_1) versus

the model with the indicated constraints (H_0). Evidence categories for Bayes factors Based on Wetzels et al. (2011).

Supplementary Material for:

The Father's Love: Collective Narcissism and Defensive Reactions to Allegations about Pope John Paul II in Polish Public Opinion

Agnieszka Golec de Zavala
Department of Psychology
Goldsmiths, University of London
New Cross
London SE14 6NW
agnieszka.golec@gmail.com

Christopher M. Federico
Departments of Political Science and Psychology
University of Minnesota
Minneapolis, MN 55455
federico@umn.edu

Contents:

1. Additional Sample and Measure Information	2
2. Complete Regression Estimates for Analyses in Figure 2	5
3. Robustness Check: Substituting Identity Strength for Ingroup Satisfaction	8
4. Confirmatory Factor Analyses for CN and IS Measures	16

Data and Code:

All data and code needed for variable creation and replication of the results can be found at OSF:
<https://osf.io/4ug35/>.

1. Additional Sample and Measure Information

Sample Characteristics

The full survey reached a representative sample of 1,019 individuals (543 women, 476 men) with ages ranging from 18 to 84 years ($M=45.98$, $SD=16.17$). 354 (35.82%) of respondents lived in an urban area, while 654 (64.18%) did not. In terms of education, 431 respondents (42.29%) had completed a bachelor's degree or higher. The final sample ($N=811$; 431 women, 380 men) ranged between 18 and 84 years in age ($M=46.21$, $SD=15.67$). 264 (32.55%) of respondents lived in an urban area, while 547 (67.45%) did not. In terms of education, 338 respondents (41.68%) had completed a bachelor's degree or higher.

Power Analysis

For an alpha of 0.05 and power level of 0.80, the final sample size of 811 provides sufficient power to detect a minimum coefficient effect size of $f^2=0.0178$ in a linear regression with seven predictors, a minimum coefficient effect size of $f^2=0.0187$ in a linear regression with eight predictors, and a minimum coefficient effect size of $f^2=0.0195$ in a linear regression with nine predictors (compared to a small f^2 of 0.02 and a medium f^2 of 0.15; Cohen 1992).⁸

Question Wordings for Key Measures

National collective narcissism. This was assessed using the five-item version of the Collective Narcissism Scale (Golec de Zavala et al., 2013). The items were: “If Poland had a major say in the world, the world would be a much better place,” “Poland deserves special treatment,” “It really makes me angry when others criticize Poland,” “Not many people seem to fully understand the importance of Poland,” and “I will never be satisfied until Poland gets the recognition it

⁸ All power analyses were performed using the `pwr.f2.test()` function from the `pwr` package in R.

deserves.” Responses were given on a seven-point scale anchored at the ends by “definitely no” (1) to “definitely yes” (7).

Catholic collective narcissism. This was assessed using the five-item version of the Collective Narcissism Scale (Golec de Zavala et al., 2013). The items were: “If Catholics had a major say in the world, the world would be a much better place,” “Catholics deserve special treatment,” “It really makes me angry when others criticize Catholics,” “Not many people seem to fully understand how important Catholics are,” and “I will never be satisfied until Catholics get the recognition they deserves.” Responses were given on a seven-point scale anchored at the ends by “definitely no” (1) to “definitely yes” (7).

National ingroup satisfaction. This was measured using four items (Leach et al. 2008). The items included: “I am glad to be Polish,” “I think that Poles have a lot to be proud of,” “It is pleasant to be Polish,” and “Being Polish gives me a good feeling.” Responses were given on a seven-point scale anchored at the ends by “definitely no” (1) to “definitely yes” (7).

Catholic ingroup satisfaction. This was measured using four items (Leach et al. 2008). The items included: “I am glad to be Catholic,” “I think that Catholics have a lot to be proud of,” “It is pleasant to be Catholic,” and “Being Catholic gives me a good feeling.” Responses were given on a seven-point scale anchored at the ends by “definitely no” (1) to “definitely yes” (7).

Book offensiveness. This was measured using seven items: “The book ‘Maxima Culpa’ about the knowledge and role of pope John Paul II in covering up sexual crimes in the Catholic Church offends Poland and Poles,” “The book ‘Maxima Culpa’ about the knowledge and role of pope John Paul II in covering up sexual crimes in the Catholic Church insults the memory of the pope,” “The book ‘Maxima Culpa’ about the knowledge and role of pope John Paul II in covering up sexual crimes in the Catholic Church undermines the moral authority of the pope,” “The author of the book ‘Maxima Culpa’ about the knowledge and role of pope John Paul II in covering up

sexual crimes in the Catholic Church is a foreigner who insults Poland,” “The book ‘Maxima Culpa’ about the knowledge and role of pope John Paul II in covering up sexual crimes in the Catholic Church is a Russian provocation,” “The book ‘Maxima Culpa’ about the knowledge and role of pope John Paul II in covering up sexual crimes in the Catholic Church poses a threat to the security of Poland,” and “The book ‘Maxima Culpa’ about the knowledge and role of pope John Paul II in covering up sexual crimes in the Catholic Church is the result of a conspiracy against Poland.” Responses were given on a seven-point scale anchored at the ends by “definitely no” (1) to “definitely yes” (7).

