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Collective Narcissism and the Growth of Conspiracy Thinking over the Course of the 2016 United States Presidential Election: A Longitudinal Analysis

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The datasets and code needed to replicate our results can be found at the following link:

<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/LW0GTR>

### **Abstract**

Using data from a longitudinal study of American adults collected between July and November 2016, we examine the hypothesis that American collective narcissism would uniquely predict increases in conspiracy thinking during the 2016 presidential campaign. Going beyond previous findings, our results indicate that collective narcissism (but not in-group identification) predicted growth in general conspiracy thinking—i.e., a tendency to view political events in terms of group-based conspiracies—over the course of the 2016 U.S. presidential campaign. This relationship is found even after accounting for other predictors such as demographics, political knowledge, social trust, authoritarianism, and need for cognitive closure.

Keywords: Collective narcissism, conspiracy thinking, presidential campaign

Conspiracy theories are explanations for events that—typically without evidence—assume secretive, malevolent plots involving multiple actors: a mysterious ‘them’ who ‘run’ things and work against ‘us’ (Abalakina-Paap, Stephan, Craig & Gregory, 1999; Goertzel, 1994). Believing in conspiracy theories may satisfy psychological needs for certainty, security, and a positive self-image (Douglas, Sutton & Cichocka, 2017). The tendency to endorse specific conspiracy theories about malevolent actions of specific out-groups has been linked to *collective narcissism*, an exaggerated in-group esteem contingent on external validation (Cichocka, Marchlewska & Golec de Zavala, 2015; Golec de Zavala & Cichocka, 2012). Going beyond such findings, the present study investigates whether collective narcissism predicts a *general* tendency towards conspiracy thinking—i.e., a predisposition to believe that a small group of people uses secretive means to usurp power and cause harm (Brotherton, French & Pickering, 2013; Imhoff & Bruder, 2014; Uscinski, Klofstad & Atkinson, 2016). To this end, we examine whether collective narcissism predicts *increases* in general conspiracy thinking over the course of the 2016 U.S. presidential campaign, which exposed the public to many instances of conspiracist ideation implicating national integrity (Reicher & Haslam, 2017; Samuelsohn, 2016). We posit that the antagonism between ‘us’ and ‘them’ underlying conspiracy theories (van Prooijen & van Lange, 2014) appeals to collective narcissists because it fits their characteristic intergroup hostility (Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009; Golec de Zavala, in press).

### **Collective Narcissism and Conspiracies**

Collective narcissism (CN) is an exaggerated belief in the in-group’s greatness that depends on external validation from others. Individuals high in CN constantly seek such validation and react

aggressively to threats to the in-group's image. Accordingly, those high in CN react with intergroup aggression when the in-group is criticized or insufficiently recognized (Golec de Zavala et al., 2009; Golec de Zavala, Cichocka & Iskra-Golec, 2013; Golec de Zavala, Pekker, Guerra, & Baran, 2016). Though correlated with other variables related to national identification (such as blind patriotism and nationalism; Kosterman & Feshbach, 1989; Schatz, Staub, & Lavine 1999; patriotism or in-group satisfaction, Leach, et al., 2008), national CN predicts intergroup hostility even after these other variables are controlled for. Indeed, other measures of national identification often cease to explain hostile retaliation to in-group criticism once CN is accounted for (Golec de Zavala et al. 2013, 2016).

CN predicts a tendency to believe conspiracy theories about malevolent actions of specific out-groups against the in-group. For example, Polish collective narcissism predicts a belief that Western countries conspired to undermine the significance of Polish (in comparison to German) contribution to the collapse of Eastern European communist regimes. American collective narcissists believe that foreign governments engage in conspiracies (Cichocka, Marchlewska, Golec de Zavala & Olechowski, 2016). However, recent studies suggest that collective narcissism may be also related to belief in conspiracies involving fellow (but politically opposed) members of the national in-group. Those studies linked CN to voting for populist parties and politicians (Federico & Golec de Zavala, 2018; Golec de Zavala, Guerra & Simão, 2017; Marchlewska, et al., 2017). A common denominator of populist rhetoric is a righteous proclamation of one political group as the only 'true' and legitimate representative of the nation and hostile rejection of all (including co-nationals) who disagree with its vision of the nation (Müller, 2016). In this vein, Polish CN was related not only to support for the populist Law and Justice (*Pravo i Sprawiedliwość*, Marchlewska, et al., 2017), but also to hostility towards its political opponents within the same national in-group (Golec de Zavala, et al., 2016, Golec de Zavala, in press).

