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Running head: In-group positivity and intergroup conspiracies

“They will not control us”: In-group positivity and belief in intergroup conspiracies

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Word count (exc. figures/tables): 7923

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Abstract

This research examines the role of different forms of positive regard for the in-group in predicting beliefs in intergroup conspiracies. Collective narcissism reflects a belief in in-group greatness contingent on others' recognition. We hypothesized that collective narcissism should be especially likely to foster out-group conspiracy beliefs. Positive yet non-narcissistic in-group positivity should predict a weaker tendency to believe in conspiracy theories. In Study 1 the endorsement of conspiratorial explanations of out-group actions was positively predicted by collective narcissism but negatively by non-narcissistic in-group positivity. Study 2 showed that the opposite effects of collective narcissism and non-narcissistic in-group positivity on conspiracy beliefs were mediated via differential perceptions of threat. Study 3 manipulated whether conspiracy theories implicated in-group or out-group members. Collective narcissism predicted belief in out-group conspiracies but not in-group conspiracies, while non-narcissistic in-group positivity predicted lower conspiracy beliefs, regardless of them being ascribed to the in-group or the out-group.

Keywords: conspiracy beliefs, collective narcissism, in-group identification, threat

“They will not control us”: In-group positivity and belief in intergroup conspiracies

They will not force us

They will stop degrading us

They will not control us

We will be victorious

Muse “Uprising”

In mainstream superhero movies the evil-doer, conspiring to destroy the world, is often a demonic, disturbed individual. In real life, people seem to more often imagine evil groups rather than evil individuals behind major conspiracies. What we hear is: “they are watching us,” “they are controlling us,” and “they are conspiring against us.” Indeed, one of the defining features of a conspiracy is a belief in secret and malevolent actions of *multiple actors* (Abalakina-Paap, Stephan, Craig, & Gregory, 1999; Imhoff & Bruder, 2014; Kofta & Sędek, 2005; Zonis & Joseph, 1994). Thus, “most conspiracy beliefs can be framed in terms of beliefs about how a powerful and evil *out-group* meets in secret, designing a plot that is harmful to one’s *in-group*” (van Prooijen and & Lange, 2014, pp. 238-239; emphasis added). To put it more broadly, conspiracy beliefs often presume an intergroup dimension.

Studies on conspiracy mentality have identified an array of personal characteristics that are linked to belief in conspiracy theories. A conviction that others are secretly conspiring against us can serve as an external explanation for one’s disadvantaged societal position or limited influence over his or her life. Indeed, research has demonstrated that conspiracy beliefs are associated with feelings of relative deprivation (Bilewicz, Winiewski, Kofta, & Wójcik, 2013), lack of personal control and powerlessness (Imhoff & Bruder, 2014; Newheiser, Farias, & Tausch, 2011; Sullivan, Landau, & Rothchild, 2010; Van Prooijen & Jostmann, 2013; Whitson & Galinsky, 2008), uncertainty (Whitson, Galinsky, & Kay, 2015),

low self-esteem (Swami et al., 2011; Abalakina-Paap et al., 1999), as well as a lack of understanding of the socio-political reality (Abalakina-Paap et al., 1999; Imhoff & Bruder, 2014; Goertzel, 1994; Swami, Chamorro-Premuzic, & Furnham, 2010; Swami et al., 2011). Overall, conspiracy theories are linked to individual perceptions of a difficult and confusing reality.

Given that conspiracy beliefs often assume actions of an out-group, it is reasonable to suspect that such beliefs should be linked not only to individual, but also group-level factors that determine intergroup attitudes. One robust determinant of intergroup relations is positive in-group identification (Ellemers, Spears, & Doosje, 2002; Leach et al., 2008). It shapes how the in-group members act towards other members of their group as well as how they interact with members of other groups. Yet, little research has considered the relationship between positive in-group identification and the tendency to believe in conspiracy theories (van Prooijen & van Lange, 2014). The current research seeks to fill in this gap by examining the role various forms of positive regard for the in-group may play in predicting conspiracy beliefs.

We propose that just as conspiracy beliefs seem to be related to the needs to manage feelings of individual powerlessness and uncertainty, adopting a belief that others are conspiring against the in-group might be related to the need to manage an undermined in-group image. Preliminary evidence suggests that this indeed may be the case. Conspiracy beliefs are more prevalent among members of societally disadvantaged groups (Abalakina-Paap et al., 1999; Crocker, Luhtanen, Broadnax, & Blaine, 1999; Goertzel, 1994). For example, in a study conducted by Crocker and colleagues (1999), Black Americans were more likely to believe in U.S. government conspiracies against Blacks than White Americans. This is probably not surprising given that disadvantaged groups often have objective reasons to believe that powerful groups act against them. As history has shown, paranoid convictions

about out-group conspiracies sometimes turn out to be valid. However, conspiracy theories often exaggerate the evil intentions and effectiveness of the conspiring enemy (e.g., Kramer & Messick, 1998; Kramer & Schaffer, 2004). Exaggerated or not, among Blacks beliefs in the conspiracy theories were linked to higher racial self-esteem (although this effect was marginally significant; Crocker et al., 1999). Simmons and Parsons (2005) further demonstrated that such beliefs were associated with feelings of group (rather than individual) deprivation. Beliefs about out-group conspiracies have also been linked to victimhood-based social identity. For example, in a study conducted in Poland, Bilewicz and colleagues (2013) demonstrated that a conviction that in the past Poles have been victimized more than other nations was positively correlated with the endorsement of the conspiracy stereotype of Jews: the belief that Jews are a deceptive enemy who secretly conspires to overpower other groups (Kofta & Sędek, 2005). These results suggest that conspiratorial explanations of intergroup interactions may thrive when the in-group is seen as particularly disadvantaged or vulnerable (see also Kramer & Schaffer, 2014; van Prooijen & van Lange, 2014).

Such vulnerability of positive in-group identity is captured by the concept of collective narcissism (Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009). Collective narcissism is a form of in-group positivity that reflects a belief in the in-group's greatness associated with a conviction that others do not appreciate the in-group enough. Collective narcissism is associated with defensive intergroup hostility and sensitivity to threats to the in-group's image. Research demonstrates that collective narcissism predicts hostile responses to criticism or lack of special recognition, which serve to punish the offending out-group and restore the in-group's image (Golec de Zavala, Cichocka, & Iskra-Golec, 2013). According to collective narcissistic logic, there is rarely anything wrong with the in-group and any criticism aims to undermine and threaten in-group's image which needs to be protected. In a similar vein, a belief that other groups are conspiring against the in-

group could serve as an external explanation for why the in-group does not always succeed as it should, and does not always receive the outcomes or recognition it deserves. In fact, perceiving the in-group as a victim of vicious external attacks serves to glorify the in-group in its unprecedented martyrdom (Skarżyńska, Przybyła, & Wójcik, 2012). In such cases, the evil intentions of others are likely to be exaggerated in order to match and validate the greatness of the suffering in-group.

As a form of positive in-group regard contingent on external validation, collective narcissism is linked to increased sensitivity to signs of threats to the in-group's image from out-groups. Even ambiguous intergroup situations are perceived as threatening and past intergroup wrongdoings are rarely forgiven or forgotten (Golec de Zavala et al., 2009). Rumination over past intergroup interactions and hypervigilance in processing information about out-group intentions have important consequences for interpreting intergroup behavior: they can foster perceptions of out-group actions as specifically directed at in-group members, and as malevolent in their intentions (Kramer & Schaffer, 2014). These processes can also overall foster convictions about out-group conspiracies and they can be exacerbated by perceptions of threat (Kramer & Schaffer, 2014).