Blame defection and denial. Defection of blame from pope John Paul II and denial of his alleged role was measured using eight items: “The imperfection of the pope allows him to be revered even more,” “Karol Wojtyla took decisive steps against priests accused of pedophilia,” “John Paul II is partly responsible for cases of pedophilia that occurred while he was pope because he had known about it for a long time and did not say ‘stop’” (reversed), “Covering up sexual criminals by Karol Wojtyla is a fact that is difficult to dispute” (reversed), “In the matter of protecting pedophile priests by John Paul II, questions should be asked because doubts are beginning to arise about his role in this process” (reversed), “We will never know the truth about the role of John Paul II in protecting pedophile priests in the Catholic Church” (reversed), “The accusations against John Paul II of covering up pedophilia in the Catholic Church are a left-wing conspiracy,” and “Karol Wojtyla did not react to reports of pedophilia in the Church because he believed that the information reaching him was fabricated by the communist secret police, the Security Service.” Responses were given on a seven-point scale anchored at the ends by “definitely no” (1) to “definitely yes” (7).⁹

⁹ One other item was administered in this set: “Karol Wojtyla knew about pedophilia among priests as early as the 1970s-80s, but at that time, the effects of pedophilia on victims were not yet fully understood” (item *pope9* in the replication dataset) Respondents had apparently difficulty parsing this item, as it did not scale well with the remaining items and reduced the overall reliability of the scale.

2. Complete Regression Estimates for Analyses in Figure 2

Figure 2 in the main text of the paper presents forest plots summarizing the key estimates for models examining the controls plus (1) national CN and IS (Figure 2, top panel), (2) Catholic CN and IS (Figure 2, middle panel), and (3) national and Catholic CN and IS (Figure 2, bottom panel). Table S1, S2, and S3 contain the full estimates for these models. The demographic variables in each model (male, education, age, urban resident) are included in all models. All estimates are unstandardized, and all confidence intervals and p -values were computed based on the HC3 robust variance-covariance estimator.

Table S1. Analyses using National CN and IS (Figure 2, top panel)

<i>Predictors</i>	Book Offensiveness				Blame Deflection			
	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>
(Intercept)	0.17	0.04	[0.10 – 0.24]	<0.001	0.21	0.03	[0.15 – 0.26]	<0.001
Male (1 = yes)	-0.02	0.01	[-0.05 – 0.01]	0.153	0.00	0.01	[-0.02 – 0.02]	0.858
Education (0-1)	-0.07	0.02	[-0.11 – -0.02]	0.003	-0.03	0.02	[-0.07 – 0.00]	0.053
Age	-0.00	0.00	[-0.00 – 0.00]	0.366	-0.00	0.00	[-0.00 – 0.00]	0.073
Urban (1 = yes)	-0.04	0.02	[-0.07 – -0.01]	0.014	-0.03	0.01	[-0.06 – -0.01]	0.003
National CN	0.50	0.04	[0.41 – 0.59]	<0.001	0.24	0.03	[0.17 – 0.30]	<0.001
National IS	-0.00	0.04	[-0.09 – 0.08]	0.936	0.10	0.04	[0.03 – 0.17]	0.005
Ideology	0.26	0.03	[0.20 – 0.33]	<0.001	0.25	0.03	[0.20 – 0.30]	<0.001
<i>N</i>	811				811			
<i>R</i> ²	0.433				0.405			

Table S2. Analyses using Catholic CN and IS (Figure 2, middle panel)

For this reason, it was excluded from the final scale used in the main paper. However, including it in the scale does not change any results involving the blame deflection measure, though it does reduce the internal consistency of the scale (from $\alpha=0.79$ to $\alpha=0.73$). Results for this measure are available on request from the authors and can be obtained from the replication dataset.

<i>Predictors</i>	Book Offensiveness				Blame Defection			
	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>
(Intercept)	0.20	0.03	[0.15 – 0.26]	<0.001	0.23	0.02	[0.19 – 0.28]	<0.001
Male (1 = yes)	-0.02	0.01	[-0.04 – 0.01]	0.121	0.00	0.01	[-0.02 – 0.02]	0.765
Education (0-1)	-0.07	0.02	[-0.11 – -0.03]	0.001	-0.04	0.02	[-0.07 – -0.00]	0.029
Age	-0.00	0.00	[-0.00 – 0.00]	0.760	-0.00	0.00	[-0.00 – 0.00]	0.287
Urban (1 = yes)	-0.00	0.01	[-0.03 – 0.03]	0.990	-0.01	0.01	[-0.03 – 0.01]	0.370
Catholic CN	0.56	0.05	[0.47 – 0.66]	<0.001	0.27	0.04	[0.20 – 0.34]	<0.001
Catholic IS	0.02	0.05	[-0.08 – 0.11]	0.694	0.12	0.04	[0.05 – 0.19]	0.001
Ideology	0.16	0.03	[0.09 – 0.22]	<0.001	0.18	0.03	[0.13 – 0.23]	<0.001
<i>N</i>	811				811			
<i>R</i> ²	0.524				0.477			

Table S3. Analyses using National and Catholic CN and IS (Figure 2, bottom panel)