While instructive, previous studies focusing on the link between CN and endorsement of specific conspiracy theories about specific out-groups neglect the possibility that collective narcissists may also adopt a broadly conspiracy worldview capable of facilitating endorsement of specific conspiracy theories (Miller, Saunders & Farhart, 2016; Uscinski, et al., 2016). In this vein, we argue that CN should also predict a *general* tendency towards conspiracy thinking that assumes that there is a ‘them’ that is after ‘us’ in the context of events both between and within in the nation (Uscinski, et al., 2016; van Prooijen & van Lange, 2014). A broad conspiracy style like this fits the general tendency of those high in CN to adopt a posture of intergroup hostility across multiple group distinctions (not just national ones; Golec de Zavala, in press). Moreover, such thinking may appeal to collective narcissists because it provides a focused, simple explanation for why others fail to acknowledge the ingroup’s greatness (Golec de Zavala, et al., 2009). It justifies constant vigilance and retaliation in the face of perceived threats to in-group’s importance, as well as providing a sense that the in-group is important enough to attract conspiracy attacks. We also argue that collective narcissists’ tendency toward general conspiracy thinking should increase in the presence of conspiracy cues that touch on themes of threat (whether from inside or out) to national institutions or identity. As we note below, these were especially evident during the 2016 American presidential election, making the latter an excellent context for study.

### **The Present Study**

In the present study, we test our hypotheses examining whether American CN predicted an increase in general conspiracy thinking over the course of the 2016 United States presidential election. This context provides an ideal setting for such an investigation, given that conspiracy endorsement increases during political campaigns (Kofta & Sedek, 2005). In addition, the 2016 election was specifically awash in conspiracy allegations about bias and electoral interference involving domestic and foreign actors on various sides (e.g., Samuelsohn, 2016) and rhetoric

implying that victory by one's opponents posed a fundamental threat to all that was good about the nation (Reicher & Haslam, 2017). Given that these threats implicate national identity and institutions linked to it (e.g., elections), those high in national CN should become increasingly involved in conspiracy thinking over the campaign.

Our study also adds to current knowledge by (1) using a longitudinal design to examine not only cross-section relationship but change in conspiracy thinking during the campaign and (2) using a larger, more representative sample of participants than previous studies of CN and conspiracy theories. To isolate the role of CN as a predictor of changes in conspiracy thinking, we controlled for numerous covariates. Besides demographics (age, income, gender, race), these included variables that overlap both with collective narcissism and a tendency to view the world in conspiracy terms. Because positive in-group identification correlates with CN but has opposite effects on conspiracy endorsement (Cichocka et al., 2016), we controlled for *national in-group identification*. We also controlled for *education* and *political knowledge*, since CN (Golec de Zavala, et al., 2009) and conspiracy endorsement (Berinsky, 2012; Goertzel, 1994) are higher among those low in education and political sophistication.

In addition, previous studies suggest that conspiracy thinking is positively related to paranoid thinking (e.g., Cichocka et al., 2015) and negatively related to trust (Abalakina-Papp et al., 1999; Goertzel, 1994); and that CN is weakly and inconsistently associated with paranoid thinking (Cichocka et al., 2015) but negatively associated with connectedness and trust (Golec de Zavala, in press) after its overlap with non-contingent in-group satisfaction is accounted for. Thus, we also controlled for respondents' *levels of social trust*. Following recent work (e.g., Miller et al., 2015), we also included controls for *political ideology* and *ideological extremity*. These controls account for findings suggesting that CN correlates with political conservatism (Golec de Zavala, et al, 2009) and that conspiracy endorsement correlates with individuals' political attitudes (though the direction varies;

Berinsky, 2015; Miller, et al., 2015). Finally, previous research suggests individuals who are sensitive to existential and epistemic threats tend endorse conspiracy theories more strongly (Abalakina-Paap et al., 1999, Swami, 2012; Swami & Coles, 2010) and show higher levels of CN (Golec de Zavala et al., 2009). To account for sensitivity to such threats, we also included measures of *authoritarianism* and the *need for cognitive closure*. Authoritarianism is a general preference for obedience and conformity (Altemeyer, 1998; Stenner, 2005). It correlates reliably with both conspiracy thinking (Abalakina-Paap, et al., 1999) and CN (e.g. Golec de Zavala et al., 2009, 2016). The need for closure is a motivation to seize and freeze on any opinion rather than accepting uncertainty (Webster & Kruglanski, 1996). Like authoritarianism, it is related to both conspiracy thinking (Marchlewska, Cichocka & Kossowska, 2017) and CN (Golec de Zavala, et al., 2009).

## Methods

### Data

Our data came from a four-wave panel study of American adults commissioned by the University of Minnesota's Center for the Study of Political Psychology. The data were collected online through Survey Sampling International (SSI). Our analyses rely on data from Waves 1 (collected 1-18 July 2016) and 4 (collected 14-17 November 2016, post-election),  $N=1,685$ ; final sample sizes vary across analyses due to missing cases. The data provide a representative sample of the US population once survey weights are applied. Sampling details and further item information can be found in the online appendix.