In a similar vein, previous research has demonstrated that feelings of threat can foster beliefs in intergroup conspiracies. For example, in a study conducted by Kofta, Sędek, & Sławuta (2011) threatening the in-group image by reminders of past crimes increased the endorsement of conspiracy stereotypes of out-groups. Similarly, research conducted in Indonesia demonstrated that intergroup threat amplifies the positive effects of chronic (as well as temporarily salient) Muslim identification on conspiracy beliefs about Westerners instigating terrorism in Indonesia (Mashuri & Zaduqisti, 2013). Because collective narcissism is a robust predictor of intergroup threat sensitivity, there are reasons to expect that collective narcissism should predict belief in the conspiratorial intentions of out-group members.

Initial evidence suggests that collective narcissism is linked to the conspiracy mentality. In a study conducted in Poland, national collective narcissism predicted endorsement of conspiracy stereotypes of Jews, which further predicted general anti-Semitism (Golec de Zavala & Cichocka, 2012). In the present research we examine whether collective narcissism is a robust predictor of conspiracies beliefs outside of the specific context of the Polish-Jewish relations. We expect that collective narcissism should be related to the endorsement of beliefs about the conspiratorial actions of out-groups. However, there are many conspiracy theories that focus on the actions of some representatives of the in-group. For instance, country officials are often accused of hiding uncomfortable facts from the society. Notable examples of such conspiracy theories include beliefs about involvement of the US government in the 9/11 attack or the English Royal Family in the death of Princess Diana (see, e.g., Wood, Douglas, & Sutton, 2012). Hence, in addition we hypothesized that although collective narcissism might overall motivate seeing conspiracies almost anywhere, the concern with in-group image and a need to believe in its greatness would suppress the endorsement of conspiracies that might point to actions of the in-group.

Nevertheless, we do not assume that positive regard for the in-group always breeds intergroup paranoia and conspiracy beliefs. Just as not all individuals with high self-esteem are narcissists, not all high identifiers develop narcissistic attachment to the in-group. In fact, it is possible to nurture a secure, non-narcissistic form of in-group positivity (Golec de Zavala, Cichocka, & Bilewicz, 2013). Non-narcissistic in-group positivity can be captured by co-varying out the variance associated with collective narcissism from measures of in-group positivity, which encompass satisfaction with in-group membership, emotional attachment to other in-group members as well as importance of the in-group to the self (such a combination of factors reflects a group-level self-investment, Leach et al., 2008, and is considered the core of in-group identification, Postmes, Haslam, & Jans, 2013; Tajfel, 1978). Non-narcissistic in-

group positivity presumes a more objective (rather than grandiose) and secure (rather than defensive and dependent) perception of the in-group. Research shows that such positive yet secure regard for the in-group predicts greater tolerance of out-groups (Golec de Zavala, Cichocka, & Bilewicz, 2013). Because non-narcissistic in-group positivity is not contingent on external recognition it is less likely to predict preoccupation with intergroup threats or the necessity to validate the in-group's greatness. We then expect non-narcissistic in-group positivity to predict less preoccupation with conspiracy theories, regardless of these theories' attribution of conspiratorial actions to the in-group or the out-group.

Overview of the current research

The aim of this research is to examine the role of different types of in-group positivity in inspiring conspiracy beliefs in the intergroup context. Specifically, we propose that the link between in-group positivity and belief in intergroup conspiracies will depend on the type of positivity. We hypothesize that collective narcissism will predict out-group (but not in-group) conspiracy beliefs. Non-narcissistic in-group positivity, on the other hand, should predict a lower likelihood of endorsing conspiracy theories, regardless of these conspiracies being ascribed to in-group or out-group members. We validate our predictions in three studies, conducted in two different cultural and political contexts: Poland (Studies 1 and 2) and the US (Study 3). In all studies, we measured collective narcissism with the Collective Narcissism Scale (Golec de Zavala et al., 2009). In order to examine the robustness of the expected effect, in each study we use different operationalizations of in-group positivity: collective self-esteem measured with Luhtanen & Crocker's 1992 scale used with respect to the in-group (Study 1), in-group identification measured with Cameron's 2004 scale (Study 2) and the group-level self-investment component of social identification measured with Leach's 2008 scale (Study 3). All of these scales capture in-group positivity conceptualized as the emotional investment of the self in the group which combines feeling like a group

member, satisfaction with the in-group membership and solidarity and connection to other members of the in-group (Cameron, 2004; Postmes, Haslam, & Jans, 2012; Tajfel, 1978).

In Study 1 we examine whether the likelihood of endorsing conspiratorial explanations for the lack of in-group recognition is positively predicted by collective narcissism but negatively by non-narcissistic in-group positivity. In Study 2 we examine whether collective narcissism and non-narcissistic in-group positivity have opposite effects on beliefs in out-group conspiracies, even when accounting for generalized prejudice towards the out-group. We also test whether these effects are mediated by perceptions of threat. Finally, in Study 3 we again measure collective narcissism and non-narcissistic in-group positivity, and implement an experimental design in order to compare their effects on beliefs about conspiracies implicating out-group versus in-group members.

Study 1

In Study 1 we sought to establish the basic relationships between collective narcissism, in-group positivity and the endorsement of conspiratorial explanations for intergroup events. We used data from a larger study conducted in Poland in the context of commemorations of the fall of the Communist regime in the Eastern Europe. Poles tend to take pride in the role they played in the fall of Communism in Central and Eastern Europe (Lewicka, 2014). The events that led to the system change begun with the Solidarity movement, which became active in Poland in the 1980s and eventually led to the (partially) free elections of June 4th 1989. For many Poles it is this Election Day that marks the fall of the Communist regime. Nevertheless, for many other people the later Fall of the Berlin Wall on November 9th 1989 became the symbol of the end of the Communism.

We hypothesized that collective narcissism would predict perceiving the fact that Berlin Wall is a more renowned symbol of the fall of Communism than the Polish free

elections (or the Round Table negotiations that led to them) as a result of conspiratorial actions of other nations. Moreover, in line with previous research (Golec de Zavala, Cichocka, & Bilewicz, 2013), we predicted that when collective narcissism is accounted for, we would be able to observe the effects of non-narcissistic in-group positivity, which should predict more positive responses to the situation. In other words, we hypothesized that, when allowed to co-vary, collective narcissism and non-narcissistic in-group positivity will have opposite effects on conspiracy beliefs: collective narcissism would predict increased conspiracy beliefs, while non-narcissistic in-group positivity would predict decreased conspiracy beliefs.

Method

Participants.

Study 1 was conducted among 97 Polish students. We excluded data from one participant who reported her nationality as Ukrainian. The final sample included 96 participants of Polish nationality. The age of the participants ranged from 18 to 29 years ($M=21.64$, $SD=1.99$)¹. There were 16 male and 80 female participants.

Procedure.

Participants were asked to fill out measures of collective narcissism (Golec de Zavala et al., 2009) and in-group positivity (operationalized as collective self-esteem; Luhtanen & Crocker, 1992) with respect to the national in-group. All participants were exposed to a text discussing the alleged lack of acknowledgement for Polish achievements in the context of the fall of Communism (for full text see the Supporting Information). Afterwards, participants were asked about various explanations of this situation, which included questions about a

¹ Unless stated otherwise, across all studies the pattern of results of the regression analyses remains the same when we include demographics as covariates (age and gender in Studies 1 and 2; age, gender, education, and ethnicity in Study 3).

possible anti-Polish conspiracy. Participants were asked to rate how probable it is that lack of recognition of Poles is a result of an international conspiracy aimed to undermine Polish achievements².

Measures.

Collective narcissism was measured with the 9-item version of the national Collective Narcissism Scale (e.g., “Not many people seem to fully understand the importance of the Polish nation”), with a scale from 1= *definitely disagree* to 6= *definitely agree* (Golec de Zavala et al., 2009), $\alpha = .89$, $M = 3.38$, $SD = 0.84$.

