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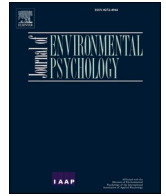
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# Words not deeds: National narcissism, national identification, and support for greenwashing versus genuine proenvironmental campaigns

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## ARTICLE INFO

Handling Editor: Sander van der Linden

### Keywords:

Greenwashing  
National narcissism  
National identification  
Environmental decisions  
Public campaigns

## ABSTRACT

Past research indicates that national narcissism (but not national identification) predicts support for anti-environmental policies, and that this effect is driven by national narcissists' need to defend the group's image. We hypothesized that although national narcissists might not support proenvironmental actions, they would support promoting a proenvironmental image of their nation (i.e., greenwashing). In five studies (overall  $N = 2231$ ), we demonstrated that individuals high in national narcissism were less likely to support actual proenvironmental actions (Studies 2–5), but more likely to support greenwashing campaigns (Studies 1–3, 5), although not when greenwashing would involve financial costs incurred by the ingroup (Study 4). In Study 5, national narcissism predicted support for greenwashing as a political strategy—it was related to the preference for green image enhancement over green actions (controlling for proenvironmental attitudes and individual narcissism). We did not observe similar effects for national identification or right-wing political ideology. Implications for promoting proenvironmentalism across distinct groups are discussed.

## 1. Introduction

At the 2019 COP25 Climate Change Conference, Poland—currently ruled by the right-wing Law and Justice party—was the only European country to opt out of the Green Deal, which aims to achieve a climate neutral economy by 2050 (Rankin, 2019). Yet, only a few days later, the Polish President Andrzej Duda claimed Poland to be “in the vanguard of actions for climate protection” (“Prezydent: Polska jest w awangardzie ochrony klimatu”, 2019). Similarly, in 2017 the right-wing Polish government decided to log the one-of-its-kind Bialowieza Forest—a protected area claimed to be Europe's oldest wild forest (Bobic, 2012). This decision resulted in world-wide protests (Stokstad, 2017). In response, the government granted a right-wing media outlet a large sum of money (i.e., 7.2 million Polish zlotys, or almost 2 million US dollars) to launch a website that would feature the Bialowieza Forest (Baginski, 2019). The website, called puszcza.tv, streams pictures of the forest and features articles that imply Poland's superiority in environmental protection. Media specialists estimate the market price of such website to be 100 times lower than the sum granted by the governmental agency (Baginski, 2019).

Claiming to be in the vanguard of proenvironmental actions while

withdrawing from the Green Deal as well as creating a website about a protected forest while allowing its logging to happen, can be considered examples of greenwashing. Greenwashing, or acting to gain benefits of green positioning without behaving accordingly, is a widespread phenomenon among business organizations aimed at influencing consumers' choices (TerraChoice, 2010). Greenwashing does not require financial investment from companies, and can be fairly simple (Spack et al., 2012). It tends to be effective in boosting the reputation of a given company and in increasing customers' perceived value of the greenwashed products (Parguel, Benoit-Moreau, & Russell, 2015; Tateishi, 2018). Thus, companies (e.g., banks), tend to greenwash products they sell, as it allows them to drive their prices up (Bowers, Boyd, & McGoun, 2020). Importantly, research in the field of consumer behavior indicates that when greenwashing is discovered, it has detrimental effects on the company's reputation, consumers' attitudes and their choices (De Jong, Harkink, & Barth, 2018; Nyilasy, Gangadharbatla, & Paladino, 2014). This negative impact occurs even when greenwashing takes a less obvious, ambiguous form of actual proenvironmental behavior driven by financial motives rather than of a blatant “green lie” (De Jong, Huluba, & Beldad, 2020).

Although traditionally examined in the context of business

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<https://doi.org/10.1016/j.jenvp.2021.101576>

Received 1 June 2020; Received in revised form 10 February 2021; Accepted 16 February 2021

Available online 4 March 2021

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organizations, greenwashing may also be used as a political strategy. In the field of consumer behavior, consumers are the target audience but usually they are not members of the organization. Thus, consumers' responses and reactions are external to the organization engaging in greenwashing. In contrast, greenwashing in politics is not only targeted towards external audiences (i.e., governments and citizens from other countries) but also towards internal audiences (i.e., citizens of the country engaging in greenwashing). Thus, in the case of greenwashing in politics, citizens are also members of the ingroup generating disinformation. Greenwashing in politics might satisfy voters' deep-seated psychological needs, including identity needs, and thus might not be so readily condemned. In fact, in the current political context where the need for recognition of national identities plays an increasingly prominent role (Fukuyama, 2018), greenwashing may even be applauded. This is because greenwashing may serve as an accessible way to satisfy the need for ingroup recognition and to reinforce the ingroup image in the eyes of others.

The need to maintain a positive ingroup image as strong and externally recognized is a prominent motive among those high in collective narcissism, or an inflated belief in ingroup greatness (Golec de Zavala et al., 2009). It is then reasonable to expect that any readiness to support greenwashing—instead of actual proenvironmental policies which could benefit the country—is driven by the need for national recognition characteristic of national narcissism; that is, collective narcissism measured in reference to the national group. However, past research suggests that ingroup identity can take various forms. To illustrate, vast literature documents the distinction between defensive and secure forms of group identity in the national context: pseudo-patriotism and genuine patriotism (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950), nationalism and patriotism (Kosterman & Feshbach, 1989), blind and constructive patriotism (Schatz, Staub, & Lavine, 1999), ingroup glorification and attachment (Roccas, Klar, & Liviatan, 2006; Sekerdej & Roccas, 2016), or collective narcissism and secure ingroup identification (Cichočka, 2016; Golec de Zavala, Cichočka, & Bilewicz, 2013). We rely on the latter distinction in this research.

### 1.1. Collective narcissism and national image defense

Although national narcissism reflects the belief in national superiority, and as such is associated with the defensive forms of national identity such as nationalism (Golec de Zavala et al., 2016; Lyons, Kenworthy, & Popan, 2010), it is unique in its focus on the need for external recognition of the nation's worth (Golec de Zavala et al., 2009). Collective narcissism resembles individual narcissism (e.g., Morf & Rhodewalt, 2001) in its associations with sensitivity to threats and criticism (Golec de Zavala et al., 2009). Hence, it represents group-based defensiveness (Cichočka, 2016). These concerns to manage the ingroup's image as strong are reflected in national narcissists' support for populist political decisions, such as Brexit (Golec de Zavala et al., 2017) or a presumed "Polexit" (Cislak, Pyrczak, Mikiewicz, & Cichočka, 2020), as well as populist politicians who call for the recognition of ingroup greatness (e.g., Trump; Marchlewska, Cichočka, Panayiotou, Castellanos, & Batayneh, 2018).

Indeed, research indicates that collective narcissism is defensive and results from either lower personal control (Cichočka et al., 2018) or lower self-worth (Golec de Zavala et al., 2019). Collective narcissism is also fueled by unrealistic perceptions that one's group is relatively disadvantaged in comparison to other groups (Marchlewska et al., 2018) or excluded by others (Golec de Zavala et al., 2019). Hence, collective narcissists' inflated belief in ingroup greatness seems to be an attempt to compensate for frustrated needs. This makes those scoring high in collective narcissism extremely sensitive to threats, criticisms or attempts to undermine the ingroup image (Golec de Zavala et al., 2016; Golec de Zavala, Cichočka, & Iskra-Golec, 2013). Collective narcissists tend to be convinced that other groups aim to harm the ingroup, and respond to any signs of lack of respect or criticism in a hostile manner (Golec de Zavala, Cichočka, & Iskra-Golec, 2013). As a result, individuals high in collective narcissism tend to believe other groups conspire against their group (e.g.,

Cichočka, Marchlewska, Golec de Zavala, & Olechowski, 2016).

### 1.2. Collective narcissism and its intragroup manifestations

Paradoxically, while superficially appearing to show strong ingroup commitment, those high in collective narcissism are more likely to take actions that eventually may harm other members of their own group, be it a nation, a political party, or a business organization (Cichočka & Cislak, 2020). To illustrate, national narcissism was associated with lower ingroup loyalty, indexed by a willingness to leave one's country and live abroad if one could benefit financially (Marchlewska, Cichočka, Jaworska, Golec de Zavala, & Bilewicz, 2020). In a similar vein, organizational narcissism was associated with instrumental treatment of co-workers for personal benefits (Cichočka, Cislak, Gronfeldt, & Wojcik, 2021).

Recent studies have also examined the role of national narcissism in the environmental context. National narcissism is associated with rejection of climate science (Bertin, Nera, Hamer, Uhl-Haeddicke, & Delouvé, 2021) as well as support for anti-environmental policies such as reinforcing carbon economy through subsidizing coal industry (Cislak, Wojcik, & Cichočka, 2018; see Ray, 1980 for similar findings for nationalism). Such policies might hurt ingroup members in the long run by increasing the risks of cognitive-related disorders (Calderón-Garcidueñas et al., 2008; Chen et al., 2017), lung diseases or even premature deaths (European Environment Agency, 2016). In line with the theorizing about ingroup image concerns, Cislak et al. (2018) observed that support for anti-environmental policies was motivated by asserting the ingroup image through resisting the influence of a powerful outgroup (in that case European Union) on ingroup's decisions. Thus, it seems that for collective narcissists maintaining the ingroup image may be more important than maintaining the well-being of ingroup members. National narcissism should then be associated with willingness to support actions that are directly aimed at promoting a proenvironmental ingroup image, even when these actions lack actual environmental benefits.