### Key Dependent and Independent Variables

**Conspiracy thinking** was measured by four items developed by Usciniski, Klofstad, and Atkinson (2016) referring to the belief in secret, influential political actions by unspecified groups: "Much of our lives are being controlled by plots hatched in secret places," "Even though we live in a democracy, a few people will always run things anyway," "The people who really 'run' the country



are not known to the voters,” and “Big events like wars, economic recessions, and the outcomes of elections are controlled by small groups of people who are working in secret against the rest of us.” All items used a five-point scale ranging from *strongly disagree* (1) to *strongly agree* (5). The measures were administered in Waves 1 and 4. Responses were recoded to run from 0 to 1 and averaged to form scales; higher scores indicate greater Conspiracy thinking ( $\alpha=0.82$ ,  $M=0.56$ ,  $SD=0.23$ , in Wave 1;  $\alpha=0.83$ ,  $M=0.57$ ,  $SD=0.23$ , in Wave 4).

**Collective narcissism** was measured in Wave 4 using five items: “If the United States had a major say in the world, the world would be a much better place,” “The United States deserves special treatment,” “It really makes me angry when others criticize the United States,” “Not many people seem to fully understand the importance of the United States,” and “I will never be satisfied until the United States gets the recognition it deserves” (Golec de Zavala, Cichocka, & Bilewicz 2013). All items used a seven-point scale ranging from *strongly disagree* (1) to *strongly agree* (7). Responses were recorded to run from 0 to 1 and averaged; higher scores indicate greater CN ( $\alpha=0.83$ ,  $M=0.56$ ,  $SD=0.20$ ).

### Control Variables

Control variables were measured in Wave 1 and rescaled to run from 0 to 1. Full question wordings can be found in the online appendix.

**Demographics** included: *age* (in its original metric), *income* (rescaled from 0 to 1), *gender* (0=female, 1=male), *education* (seven ordered categories, rescaled to run 0 to 1), and *race* (0=nonwhite, 1=white).

**American identification** was assessed by one item, following previous work: “I generally consider myself to be (1) like most other Americans or (0) different than most other Americans” (Golec de Zavala, Cichocka and Bilewicz 2013).

**Social trust** was assessed using a five-item measure of trust in social institutions. These items asked how much of the time the respondent felt they could trust the federal government, law enforcement, the media, people in general, and experts to “do what is right.” All items used a four point scale ranging from *almost always* (1) to *never* (4). The items were reversed and averaged; higher scores indicate greater trust ( $\alpha=0.75$ ,  $M=0.45$ ,  $SD=0.16$ ).

**Political knowledge** was assessed using four multiple-choice items that asked about the office held by Paul Ryan, which party controlled the House of Representatives, the length of a senator’s term, and whose responsibility it is to nominate federal judges (e.g., Delli Carpini & Keeter, 1996). Items were scored on a 0 (incorrect) or 1 (correct) basis and averaged. Higher scores indicate greater political knowledge ( $\alpha=0.55$ ,  $M=0.70$ ,  $SD=0.28$ ).

**Ideology and ideological extremity.** *Ideology* was measured using a standard seven-point scale ranging from *extremely liberal* (1) to *extremely conservative* (7). Higher scores indicate greater conservatism ( $M=0.53$ ,  $SD=0.28$ ). The *ideological extremity* measure was constructed by folding the ideology scale at its midpoint and recoding the folded scale to range from 0 to 1. Higher scores indicate greater extremity ( $M=0.43$ ,  $SD=0.36$ ).

**Authoritarianism** was measured using Stenner’s (2005) four-item childrearing values scale, which measures the predisposition to authoritarianism apart from its political consequences. Higher scores indicated greater authoritarianism ( $\alpha=0.61$ ,  $M=0.55$ ,  $SD=0.32$ ).

**Need for closure** was measured using six items from Pierro and Kruglanski’s (2006) short version of the Need for Closure Scale. All items used a six-point scale ranging from *strongly disagree* (1) to *strongly agree* (6). Responses to the items were averaged; higher scores indicated greater need for closure ( $\alpha=0.86$ ,  $M=0.45$ ,  $SD=0.20$ ).

## Results

### Preliminary Analyses

As the intercorrelations between key variables in Table 1 indicate, respondents who showed more conspiracy thinking in July tended to show more in November as well. Higher levels of American identification, trust, and political knowledge were associated with reduced conspiracy thinking in both July and November, whereas higher levels of authoritarianism and need for closure were associated with greater conspiracy thinking at both time points. Conservatism was associated with greater conspiracy thinking in November but not July, and ideological extremism was associated with reduced conspiracy thinking in July but not November. Finally, as expected, collective narcissism was associated with greater conspiracy thinking in both July and November. This correlation was stronger in November than in July ( $r=0.24$  versus  $r=0.09$ ; Steiger's  $Z=6.381$ ,  $p<0.001$ ), suggesting that the campaign may have strengthened the tendency for those high in collective narcissism to adopt general conspiracy thinking.