<i>Predictors</i>	Book Offensiveness				Blame Defection			
	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>
(Intercept)	0.15	0.03	[0.09 – 0.21]	<0.001	0.19	0.02	[0.15 – 0.24]	<0.001
Male (1 = yes)	-0.02	0.01	[-0.04 – 0.01]	0.193	0.00	0.01	[-0.01 – 0.02]	0.648
Education (0-1)	-0.06	0.02	[-0.10 – -0.02]	0.005	-0.03	0.02	[-0.06 – 0.00]	0.086
Age	-0.00	0.00	[-0.00 – 0.00]	0.607	-0.00	0.00	[-0.00 – 0.00]	0.116
Urban (1 = yes)	-0.01	0.01	[-0.04 – 0.02]	0.554	-0.02	0.01	[-0.04 – 0.01]	0.177
National CN	0.22	0.05	[0.11 – 0.32]	<0.001	0.08	0.04	[-0.01 – 0.16]	0.073
National IS	-0.02	0.04	[-0.10 – 0.07]	0.712	0.06	0.04	[-0.01 – 0.13]	0.100
Catholic CN	0.41	0.06	[0.30 – 0.53]	<0.001	0.22	0.05	[0.12 – 0.31]	<0.001
Catholic IS	0.05	0.05	[-0.05 – 0.16]	0.324	0.10	0.04	[0.02 – 0.18]	0.016
Ideology	0.14	0.03	[0.08 – 0.20]	<0.001	0.17	0.02	[0.12 – 0.22]	<0.001
<i>N</i>	811				811			
<i>R</i> ²	0.544				0.491			

3. Robustness Check: Substituting Identity Strength for Ingroup Satisfaction

As a robustness check, we also re-estimated the models summarized in Figure 2 and Tables S1-S3 with measures of strength of national and Catholic identification substituted for the ingroup-satisfaction measures. Each form of strength of identification was measured with two items, which used the same agree/disagree response scale as the CN and IS items: “Being [a Pole/a Catholic] is an important part of my identity” and “Being [a Pole/a Catholic] is a significant aspect of how I perceive myself.” Each set of items recoded to run from 0 to 1 and averaged to form a scale (national ID: $\alpha=0.92$, $M=0.68$, $SD=0.25$; Catholic ID: $\alpha=0.94$, $M=0.56$, $SD=0.30$). National ID was correlated with national CN ($r=0.67$), national IS ($r=0.89$), Catholic CN ($r=0.46$), and Catholic IS ($r=0.53$), all $ps<0.001$. Catholic ID was correlated with national CN ($r=0.48$), national IS ($r=0.54$), Catholic CN ($r=0.77$), and Catholic IS ($r=0.91$), all $ps<0.001$.

The resulting models were identical in specification to those in Tables S1-S3, except that the relevant strength of identification measures were substituted for the corresponding ingroup-satisfaction measure. Figure S1 provides a visualization of the key estimates for the CN and strength of identification measures from these analyses, and Table S4, S5, and S6 contain the full estimates. All estimates are unstandardized, and all confidence intervals and p -values were computed based on the HC3 robust variance-covariance estimator. The results are virtually identical to those reported in Figure 2 and Tables S1-S3.