### 1.3. Collective narcissism versus ingroup identification

Importantly, we do not predict similar effects for those securely identified with their nation. Collective narcissism tends to be positively correlated with ingroup identification (significance of and satisfaction with the ingroup and its members; Tajfel, 1978; see also Postmes, Haslam, & Jans, 2013), because both assume a positive evaluation of the ingroup. Yet, after controlling for their shared variance, they tend to be underlain by different motives and associated with different inter- and intragroup outcomes (e.g., Cichočka, 2016; Cislak et al., 2018, 2020; Marchlewska et al., 2020). While collective or national narcissism is associated with intergroup hostility, non-narcissistic identification is associated with greater tolerance (Golec de Zavala, Cichočka, & Bilewicz, 2013) and resilience to threats and criticisms (Golec de Zavala, Cichočka, & Iskra-Golec, 2013). Thus, ingroup identification without the narcissistic component can be considered secure and confidently held (Cichočka, 2016).

In line with social identity tradition, strong ingroup identification should have positive intragroup consequences (Haslam et al., 2018). Indeed, when the narcissistic component is accounted for, ingroup identification tends to be associated with different outcomes than collective narcissism (for a review see, Cichočka, 2016), including greater ingroup loyalty (Marchlewska et al., 2020) and hesitance to exploit other ingroup members in an organizational context (Cichočka et al., 2021). Most importantly for the present research, past work showed that while national narcissism was positively related to support for anti-environmental policies, no similar effects were found for national identification (Cislak et al., 2018).

### 1.4. Ingroup identity and environmental concerns

Overall, past research suggests that the distinction between collective narcissism and ingroup identification has important implications for

**Table 1**

Bootstrapped Pearson correlation coefficients for the relationships between continuous variables with accompanying bias-corrected bootstrapped 95% confidence intervals with 1000 resamples (Study 1).

Variable	1	2	3
1. National narcissism			
2. National identification	.56*** [0.43, 0.66]		
3. Campaign support	.20** [0.04, 0.38]	.12 [-0.05, 0.27]	
4. Right-wing political orientation	.25** [0.09, 0.39]	.22** [0.06, 0.37]	-.11 [-0.27, 0.06]

\*\* $p < .01$ . \*\*\* $p < .001$ .

environmental attitudes and that greenwashing can be perceived as improving the image of the ingroup. We thus hypothesize that national narcissism would predict higher support for greenwashing campaigns but lower support for actual green actions which often require individual and group-level sacrifice (Knez, 2016; Oreg & Katz-Gerro, 2006). The appeals to take proenvironmental actions may thus be boycotted when these appeals are perceived as draining ingroup's resources, especially if these actions would benefit other groups as well (see also Cislak et al., 2020). Thus, those who seem to declare a strong ingroup commitment (at least superficially) may be prone to undermine proenvironmental actions and question their necessity. The negative response toward calls to act proenvironmentally may be especially strong when powerful outgroups are perceived as imposing the proenvironmental policies on a less powerful ingroup (e.g., Bonaiuto, Breakwell, & Cano, 1996; Cislak et al., 2018), thereby raising reputational concerns.

### 1.5. Overview of the studies

In five empirical studies, we tested the hypothesis that national narcissism would be positively associated with supporting actions that promote the *image* of the ingroup as proenvironmental. We also predicted that national narcissism would be negatively associated with supporting actions that promote *behaviors* that aim to benefit the environment. Study 1 examined whether national narcissism was associated with support for a greenwashing governmental campaign aimed at promoting the national group image as proenvironmental. Study 2 examined support for actions that the country should undertake in response to an outside appeal to protest the country's lack of proenvironmental policy. In a representative sample, we asked half of the participants whether they would support actions aimed at defending the national image, while the other half responded to items referring to investing in environmental protection. By employing a real-life intergroup context, we aimed to increase the external validity of our research. In Studies 3 and 4, we aimed to go beyond the intergroup context and increase internal validity. In Study 3, we experimentally manipulated the aim of a governmental campaign (strengthening group image vs. benefiting the environment) and measured the extent to which participants would support it. In Study 4, we replicated this design but added information that each type of campaign would involve similarly extensive public funds. In the preregistered Study 5, we explicitly measured preference for image enhancement over promoting proenvironmental actions; in other words, we measured support for greenwashing explicitly as a political strategy.

In all studies, we included several control variables as robustness checks. First, we controlled for any confounding effects of national identification. Second, as previous studies suggest that right-wing political orientation is related to anti-environmental attitudes (e.g., Hornsey, Harris, Bain, & Fielding, 2016) as well as national narcissism (Cichočka, Dhont, & Makwana, 2017), we controlled for participants' political orientation. Third, we also controlled for age and gender which are associated with environmental concern (Wiernik et al., 2013; Zelezny et al., 2000). Fourth, in Study 5 we additionally measured individual

**Table 2**

Summary of hierarchical regression analysis for greenwashing support (Study 1).

Variable	Model 1		Model 2		Model 3	
	B [95% CI]	$\beta$	B [95% CI]	$\beta$	B [95% CI]	$\beta$
National narcissism	0.33 [0.01, 0.66]	.22*	0.38 [0.08, 0.67]	.25**	0.35 [0.06, 0.68]	.24**
National identification	-0.01 [-0.31, 0.29]	-.01	0.03 [-0.24, .32]	.02	0.02 [-0.26, .30]	.01
Right-wing political orientation			-0.23 [-0.41, -0.03]	-.18*	-0.19 [-0.37, 0.03]	-.15+
Age					0.30 [-0.08, 0.71]	.12
Gender					-0.59 [-1.23, 0.02]	-.14+
<i>F</i>	<i>F</i> (2, 164) = 4.17*		<i>F</i> (3, 163) = 4.52**		<i>F</i> (5, 161) = 3.97**	
<i>R</i> <sup>2</sup>	.05		.08		.11	

+ $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

narcissism, which tends to correlate positively with collective narcissism (e.g., Golec de Zavala et al., 2009). Controlling for the effect of individual narcissism allowed us to examine the unique effects of group-based (rather than personal) defensiveness. Finally, in Study 5 we also controlled for proenvironmental attitudes in order to minimize their potential effect as a third variable affecting the relationship between national narcissism and support for image enhancement versus proenvironmental actions.

In all studies, we report how we determined our sample size, all data exclusions (if any), and all measures. All studies relied on a similar analytic strategy. We used General Analyses for Linear Models in jamovi 1.1.9 (Galucci, 2019) to estimate model fit in regression models. To deal with non-normality of the data, in all studies we used non-parametric estimations of correlation and regression coefficients with bias-corrected bootstrapped confidence intervals (all findings are similar when using traditional parametric estimation). The non-parametric standardized and non-standardized coefficients as well as the bias-corrected bootstrapped 95% confidence intervals with 1000 resamples for non-standardized coefficients were estimated using Mplus 8.4 (Muthén et al., 2016). Data for all studies are available at OSF (<https://osf.io/gS8aj/>).

## 2. Study 1

### 2.1. Method

#### 2.1.1. Participants and procedure

In Study 1, we recruited a convenience sample of undergraduate students, who were approached on campus of a large university in Poland. We aimed for a sample size that would provide 80% power to detect the typical effect size in social/personality psychology of  $r = 0.21$  (Richard, Bond, & Stokes-Zoota, 2003; Vazire, 2015). Using G\*Power, we estimated the target sample size to be at least 173. Participants were 136 women (coded as 0) and 37 men (coded as 1), aged between 18 and 23 ( $M = 19.31$ ,  $SD = 0.64$ ).

First, we measured national narcissism and national identification as predictors (counterbalanced<sup>1</sup>). We then provided participants with the

<sup>1</sup> The order of the two main predictors was counterbalanced in Studies 1–4. In Studies 1, 3 and 4 the order did not significantly affect the pattern of results (results available upon request). Although the order was counterbalanced in Study 2, it was not recorded as a variable when entering the data.

following description of a governmental campaign: "The Polish government is preparing to launch a wide-ranging campaign, which is intended to promote the image of Poland in the world. The purpose of the campaign is to build awareness of and positive associations with Poland as a country of green technologies and extensive environmental protection. The campaign is to be carried out in all media, including newspapers and television. In addition, the campaign will be conducted on the Internet and on forums of environmental organizations.". We measured support for this governmental campaign as the dependent variable. We also measured basic demographics and a single-item measure of political orientation (1 = *definitely left-wing* and 7 = *definitely right-wing*;  $M = 3.66$ ,  $SD = 1.29$ ).