Collective self-esteem. In-group positivity was measured with the Collective Self-Esteem Scale administered in relation to the national in-group (Luhtanen & Crocker, 1992). Participants were asked to respond to 16 items capturing in-group membership (e.g., “I am a worthy member of the Polish nation”), private collective self-esteem (e.g., “I often regret that I belong to the Polish nation,” reverse coded), public collective self-esteem (e.g., “Overall, the Polish nation is considered good by others.”), and importance of in-group identity (e.g.,

² This study also included a failed manipulation of deprivation of personal and collective control, originally for purposes of a different project. Because this manipulation did not significantly affect our variables of interest (all F s < 1), we treat this data as a cross-sectional survey. Including the manipulation as a covariate does not affect the pattern of results. The study also included a measure of inclusion of in-group in the self (Tropp & Wright, 2001), which was not reliably associated with conspiracy beliefs, $r(91) = .13$, $p = .23$. Finally, we measured (1) blaming Poles themselves for the situation presented in the text and (2) perceptions of the text as inaccurate (both unrelated to collective narcissism or collective self-esteem; p s > .10), as well as (3) experiences of lack of recognition in the context of fighting Communism and (4) anti-German prejudice (in regression analyses both variables positively predicted by collective narcissism and negatively by collective self-esteem; all p s < .01). When we include anti-German prejudice as a covariate, collective narcissism remains a positive predictor of conspiracies ($B = 0.57$, $SE = 0.20$, $p = .004$), while the effect for collective self-esteem becomes non-significant ($B = -0.12$, $SE = 0.17$, $p = .49$). Details of these analyses are available by request.

“Overall, being Polish has very little to do with how I feel about myself,” reverse coded) on a scale from 1= *definitely disagree* to 7= *definitely agree* $\alpha = .88$, $M = 4.40$, $SD = 0.89$.

Beliefs in anti-Polish conspiracy was measured with four items, e.g., “The state of affairs discussed in the text is a consequence of a conspiracy aimed at undermining our input in the fight for democracy.”, “Western countries conspire against Polish people and intentionally falsify the history”, “Such perceptions of history are a result of purposeful actions that aim to support Germany’s dominant position”, “The state of affairs discussed in the text is a result of malignant anti-Polish propaganda”. Participants were asked to indicate their response on a scale from 1= *definitely disagree* to 7= *definitely agree*, $\alpha = .86$, $M = 2.37$, $SD = 1.47$.

Results

First, zero-order correlations between all variables were computed. Collective narcissism was significantly positively related to collective self-esteem, $r(94^3) = .61$, $p < .001$. Conspiracy beliefs were significantly positively correlated with collective narcissism, $r(91) = .54$, $p < .001$, and marginally positively associated with collective self-esteem, $r(91) = .20$, $p = .061$. To account for the variance shared between collective narcissism and collective self-esteem, we examined both of these variables as predictors of belief in anti-Polish conspiracy. When both types of in-group positivity were included in the analyses the effect of collective self-esteem became significant and *negative*, $B = -0.41$, $SE = 0.19$, $p = .034$, while the effect of collective narcissism on beliefs in anti-Polish conspiracy remained significantly positive, $B = 1.19$, $SE = 0.19$, $p < .001$; $F(2, 90) = 21.43$, $R^2 = .32$.

³ Throughout the manuscript, any unaccounted for drops in degrees of freedom are due to missing data.

We used bootstrapping in PROCESS (Hayes, 2013) to test whether the negative effect of collective self-esteem on belief in conspiracies was suppressed by collective narcissism. We requested 50,000 bootstrap samples. The analysis confirmed a significant suppression effect of 0.73, with the 95% bootstrapped bias corrected confidence interval of 0.47 to 1.05. We ran a similar analysis to check whether the effect of collective narcissism was suppressed by collective self-esteem. Indeed, we found a significant suppression effect of -0.26, with the 95% bootstrapped bias corrected confidence interval of -0.46 to -0.10, indicating that the significant effect of collective narcissism on conspiracy beliefs became stronger when collective self-esteem was accounted for.

Discussion

Study 1 confirmed that the belief in out-group conspiracies is differentially predicted by collective narcissism and non-narcissistic in-group positivity. Polish collective narcissism positively predicted a conviction that an international conspiracy is a reason why Poles did not receive proper acknowledgment for their contribution to the fight against Communism. Correlational analyses indicated that in-group positivity (here operationalized as collective self-esteem, Luhtanen & Crocker, 1992) was positively, albeit marginally, associated with belief in conspiracies. However, when the overlap between in-group positivity and collective narcissism was accounted for, in-group positivity without the defensive component captured by collective narcissism, predicted *lower* likelihood of endorsing intergroup conspiracies, indicating a suppression effect. Overall, Study 1 provided initial confirmation for our hypotheses. One limitation of this study was that all participants were exposed to an excerpt that discussed the lack of recognition of in-group achievements, which might have prompted the need to find an explanation for what happened (e.g., in endorsing conspiracy theories). We address this limitation in Study 2.

Study 2

Study 2 examined our hypotheses in a different intergroup context. We focused on the Smolensk catastrophe of 2010 that killed the Polish president, the first lady and almost one hundred government officials. Because the presidential plane crashed in Russia, on the sixtieth anniversary of the Russian massacre of Polish officers in Katyn, beliefs in Russian involvement in the Smolensk crash spread quickly after the tragedy. Conspiracy theories might have been one way of dealing with the trauma associated with the catastrophe. They might have helped attribute causes of the tragedy to negative out-group intentions and, thus, provide moral justification for finding an out-group to blame (Kofta & Sędek, 2005). In the aftermath of the crash, we conducted a survey among Polish students, in which we investigated responses to the tragedy, including conspiracy theories about Russian involvement in the crash, attitudes towards Russians, and perceptions of threat. The survey also measured narcissistic and non-narcissistic regard for the national group, as well as political orientation.

We hypothesized that belief in the Smolensk conspiracy would be positively predicted by collective narcissism and negatively by non-narcissistic in-group positivity. In addition, we tested whether these relationships would be mediated via perceptions of threat. We hypothesized that collective narcissism would be associated with increased perceptions of threat after the crash, which would at least to some extent account for increased conspiracy beliefs. Non-narcissistic in-group positivity, on the other hand, should be less sensitive to threat, and in turn less likely to foster the endorsement of conspiracy theories.

In Study 2 we also aimed to rule out the possibility that the effects of collective narcissism on conspiracy beliefs can be explained by the fact that collective narcissism breeds general out-group hostility (Golec de Zavala, Cichocka, & Bilewicz, 2013). Belief in out-group conspiracies can be a manifestation of a more generalized prejudice towards the

out-group suspected for conspiring against the in-group. Previous research demonstrated that conspiracy stereotypes of Jews are a robust predictor of discrimination of Jews (e.g., Bilewicz et al., 2013; Golec de Zavala & Cichocka, 2012; Kofta & Sędek, 2005). Similarly and relevantly to the context of this study, prejudice towards Russians has been shown to be a predictor of belief in the Smolensk conspiracy (Grzesiak-Feldman & Haska, 2012).

Therefore, in Study 2 we adjusted our analyses for out-group prejudice by including this variable as a covariate. In this way, we were able to test whether collective narcissism and non-narcissistic in-group positivity will predict belief in out-group conspiracies specifically, and over and above more general negative attitudes towards that group.