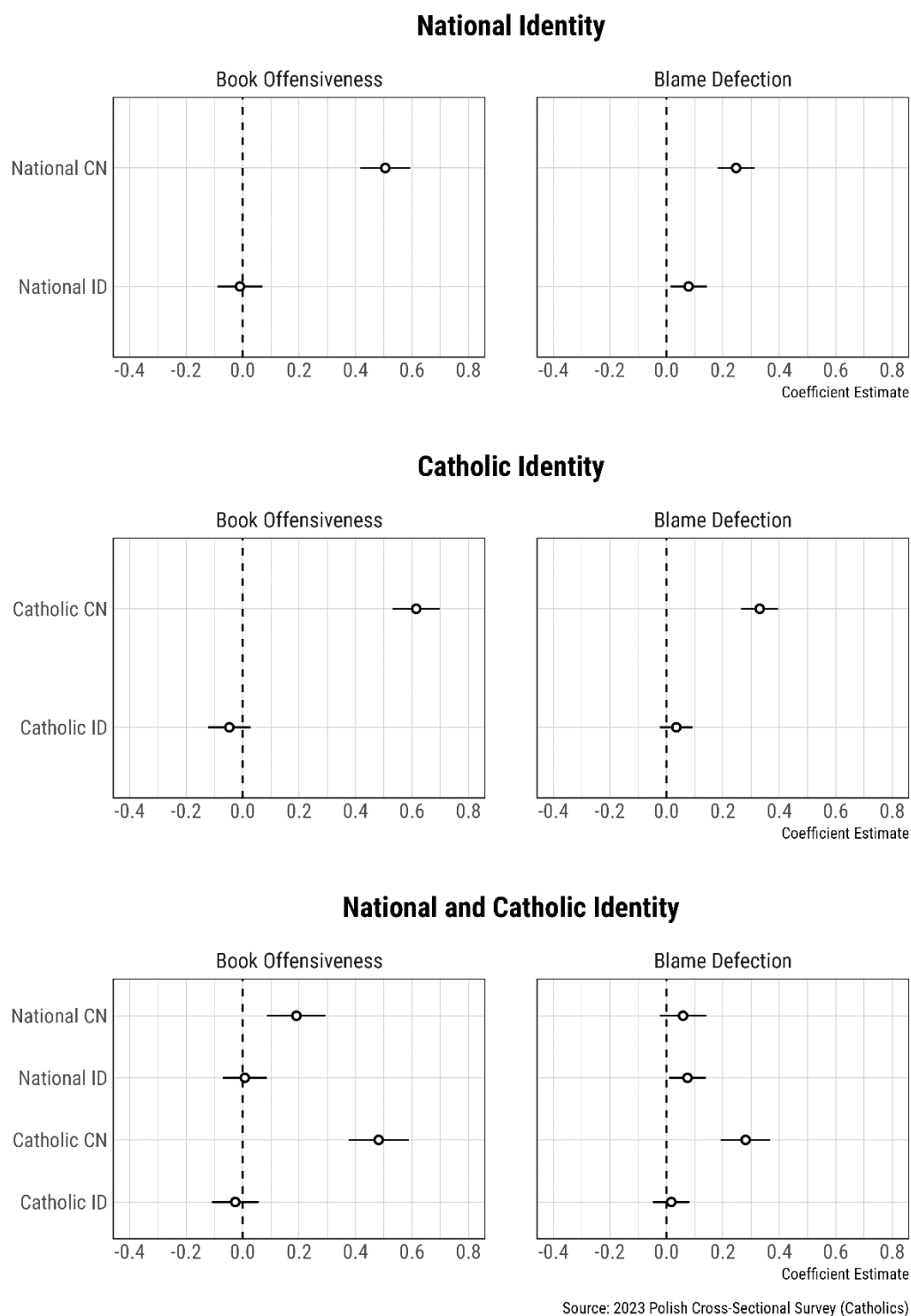


Figure S1. Book offensiveness and blame defection estimates, with strength of identification substituted for ingroup satisfaction. The error bars indicate 95% CIs around the predictions. Predicted values based on estimates for each outcome from Tables S4, S5, and S6.

Table S4. Analyses using National CN and Identification

<i>Predictors</i>	Book Offensiveness				Blame Defection			
	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>
(Intercept)	0.17	0.03	[0.10 – 0.24]	<0.001	0.22	0.03	[0.16 – 0.27]	<0.001
Male (1 = yes)	-0.02	0.01	[-0.05 – 0.01]	0.153	0.00	0.01	[-0.02 – 0.02]	0.846
Education (0-1)	-0.07	0.02	[-0.11 – -0.02]	0.004	-0.04	0.02	[-0.07 – -0.00]	0.041
Age	-0.00	0.00	[-0.00 – 0.00]	0.391	-0.00	0.00	[-0.00 – 0.00]	0.085
Urban (1 = yes)	-0.04	0.02	[-0.07 – -0.01]	0.014	-0.03	0.01	[-0.06 – -0.01]	0.004
National CN	0.51	0.04	[0.42 – 0.59]	<0.001	0.25	0.03	[0.18 – 0.31]	<0.001
National ID	-0.01	0.04	[-0.09 – 0.07]	0.813	0.08	0.03	[0.01 – 0.14]	0.016
Ideology	0.26	0.03	[0.20 – 0.33]	<0.001	0.26	0.03	[0.21 – 0.31]	<0.001
<i>N</i>	811				811			
<i>R</i> ²	0.433				0.403			

Table S5. Analyses using Catholic CN and Identification

<i>Predictors</i>	Book Offensiveness				Blame Defection			
	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>
(Intercept)	0.20	0.03	[0.15 – 0.26]	<0.001	0.25	0.02	[0.20 – 0.29]	<0.001
Male (1 = yes)	-0.02	0.01	[-0.04 – 0.00]	0.107	0.00	0.01	[-0.02 – 0.02]	0.737
Education (0-1)	-0.07	0.02	[-0.11 – -0.03]	0.001	-0.03	0.02	[-0.07 – -0.00]	0.033
Age	-0.00	0.00	[-0.00 – 0.00]	0.995	-0.00	0.00	[-0.00 – 0.00]	0.390
Urban (1 = yes)	-0.00	0.01	[-0.03 – 0.03]	0.985	-0.01	0.01	[-0.03 – 0.01]	0.341
Catholic CN	0.61	0.04	[0.53 – 0.70]	<0.001	0.33	0.03	[0.26 – 0.40]	<0.001
Catholic ID	-0.05	0.04	[-0.12 – 0.03]	0.222	0.03	0.03	[-0.02 – 0.09]	0.237
Ideology	0.16	0.03	[0.10 – 0.22]	<0.001	0.19	0.03	[0.14 – 0.24]	<0.001
<i>N</i>	811				811			
<i>R</i> ²	0.526				0.469			