### **Collective Narcissism and Changes in Conspiracy Thinking over the 2016 Campaign**

We hypothesized that collective narcissism would be related to increased conspiracy thinking over the course of the campaign. To examine this prediction, we estimated two ‘conditional-change’ models in which conspiracy thinking in November 2016 was regressed on collective narcissism while controlling for respondents’ lagged value of conspiracy thinking from July 2016 (Finkel, 1995, equation 2.5). Including lagged conspiracy thinking helps correct for potential endogeneity and omitted-variable bias. Coefficients represent change in the dependent variable over time as a function of each predictor. Ordinary least-squares was used to estimate both models, and survey weights were applied. Since some suggest that conditional-change models are not optimal for the analysis of panel data (Hamaker, Kuiper, & Grasman, 2015), we replicated our analysis using a latent change score model (McArdle, 2009). The results were substantively identical and can be found in the online appendix.

The estimates from both models are summarized in Table 2. Model 1 included only lagged conspiracy thinking and CN. Conspiracy thinking in July strongly predicted conspiracy thinking in November. Net of this, CN was associated with increased conspiracy thinking over the fourth months. Given the 0-1 variable codings, the estimate indicates that going from the lowest to the highest level of CN was associated with a 21% increase in conspiracy thinking from July to November.

Model 2 adds the controls. Consistent with the idea that those high in existential and epistemic needs for security, certainty, and order may be more prone to conspiracies (Douglas, et al., 2017), authoritarianism and need for closure were associated with increased conspiracy thinking over time. Consistent with the idea that conspiracy theories are especially appealing to those who feel they are losing politically (Uscinski & Parent, 2014), ideological liberalism was associated with growth in conspiracy thinking. Third, consistent with the idea that positive social identification is associated with reduced conspiracy endorsement once CN is accounted for (Cichocka et al., 2015), American identification was associated with decreased conspiracy thinking over the campaign.

More importantly, the effect of CN held up even after consideration of these covariates. Of the independent variables included in our study, CN was the strongest predictor of changes in Conspiracy thinking in the full model. Since all variables are coded to run from 0 to 1, the coefficients in Model 2 can be directly compared (Baguley, 2009). Net of the controls, going from the lowest to the highest level of CN was associated with a 24% increase in Conspiracy thinking over the fourth months. To provide additional illustration of the size of this effect vis-à-vis those of the other predictors, we present standardized regression coefficients for all predictors other than lagged conspiracy thinking and the demographics in Table 3 and graphically represent the relationships between each of these predictors and changes in conspiracy thinking in Figure 1. As the standardized estimates in Table 3 and the plots in Figure 1 indicate, the effect of CN was larger

than all others and twice as large in absolute magnitude as the effect of the next strongest (negative) predictor (American identification).<sup>1</sup> Thus, our data provide strong support for our hypotheses.<sup>2</sup>

### Discussion

Using data from a national longitudinal study of American adults, we found that CN predicted growth in generic conspiracy thinking over the course of the 2016 U.S. presidential election. Moreover, the relationship between CN and increases in conspiracy thinking was robust to controls for demographic variables, education and knowledge, positive identification with the American in-group, social trust, ideology and ideological extremity, authoritarianism, and need for closure. Indeed, the predictive power of CN exceeded that of all these covariates. Thus, our results suggest that CN in the American context had a unique and dynamic influence on growth in Conspiracy thinking during the 2016 election campaign.

Importantly, the panel structure of our data allowed for stronger inferences about change than previous studies of the relationship between CN and specific conspiracy theories. Another strength of our analysis is that it relies on a larger, more representative sample than previous

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<sup>1</sup> An alternative hypothesis, based on the idea that in-group misfortune amplifies conspiratorial thinking, is that CN should be more strongly associated with growth in conspiratorial thinking among those who lost the election—respondents on the left, in this case. To explore this possibility, we re-estimated Model 2 with the CN  $\times$  Ideology interaction added. This interaction was small and non-significant ( $b=0.08$ ,  $SE=0.14$ ,  $p>0.250$ ). Thus, CN was associated with growth in conspiratorial thinking similarly across ideology. We believe this pattern is consistent with the presence of rhetoric in 2016 that may have activated conspiracism among collective narcissists on all sides.

<sup>2</sup> In the online appendix, we also present analyses that correct for measurement error in several independent variables. These results are largely identical to those shown here.

research on CN and conspiracy-related variables. Our study focuses on a sizable sample of adult respondents, surveyed amidst a real-world political campaign, providing advantages over the student and Mechanical Turk samples used in previous research. Most importantly, while previous studies showed that CN was related to endorsement of specific conspiracy theories explaining particular hardships experienced by the in-group (Cichocka et al., 2016; Golec de Zavala & Cichocka, 2012), the present study showed that CN predicts changes in the generic predisposition to think in conspiracy terms. Thus, while previous studies showed that CN predicts beliefs that specific out-groups engaged in secretive, malevolent actions (Cichocka, et al., 2015), our findings indicate that CN predicts a more general predilection towards conspiracy thinking—that is, an essentially content-free tendency to believe that malevolent, secretive ‘them’ conspire against ‘us’ to cause harm (Uscinski et al., 2016). Such results suggest that collective narcissism with reference to any in-group should be related to general conspiracy thinking and in-groups and out-groups featured can be redefined depending on current intergroup context.