We also sought to demonstrate that the effects of collective narcissism and non-narcissistic in-group positivity on conspiracy beliefs would be observed even if we account for another variable typically associated with convictions about the Smolensk crash—political orientation. Research indicates that generalized belief in conspiracy theories is linked to political extremism (van Prooijen, Krouwel, & Pollet, 2015). However, in the context of the Smolensk crash there seems to be a clearer link between endorsement of a conservative, right-wing (rather than extremist) ideology and conspiracy beliefs (Pankowski, 2012). This is likely due to the fact that the Polish president who died in the crash represented an ideologically conservative party (Law and Justice) and, hence, supporters of this party are those who most strongly believe in a conspiracy theory behind the crash (Pankowski, 2012). Therefore, we adjusted our analyses for political conservatism by including this variable as a covariate.

Method

Participants.

Study 2 was conducted among 224 Polish students. We excluded data from one participant who reported her nationality as Ukrainian. The final sample included 223 Polish

participants. The age of participants ranged from 17 to 27 years ($M= 21.82$, $SD= 1.77$). There were 68 male and 155 female participants.

Procedure.

The study took place between April 12th and April 27th 2010 (i.e., in the weeks immediately following the plane crash), as part of a larger survey. Participants were asked to report their political orientation. Then, they were asked to fill out measures of collective narcissism (Golec de Zavala et al., 2009) and in-group positivity (operationalized as in-group identification, Cameron, 2004) with respect to the national in-group, as well as perceptions of threat, attitudes towards Russians and beliefs in a Russian conspiracy behind the crash⁴.

Measures.

In-group identification was measured by Cameron's (2004) scale. Participants were asked to respond to items capturing ties with other in-group members (e.g., "I have a lot in common with other Poles"), centrality of in-group identification (e.g., "I often think about the fact that I am Polish") and in-group affect (e.g., "In general, I'm glad to be Polish") on a scale from 1= *definitely disagree* to 5= *definitely agree*, $\alpha= .91$, $M= 3.78$, $SD= 0.77$.

Collective narcissism was measured as in Study 1, $\alpha= .88$, $M= 3.54$, $SD= 0.90$.

Perceived threat was measured with two items capturing responses to the Smolensk crash: "I feel that the fate of the Polish nation is threatened.", "I feel threatened with what

⁴ The survey also measured individual responses to the crash, own emotions and perceptions of Russians' emotions and actions, which were not analysed in the current research. Relevantly, it included measures of in-group glorification (positively correlated with conspiracy beliefs, $r(182) = .22$, $p = .003$) and attachment (not significantly correlated with conspiracy beliefs, $r(182) = .02$, $p = .76$; Roccas, Klar, & Liviatan, 2006). Unfortunately, due to multicollinearity (indices of tolerance $\leq .37$) we were not able to conduct analyses accounting for the potential overlap between collective narcissism and glorification or in-group identification and attachment. As in Study 1, we measured inclusion of in-group in the self, which was not reliably associated with conspiracy beliefs, $r(182) = .002$; $p = .97$.

happened.” on a scale from 1= *definitely no* to 7= *definitely yes*, $r(217) = .49$, $M = 2.23$, $SD = 1.42$.

Belief in Russian conspiracy was measured with three items: “The catastrophe was most likely a result of Russia's secret actions.”, “What happened is a consequence of Russian conspiracy.”, “What happened was probably an accident” (reverse coded). Participants were asked to indicate their response on a scale from 1= *definitely disagree* to 7= *definitely agree*, with higher scores indicating a greater belief in conspiracy, $\alpha = .81$, $M = 2.16$, $SD = 1.19$.

Anti-Russian attitudes. Two indices of prejudice were used. First, participants were asked to indicate their feelings towards Russians using six semantic differentials: *cold – warm*, *unfriendly – friendly*, *trustful – distrustful*, *positive – negative*, *respect – contempt*, *admiration – disgust* (see Wright, Aron, McLaughlin-Volpe, & Ropp, 1997), on a scale from 1 to 7, with higher scores indicating greater negativity, $\alpha = .91$, $M = 3.59$, $SD = 1.06$. Second, participants were asked about their positive (e.g., cooperation, helping; reverse coded) and negative (e.g., avoidance, fighting) intentions towards Russians (see Mackie, Devos, & Smith, 2000). We asked them to indicate to what extent they would engage in a total of nine action tendencies on a scale from 1= *definitely no* to 7= *definitely yes*, $\alpha = .81$, $M = 2.64$, $SD = 0.91$. These two indices were significantly positively correlated, $r(176) = .58$, $p < .001$, so we z-scored both variables and averaged them to create a general index of anti-Russian attitudes.

Political conservatism. The survey included three items measuring ideological self-placement in terms of general, social and economic issues (Cichocka & Jost, 2014). In the Polish context the social and economic dimensions tend to be separate, with the former being more relevant for differentiation between left and right wing individuals (Golec, 2001; Kossowska & van Hiel, 2003). Therefore, in the analyses we considered only general self-placement item: “On the scale below, please state your political views”, to which participants

responded on a scale from 1= *definitely left-wing* to 7= *definitely right-wing* and self-placement in terms of social issues: “On the scale below, please state your political views with respect to social issues”, to which participants responded on a scale from 1= *definitely liberal* to 7= *definitely conservative* as an index of political conservatism, $r(221) = 0.49, p < .001, M = 3.74, SD = 1.30$.

Results

First, correlations between all variables were computed (see Table 1). Collective narcissism was significantly positively related to in-group identification, threat, conspiracy beliefs and negativity against Russians. In-group identification, on the other hand, was not reliably associated with conspiracy beliefs or anti-Russians attitudes. Conspiracy beliefs were significantly positively correlated with perceived threat, political conservatism, as well as anti-Russians attitudes.

---Table 1---

To further examine the relationship between the two types of in-group positivity and conspiracy beliefs, we ran a hierarchical regression analysis with conspiracy beliefs as the outcome variable, and two covariates: political orientation and prejudice. Model 1 included as predictors in-group identification and collective narcissism, while Model 2 added the two covariates (see Table 2).

---Table 2---

When both types of in-group positivity were included in Model 1, the effect of collective narcissism on beliefs in Russian conspiracy remained significantly positive, $B = 0.45, SE = 0.11, p < .001$, while the negative effect of non-narcissistic in-group identification became significant, $B = -0.35, SE = 0.14, p = .01$ (compared to zero-order correlations). We

used bootstrapping in PROCESS to test whether in-group identification and collective narcissism were mutual suppressors in predicting belief in conspiracies. We requested 50,000 bootstrap samples in PROCESS. The analysis confirmed that indeed collective narcissism was suppressing the effects of in-group identification, point estimate= 0.32, with the 95% bootstrapped bias corrected confidence interval of 0.16 to 0.51. We also found that in-group identification was suppressing the effects of collective narcissism, point estimate= -0.16, with the 95% bootstrapped bias corrected confidence interval of -0.31 to -0.03, indicating that the significant effect of collective narcissism on conspiracy beliefs became stronger when in-group identification was accounted for.

In Model 2 the positive effect of collective narcissism and the negative effect of in-group identification remained significant when we included general negativity towards Russians as well as political conservatism as covariates. The suppression effects remained significant when these variables were included as covariates of the indirect effect model.

Finally, we considered perceived threat as a mediator of the effects of narcissistic and non-narcissistic in-group positivity on conspiracy beliefs. We tested a path model (Figure 1) using *Mplus 7* (Muthén & Muthén, 1998-2012)⁵. We used bootstrapping with 50,000 resamples. The analyses included political conservatism and anti-Russian prejudice as covariates. As can be discerned from Figure 1, collective narcissism was positively associated with in-group identification, $B= 0.39$, $SE= 0.05$, $p < .001$. Collective narcissism positively predicted greater intergroup threat, $B= 0.58$, $SE= 0.12$, $p < .001$, but no longer significantly predicted belief in conspiracies, $B= 0.13$, $SE= 0.12$, $p= .30$. In line with our predictions, perception of threat mediated between collective narcissism and belief in Russian conspiracy, the indirect effect= 0.13, with the 95% bootstrapped bias corrected confidence interval of

⁵ All independent variables were included in the model command. *Mplus* defaults were used for the estimator and treatment of missing data.