Table S6. Analyses using National and Catholic CN and Identification

<i>Predictors</i>	Book Offensiveness				Blame Defection			
	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>95% CI</i>	<i>p</i>
(Intercept)	0.15	0.03	[0.09 – 0.21]	<0.001	0.21	0.02	[0.16 – 0.26]	<0.001
Male (1 = yes)	-0.02	0.01	[-0.04 – 0.01]	0.171	0.00	0.01	[-0.02 – 0.02]	0.651
Education (0-1)	-0.06	0.02	[-0.10 – -0.02]	0.006	-0.03	0.02	[-0.06 – 0.00]	0.070
Age	-0.00	0.00	[-0.00 – 0.00]	0.734	-0.00	0.00	[-0.00 – 0.00]	0.141
Urban (1 = yes)	-0.01	0.01	[-0.04 – 0.02]	0.559	-0.02	0.01	[-0.04 – 0.01]	0.185
National CN	0.19	0.05	[0.09 – 0.29]	<0.001	0.06	0.04	[-0.02 – 0.14]	0.165
National ID	0.01	0.04	[-0.07 – 0.09]	0.848	0.07	0.03	[0.01 – 0.14]	0.024
Catholic CN	0.48	0.05	[0.38 – 0.59]	<0.001	0.28	0.04	[0.19 – 0.37]	<0.001
Catholic ID	-0.03	0.04	[-0.11 – 0.06]	0.536	0.02	0.03	[-0.05 – 0.08]	0.606
Ideology	0.15	0.03	[0.09 – 0.21]	<0.001	0.18	0.03	[0.13 – 0.23]	<0.001
<i>N</i>	811				811			
<i>R</i> ²	0.544				0.483			

In turn, Table S7 presents dominance analyses and Bayes Factor test for CN Versus IS Comparisons parallel to those shown in Table 2. Again, these results were very similar to those reported for the main analyses involving the national and Catholic ingroup satisfaction measures. Consistent with H3, the dominance statistics for national CN were larger than those for national ID (Table S7, top panel) and the dominance statistics for Catholic CN were larger than those for Catholic ID (middle panel). With the exception of national CN in the Blame Defection model, the dominance statistics for each kind of CN were also larger than those for ideology. Looking at the Bayes Factors for the model comparisons in the national-only and Catholic-only models, there was again decisive evidence for the target models that freely estimated CN over models fixing CN to

zero; the relevant Bayes Factors were very large in all cases. Evidence for models freely estimating the ID coefficients versus models fixing ID to zero was weaker, as in the main analyses. In all cases, the Bayes Factor for full models that freely estimated the ideology coefficient suggested decisive evidence for that model versus a null model that constrained the coefficient for ideology to zero.

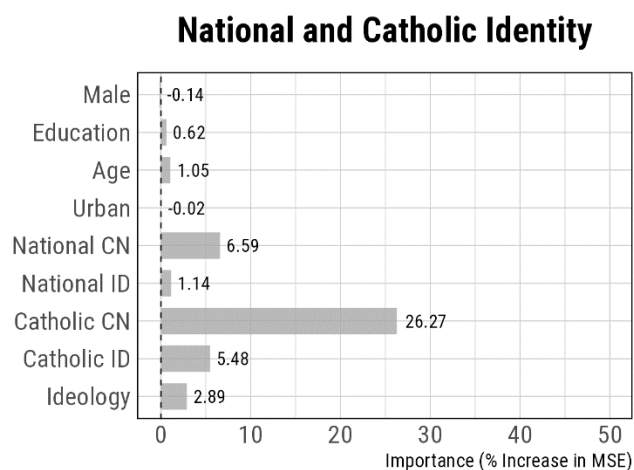
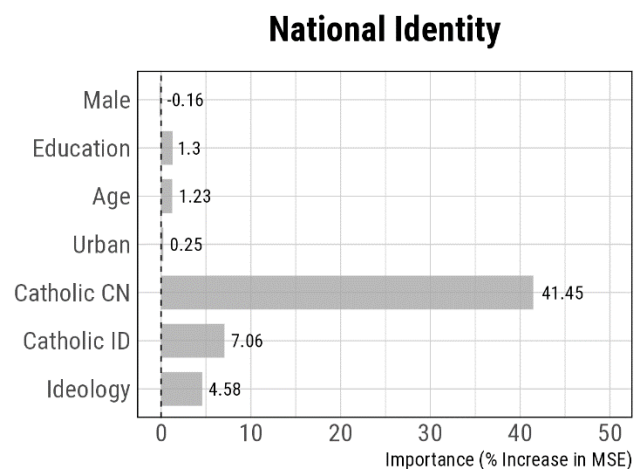
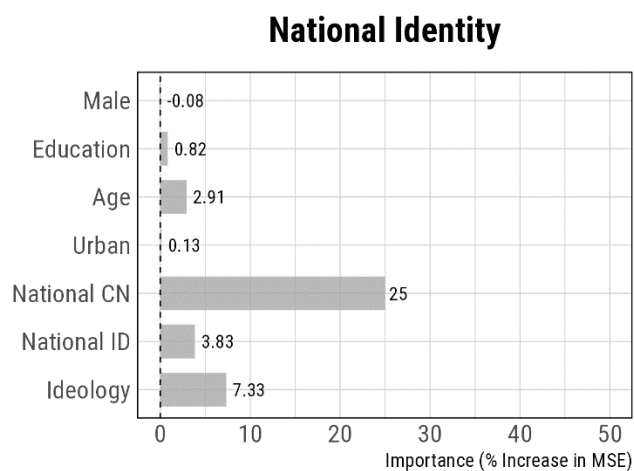
In the models that included both national CN and ID and Catholic CN and ID, the collective narcissism variable for each identity type had a larger dominance statistic than the corresponding ingroup satisfaction variable. With the exception of national CN in the Blame Defection model, the dominance statistics for each kind of CN were also larger than those for ideology. As in the main analyses, the Catholic identity versions of CN and ID had larger dominance statistics than their national identity counterparts. For these models, we also computed Bayes Factors comparing the full model with all coefficients freely estimated (H_1) to a null model (H_0) that simultaneously fixed the coefficients for either (1) national and Catholic CN or (2) national and Catholic ID to zero. As above, there was decisive evidence for the target models that freely estimated both CN coefficients over models that fixed the CN coefficients to zero, with extremely large Bayes Factors. Evidence for the models freely estimating both ID coefficients versus models that fixed the ID coefficients to zero was weaker in comparison. As in the national-only and Catholic-only models, the Bayes Factor for the full models that freely estimated the ideology coefficient suggested decisive evidence for that model versus a null model that constrained the coefficient for ideology to zero.