There are several reasons why CN may predict general conspiracy thinking. Such thinking in its essence always assumes intergroup antagonism of the sort that individuals high in CN are prone to (van Prooijen & van Lange, 2014). A convergent body of findings indicate that CN predicts hostile intergroup attitudes and behaviors, especially in retaliation to offences to the in-group, both past and present and actual and imagined (Cichocka, 2016; Golec de Zavala, in press). The hypersensitivity of those high in CN to in-group image threat may fuel a general tendency to engage in conspiracy explanations of what collective narcissists believe—that their in-group is constantly threatened and under attack. Thus, conspiracy thinking may have an ‘elective affinity’ (Jost, Federico, & Napier, 2009) with the motivations of those high in CN. It provides safe, externalizing explanations for in-group’s lack of sufficient recognition and provides a sense that the in-group is significant and unique by virtue being a target of secretive plots and attacks.

Importantly, our results imply that the conspiracy thinking associated with collective narcissism may evolve and become more extreme in response to increased salience of information that seemingly confirms collective narcissists' vision of intergroup relations. A similar dynamic is suggested by recent work on the relationship between CN and political extremism. Collective narcissists exposed to contexts that ideologically normalize radicalism are more likely to show extreme intergroup hostility (Jaśko, Weber, & Kruglanski, 2017). This suggests that certain environments may enable collective narcissists to openly express their intergroup hostility. In a similar fashion, the results of the present study suggest that some political campaigns characterized by frequent conspiracy rhetoric may legitimize the Conspiracy thinking collective narcissists appear to be prone to.

Despite the abovementioned strengths, our study is not without limitations. First, although we controlled for a number of relevant variables, we were unable to include a measure of individual narcissism due to survey-length considerations. Previous studies suggest that individual narcissism is related to general conspiracy thinking, while CN predicts the belief in conspiracies involving out-groups and intergroup antagonism (Cichocka, et al. 2015; Golec de Zavala, in press). Thus, some portion of the variation in conspiracy thinking that we observe may actually be accounted for by individual narcissism. However, given that our conspiracy thinking index specifically implicates intergroup antagonism, we are confident that we would observe a net relationship between CN and the former even given inclusion of individual narcissism as a control.

Second, inferences about the directionality of the effects in our study must be made with caution. Although our longitudinal design and use of a conditional-change model helps rule out the possibility of feedback effects, one concern is that CN was measured in the final wave of the survey rather than the first. Unfortunately, logistical constraints made it impossible to include CN in an earlier wave. Though our specification can be used in longitudinal modeling, estimates may be more

biased if CN changes over time (Finkel, 1995, p. 13). However, previous work suggests that CN is relatively stable over time (Federico & Golec de Zavala, 2018; details in the online appendix), ameliorating this concern. Nevertheless, replications using a more-optimal design are advised. Future studies will do well to deal with this and the other concerns we outline above.

### References

- Abalakina-Paap M., Stephan W., Craig T. & Gregory W.(1999). Beliefs in Conspiracies. *Political Psychology* 20, 637–47.
- Altemeyer, B. (1998). The other “authoritarian personality”. *Advances in Experimental Social Psychology*, 30. 47-92.
- Baguley, T. (2009). Standardized or simple effect size: What should be reported? *British Journal of Psychology*, 100, 603–617. <http://dx.doi.org/10.1348/000712608X377117>
- Berinsky, A. J. (2012). Rumors, truths, and reality: A study of political misinformation. Massachusetts Institute of Technology. <http://web.mit.edu/berinsky/www/files/rumor.pdf>.
- Berinsky, A. (2015). Rumors and health care reform: experiments in political misinformation. *British Journal of Political Science*, 47, 241-262
- Brotherton, R., French, C., Pickering, A. (2013). Measuring belief in conspiracy theories: The Generic Conspiracist Beliefs scale. *Frontiers in Psychology* 4, 279
- Cai, H., & Gries, P. (2013). National narcissism: Internal dimensions and international correlates. *PsyCh Journal*, 2, 122-132.
- Cichocka, A. (2016). Understanding defensive and secure in-group positivity: The role of collective narcissism. *European Review of Social Psychology*, 27, 283-317.  
doi:10.1080/10463283.2016.1252530
- Cichocka, A., Golec de Zavala, A., Marchlewska, M., Bilewicz, M., Jaworska, M., & Olechowski, M.