0.05 to 0.24. This effect remains significant without adjusting for prejudice and political orientation.

In the model, when adjusting for collective narcissism, non-narcissistic in-group identification was a negative and significant predictor of intergroup threat, $B = -0.32$, $SE = 0.15$, $p = .03$ and of belief in conspiracies, $B = -0.32$, $SE = 0.15$, $p = .03$. Perceptions of threat mediated between non-narcissistic in-group identification and belief in Russian conspiracy, the indirect effect = -0.07 , 95% bias corrected bootstrapped confidence interval: -0.18 to -0.01 . However, this effect should be treated with caution as it was no longer significant when sex and age were included as covariates or when we did not include any covariates (i.e., without demographics, political orientation and prejudice). In both cases, this was due to the fact that the effect of non-narcissistic in-group identification on threat became non-significant.

---Figure 1---

Discussion

While the Smolensk catastrophe was not associated with a direct threat from an out-group, in Study 2 collective narcissism was associated with increased feelings of threat after the crash as well as with beliefs in Russian conspiracy behind this tragedy. Moreover, feelings of threat mediated between collective narcissism and conspiracy beliefs. These effects remained significant after adjusting for two important variables related to belief in conspiracies: political orientation and out-group prejudice. Therefore, the effects of collective narcissism on belief in conspiratorial actions of an out-group cannot be attributed to mere prejudice towards that group or a specific political stance.

As in Study 1, in-group positivity (here operationalized as in-group identification, Cameron, 2004) alone was not significantly associated with conspiracy beliefs. However,

when we accounted for the defensive component of in-group positivity by adjusting for collective narcissism in the analysis, what became a non-narcissistic in-group positivity was associated with a decreased likelihood to believe in conspiracies and this effect was driven by overall decreased perceptions of threat (although the latter effect was only significant when generalized prejudice and conservatism were adjusted for).

Study 3

Studies 1 and 2 corroborated our basic prediction about the opposite effects of collective narcissism and non-narcissistic in-group positivity on endorsing beliefs about out-group conspiracies behind concrete events. This is in line with previous studies on conspiracy beliefs, which frequently focus on specific conspiracies, such as those concerning the death of Princess Diana (Douglas & Sutton, 2008) or 9/11 (Swami, et al., 2010; Wood & Douglas, 2013). While specific events likely trigger the emergence of conspiracy theories about out-group activities, it is also possible to imagine that collective narcissism would be linked to a more general tendency to believe in conspiratorial actions of out-groups, almost regardless of what those actions entail. Indeed, previous research has been successful in measuring such generic conspiracist beliefs (Brotherton, French, & Pickering, 2013; Bruder, Haffke, Neave, Nouripanah, & Imhoff, 2013). Therefore, in Study 3 we sought to examine whether the effects of collective narcissism and non-narcissistic in-group positivity would replicate if we considered conspiracy mentality more broadly.

Nevertheless, we assumed that the effects of the two types of in-group positivity on general conspiracies would depend on whether these conspiracy beliefs concerned the actions of out-groups versus those of in-group members. We hypothesized that collective narcissism would predict beliefs in conspiratorial actions of out-group members; however, due to their high regard for the in-group, they should be less likely to believe in conspiratorial actions of

their in-group. Non-narcissistic in-group positivity, on the other hand, should be associated with lesser need to believe in conspiracies overall, that thus should be a negative predictor of any type of conspiracies, regardless of them involving the in-group or the out-group. To examine these assumptions, in Study 3 we measured narcissistic and non-narcissistic in-group positivity with respect to the national group as well as the endorsement of conspiracy beliefs, and we manipulated whether these conspiracies implied malevolent actions of own versus foreign governments.

Method

Participants.

Study 3 was conducted among 433 Mturk workers. We excluded data from participants who failed to report nationality or reported their national identity as other than American or mixed American ($N= 92$). The final sample consisted of 341 participants, 152 women and 189 men, aged 18-73 ($M= 31.92$, $SD= 10.57$).

Procedure.

First, we asked participants to fill in the measures of national collective narcissism (Golec de Zavala, Cichocka, & Bilewicz, 2013) and in-group positivity (operationalized as group-level self-investment, Leach et al, 2008). Then, participants were randomly assigned to one of two experimental conditions: thinking about in-group versus out-group conspiracies. In the in-group condition ($N= 168$) they answered questions about belief in US government's conspiracies. In the out-group condition ($N= 173$) they answered the same questions about belief in foreign governments' conspiracies⁶.

⁶ After the manipulation, we also measured system justification (Kay & Jost, 2003), perceptions of government representativeness and similarity to typical Americans, and feelings of control.

Measures.

Collective narcissism was measured with the shorter, 5-item version of the Collective Narcissism Scale (Golec de Zavala, Cichocka, & Bilewicz, 2013). Participants were asked to indicate how much they agree with the items referring to American identity using a scale from 1= *I strongly disagree* to 6= *I strongly agree*, $\alpha = .89$, $M = 2.59$, $SD = 1.13$.

Group-level self-investment. We used the Leach and colleagues' (2008) social identification scale. Participants were asked to respond the items referring to American identity on a scale ranging from 1= *I strongly disagree* to 7= *I strongly agree*. We operationalized in-group positivity as the group-level self-investment dimension of social identification, which encompasses satisfaction with the in-group (e.g., "I am glad to be American."), solidarity with in-group members (e.g., "I feel solidarity with Americans"), as well as centrality of the in-group to the self (e.g., "Being American is an important part of how I see myself."), 10 items, $\alpha = .95$, $M = 4.92$, $SD = 1.32$. This dimension of in-group positivity corresponds to the components of in-group identification also measured by Cameron's (2004) scale, which capture the emotional investment of the self in the group (see Postmes et al., 2012).

The scale also includes a group-level self-definition dimension, 4 items, $\alpha = .89$, $M = 4.28$, $SD = 1.33$, which reflects defining oneself through group membership (e.g., "I have a lot in common with the average American person.") and through similarities with other group members (e.g., "I am similar to the average American person."). This dimension reflects the process of social categorization which allows for defining the self as part of the group (Turner, 1982).

Conspiracy beliefs were measured with 11 items based on the Generic Conspiracist Beliefs Scale (Brotherton et al., 2013). Participants first read instructions indicating that they

will rate statements in relation to the American government (in-group condition) or foreign governments (out-group condition) on a scale from 1= *definitely not true* to 5= *definitely true*. Most statements additionally manipulated the subject of the conspiracy, e.g., “Foreign governments [the American government] deliberately conceal a lot of important information from the world public out of self-interest”, $\alpha = .89$, $M = 2.93$, $SD = 0.77$.

Results

Collective narcissism and group-level self-investment were significantly positively correlated, $r(339) = .60$, $p < .001$. Conspiracy beliefs were positively although not significantly correlated with collective narcissism, $r(339) = .05$, $p = .35$, and marginally significantly and negatively correlated with group-level self-investment, $r(339) = -.10$, $p = .06$.

We conducted a regression analysis, in which we examined the effects of collective narcissism and group-level self-investment on conspiracy beliefs, accounting for the overlap between these two forms of in-group positivity. We also investigated whether their effects depend on the subject of conspiracy theories (in-group versus out-group). All continuous variables were mean-centered prior to the analyses. Experimental conditions were coded as -1= in-group and 1= out-group conspiracy beliefs.