Table S7. Effect Comparisons For Strength of Identification Models

	National Identity	
	Book Offensiveness	Blame Defection
<i>Dominance Statistics:</i>		
National CN	0.22	0.15
National ID	0.07	0.07
Ideology	0.12	0.16
<i>Bayes Factors:</i>		
Full versus $b_{NCN} = 0$	8.8×10^{30} (Decisive for H_1)	1.2×10^{12} (Decisive for H_1)
Full versus $b_{NID} = 0$	0.03 (Anecdotal for H_0)	1.06 (Anecdotal for H_1)
Full versus $b_{ideology} = 0$	2.6×10^{15} (Decisive for H_1)	2.6×10^{24} (Decisive for H_1)
	Catholic Identity	
	Book Offensiveness	Blame Defection
<i>Dominance Statistics:</i>		
Catholic CN	0.30	0.22
Catholic ID	0.11	0.11
Ideology	0.09	0.12
<i>Bayes Factors:</i>		
Full versus $b_{CCN} = 0$	2.3×10^{48} (Decisive for H_1)	5.9×10^{22} (Decisive for H_1)
Full versus $b_{CID} = 0$	0.07 (Anecdotal for H_0)	0.07 (Anecdotal for H_0)
Full versus $b_{ideology} = 0$	4.2×10^5 (Decisive for H_1)	1.4×10^{13} (Decisive for H_1)
	National and Catholic Identity	
	Book Offensiveness	Blame Defection
<i>Dominance Statistics:</i>		
National CN	0.12	0.08
National ID	0.04	0.04
Catholic CN	0.21	0.16
Catholic ID	0.08	0.08
Ideology	0.07	0.10
<i>Bayes Factors:</i>		
Full versus $b_{NCN} = b_{CCN} = 0$	1.96×10^{49} (Decisive for H_1)	3.3×10^{20} (Decisive for H_1)
Full versus $b_{NID} = b_{CID} = 0$	0.002 (Anecdotal for H_0)	0.14 (Anecdotal for H_0)
Full versus $b_{ideology} = 0$	2.6×10^4 (Decisive for H_1)	7.4×10^{11} (Decisive for H_1)

Note. Dominance statistics indicate the average net contribution to model R^2 made by the indicated predictor to models constructed from all possible subsets of the other $k-1$ predictors. Bayes factors indicate how much more evidence there is for the full model containing all predictors (H_1) versus the model with the indicated constraints (H_0). Evidence categories for Bayes factors Based on Wetzels et al. (2011).

As a final comparison of the relative predictive power of the different independent variables, we also repeated the three multivariate random forest regression analyses jointly predicting Book Offensiveness and Blame Defection. The only difference between these models and the main analyses was that the relevant strength of identification measures were substituted for the equivalent ingroup satisfaction. The random-forest models focusing only on national CN and ID or Catholic CN and ID are shown in the top and middle panels of Figure S2. These models produced multivariate R^2 statistics of 0.41 and 0.53, respectively. These models indicate that national CN (25% increase in MSE) and Catholic CN (41.45% increase in MSE) were the most important predictors. National ID (3.83%) and Catholic ID (7.09%) and ideology (7.33% in the national identity analysis, 4.58% in the Catholic identity analysis) were less important in comparison. The analysis including all substantive variables plus ideology is shown in the bottom panel of Figure S2. This model produced a multivariate R^2 statistic of 0.53. Within each identity, CN is a more important predictor (6.59% for national CN, 26.27% for Catholic CN) than its ID counterpart (1.14% for national ID, 5.48% for Catholic ID). The Catholic identity variables (26.27% for Catholic CN, 5.48% for Catholic ID) were also more important than their national counterparts (6.59% for national CN, 1.14% for national ID). Ideology (2.89%) was a less important predictor than all identity variables except for national ID (1.14%). Overall, Catholic CN was the strongest input variable predictor of the two output variables (26.27%), again pointing to the especially important role of religious CN. Thus, the random forest regression analyses were also consistent with Hypothesis 3.



Source: 2023 Polish Cross-Sectional Survey (Catholics)

Figure S2. Variable importance estimates from multivariate random forest models for national CN and IS (top), Catholic CN and IS (middle), and both national and Catholic CN and IS (bottom), with ideology included.