### 2.1.2. Measures

National narcissism was measured with the short 5-item version of the Collective Narcissism Scale (Golec de Zavala et al., 2009; Golec de Zavala, Cichocka, & Bilewicz, 2013), e.g., "I will never be satisfied until Poles get all they deserve", "It really makes me angry when others criticize Poles", "If Poles had a major say in the world, the world would be a much better place". Participants responded on a scale from 1 = *strongly disagree* to 7 = *strongly agree* ( $M = 4.03$ ,  $SD = 1.15$ ;  $\alpha = 0.82$ ). National identification was measured with five items from the Social Identification Scale (Cameron, 2004), e.g., "I have a lot in common with other Poles", "I feel strong ties to other Polish people", "In general, I'm glad to be Polish", with the same 7-point agreement scale ( $M = 4.73$ ,  $SD = 1.19$ ;  $\alpha = 0.86$ ). After reading the campaign description, participants responded to one item: "Would you support funding this campaign?"; using a scale from 1 = *definitely not* to 7 = *definitely yes* ( $M = 4.54$ ,  $SD = 1.68$ ).

## 2.2. Results

Zero-order correlations are presented in Table 1. As expected, national narcissism and national identification were significantly positively correlated, and both were also significantly positively correlated with right-wing political orientation. Support for the governmental campaign aimed to strengthen the proenvironmental image of the nation

was also positively correlated with national narcissism but unrelated to national identification.

We then tested a regression model with national narcissism and national identification as joint predictors of support for funding the image campaign. The model was statistically significant (Table 2). Individuals higher in national narcissism declared stronger support for funding the governmental image campaign (Fig. 1), even after controlling for national identification, demographics and political orientation. After controlling for national narcissism, campaign support was not associated with national identification while the relationship with right-wing political orientation became negative (although only marginally significant when controlling for demographics).

## 2.3. Discussion

Study 1 showed that national narcissism predicted support for funding actions to enhance the national group image as proenvironmental. This effect was demonstrated over and above the effects of national identification and right-wing political orientation. Interestingly, we found that right-wing political orientation was negatively associated with supporting a proenvironmental image campaign, thereby providing first evidence that right-wing ideology may be associated with opposing not only actual proenvironmental actions (McCright, Xiao, & Dunlap, 2014), but also superficial environmental endeavours such as political greenwashing.

The readiness of national narcissists to support a greenwashing campaign is in line with our theoretical reasoning that defending ingroup image is of particular importance for collective narcissism. Study 1 thus offers preliminary evidence that support for funding greenwashing campaigns depends on the way people feel about their nation. However, this study did not examine whether national narcissists would reject policies that actually benefit the environment, and would have long-term benefits to the ingroup by reducing the health hazards or saving the national environment (cf. Cislak et al., 2018). We verify this in Study 2 by manipulating the aim of the campaign.

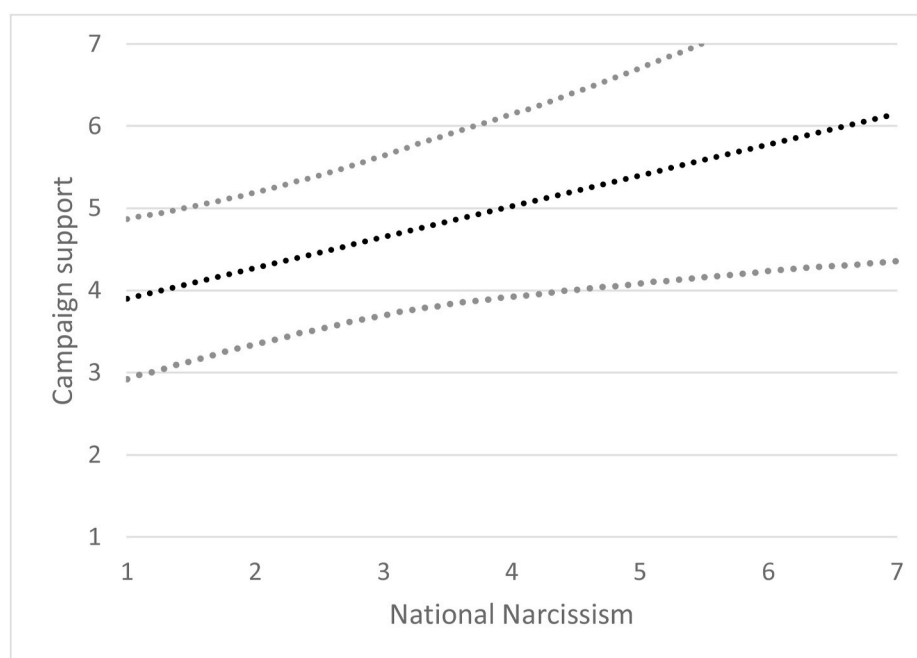


Fig. 1. The relationship between national narcissism and support for the governmental greenwashing campaign (with bias-corrected bootstrapped 95% CIs) after controlling for national identification (Study 1).

### 3. Study 2

The aim of Study 2 was to examine whether national narcissism predicts support for funding actions aimed at strengthening the national group image as proenvironmental, but not support for funding actions actually beneficial to the natural environment. Notably, to increase the external validity of our findings, we aimed to recruit a national quota-based sample balanced for gender, age and education via an online research panel.<sup>2</sup> We asked participants to read an actual newspaper article featuring the French president Emmanuel Macron, who encouraged proenvironmental activists to go to Poland to protest against Polish government's reluctance towards introducing policies aimed at CO<sub>2</sub> emission reduction ("Macron namawia młodych, by ws. klimatu pojechali protestować do Polski", 2019). We then measured participants' support for proimage or proenvironmental response to his criticism.

Although it was not the main aim of our study, we also tested the relationship between right-wing political orientation and campaign support. Two alternative predictions can be formulated here. On the one hand, and in line with past research showing the positive relationship between right-wing political orientation and anti-environmentalism as well as with the results of Study 1, right-wing political orientation may be negatively related to support for any type of campaign involving environmental context. On the other hand, in this specific intergroup context, right-wing political orientation could be positively related to support for diplomatic action toward another government seemingly attempting to restrict own country's freedom in shaping internal policies. Thus, we treat analyses involving political orientation as exploratory.

#### 3.1. Method

##### 3.1.1. Participants, design and procedure

Eight hundred and one participants completed the study. They first reported national narcissism and national identification (counter-balanced). Next, participants were asked to read an actual newspaper article, and were randomly assigned to respond to different set of items measuring their support for governmental actions aimed either at managing Poland's image or at introducing policies to reduce CO<sub>2</sub> emission. Then, participants responded to an attention check question and provided their demographics.

We included responses from 654 participants who correctly reported reading about the president of France (others provided no answer,  $N = 80$ ; did not remember,  $N = 11$ ; incorrectly reported reading about the Polish president,  $N = 33$ ; the US president,  $N = 12$ ; or another person,  $N = 10$ )<sup>3</sup>. Additionally, we excluded responses of one underage person (aged 17) who was erroneously sampled for this study. The final sample consisted of 350 women and 304 men, aged 18–85 ( $M = 39.08$ ,  $SD = 12.96$ ). Sample size was dictated by financial considerations, although we aimed for a relatively large sample that would reflect national quotas in each group (i.e., 330 and 324 participants in the image-reinforcing and proenvironmental action groups, respectively).

##### 3.1.2. Measures

National narcissism ( $M = 4.31$ ,  $SD = 1.46$ ,  $\alpha = 0.88$ ), national identification ( $M = 5.18$ ,  $SD = 1.34$ ,  $\alpha = 0.87$ ), and political orientation ( $M = 4.07$ ,  $SD = 1.40$ ) were all measured as in Study 1. Support for the governmental image-reinforcing actions was measured with three items (e.g., "The Polish Ministry of Foreign Affairs should issue a declaration

condemning the statement of President Macron", "Poland should dismiss our ambassador from France", "Poland should demand explanations and an apology from the French embassy in Warsaw",  $M = 4.16$ ,  $SD = 1.77$ ,  $\alpha = 0.85$ ). Support for the governmental proenvironmental actions was measured with three items (e.g., "The Polish Ministry of Energy should pass a law supporting renewable energy sources", "Poland should lend stronger support to the European Union and its policy of reducing greenhouse gas emissions", "Poland should introduce a special tax on power plants and other large carbon dioxide emitting companies",  $M = 5.04$ ,  $SD = 1.47$ ,  $\alpha = 0.77$ ). Participants indicated the extent to which they agree with these items on an agreement scale from 1 = *strongly disagree* to 7 = *strongly agree*.

#### 3.2. Results

Zero-order correlations are presented in Table 3. In line with past research, national narcissism and national identification were significantly positively correlated. They were also both correlated with right-wing political orientation.

To verify whether national narcissism predicted support for governmental campaigns aimed at strengthening the national group image as proenvironmental, but not actions actually beneficial to the natural environment, we tested a regression model with national narcissism as a predictor, the aim of the governmental campaign as a moderator, support for the campaign as a dependent variable, and national identification as control.