In the first step we tested the main effects of the experimental condition, collective narcissism and group-level self-investment on conspiracy beliefs. The model was significant, $F(3, 337) = 4.09$, $p = .01$, $R^2 = .04$. We found no significant effect of experimental condition on conspiracy beliefs, $B = 0.05$, $SE = 0.04$, $p = .20$. However, the results revealed a significant negative effect of group-level self-investment, $B = -0.12$, $SE = 0.04$, $p = .002$, and a significant positive effect of collective narcissism, $B = 0.12$, $SE = 0.05$, $p = .01$, on conspiracy beliefs.

In the second step we introduced two-way interactions of the experimental condition with: (1) group-level self-investment and (2) collective narcissism (Table 3). The interaction of group-level self-investment and experimental condition was not significant, $B = -0.02$, $SE = 0.04$, $p = .69$ ⁷, while the effect of collective narcissism was qualified by the significant interaction of collective narcissism with the experimental condition (Figure 2), $B = 0.11$, $SE = 0.05$, $p = .01$; for the whole model $F(5, 335) = 4.07$, $p = .001$, $R^2 = .06$, $\Delta R^2 = .02$. Simple slopes analysis indicated that collective narcissism significantly predicted conspiracy beliefs in the out-group conspiracies condition, $B = 0.22$, $SE = 0.06$, $p < .001$, but not in the in-group conspiracies condition, $B = -0.01$, $SE = 0.07$, $p = .91$ ⁸.

When we used group-level self-definition in the analyses instead of group-level self-investment, neither the main effect of self-definition, $B = -0.02$, $SE = 0.04$, $p = .51$, nor its interaction with the experimental condition were statistically significant, $B = -0.02$, $SE = 0.04$, $p = .66$ (although the interaction of collective narcissism and the experimental condition remained significant; $B = 0.13$, $SE = 0.05$, $p = .01$).

---Figure 2---

As in Studies 1 and 2 we again tested whether group-level self-investment and collective narcissism were mutual suppressors in predicting conspiracy beliefs (including the experimental condition as a covariate). We requested 50,000 bootstrap samples in PROCESS. The analysis confirmed a significant effect of collective narcissism suppressing the effects of group-level self-investment, point estimate = 0.06, with the 95% bootstrapped bias corrected

⁷ When we used the whole social identification scale ($\alpha = .95$, $M = 4.67$, $SD = 1.19$), results remain similar to those obtained for group-level self-investment only.

⁸ We considered the possibility that this effect might further depend on whether the government is perceived as legitimate or representative of the in-group. None of these variables moderated the effects. Results of these analyses are presented in the Supporting Information.

confidence interval of 0.01 to 0.11. We also tested whether the effect of collective narcissism on belief in conspiracies was suppressed by group-level self-investment. The analysis confirmed a significant suppression effect of -0.09, with the 95% bootstrapped bias corrected confidence interval of -0.15 to -0.03.

Discussion

Study 3 corroborated the results of Studies 1 and 2 by showing that collective narcissism and non-narcissistic in-group positivity have opposite relationships with the endorsement of conspiracy theories. The effect of collective narcissism was, however, dependent on whether these theories concerned the in-group or the out-group. Collective narcissism was positively associated with belief in out-group conspiracies but negatively, yet not-significantly, with belief in in-group conspiracies. It then seems that collective narcissism is related to seeing malevolent intentions mostly outside the own-group. On the other hand, in-group positivity, here operationalized as group-level self-investment (Leach et al., 2008) was marginally significantly negatively related to belief in both in-group and out-group conspiracies, and this effect became stronger and significant when the variance shared between in-group positivity and collective narcissism was partialled out (as indicated by the significant suppression effect). Importantly, Study 3 examined the effects on general conspiracy beliefs rather than conspiratorial explanations for certain events (such as the lack of recognition). This suggests that collective narcissism and non-narcissistic in-group positivity do not only predict endorsement of conspiracies as explanations of specific events, but they are also linked to a more general propensity to believe in conspiracy theories.

General Discussion

In a series of three studies, conducted in two different social and political contexts, we have examined how the various ways people form attachment to their social groups predicts

beliefs in conspiracy theories about actions of members of their own and other groups. Studies 1 and 2 demonstrated that collective narcissism, a defensive form of in-group positivity (Golec de Zavala et al. 2009; Golec de Zavala, Cichocka, & Iskra-Golec, 2013), predicts the endorsement of conspiratorial explanations for events that are potentially threatening to the in-group. Study 2 further indicated that collective narcissism is linked to beliefs in conspiracy theories due to increased sensitivity to threat. Study 3 showed that collective narcissism predicts endorsement of conspiracy theories more broadly, but only if they implicate members of other groups (such as foreign governments).

Collective narcissism was, however, unrelated to the endorsement of conspiracies that assume involvement of members of their in-group (such as members of their own government). Although collective narcissists might be generally prone to suspicion and perceptions of conspiracies, because they are concerned with protecting a positive image of the in-group, they might be motivated to reject views that might denigrate the in-group in some way (e.g., by accusing the own government of conspiring against its citizens). Thus, in the case of in-group conspiracy two tendencies related to collective narcissism are likely to drive the relationship in opposite directions: collective narcissism should predict the need to maintain positive in-group image, which could cancel the more general motivation to endorse group based conspiracy theories. This could result in an overall weak and non-significant effect. Nevertheless, it is at least plausible that collective narcissism emerges as a *negative* predictor of beliefs in own group conspiracies in certain situations, for example when the in-group image is at stake and the motivation to protect it becomes especially strong.

These possibilities notwithstanding, Study 3 demonstrated differences in psychological factors associated with different types of conspiracies. Collective narcissism predicted endorsement of conspiracy theories only when they were attributed to actions of foreign governments. This result challenges the assumption that all types of conspiracy

theories form a monological belief system (Goertzel, 1994) that should be predicted by similar psychological predispositions (see Sutton & Douglas, 2014 for a discussion). Rather, it seems that certain conspiracy theories (in this case those related to actions of out-group members) are uniquely predicted by a specific psychological construct (in this case collective narcissism).

Our results also show that strong positive regard for the in-group does not always have to assume susceptibility for believing in conspiracies. All three studies included measures of positive regard for the national in-group: operationalized in Study 1 as collective self-esteem (Luhtanen & Crocker, 1992); in Study 2 as in-group identification, (Cameron, 2004), and in Study 3 as group-level self-investment (Leach et al., 2008), all of which capture the investment of the self in the group (Postmes et al., 2012; Tajfel, 1978). When the overlap between collective narcissism and in-group positivity was not accounted for, the relationships between in-group positivity and conspiracy beliefs were not consistent: positive and marginally significant in Study 1, negative and non-significant in Study 2, and negative and marginally significant in Study 3.

However, when we partialled out collective narcissism, in all studies in-group positivity without the narcissistic component emerged consistently as a negative predictor of conspiracy beliefs. This effect emerged consistently regardless of how in-group positivity was operationalized and it is likely that it would generalize also to other measures of in-group positivity (see Golec de Zavala, Cichocka, & Bilewicz, 2013). Thus, accounting for the overlap between collective narcissism and in-group positivity allows us to uncover that non-narcissistic in-group positivity assures more benevolent perceptions of out-groups' actions and intentions. In Studies 1 and 2, non-narcissistic in-group positivity was linked to lower endorsement of conspiratorial explanations for important events. In Study 2, this effect was driven by lower feelings of threat. Similarly, in Study 3 non-narcissistic in-group positivity

was associated with decreased belief in generalized conspiracy theories, regardless of these theories assuming involvement of own versus other governments. Presumably, non-narcissistic in-group positivity predicts more open and trusting attitudes towards members of other groups (Golec de Zavala, Cichocka, & Bilewicz, 2013), which might lower the likelihood of developing suspicions about their actions.