4. Confirmatory Factor Analyses for CN and IS Measures

To confirm that national CN, national IS, Catholic CN, and Catholic IS corresponded to distinct constructs, we estimated a four-factor measurement model in which the items corresponding to each of the four key constructs was allowed to load only on the latent factor it measured. The nine errors for parallel CN (national and Catholic) and parallel IS (national and Catholic) items were allowed to correlate to account for shared measurement variance. The model was estimated in R (4.1.3) with the *lavaan* package (0.6-9) using maximum likelihood with the Satorra-Bentler correction for non-normality and missing data (MLR; Rosseel 2012). The key estimates for this model are summarized in Table S8 and the model is visualized in Figure S3. The model provided an excellent fit to the data, $\chi^2(120)=300.64, p<0.001$, robust CFI=0.983; robust RMSEA=0.052. For comparison purposes, we also estimated an alternative two-factor model that allowed the national CN and IS items to load on a single national-identity factor and the Catholic CN and IS items to load on a single Catholic-identity factor. The same error covariances for parallel CN and IS items were included. This specification corresponds to a situation in which only the type of identity (national or Catholic) matters, and the distinction between CN and IS does not.

Estimates for the model are shown in Figure S4. This model did not provide an adequate fit to the data (with CFI<0.95 and RMSEA>0.08), $\chi^2(125)=1648.07, p<0.001$, robust CFI=0.856; robust RMSEA=0.150. A likelihood-ratio chi-square test indicated a significant decline in model fit when going from the four-factor to the two factor model, $\Delta\chi^2(125)=878.99, p<0.001$. Given that likelihood-ratio chi-square difference tests can be inflated by large sample sizes, Bayesian model comparison was also performed by examining change in the Bayesian Information Criterion (BIC; lower BICs indicate better fit) and Bayes Factors (BF) for each model comparison (Wetzels et al. 2011). This test also suggested that the four-factor model fit considerably better than the two-factor alternative, $\Delta\text{BIC}=1997.92$, $\text{BF}=6.96\times 10^{443}$. These statistics indicate ‘very strong’ for the four-factor

model relative to the two-factor model. Thus, the data are consistent with the four-factor model we assume.

Table S8. Loadings and Factor Correlations from Final Four-Factor Model

	Factor 1	Factor 2	Factor 3	Factor 4
National CN1	0.89			
National CN2	0.85			
National CN3	0.82			
National CN4	0.86			
National CN5	0.86			
National IS1		0.93		
National IS2		0.93		
National IS3		0.76		
National IS4		0.94		
Catholic CN1			0.89	
Catholic CN2			0.83	
Catholic CN3			0.88	
Catholic CN4			0.87	
Catholic CN5			0.87	
Catholic IS1				0.93
Catholic IS2				0.86
Catholic IS3				0.86
Catholic IS4				0.94
<i>Correlations:</i>				
Factor 1	1.00			
Factor 2	0.72	1.00		
Factor 3	0.72	0.49	1.00	
Factor 4	0.55	0.59	0.85	1.00

Note. Entries are standardized loadings from the final four-factor solution for each wave. The unstandardized loading for the first item on each factor was fixed to 1 to set the metric of each factor; these are marked with asterisks. The error for each national CN item and each national IS item was allowed to correlated with the error for the parallel Catholic CN or Catholic IS item. Items for each factor are listed in the same order as they are listed in the description of the measures in the text. $\chi^2(120)=300.64$, $p<0.001$, robust CFI=0.983; robust RMSEA=0.052.