- (2017). Personal control decreases narcissistic but increases non-narcissistic in-group positivity. *Journal of Personality*. DOI: 10.1111/jopy.12328
- Cichocka, A., Marchlewska, M., & Golec de Zavala, A. (2015). Does self-love or self-hate predict conspiracy beliefs? Narcissism, self-esteem and the endorsement of conspiracy theories. *Social Psychological And Personality Science*. doi:10.1177/1948550615616170
- Cichocka, A., Marchlewska, M., Golec de Zavala, A., & Olechowski, M. (2016). “They will not control us”: In-group positivity and belief in intergroup conspiracies. *British Journal of Psychology*, 107, 556–576. doi:10.1111/bjop.12158
- Delli Carpini, M. X., & Keeter, S. (1996). *What Americans know about politics and why it matters*. New Haven, CT: Yale University Press.
- Douglas, K., Sutton, R., & Cichocka, A. (2017). The psychology of conspiracy theories. *Current Directions in Psychological Science*, 26, 538 – 542. doi:10.1177/0963721417718261
- Duckitt, J. (2006). Differential effects of right wing authoritarianism and social dominance orientation on outgroup attitudes and their mediation by threat from and competitiveness to outgroups. *Personality and Social Psychology Bulletin*, 32, 684-696.
- Federico, C. M. & Golec de Zavala, A. (2018). Collective narcissism and the 2016 United States presidential vote. *Public Opinion Quarterly*, 82, 110–121. doi: 10.1093/poq/nfx048
- Finkel, S. E. (1995). *Causal analysis with panel data*. Sage Publications: Thousand Oaks, CA.
- Goertzel, T. (1994). Belief in conspiracy theories. *Political Psychology* 15, 731–742 doi: 10.2307/3791630
- Golec de Zavala, A. (2018, in press). Collective narcissism: antecedents and consequences of exaggeration of the in-group image. In Hermann, A., Brunell, A., & Foster, J. (Eds.) *The Handbook of Trait Narcissism: Key Advances, Research Methods, and Controversies*. Springer
- Golec de Zavala, A., & Cichocka, A. K (2012). Collective narcissism and anti-Semitism in Poland.

*Group Processes and Intergroup Relations*, 15(2), 213-229. doi: 10.1177/1368430211420891

Golec de Zavala, A., Cichocka, A., & Bilewicz, M. (2013). The paradox of in-group love:

Differentiating collective narcissism advances understanding of the relationship between in-group and out-group attitudes. *Journal of Personality*, 81(1), 16-28.

Golec de Zavala, A., Cichocka, A., Eidelson, R., & Jayawickreme, N. (2009). Collective narcissism and its social consequences. *Journal of Personality and Social Psychology*, 97(6), 1074-1096. doi: 10.1037/a0016904

Golec de Zavala, A., Cichocka, A., & Iskra-Golec, I. (2013). Collective narcissism moderates the effect of in-group image threat on intergroup hostility. *Journal of Personality and Social Psychology*, 104, 1019-1039. doi: 10.1037/a0032215

Golec de Zavala, A., Pekker, M., Guerra, R., & Baran, T. (2016). Collective narcissism predicts hypersensitivity to in-group insult and direct and indirect retaliatory intergroup hostility. *European Journal of Personality*. doi: [10.1002/per.2067](https://doi.org/10.1002/per.2067)

Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. P. P. (2015). A critique of the cross-lagged panel model. *Psychological Methods*, 20(1), 102-116. doi: 10.1037/a0038889

Imhoff, R. & Bruder, M. (2014). Speaking (Un-)truth to power: Conspiracy mentality as a generalised political attitude. *European Journal of Personality*, 28, 25–43

Jaśko, K., Webber, D., & Kruglanski, A., (2017) Relative effects of individual and group-based quest for significance on violent extremism depends on the social context. Paper presented at the Annual Meeting of European Association of Social Psychology, Granada, Spain

Jost, J. T., Federico, C. M. & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology*, 60, 307-333.

Kofta, M., & Sędek, G. (2005). Conspiracy stereotypes of Jews during systemic transformation in Poland. *International Journal of Sociology*, 35(1), 40-64.

Kosterman, R., & Feshbach, S. (1989). Toward a measure of patriotic and nationalistic attitudes.

*Political Psychology, 10*, 257-274.

Lyons, P. A., Coursey, L. E., & Kenworthy, J. B. (2013). National identity and group narcissism as predictors of intergroup attitudes toward undocumented Latino immigrants in the United States. *Hispanic Journal of Behavioral Sciences, 35*, 323-335. doi: 10.1177/0739986313488090

Marchlewska, M., Cichočka, A., & Kossowska, M. (2017). Addicted to answers: Need for cognitive closure and the endorsement of conspiracy beliefs. *European Journal Of Social Psychology*. doi:10.1002/ejsp.2308

McArdle, J. J. (2009). Latent variable modeling of differences and changes with longitudinal data.

*Annual Review of Psychology, 60*, 577–605.

Miller, J., Saunders, K., & Farhart, C. (2016). Conspiracy endorsement as motivated reasoning: The moderating roles of political knowledge and trust. *American Journal of Political Science, 60*, 824–844.

Musgrave, D. (2017). Donald Trump is normalizing paranoia and conspiracy thinking in the U.S.

politics. [https://www.washingtonpost.com/posteverything/wp/2017/01/12/donald-trump-has-brought-us-the-american-style-in-paranoid-politics/?utm\\_term=.816bed176139](https://www.washingtonpost.com/posteverything/wp/2017/01/12/donald-trump-has-brought-us-the-american-style-in-paranoid-politics/?utm_term=.816bed176139).

Retrieved 18/07/2017

Müller, J. W. (2016). *What Is Populism?*. University of Pennsylvania Press.