Overall, these findings suggest that belief in intergroup conspiracies is not necessarily linked to identifying with the in-group that might be a target of secret actions of others. Rather, current research indicates that the conspiratorial mindset is linked only to certain ways in which in-group positivity can be construed. Conspiracy beliefs are more likely to arise when positive in-group identity is in some way threatened or undermined. Previous research by Mashuri and Zaduqisti (2013, 2014) showed that in-group identification predicts conspiracy beliefs in the context of situational threats. We demonstrate that conspiracy beliefs are robustly predicted by chronically threatened in-group positivity in the form of collective narcissism. One way of dealing with threatened in-group identity might be to blame potentially dishonest enemies for any misfortunes of the in-group. In this way feelings of threat can be attributed to actions of out-groups, which seek to undermine the in-group. If such actions are not immediately identifiable, they can always be presumed to operate in secrecy as part of a larger conspiracy.

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Table 1

Correlations between Collective Narcissism, In-group Identification, Perceived Threat, Belief in Conspiracies, Political Conservatism and Anti-Russian Attitudes (Study 2)

Variables	1	2	3	4	5
1. Collective narcissism	--				
2. In-group identification	.57***	--			
3. Perceived threat	.40***	.15*	--		
4. Beliefs in Russian conspiracy	.24**	-.01	.41***	--	
5. Anti-Russian attitudes	.20**	-.07	.21**	.36***	--
6. Political conservatism	.43***	.44***	.37***	.36***	.29***

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

Collective narcissism, In-group Identification, Political Orientation and Anti-Russian Attitudes as Predictors of Conspiracy Beliefs (Study 2)

Variable	Model 1		Model 2	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
In-group identification	-0.35*	0.14	-0.41**	0.13
Collective narcissism	0.45***	0.11	0.24*	0.11
Political conservatism	-	-	0.31***	0.07
Anti- Russian attitudes			0.27**	0.10
<i>F</i>	8.11***		14.48***	
<i>R</i> ²	.08		.25	
ΔR^2	-		.17***	

p* < .05. *p* < .01. ****p* < .001.

Table 3

Collective Narcissism and Group-level Self-investment as Predictors of In-group and Out-group Conspiracy Beliefs (Study 3)

Variable	Model 1		Model 2	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Condition (-1= in-group, 1= out-group)	0.05	.04	0.05	.04
Collective narcissism	0.12**	.05	0.11**	.05
Group-level self-investment	-0.12**	.04	-0.11**	.04
Condition X Collective narcissism			0.11*	.05
Condition X Group-level self-investment			-0.02	.04
<i>F</i>	4.09**		4.07**	
<i>R</i> ²	.04		.06	
ΔR^2	-		.02*	

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

Figure Captions

Figure 1. Effects of collective narcissism and in-group identification on conspiracy beliefs via perceptions of threat (Study 2).

Note. * $p < .05$. *** $p < .001$. Entries are regression coefficients with standard errors in parentheses. Dotted line indicates a non-significant path. Paths for covariates (political conservatism and prejudice) are not presented in the model for simplicity.

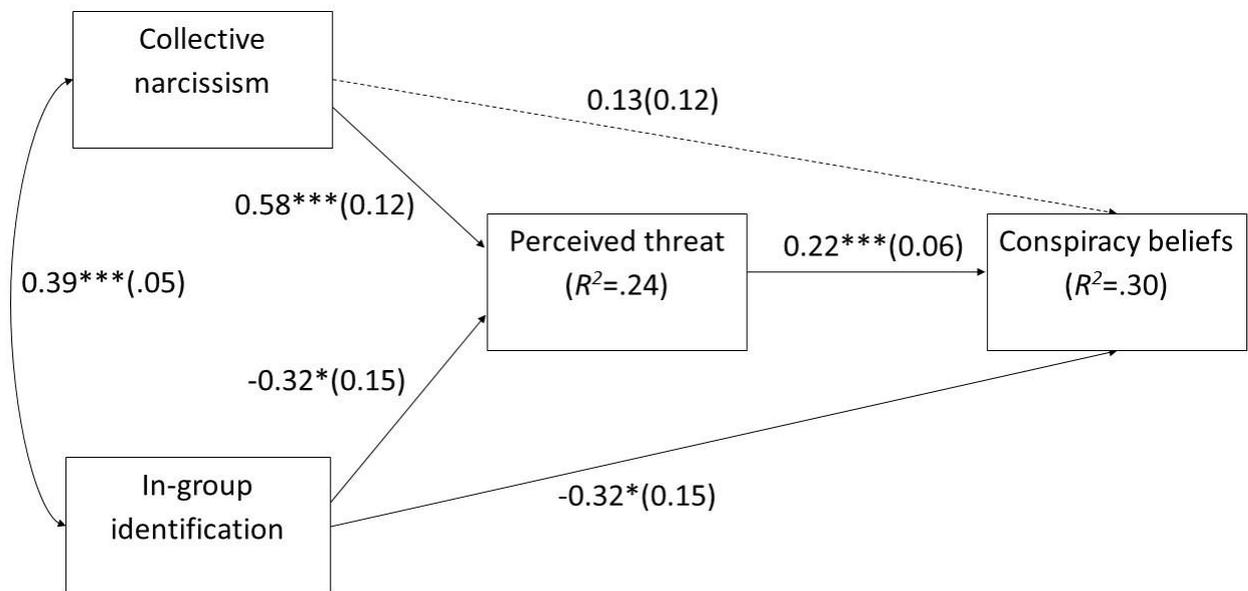
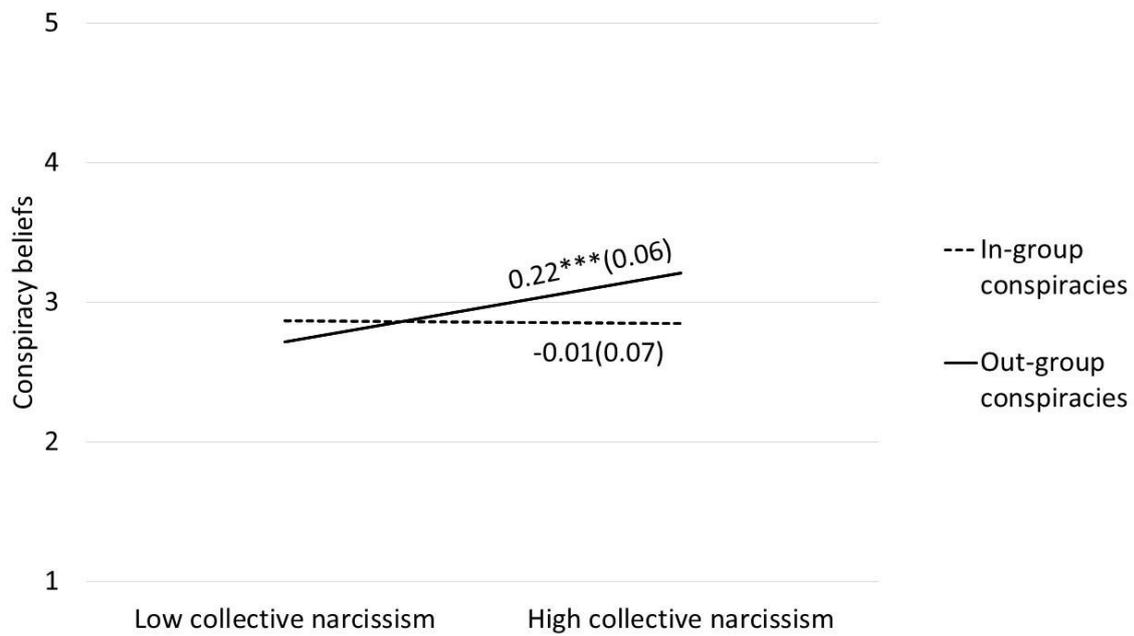


Figure 2. Interaction effect of experimental condition and collective narcissism on conspiracy beliefs (Study 3).