Step 1, without the interaction effect,  $F(3, 650) = 35.60$ ,  $p < .001$ ,  $R^2 = 0.14$ , showed that support for the image campaign was generally lower than for the proenvironmental campaign,  $B = -0.92$  [-1.17, -0.70],  $p < .001$ . Both national narcissism,  $B = 0.18$  [0.07, 0.30],  $p < .001$ , and national identification,  $B = 0.19$  [0.08, 0.30],  $p < .001$ , were positively associated with general support for governmental campaigns. The interaction of national narcissism and aim of the campaign was introduced in Step 2 (with predictors mean-centered). It was a significant predictor of support for the governmental campaign,  $B = 0.92$  [0.77, 1.09],  $p < .001$ , and the model explained support for the governmental campaign significantly better than the model without the interaction,  $F(4, 649) = 69.65$ ,  $p < .001$ ,  $R^2 = 0.30$ ,  $\Delta R^2 = 0.16$ .

Simple slopes analysis indicated that national narcissism significantly positively predicted support for the image campaign,  $B = 0.65$  [0.50, 0.77],  $p < .001$ , and significantly negatively predicted support for the proenvironmental campaign,  $B = -0.28$  [-0.41, -0.16],  $p < .001$  (Fig. 2). The interaction effect of national narcissism and aim of the campaign remained significant when we controlled for political orientation, age and gender (see Table S1 in the Supplementary Material).

After controlling for the interaction between national narcissism and the campaign aim, support for the image campaign remained lower than support for the proenvironmental campaign,  $B = -0.92$  [-1.15, -0.70],  $p < .001$ . National narcissism predicted support negatively,  $B = -0.28$  [-0.41, -0.16],  $p < .001$ , and national identification positively,  $B = 0.15$  [0.04, 0.26],  $p < .004$ . We also tested the interaction between national identification and aim of the campaign, but this effect was not significant,  $B = -0.004$  [-0.23, 0.22],  $p = .972$ ,  $F(5, 648) = 55.60$ ,  $p < .001$ ,  $R^2 = 0.30$ ,  $\Delta R^2 < 0.001$  (for details, see Model 4 in Table S1 in the Supplementary Material).

Finally, we conducted a separate and exploratory hierarchical regression analysis to investigate the role of right-wing political orientation. After controlling for the interaction effect of national narcissism and aim of the campaign, the interaction effect of political orientation with the campaign aim was statistically significant,  $B = 0.67$  [0.49, 0.84],  $p < .001$ . Similar to the findings observed for national narcissism, right-wing political orientation significantly positively predicted support for the image reinforcing campaign,  $B = 0.24$  [0.12, 0.39],  $p < .001$ , but it significantly negatively predicted support for the proenvironmental action campaign,  $B = -0.43$  [-0.54, -0.31],  $p < .001$  (see Table S4 and Fig. S1 in the Supplementary Material).

<sup>2</sup> The studies which involved national quota samples were conducted with the help of the Ariadna (Study 2) and Pollster (Study 5) research panels.

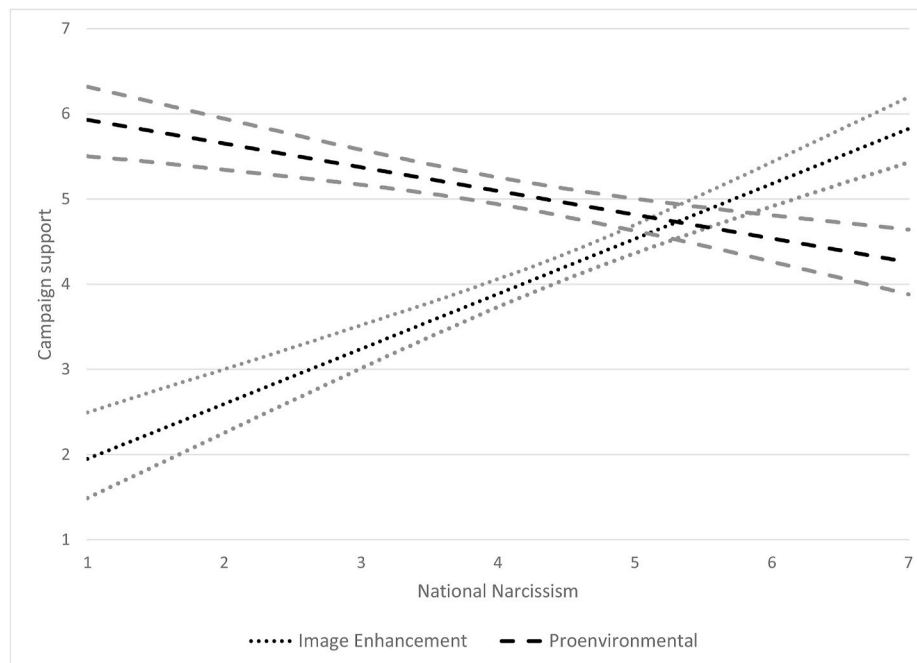
<sup>3</sup> When we included the responses of those who misidentified President Macron, the pattern of all results remained similar. However, we decided to take a conservative approach and only included participants who correctly identified the person in the article.

**Table 3**

Bootstrapped Pearson correlation coefficients for the relationships between continuous variables reported separately for each campaign with accompanying bias-corrected bootstrapped 95% confidence intervals with 1000 resamples (Study 2).

Variable	1	2	3	4
1. National narcissism	–	.52*** [0.42, 0.61]	-.20*** [-0.32, -0.07]	.38*** [0.27, 0.48]
2. National identification	.62*** [0.54, 0.70]	–	-.01 [-0.13, 0.11]	.30*** [0.19, 0.40]
3. Campaign support	.61*** [0.51, 0.70]	.45*** [0.36, 0.53]	–	-.42*** [-0.50, -0.32]
4. Right-wing political orientation	.37*** [0.27, 0.46]	.35*** [0.24, 0.45]	.40*** [0.30, 0.50]	–

\*\*\**p* < .001. Correlation coefficients for the image-reinforcing campaign are reported below the diagonal, while coefficients for the proenvironmental campaign are reported above the diagonal.



**Fig. 2.** The relationship between national narcissism and support for the Poland’s response toward Macron’s call (with bias-corrected bootstrapped 95% CIs) depending on the aim of the action after controlling for national identification (Study 2).

**3.3. Discussion**

Study 2 replicated and extended findings from Study 1. In line with our predictions, the effect of national narcissism on support for the campaign depended on its aims. As illustrated in Fig. 2, among those high in national narcissism we observed higher support for image enhancement than for taking actual proenvironmental actions in the country. When the intergroup context is activated, those scoring high in national narcissism seem to be willing to defend the ingroup image, but they are less willing to support actual proenvironmental goals.

One explanation for this pattern of results is that taking proenvironmental actions would not be directly related to the desired final outcome—maintaining the image of a strong and respectable ingroup. This is in line with past findings showing that when policy is perceived as imposed by powerful outgroups, those high in national narcissism are more likely to respond with an increased need for decisional independence, which is related in turn to increased support for anti-environmental politics (Cislak et al., 2018). Although those high in national narcissism were reluctant to support proenvironmental actions

stemming from outgroup criticism, they might be more responsive to similar actions proposed by their own government. Importantly, in this study we recruited a nationally representative sample and asked participants about their reaction toward a current political event, thereby increasing the external validity of this research. Interestingly, we found a similar pattern of results for political ideology: right-wing political orientation was associated with stronger support for the image campaign, but lower support for environmental protection.

**4. Study 3**

One limitation of Study 2 was that we used two different sets of items to measure campaign support. In Study 3, we directly manipulated the description of the campaign, and measured support for the campaign as the dependent variable (same as in Study 1). We also sought to go beyond the intergroup context and verify whether those high in national narcissism would support image campaign to a higher extent but would be reluctant to support a proenvironmental campaign, even when it would be proposed by their own country’s government.

#### 4.1. Method

##### 4.1.1. Participants, design and procedure

Given practical constraints, instead of relying on power analysis, we used a rule of thumb and aimed to include at least 50 participants per cell (Simmons et al., 2013). Because we were interested in the interaction between national narcissism and campaign aim, this meant at least 200 participants in total.

We recruited a community sample outside of the university campus (same University as in Study 1), comprising 107 women and 93 men, aged between 18 and 74 ( $M = 25.20$ ,  $SD = 9.75$ ). Participants were asked to complete a paper-based survey. They took part in the study on a voluntary basis and did not receive any payment. We measured national narcissism and national identification (counterbalanced) as predictors of support for the governmental campaign. Using a between-subjects design, we experimentally manipulated the aim of a governmental campaign: either as strengthening the national image as pro-environmental ( $N = 100$ , we used the same description as in Study 1), or as initiating actual actions to reduce CO<sub>2</sub> emission (see the full description in the Supplementary Material). We also measured basic demographics and political orientation.

##### 4.1.2. Measures

National narcissism ( $M = 3.39$ ,  $SD = 1.39$ ,  $\alpha = 0.87$ ), national identification ( $M = 4.48$ ,  $SD = 1.43$ ,  $\alpha = 0.89$ ), and political orientation ( $M = 3.72$ ,  $SD = 1.33$ ) were all measured as in previous studies. Campaign support was measured as in Study 1 ( $M = 4.10$ ,  $SD = 1.99$  and  $M = 5.91$ ,  $SD = 1.51$  for the greenwashing campaign and pro-environmental campaign, respectively).