Pierro, A. & Kruglanski, A. W. (2006). *Validation of a revised need for cognitive closure scale*. Unpublished data, Università di Roma, “La Sapienza”.

Reicher, S. & Haslam, A. (2017). The politics of hope: Donald Trump as an Entrepreneur of Identity. In. M. Fitzduf (Ed.) *Why Irrational Politics Appeals: Understanding the Allure of Trump* (pp. 25-40). ABC-CLIO/Praeger

Samuelsohn, D. (2016). A guide to Donald Trump’s ‘rigged’ election.

<http://www.politico.com/story/2016/10/donald-trump-rigged-election-guide-230302>.

Retrieved on 18/07/2017.

Schatz, R. T., Staub, E., & Lavine, H. (1999). On the varieties of national attachment: Blind versus constructive patriotism. *Political Psychology, 20*, 151-174.

Stenner, K. 2005. *The authoritarian Dynamic*. Cambridge: Cambridge University Press.

Swami, V., & Coles, R. (2010). The truth is out there: Belief in conspiracy theories. *The Psychologist, 23*, 560-563.

Swami V. (2012). Social psychological origins of conspiracy theories: the case of the Jewish conspiracy theory in Malaysia. *Frontiers in Psychology, 3*, 280. Doi: 10.3389/fpsyg.2012.00280

Uscinski, J., Klobstad, C. & Atkinson, M. (2016). What Drives Conspiracy Beliefs? The Role of Informational Cues and Predispositions. *Political Research Quarterly, 69*, 55-71

Uscinski, J., & Parent, J. (2014). *American conspiracy theories*. New York: Oxford University Press.

Van Prooijen, J. W., & van Lange, P. A. (2014). The social dimension of belief in conspiracy theories. In van Prooijen J.-W. & van Lange P. A. M. (Eds.), *Power, politics, and paranoia. Why people are suspicious of their leaders*. Cambridge, UK: Cambridge University Press.

Table 1. Intercorrelations for Key Variables (2016 CSPP)

	1	2	3	4	5	6	7	8	9
1. Conspiracy Thinking (July 2017)	1.00								
2. Conspiracy Thinking (Nov. 2016)	0.56***	1.00							
3. Collective Narcissism	0.24***	0.09***	1.00						
4. American Identification	-0.15***	-0.07**	0.14***	1.00					
5. Social Trust	-0.18***	-0.28***	0.11***	0.18***	1.00				
6. Political Knowledge	-0.19***	-0.13***	-0.16***	0.09***	0.07**	1.00			
7. Ideology	0.01	0.12***	0.28***	0.12***	-0.08**	0.05†	1.00		
8. Ideological Extremity	-0.08***	-0.01	0.01	0.02	0.09***	0.06***	0.17***	1.00	
9. Authoritarianism	0.17***	0.11***	0.29***	0.09***	-0.03	0.05***	-0.19***	0.01	1.00
10. Need for Closure	0.24***	0.19***	0.31***	0.01	0.02	0.31***	-0.21***	-0.11***	0.11***

Note. † $p < 0.10$ . \* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

Table 2. Changes in Conspiracy Thinking as a Function of Collective Narcissism (2016 CSPP)

Predictor	Conspiracy Thinking (November 2016)					
	Model 1			Model 2		
	<i>B</i>	<i>95% CI</i>	<i>P</i>	<i>b</i>	<i>95% CI</i>	<i>p</i>
<b>Lagged Conspiracy Thinking (July 2016)</b>	<b>0.54</b>	<b>(0.45, 0.63)</b>	<b>&lt;0.001</b>	<b>0.50</b>	<b>(0.42, 0.58)</b>	<b>&lt;0.001</b>
<b>Collective Narcissism</b>	<b>0.21</b>	<b>(0.11, 0.31)</b>	<b>&lt;0.001</b>	<b>0.24</b>	<b>(0.15, 0.32)</b>	<b>&lt;0.001</b>
Age	--	--	--	-0.05	(-0.11, 0.02)	0.141
Income	--	--	--	-0.07	(-0.13, -0.002)	0.045
Gender (1 = male)	--	--	--	-0.01	(-0.04, 0.01)	>0.250
Education	--	--	--	0.0001	(-0.06, 0.06)	>0.250
Race (1 = white)	--	--	--	-0.03	(-0.07, 0.01)	0.096
American Identification	--	--	--	-0.05	(-0.09, -0.02)	<0.001
Social Trust	--	--	--	-0.05	(-0.15, 0.05)	>0.250
Political Knowledge	--	--	--	0.01	(-0.04, 0.05)	>0.250
Ideology	--	--	--	-0.09	(-0.14, -0.03)	0.002
Ideological Extremity	--	--	--	-0.03	(-0.06, 0.01)	0.211
Authoritarianism	--	--	--	0.05	(0.01, 0.10)	0.024
Need for Closure	--	--	--	0.07	(-0.01, 0.14)	0.068
Intercept	0.14	(0.09, 0.20)	<0.001	0.29	(0.20, 0.38)	<0.001
<i>R</i> <sup>2</sup>	0.337			0.407		
<i>F</i> (df)	138.18 (2, 1683), <i>p</i> <0.001			44.06 (14, 1619), <i>p</i> <0.001		
<i>N</i>	1685			1633		

Note. Entries are ordinary least-squares regression coefficients. Survey weights were applied.