Note. *** $p < .001$. Entries are regression coefficients with standard errors in parentheses.



Supporting Information Study 1

English translation of the text based on Tokarz (2009) presented to participants in Study 1:

Not long ago Berlin held a grand ceremony to celebrate the twentieth anniversary of the fall of the wall, dividing once this great European city. Almost all world VIPs came to the German capital (...). The ceremony was also attended by Donald Tusk and Lech Walesa. The latter even started the fall of big dominoes (like once of Communism), symbolizing the Berlin Wall.

Berlin celebrations clearly show that Poles ‘lost’ with Germans the fight over the consciousness of Europeans, and the world. On our continent, the symbols of overthrowing Communism are neither the Gdansk Shipyard, nor the Round Table, and especially not the Polish elections of June 1989. What is obvious for Poles is not necessarily obvious for other nations. And although the name of the former leader of the striking workers, Nobel Prize winner and former Polish president, pronounced often "Walesa" is known not only in Germany, there’s still one big “but”. It is November 9th 1989 that became a symbol of transition in Eastern and Central Europe. Germans taught Poles a hard lesson on how important dates should be handled and celebrated. (...) They showed the world that they ‘won’ the freedom and that the Berlin events twenty years ago symbolize the fall of Communism (...).

Supporting Information Study 3

In Study 3 we considered the possibility that the effect of different types of in-group positivity on conspiracy beliefs might further depend on whether the government is perceived as legitimate or representative of the in-group. Specifically, we predicted that the endorsement of own government conspiracies might depend on whether the government is perceived as representing the in-group. Although collective narcissism was unrelated to

beliefs in own government conspiracies, we suspected this relationship might emerge for those who perceive the government as unrepresentative for the society—essentially as part of the out-group. Therefore, at the end of the study we measured perceptions of the government in order to verify the hypothesis that the relationship between collective narcissism and beliefs in own government conspiracies could be moderated by the extent to which the government is representative for the in-group. We also measured system justification (Kay & Jost, 2003) to see whether the current effects could be moderated by perceptions of general system legitimacy.

Measures

Perceptions of the government as unrepresentative were measured with two items. On a scale from 1 to 5 participants were asked to choose which of two sentences is more accurate: (1) “The American government represent well the American people” versus “The American government does not represent well the American people”, (2) “People in the American government are similar to regular Americans” versus “People in the American government are very different from regular”. The two items were significantly positively correlated, $r(339) = .59, p < .001, M = 3.58, SD = 1.02$.

System justification was measured with the general system justification scale (Kay & Jost, 2003). Participants were asked to answer items such as “In general, the American political system operates as it should” on a scale from 1 = *strongly disagree* to 9 = *strongly agree*, $\alpha = .86, M = 4.56, SD = 1.52$.

Results and discussion

Perceptions of the government as unrepresentative were significantly negatively correlated with system justification, $r(339) = -.46, p < .001$. Perceptions of the government as unrepresentative were significantly positively correlated with conspiracy beliefs, $r(339) = .24, p < .001$, and significantly negatively correlated both with collective narcissism, $r(339) = -.20,$

$p < .001$, and with group-level self-investment, $r(339) = -.22$, $p < .001$. System justification was significantly negatively correlated with conspiracy beliefs, $r(339) = -.26$, $p < .001$, and positively significantly correlated both with collective narcissism, $r(339) = .48$, $p < .001$, and group-level self-investment, $r(339) = .56$, $p < .001$.

We then checked whether perceptions of the government as unrepresentative moderated the effects of collective narcissism, group-level self-investment and the experimental manipulation on conspiracy beliefs. To this end we conducted a hierarchical regression analysis. In the first step we tested the main effects of the four variables on conspiracy beliefs, $F(4, 336) = 8.08$, $p < .001$, $R^2 = .09$. The effect of perceptions of the government as unrepresentative was significant, $B = 0.18$, $SE = 0.04$, $p < .001$. The effect of the experimental condition remained non-significant, $B = 0.05$, $SE = 0.04$, $p = .21$, while the effects of group-level self-investment, $B = -0.10$, $SE = 0.04$, $p = .01$, and collective narcissism, $B = 0.13$, $SE = 0.05$, $p = .003$, remained significant. In the second step we introduced all possible two-way interactions of the four variables, $F(10, 330) = 4.27$, $p < .001$, $R^2 = .11$, $\Delta R^2 = .03$. Only the crucial interaction between collective narcissism and the experimental condition was significant, $B = 0.11$, $SE = 0.05$, $p = .02$, while all other two-way interactions were non-significant (all $ps > .29$). As in the main results, with perceptions of the government as unrepresentative as a covariate, the effect of collective narcissism on conspiracy beliefs was significant in the in-group conspiracies condition, $B = 0.23$, $SE = 0.06$, $p < .001$, but not in the out-group conspiracies condition, $B = 0.01$, $SE = 0.07$, $p = .92$. In the third step of our analyses we added two three way interactions, which were non-significant: (1) the interaction of the experimental condition, collective narcissism and perceptions of government unrepresentativeness, $B = -0.04$, $SE = 0.04$, $p = .38$, (2) the interaction of the experimental condition, group level self-investment and perceptions of government unrepresentativeness, $B = 0.04$, $SE = 0.04$, $p = .23$; $F(12, 328) = 3.67$, $p < .001$, $R^2 = .12$, $\Delta R^2 = .004$. These results

indicate that perceptions of the current government as unrepresentative did not significantly moderate the effects of the two types of in-group positivity on endorsement of own versus other government conspiracies.

We also considered the possibility that the effects could be moderated by the level of system justification. Therefore, we performed a similar set of analyses using system justification (rather than perceptions of the government as unrepresentative) as the moderator. In the first step we tested the main effects of the four variables on conspiracy beliefs, $F(4, 336) = 10.41, p < .001, R^2 = .11$. The effect of system justification was negative and significant, $B = -0.17, SE = 0.03, p < .001$. The effect of experimental condition was non-significant, $B = 0.04, SE = 0.04, p = .30$, the effect of collective narcissism was significant, $B = 0.17, SE = 0.05, p < .001$. However, when system justification was included in the model, the effect of group-level self-investment was not significant, $B = -0.04, SE = 0.04, p = .37$, possibly due to a relatively strong correlation between system justification and group-level self-investment. In the second step we introduced all possible two-way interactions of the four variables, $F(10, 330) = 4.94, p < .001, R^2 = .13, \Delta R^2 = .02$. Only the crucial interaction between collective narcissism and the experimental condition was significant, $B = 0.10, SE = 0.05, p = .03$, while all other two-way interactions were not-significant (all $ps > .43$). As in the main results, with system justification as a covariate, the effect of collective narcissism on conspiracy beliefs was significant in the in-group conspiracies condition, $B = 0.26, SE = 0.06, p < .001$, but not in the out-group conspiracies condition, $B = 0.05, SE = 0.07, p = .48$.

In the third step of our analyses we added two three way interactions, which resulted to be non-significant: (1) the interaction of the experimental condition, collective narcissism and system justification, $B = 0.004, SE = 0.03, p = .89$, and (2) the interaction of the experimental condition, group level self-investment and system justification, $B = 0.002, SE = 0.02, p = .93$; $F(12, 328) = 4.10, p < .001, R^2 = .13, \Delta R^2 = .0002$. These results indicate that

system justification did not significantly moderate the effects of the two types of in-group positivity on endorsement of own versus other government conspiracies.

Overall, these analyses did not indicate that the effects of different types of in-group positivity depend on perceptions of government representativeness or legitimacy. However, it is possible that these relationships depend on other factors, such as political convictions or the broader cultural and political context. For example, critical approach to one's own government might be more acceptable in contexts where political trust is generally lower than in the US (e.g., post-Communist countries; Mason, 1995). These possibilities await future empirical verification.

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