#### 4.2. Results

Zero-order correlations separately for both conditions are presented in Table 4. In line with past research, national narcissism, national identification and right-wing political orientation were all positively correlated. We then tested a model with national narcissism as the predictor, the aim of the governmental campaign as the moderator, support for the campaign as the dependent variable, and national identification as the control variable.

Step 1, without the interaction,  $F(3,196) = 18.68$ ,  $p < .001$ ,  $R^2 = 0.22$ , showed that support for the greenwashing campaign was lower than for the proenvironmental campaign,  $B = -1.80$  [-2.35, -1.28],  $p < .001$ , providing conceptual replication of Study 2. National narcissism was not significantly associated with general campaign support,  $B = 0.15$  [-0.04, 0.35],  $p = .154$ , while national identification was marginally associated with campaign support,  $B = -0.17$  [-0.35, 0.01],  $p = .099$ . Importantly, when the interaction of national narcissism and the campaign aim was introduced in Step 2 (with predictors mean-

centered), it was a significant predictor of campaign support,  $B = 0.50$  [0.15, 0.86],  $p = .006$ ,  $F(4, 195) = 16.45$ ,  $p < .001$ ,  $R^2 = 0.25$ ,  $\Delta R^2 = 0.03$ .

Simple slopes analysis indicated that when the aim of the campaign was to enhance the national group image, national narcissism significantly positively predicted campaign support,  $B = 0.41$  [0.15, 0.67],  $p = .004$ . However, when the aim of the campaign was proenvironmental, national narcissism did not predict campaign support,  $B = -0.08$  [-0.32, 0.17],  $p = .534$  (Fig. 3). This interaction effect remained significant when we controlled for political orientation, age and gender (see Table S2 in the Supplementary Material). We also tested the interaction between national identification and aim of the campaign but it was again non-significant,  $B = -0.30$  [-0.62, 0.05],  $p = .137$ ,  $F(5, 194) = 13.68$ ,  $p < .001$ ,  $R^2 = 0.26$ ,  $\Delta R^2 = 0.01$ ,  $p = .137$ .

Complementing the main analyses, we tested the relationship between right-wing political orientation and campaign support depending on its aim, after controlling for the interaction of national narcissism and condition. We found no significant interaction effect,  $B = 0.04$  [-0.35, 0.44],  $p = .831$ , and only a main effect of political orientation,  $B = -0.41$  [-0.64, -0.14],  $p < .001$ , indicating that right-wingers showed lower support for both campaigns regardless of their aim (see Table S4 in the Supplementary Material).

#### 4.3. Discussion

In line with our predictions, the aim of the governmental campaign moderated the effect of national narcissism on campaign support. Replicating the results of Studies 1 and 2, national narcissism positively predicted support for funding an image protection campaign with government subsidy. Extending previous findings, we showed that national narcissism did not predict the support for subsidizing actual pro-environmental campaign, even when this campaign was proposed by the country's own government. The pattern illustrated in Fig. 3 and the 95% confidence intervals imply that while those low in national narcissism preferred funding proenvironmental actions to a higher extent than funding image campaigns, those high in national narcissism were willing to invest in image campaigns to the same extent as investing in actual proenvironmental actions. This time we also found support for our suspicion that beyond immediate intergroup context (which was salient in Study 2), right-wing political orientation would be negatively related to support for any type of campaign involving environmental actions.

In Studies 1 and 3, we prepared the materials under the assumption that citizens are aware that even greenwashing campaigns require public funding. In reality, however, participants might have assumed that image campaigns require less funding than a proenvironmental campaign (similarly as in Study 2). Consequently, the higher costs associated with proenvironmental actions might dampen the support for

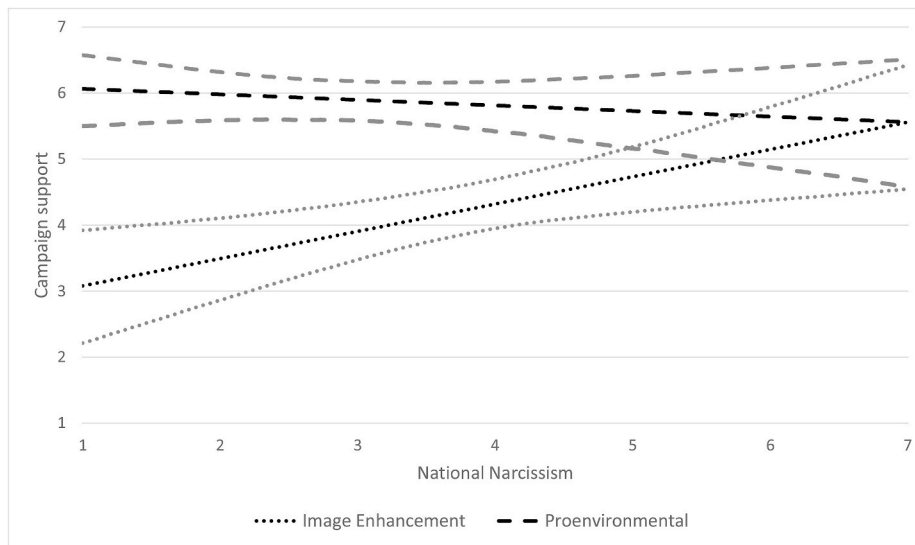
**Table 4**

Bootstrapped Pearson correlation coefficients for the relationships between continuous variables reported separately for each condition with accompanying bias-corrected bootstrapped 95% confidence intervals with 1000 resamples (Study 3).

Variable	1	2	3	4
1. National narcissism	–	.53*** [0.37, 0.67]	-.18+ [-0.37, 0.01]	.31** [0.07, 0.51]
2. National identification	.52*** [0.34, 0.67]	–	-.11 [-0.29, 0.08]	.37*** [0.14, 0.57]
3. Campaign support	.22* [0.01, 0.42]	-.05 [-0.23, 0.13]	–	-.40*** [-0.57, -0.21]
4. Right-wing political orientation	.44*** [0.25, 0.61]	.55*** [0.39, 0.68]	-.11 [-0.29, 0.09]	–

+ $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . Correlation coefficients in the image-reinforcing campaign condition are reported below the diagonal, while coefficients in the proenvironmental actions condition are reported above the diagonal.





**Fig. 3.** The relationship between national narcissism and support for the governmental campaign (with bias-corrected bootstrapped 95% CIs) depending on the aim of the campaign, after controlling for national identification (Study 3).

such campaigns compared to campaigns aimed at image protection.

## 5. Study 4

In Study 4, we aimed to hold the costs of the two types of campaigns constant, thereby increasing the internal validity of our manipulation.

### 5.1. Method

#### 5.1.1. Participants, design and procedure

Participants recruitment and sample size decision were similar to those of Study 3. We recruited a community sample, comprising 127 women and 70 men (and 3 individuals who declined to report their gender), aged 18–62 ( $M = 25.86$ ,  $SD = 9.68$ ). We measured national narcissism and national identification (counterbalanced) in the same way as in the Studies 1 and 3 as predictors of support for governmental campaign. We used the same descriptions as in Study 3. This time, however, both conditions included explicit information detailing that the campaign would consume similar, considerable amount of public funds. This addition ensured participants were aware of the costs of greenwashing, and allowed us to account for the possibility that participants would consider costs in the proenvironmental condition but not in the greenwashing condition. We also measured basic demographics and political orientation.

#### 5.1.2. Measures

National narcissism ( $M = 4.16$ ,  $SD = 1.29$ ,  $\alpha = 0.83$ ), national identification ( $M = 5.10$ ,  $SD = 1.20$ ,  $\alpha = 0.86$ ), campaign support ( $M = 5.34$ ,  $SD = 1.57$  for proenvironmental campaign and  $M = 4.53$ ,  $SD = 1.84$  for image campaign), and political orientation ( $M = 3.99$ ,  $SD = 1.20$ ) were all measured as in previous studies.

### 5.2. Results

Again, national narcissism, national identification and right-wing political orientation were significantly positively correlated (see Table 5). As previously, we introduced national narcissism and national identification as predictors, the aim of the governmental campaign as the moderator, support for the campaign as the dependent variable. Step 1, without the interaction effect,  $F(3,196) = 4.14$ ,  $p = .007$ ,  $R^2 = 0.06$ , showed that the support for the image campaign was lower than for the proenvironmental campaign,  $B = -0.78$  [ $-1.22$ ,  $-0.27$ ],  $p = .002$ .

Neither national narcissism,  $B = -0.10$  [ $-0.32$ ,  $0.12$ ],  $p = .365$ , nor national identification were associated with overall support for the campaigns,  $B = 0.12$  [ $-0.13$ ,  $0.39$ ],  $p = .300$ .

Importantly, when the interaction of national narcissism and aim of the campaign was introduced in Step 2 (with predictors mean-centered), it was a significant predictor of campaign support,  $B = 0.43$  [ $0.03$ ,  $0.79$ ],  $p = .024$ ,  $F(4, 195) = 4.47$ ,  $p = .002$ ,  $R^2 = 0.08$ ,  $\Delta R^2 = 0.02$ . Simple slopes analysis indicated that when the aim of the campaign was to enhance the national group image, national narcissism did not significantly predict support for this type of campaign,  $B = 0.13$  [ $-0.22$ ,  $0.46$ ],  $p = .386$ . When the aim of the campaign was proenvironmental, national narcissism predicted it negatively,  $B = -0.30$  [ $-0.51$ ,  $-0.06$ ],  $p = .032$  (see Fig. 4). This interaction effect remained significant when we controlled for the political orientation, age and gender.