Table 3. Standardized Coefficients for Key Predictors in the Full Model (2016 CSPP)

Predictor	$\beta$
<b>Collective Narcissism</b>	<b>0.22</b>
American Identification	-0.11
Social Trust	-0.04
Political Knowledge	0.01
Ideology	-0.10
Ideological Extremity	-0.04
Authoritarianism	0.08
Need for Closure	0.07

*Note.* Entries are standardized ordinary least-squares regression coefficients from Model 2 in Table

2. Survey weights were applied.

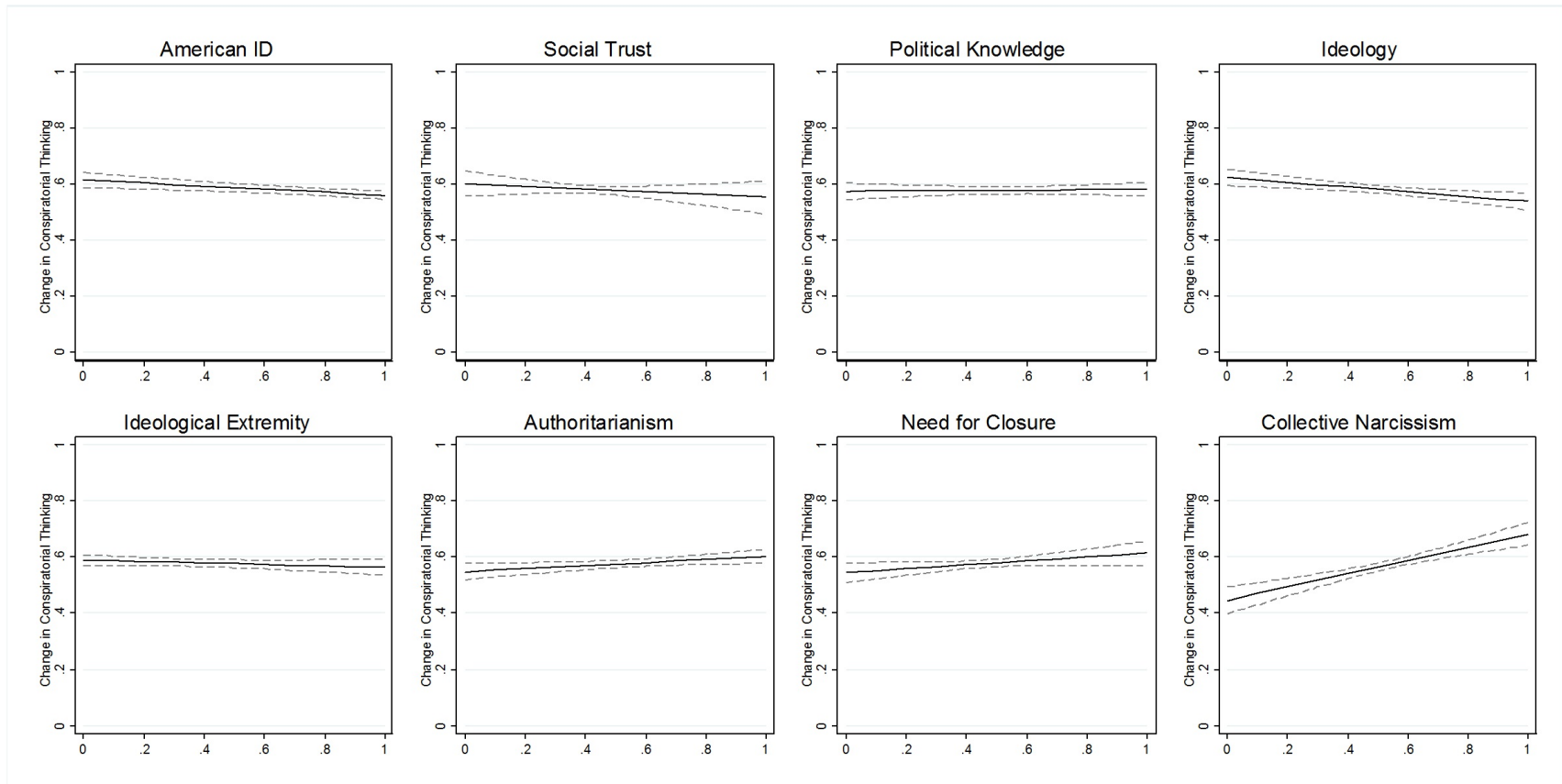


Figure 1. Changes in Conspiracy thinking as function of selected predictors, July 2016 to November 2016. Predicted values based on estimates from Model 2 in Table 2.