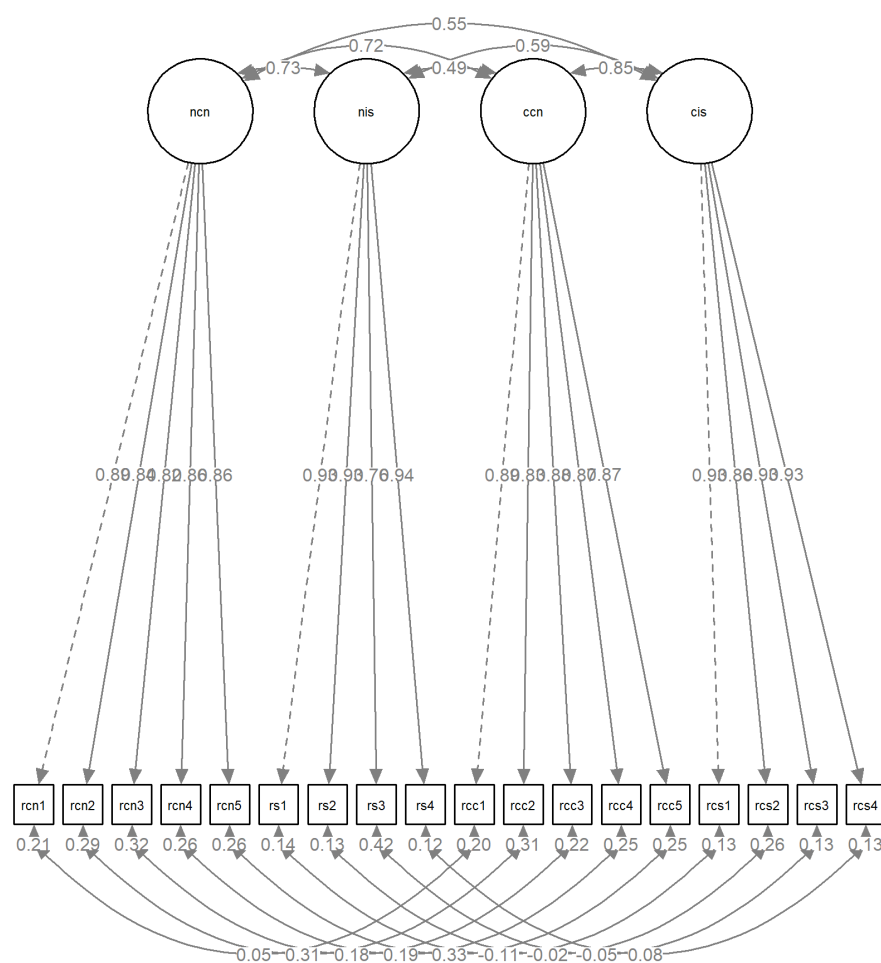


Figure S3. Four-factor model for national and Catholic CN and IS items. NCN = national collective narcissism factor; NIS = national ingroup satisfaction factor; CCN = Catholic collective narcissism factor; CIS = Catholic ingroup satisfaction factor.

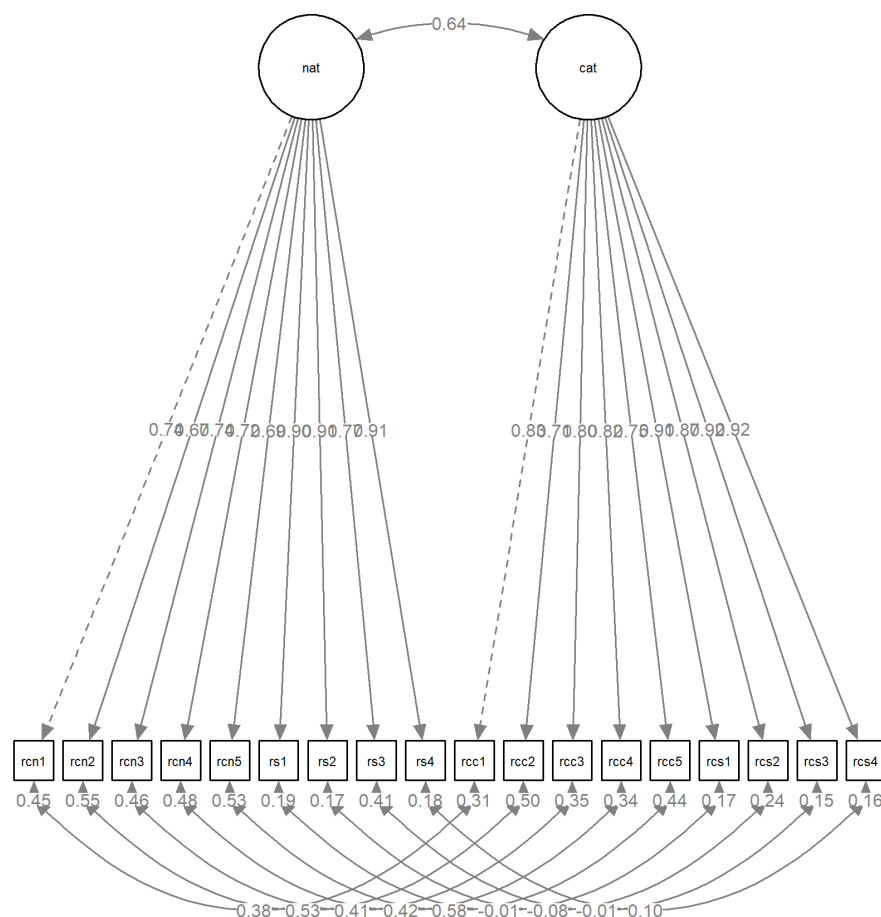


Figure S4. Alternative two-factor model for national and Catholic CN and IS items. This model allows all items (both collective narcissism and ingroup satisfaction) pertaining to a specific identity to load onto the same factor. NAT = factor for all national identity items; CAT = factor for all Catholic identity items.

References

- Cohen, Jacob. 1992. "Statistical Power Analysis." *Current Directions in Psychological Science* 1(3): 98-101.
<https://doi.org/10.1111/1467-8721.ep10768783>
- Golec de Zavala, Agnieszka., Aleksandra Cichocka, and Irena Iskra-Golec. 2013. "Collective narcissism moderates the effect of in-group image threat on intergroup hostility," *Journal of Personality and Social Psychology* 104 : 1019-1039. <http://dx.doi.org/10.1037/a0032215>
- Rosseel, Yves. (2012). "lavaan: An R Package for Structural Equation Modeling." *Journal of Statistical Software* 48(2): 1–36. <http://www.jstatsoft.org/v48/i02/>
- Wetzels R., D. Matzke, M.D. Lee, J.N., Rouder, G.J. Iverson, and E-J. Wagenmakers. 2011.
"Statistical evidence in experimental psychology: An empirical comparison using 855 t tests."
Perspectives on Psychological Science 6: 291–298. (doi:10.1177/1745691611406923)