We also tested the interaction between national identification and aim of the campaign and again it was not statistically significant,  $B = 0.31$  [ $-0.18$ ,  $0.76$ ],  $p = .188$ ,  $F(5, 194) = 3.94$ ,  $p = .002$ ,  $R^2 = 0.09$ ,  $\Delta R^2 = 0.01$ . When the interaction between national identification and aim of the campaign was included in the model, the interaction between national narcissism and aim of the campaign was not statistically significant,  $B = 0.29$  [ $-0.17$ ,  $0.67$ ],  $p = .178$  (see Table S3 in the Supplementary Material).

After controlling for the interaction of national narcissism and condition, we found only a negative main effect of right-wing political orientation,  $B = -0.45$  [ $-0.72$ ,  $-0.13$ ],  $p < .001$ , and no significant interaction between political orientation and campaign aim,  $B = 0.04$  [ $-0.40$ ,  $0.45$ ],  $p = .842$  (see Table S4 in the Supplementary Material).

### 5.3. Discussion

The results of Study 4 extended the previous findings and shed new light on the reluctance to support proenvironmental actions and readiness to support greenwashing among those high in national narcissism. In line with our predictions and previous studies, the aim of the governmental campaign moderated the effect of national narcissism on support for it, although this effect was less robust: after controlling for the interaction of national identification and aim of the campaign, this effect did not remain statistically significant, and the interaction was only marginally significant when controlling for political orientation, age and gender. When both campaigns were explicitly described as costly, individuals high in national narcissism did not support greenwashing to a higher extent than those low in national narcissism.

**Table 5**

Bootstrapped Pearson correlation coefficients for the relationships between continuous variables reported separately for each condition with accompanying bias-corrected bootstrapped 95% confidence intervals with 1000 resamples (Study 4).

Variable	1	2	3	4
1. National narcissism	–	.54*** [0.39, 0.69]	-.20* [-0.37, -0.03]	.35** [0.12, 0.54]
2. National identification	.43*** [0.24, 0.59]	–	-.13 [-0.31, 0.06]	.33** [0.10, 0.54]
3. Campaign support	.12 [-0.09, 0.34]	.20 <sup>+</sup> [0.00, 0.38]	–	-.33** [-0.54, -0.10]
4. Right-wing political orientation	.38*** [0.16, 0.55]	.21* [-0.01, 0.42]	-.18 <sup>+</sup> [-0.35, 0.02]	–

<sup>+</sup>*p* < .10. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001. Correlation coefficients in the image-reinforcing campaign condition are reported below the diagonal, while coefficients in the proenvironmental actions condition are reported above the diagonal.

However, their support for the proenvironmental campaign was again lower, thereby replicating the negative relationship between national narcissism and support for proenvironmental actions observed in Study 2. When it becomes clear that considerable financial funding from the government is required, those high in national narcissism are unlikely to support any proenvironmental campaigns.

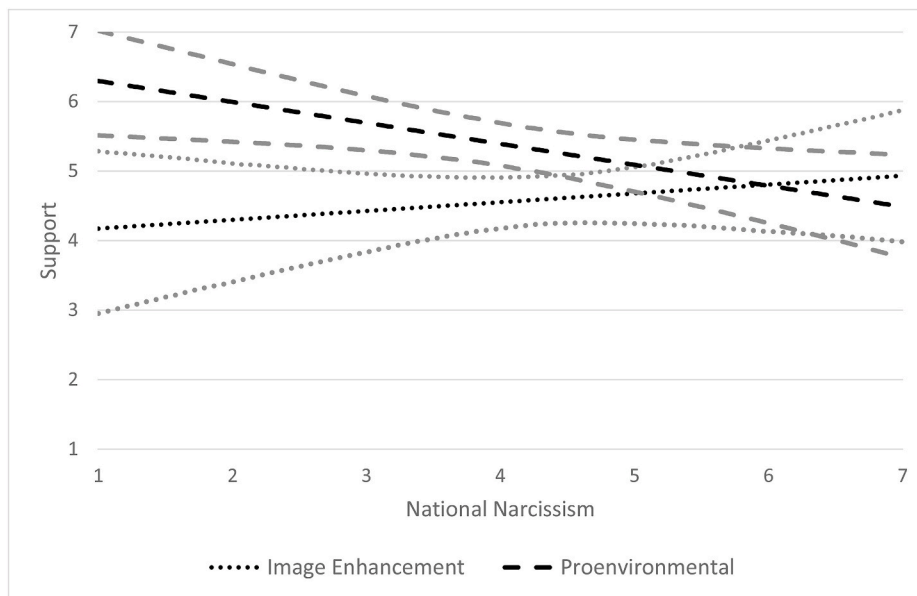
This finding speaks to the importance of interest motives in shaping responses to social problems and dilemmas. Although those high in national narcissism were, in line with previous studies, reluctant to support actual proenvironmental goals, they were not more eager to subsidize greenwashing. Taken together, results from both Studies 3 and 4 imply that when those high in national narcissism are presented with political greenwashing, they may focus on the image consequences and at the same time may omit the costs as a factor or mentally downplay the public funding involved. If they are made aware of the considerable costs greenwashing may require, then their support may be diminished. Past work already suggested that those who endorse collective narcissism tend to prioritize self-interests over the well-being of other ingroup members (Cichocka et al., 2021; Marchlewska et al., 2020). The current study opens new research perspective on potential prioritizing self and group material gains over symbolic recognition. Crucially, the proenvironmental campaign seems to be perceived by those high in national narcissism as undesirable regardless of whether its costs are being explicitly mentioned. Overall, these findings have important practical implications: demonstrating the high costs of greenwashing seems to limit the enthusiasm for it among those who otherwise might be eager to support it.

Note, however, that these studies may still leave room for alternative interpretation. In Studies 1, 3 and 4 participants were asked to evaluate

support for image campaign not accompanied by any suggestion that these funds could be alternatively used to promote proenvironmental actions. Thus, such an evaluation may be considered a measure of susceptibility to greenwashing rather than support for greenwashing as a political strategy. Even when governments or political leaders openly contest proenvironmental policies, some audiences may actually believe them when they advertise proenvironmentalism. For example, after withdrawing their countries from the Green Deal, US President Donald Trump claimed America’s Environmental Leadership, while the Polish President Andrzej Duda claimed Poland to be in the vanguard of actions for climate protection. Support for their claims would thus reflect greenwashing susceptibility. It would not imply, however, support for greenwashing as a political strategy—the latter would require choosing image enhancement *over* proenvironmental actions. While including proenvironmental condition in Studies 3 and 4 has already ruled out the possibility that those high in national narcissism were proponents of introducing proenvironmental policies, we have not openly asked participants whether they preferred image enhancement over the introduction of actual proenvironmental policies. Our final study addressed this issue.

**6. Study 5**

In Study 5, we aimed to directly measure support for greenwashing as a political strategy; that is, preference for green image enhancement over introduction of green policies. In this study, we also aimed to control for proenvironmental attitudes as well as individual narcissism in order to rule out the possibility that it was individual rather than group-based defensiveness that predicted support for image



**Fig. 4.** The relationship between national narcissism and support for the governmental campaign (with bias-corrected bootstrapped 95% CIs) depending on the aim of the campaign, after controlling for national identification (Study 4).

enhancement. This study was preregistered (<https://aspredicted.org/d4vj7.pdf>).

## 6.1. Method

### 6.1.1. Participants and procedure

To assure the external validity of our findings, we aimed to recruit a national quota-based sample balanced for gender, age and education. Because we assumed that support for greenwashing might be smaller than susceptibility to it, we aimed for a large sample size that would allow us to detect even a small effect of national narcissism on greenwashing preference. According to G\*Power, an  $r$  of 0.10 requires a sample size of 779 (assuming power of .80, two-tailed). We sought to recruit around 1000 participants. The study was an online survey and participants were recruited via a research panel. The final sample included 1004 participants, 516 women (coded as 0) and 488 men (coded as 1), aged 18–84 ( $M = 47.76$ ,  $SD = 16.67$ ).

First, we measured national narcissism and national identification as predictors. Because we did not observe effects of counterbalancing measures in the previous studies, this time participants first reported national narcissism, then national identification. Next, participants reported support for national image enhancement. Finally, we measured proenvironmental attitudes and individual narcissism, as well as basic demographics and political orientation (a single-item measure from 1 = *definitely left-wing* and 7 = *definitely right-wing*,  $M = 3.92$ ,  $SD = 1.63$ ).

### 6.1.2. Measures

National narcissism ( $M = 4.44$ ,  $SD = 1.43$ ,  $\alpha = 0.89$ ), and national identification ( $M = 5.28$ ,  $SD = 1.31$ ,  $\alpha = .88$ ) were measured as in Studies 1–4. Support for greenwashing as a political strategy was measured with eight items, each including a pair of statements indicating a proenvironmental policy versus a national image enhancement policy. In each case participants were asked to use a slider, ranging from 1 to 11, in order to indicate the extent to which they preferred the national image enhancement policy or the proenvironmental policy; e.g., “1 = Introduction of a tax on burning coal to 11 = Change of Poland’s image as a country of smog”, see Appendix). Mean values lower than 6 (64.0%) denoted preference for proenvironmental policies, while values above 6 (28.9%) denoted preference for greenwashing ( $M = 4.99$ ,  $SD = 1.92$ ,  $\alpha = 0.75$ ). Proenvironmental attitudes were measured with three items from the support for interventionist conservation policies subscale adapted from the Environmental Attitude Inventory (Milfont & Duckitt, 2010; “Governments should control the rate at which raw materials are used to ensure that they last as long as possible.”, “Controls should be placed on industry to protect the environment from pollution, even if it means things will cost more.”, “People in developed societies are going to have to adopt a more conserving life-style in the future.”). Participants responded to the proenvironmental attitude items on a scale from 1 = *strongly disagree* to 7 = *strongly agree* ( $M = 5.61$ ,  $SD = 1.19$ ,  $\alpha = 0.84$ ). Individual narcissism was measured with the six-item version of the Narcissistic Admiration and Rivalry Questionnaire (Back et al., 2013) on the same 7-point agreement scale; e.g., “I deserve to be seen as a great personality” (Admiration Subscale,  $M = 3.76$ ,  $SD = 1.32$ ,  $\alpha = 0.80$ ), “I want my rivals to fail” (Rivalry Subscale;  $M = 3.31$ ,  $SD = 1.25$ ,  $\alpha = 0.61$ ).

**Table 6**

Bootstrapped Pearson correlation coefficients for the relationships between continuous variables with accompanying bias-corrected bootstrapped 95% confidence intervals with 1000 resamples (Study 5).

Variable	1	2	3	4	5
1. National narcissism					
2. National identification	.58*** [0.53, 0.63]				
3. Support for greenwashing	.47*** [0.42, 0.52]	.23*** [0.18, 0.29]			
4. Proenvironmental attitudes	.13*** [0.06, 0.20]	.29*** [0.22, 0.36]	-.33*** [-0.38, -0.27]		
5. Individual narcissism	.33*** [0.26, 0.39]	.11*** [0.04, 0.18]	.23*** [0.17, 0.28]	-.04 [-0.11, 0.02]	
6. Right-wing political orientation	.42*** [0.36, 0.48]	.28*** [0.22, 0.33]	.39*** [0.33, 0.44]	-.07* [-0.14, 0.00]	.18*** [0.11, 0.24]

\* $p < .05$ . \*\*\* $p < .001$ .

## 6.2. Results

As in past studies, national narcissism and national identification were significantly positively correlated, and both were also significantly positively correlated with right-wing political orientation; both were also positively correlated with proenvironmental attitudes, individual narcissism and support for greenwashing (see Table 6). Support for greenwashing was negatively associated with proenvironmental attitudes, but positively related to individual narcissism and right-wing political orientation. Proenvironmental attitudes were negatively related to individual narcissism and right-wing political orientation.

We then tested a regression model with national narcissism and national identification as joint predictors of support for funding the governmental campaign aimed to strengthen the national group image (Table 7).

In line with our preregistered hypothesis, individuals higher in national narcissism declared stronger support for greenwashing, after controlling for national identification (Fig. 5). This effect remained significant when proenvironmental attitudes, individual narcissism, right-wing political orientation as well as demographics were controlled for. After controlling for national narcissism and other variables, national identification was no longer associated with support for greenwashing. Right-wing political orientation was positively associated with support for greenwashing, while proenvironmental attitudes were negatively associated with it. After controlling for national narcissism, individual narcissism did not predict support for greenwashing.

## 6.3. Discussion

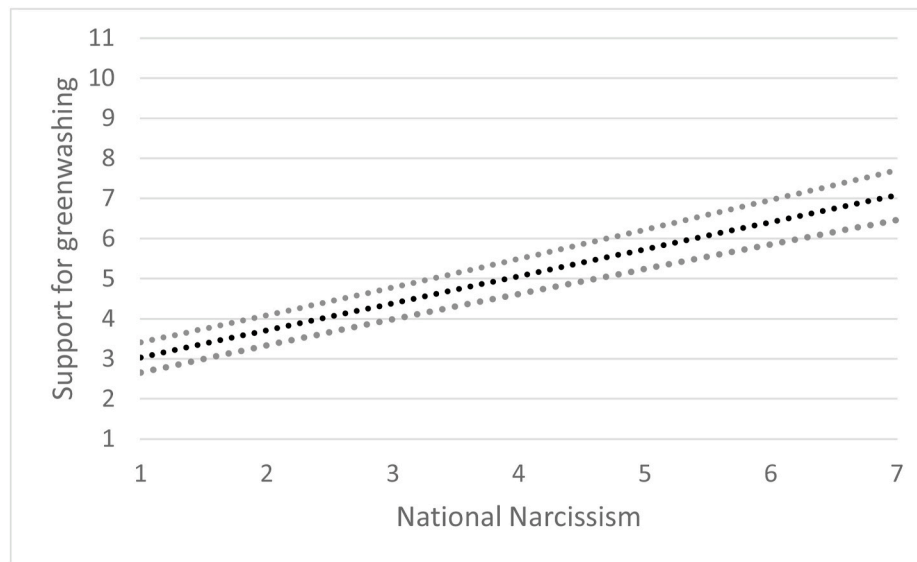
The preregistered Study 5 replicated and extended previous findings. National narcissism again proved to be a strong positive predictor of support for national image enhancement policy. This time, however, participants were asked to directly indicate whether they preferred image enhancement policy over proenvironmental policy; thus, this pattern reveals their support for greenwashing as a political strategy. Although as in previous studies participants in general preferred proenvironmental policies over image enhancement policies, still a considerable part of the national quota-based sample supported greenwashing. Importantly, as in this study participants chose between supporting image and proenvironmental campaigns, it may be unclear whether their choice was motivated by the preference for one of those actions or the reluctance toward the other. The results of previous studies, however, indicate that those high in national narcissism were prone to support image campaigns (unless those campaigns involve considerable costs), but not proenvironmental campaigns. Study 5 shows that they also preferred green image over green action.

The predicted effect of national narcissism was observed over and above the effect of individual narcissism, one of the dark personality traits (Paulhus & Williams, 2002), thereby speaking to the role of group-based, rather than individual-level, defensiveness in shaping support for greenwashing as a political strategy. Also, the effect of national narcissism remained significant after controlling for proenvironmental attitudes, which were negatively associated with greenwashing.

**Table 7**  
Summary of hierarchical regression analysis for greenwashing support (Study 5).

Variable	Model 1		Model 2		Model 3	
	B [95% CI]	$\beta$	B [95% CI]	$\beta$	B [95% CI]	$\beta$
National narcissism	0.67 [0.58, 0.76]	.50***	0.53 [0.44, 0.61]	.40***	0.54 [0.44, 0.62]	.40***
National identification	-0.08 [-0.20, 0.02]	-.06 <sup>+</sup>	0.09 [-0.01, 0.20]	.06*	0.09 [-0.02, 0.20]	.06 <sup>+</sup>
Right-wing political orientation			0.20 [0.14, 0.27]	.17***	0.20 [0.13, 0.26]	.17***
Proenvironmental attitudes			-0.62 [-0.70, -.54]	-.38***	-0.62 [-0.70, -.53]	-.38***
Individual narcissism			0.08 [-0.01, .16]	.04 <sup>+</sup>	0.07 [-0.02, .16]	.04
Age					-0.001 [-0.01, .004]	-.01
Gender					0.12 [-0.06, .29]	.03
F	F (2, 1001) = 143.01***		F (5, 998) = 133.22***		F (7, 996) = 95.37***	
R <sup>2</sup>	.22		.40		.40	

+ $p < .10$ . \* $p < .05$ . \*\*\* $p < .001$ .



**Fig. 5.** The relationship between national narcissism and support for the governmental greenwashing campaign (with bias-corrected bootstrapped 95% CIs) after controlling for national identification (Study 5).

## 7. General discussion

In five studies, we sought to examine the phenomenon of greenwashing by demonstrating it might be a way to manage identity needs. Although in general campaigns promoting proenvironmental actions seem to be preferred to those promoting merely a proenvironmental image, we found that this preference depended on participants levels of national narcissism. We found that higher national narcissism was associated with greater support for greenwashing campaigns (with the exception of Study 4 where the effect was statistically non-significant but in the expected direction), but not for actual proenvironmental campaigns (Studies 2, 4 and 5). In fact, those high in national narcissism even preferred greenwashing over taking actual proenvironmental actions (Study 5, and also in Study 2, when the intergroup context was salient). However, when both types of campaigns were described as requiring considerable funding, national narcissism was not related to increased support for funding greenwashing, although it was still negatively related to support for funding proenvironmental campaigns (Study 4). Our findings extend empirical work on the phenomenon of greenwashing beyond consumer research and demonstrate the underpinnings of support for the use of greenwashing as a political strategy, linking it to national narcissism. When it comes to environmental protection, those high in national narcissism prefer words over deeds.

The pattern we observed suggests that those high in national narcissism are determined to maintain the image of their national group as strong and worthy of respect (Golec de Zavala et al., 2009; Cislak

et al., 2020; Marchlewska et al., 2020). On the one hand, it seems simply easier to say that one's own country is ahead of others in environmental protection than to make a commitment to act proenvironmentally. On the other hand, compared to investing in natural environment, greenwashing attempts can more immediately satisfy the underlying needs for recognition and respect. We elaborate on the implications of these observations below.

### 7.1. Theoretical significance and practical implications

Our findings extend the classic theorizing and current empirical research on national identity. Past work has already shown psychological and social differences between secure and defensive forms of identity with respect to different intergroup contexts (Amiot & Aubin, 2013; Cichočka, 2016; Golec de Zavala et al., 2009; Kosterman & Feshbach, 1989; Roccas et al., 2006; Schatz et al., 1999). Extending this line of work, we go beyond the extensively studied inter-group context to investigate ingroup-relevant manifestations of national identity, and national narcissism specifically, in the environmental domain. Those high in national narcissism may not only be more prone to harm other groups, but they may also be more likely to undermine own group's goals (Cichočka & Cislak, 2020). In fact, empirical studies showed that collective narcissism was associated with increased readiness to leave the group (Marchlewska et al., 2020), exploit other ingroup members (Cichočka et al., 2021), and make decisions that in the long run may harm the ingroup (e.g., by creating health hazards and undermining

national environmental heritage, Cislak et al., 2018; or by renouncing the benefits from membership in supranational organizations, Cislak et al., 2020; Marchlewska et al., 2018). Here, we demonstrate that national narcissism is positively related to supporting campaigns that possibly could make the nation's image (but not necessarily the country itself) greener.

Our findings also confirm that collective narcissism is distinct from other concepts it tends to correlate with, such as national identification or right-wing political orientation. Including political orientation was important for showing the unique effect of collective narcissism on support for greenwashing, as both variables tend to be correlated with anti-environmental attitudes (Cislak et al., 2018; Hornsey et al., 2016). Moreover, although exploratory, these results elucidate the interplay between ideology, national identity and anti-environmentalism in a more nuanced way. In past work, right-wingers showed an ideological tendency to reject environmentalism (Coffey & Joseph, 2013; Gromet, Kunreuther, & Larrick, 2013; McCright et al., 2014; Milfont, Abrahamse, & MacDonald, 2021; and see Hornsey, Harris, & Fielding, 2018 for cross-cultural differences). Similarly, our research showed that right-wing political orientation was negatively related to pro-environmental attitudes (Study 5), and to rejection of any type of action or campaign that is related to environmental issues (Studies 2–4). In contrast, those high in national narcissism show readiness to politically exploit the environmental narrative. Namely, they show less favorable attitude toward proenvironmental actions, but more favorable attitude toward using this narrative to reinforce the ingroup image. We argue that they support greenwashing because it may translate into recognition of their group, even though they would not actually invest in the protection of natural environment. Thus, our research sheds light on the core differences between ideological orientations and motivated collective identities. While they overlap and, in some cases, seem to be intertwined, we demonstrate how they might differ in their social consequences.

Interestingly, the pattern observed in Study 4 suggests a novel direction in research on motives underlying collective narcissism. The need to enhance ingroup image could be reduced through activating material motives. Future work should probe the potential tendency to prioritize material gains over symbolic recognition, especially in the context of managing the undesirable manifestations of group-based defensiveness. From an applied perspective, researchers would do well to verify whether support for greenwashing could be diminished by publicizing campaign costs.

Importantly, we do not claim that any type of strong national identity would oppose environmental goals, or exacerbate climate emergency. It is not merely strong attachment to one's own national ingroup that goes hand in hand with support for greenwashing; we did not observe similar patterns for national identification. Thus, a strong national identity may not always be problematic (e.g., see Milfont, Osborne, Yogeewaran, & Sibley, 2020). Our findings further extend past work on the role of secure ingroup commitment in shaping positive intragroup attitudes, and may stimulate future discussion on the relationship between strong national identification and environmentalism. In fact, although national identification tended to correlate positively with overall campaign support, these effects mostly became non-significant (with the exception of Study 2) after we accounted for other predictors. Different effects could be expected in countries where environmentalism is part of the national identity (e.g., New Zealand), with research showing that in such contexts stronger national environmental identity is positively related to proenvironmental actions (Milfont et al., 2020).

Our results elucidate a more general phenomenon of instrumentalization of environmental protection (in Poland after 1989, Szulecka & Szulecki, 2019; or in the current US context, Goodkind, 2019). Thus, they have potential practical implications. In modern societies dealing with climate change, there might be groups who, despite their readiness to claim proenvironmentalism, would oppose initiating pro-environmental policies. This is because they believe those policies would

not serve their country in the way they desire: by strengthening the country's image in the international arena. When the intergroup context was activated, we observed preferences for image reinforcement over proenvironmental actions. When the topic of conservation or combating climate change is perceived as being imposed by other powerful groups, it may result in the tendency to protect the ingroup image and autonomy rather than the natural environment itself. Perhaps the most significant implication is provided by the results of Study 4: popular support for greenwashing as a replacement for the proenvironmental action can be limited by revealing the high costs incurred by the ingroup.

## 7.2. Limitations

This line of research, however, is not without limitations. First, in three out of five studies we recruited convenience samples, which were not representative in terms of age and gender. However, in two other studies we recruited national quota samples, thus increasing generalizability of the findings presented here. Also, the quota sample used in Study 5 allowed for estimating the percentage of Polish citizens preferring greenwashing. Second, the design of our studies does not allow for making causal inferences about the effect of national narcissism on greenwashing acceptance (but see Grosz, Rohrer, & Thoemmes, 2020). Thus, probing factors affecting collective narcissism, is a worthwhile research endeavor. Current literature on this particular issue is still scarce and establishing causality would be of great theoretical importance. Third, the present findings, as in the case of any research line conducted within a single cultural context, may have limited generalizability. Even more importantly from an applied perspective, future research should focus on the conditions that enable incorporating care for natural environment into national identity; for example in the way the coal industry and coal mining culture has become a part of the Polish identity (e.g., Senat Rzeczypospolitej Polskiej, 2012). This seems to be a necessary endeavor for social scientists in times of global challenges surrounding identity politics as well as climate change (European Commission, 2018).

## 7.3. Conclusions

The present research highlights the importance of group-based underpinnings of anti-environmental attitudes. We showed that nation-based defensiveness is a significant barrier in introducing pro-environmental policies, as it is associated with the preoccupation with nations' image more than with taking actual proenvironmental action. National narcissism, characterized by a strong need to validate a grandiose ingroup image, is related to support for pretending to be green just to impress others. Thereby, those high in national narcissism can create proenvironmental appearances. Yet, when it comes to green deeds that could actually help protect the environment, they may be reluctant to offer support, especially when those actions are costly. Greenwashing is appealing to those high in national narcissism, as it allows them to maintain external recognition while at the same time refrain from pro-environmental actions.

## Author statement

Aleksandra Cislak: Conceptualization, Methodology, Writing – original draft, Writing – review & editing, Funding acquisition. Aleksandra Cichočka: Conceptualization, Methodology, Writing – review & editing, Adrian Dominik Wojcik: Data curation, Writing – review & editing, Funding acquisition, Taciano L. Milfont: Writing – review & editing.

## Declarations of competing interest

None.

## Acknowledgements

The authors would like to thank Justyna Gortat for her help with data collection and Michał Głowczewski for his help with putting this article together. Authors are also thankful to three anonymous reviewers for their invaluable comments to the previous versions of the manuscript.

This work was supported by the National Science Center Grant 2018/29/B/HS6/02826 and additional funding from Center of Excellence IMSert NCU.

All procedures were in accordance with the ethical standards of the institutional research boards.

## Appendix

Scale of support for greenwashing as a political strategy.

In Study 5 participants used the slider by setting it along an 11-unit scale (although the numbers themselves were not visible to participants).

Poland as a country can take various political actions. Using the slider, please indicate which course of action is more important to you.

- [1] Introduction of a tax on burning coal \_ [11] Change of Poland's image as a country of smog
- [1] Investing in renewable energy (e.g., solar and wind) in Poland \_ [11] Promoting Poland as a green country
- [1] Promoting Poland's successes in reducing carbon dioxide emissions \_ [11] Phasing out subsidies to the production of coal
- [1] Fighting the image of Poland as an anti-environmental country \_ [11] Limiting coal extraction in Poland
- [1] Counterattacking the EU accusations claiming that Poland does not implement proenvironmental solutions \_ [11] Reducing the activity of the polluting industry
- [1] Care for the natural environment \_ [11] Care for Poland's image as a proenvironmental country
- [1] Rejecting the allegations of the poor state of the environment in Poland \_ [11] Support for European environmental policy
- [1] Supporting the activities of proenvironmental organizations \_ [11] Improving the Poland's image through environmentalism

Reversed items are 3, 4, 5 and 7.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jenvp.2021.101576>.

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