Agentic Collective Narcissism and Communal Collective Narcissism: Do They Predict COVID-19 Pandemic-Related Emotions, Beliefs, and Behaviors?

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Data Availability Statement

The manuscript is part of the project: COVID-19, Personality and Quality of life: Self-enhancement in the Time of the Pandemic (preregistered at: https://osf.io/hpwbj/). Datasets, codes, and Supplementary Material, can be found at https://osf.io/m9atn/?view_only=8363457afcfe40fe93d6df2f5c2711b6.

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Abstract

A multinational study (61 countries; *N*=15,039) examined how collective narcissists, both agentic (ACN) and communal (CCN), reacted emotionally (with fear), cognitively (through endorsement of unfounded beliefs), and behaviorally (via prevention, hoarding, and prosociality) to the pandemic. Higher ACN and CCN predicted greater fear of COVID-19, greater endorsement of unfounded COVID-19 conspiracy and health beliefs, and) increased likelihood of having recently engaged in pandemic-linked preventive, hoarding, and prosocial behaviors. The predictive effects of ACN and CCN were independent, suggesting construct separability. Fear positively predicted endorsement of unfounded beliefs and behaviors, but the slope of that relation was flattened when ACN and CCN were particularly high. Finally, the relation between ACN or CCN and outcomes changed across countries varying in collective fear.

Keywords: collective narcissism, COVID-19, unfounded beliefs, prevention behavior, hoarding behavior, prosocial behavior

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Agentic Collective Narcissism and Communal Collective Narcissism: Do They Predict COVID-19 Pandemic-Related Emotions, Beliefs, and Behaviors?

The COVID-19 pandemic threatened individual and collective safety (Ahorsu et al., 2022; Fofana et al., 2020). This threat instigated many changes in psychology and behavior, both at the group level (e.g., closing offices) and at the individual level (Galea et al., 2020; Sternisko et al., 2023). However, as in most circumstances, despite widespread emergence of such alterations, it was also the case that psychological responses and behavioral responses to the pandemic varied across individuals. For example, not everyone wore masks and not everyone experienced fear of COVID-19. Our research examines reasons underlying such individual differences in responses to the pandemic.

One relevant individual difference is narcissism. Conceptual and empirical forays (Emmons, 1984, 1987; Raskin & Hall, 1979) attributed to narcissism a suite of characteristics that included (a) a grandiose sense of importance, (b) lack of empathy, (c) need for excessive admiration, and (d) a belief of uniqueness and entitlement. These characteristics are of obvious potential relevance to the circumstances of the pandemic. They suggest, for example, that, in comparison to those low in narcissism, high narcissists (a) regard the pandemic as an especially potent threat to themselves, (b) perceive themselves as deserving of priority in administrations of vaccines or drugs, and (c) are especially likely to engage in pandemic-linked hoarding behaviors.

However, this relatively straightforward picture of narcissists and the pandemic has been complicated by contemporary developments advocating that narcissism comes in different forms (Herman et al., 2018; Sedikides, 2021). Collective narcissism, focusing on the group or national level, is one such form (Golec de Zavala et al., 2009, 2023). It reflects group exceptionality in the agentic domain. Items, for example, of the Collective Narcissism Scale (Golec de Zavala et al., 2009) express such beliefs as “Not many people seem to fully understand the importance of my group” and “My group deserves special treatment.” Due to these beliefs, collective narcissists are especially sensitive to ingroup threat (Guerra et al., 2021; Marchlewska et al., 2020) and strive to maintain values and practices that protect the ingroup (Eker et al., 2022; Golec de Zavala & Keenan, 2021).

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However, collective narcissism has more recently been subdivided into two forms (Żemojtel-Piotrowska et al., 2023). In this subdivision, the original conceptualization and measurement of collective narcissism (Golec de Zavala et al., 2009; see also Cichocka, 2016), now labeled agentic collective narcissism (ACN), was supplemented by a communal form, communal collective narcissism (CCN). Characteristics of communal collective narcissism, as measured via the Communal Collective Narcissism Inventory (Żemojtel-Piotrowska, Piotrowski, Sedikides, et al., 2021), are strong ingroup identification, unrealistically positive beliefs about the ingroup's communal contributions, entitlement about the group's communal worth, and experienced grievance for lack of ingroup recognition. Psychometric testing indeed indicated that scores from the Communal Collective Narcissism Inventory and the scale that assesses agentic collective narcissism (Collective Narcissism Scale; Golec de Zavala et al., 2009) assess two distinct forms of collective narcissism, CCN and ACN. Further, ACN was a better predictor of agentic outcomes, like threat and intergroup hostility, whereas CCN was a better predictor of communal outcomes, like trust and intergroup prosocialness (Żemojtel-Piotrowska et al., 2021, 2023). Therefore, ACN and CCN could be considered parallel, albeit distinct, forms of collective narcissism, similar to agentic and communal individual narcissism (Gebauer & Sedikides, 2018 ; Gebauer et al., 2012).

Variables Predicted by Collective Narcissism

We examined whether and how each collective narcissism form predicted several pandemic-related outcomes. We selected outcome variables that would allow us to replicate and extend past research on responses to the pandemic. These variables were: (a) level of fear induced by COVID (Ahorsu et al., 2022; Sawicki et al., 2022); (b) endorsement of both COVID-related conspiracy beliefs and unfounded COVID-related health beliefs (Brzóska et al., 2023; Imhoff & Lamberty, 2020; Pennycook et al., 2022); (c) enactment frequency of COVID-related behaviors, such as preventions (e.g., handwashing), hoarding (Baddeley, 2020; Dinic & Bodroza, 2021), and prosocial behavior (i.e., helping others; Nowak et al., 2020; Żemojtel-Piotrowska, Piotrowski, Sawicki, et al., 2021).

In one set of analyses, we tested (a) the extent to which the two narcissism forms independently predicted the target emotions, thoughts, or behaviors, and (b) whether these

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predictive effects varied across forms. We expected associations between measured narcissism and all outcome variables, such that greater levels of collective narcissism would be related to (a) high levels of COVID-prompted fear, (b) high endorsement of COVID-linked conspiracy beliefs, (c) high endorsement of unfounded COVID-linked health beliefs, (d) frequent enactment of handwashing, (e) frequent enactment of hoarding behavior, and (f) frequent enactment of helping behavior.

Possible Novel Contributions of Our Research

As mentioned above, these outcomes would all replicate prior findings (for examples, see Federico et al., 2021; Nowak et al., 2020; Sternisko et al., 2023; Żemojtel-Piotrowska, Piotrowski, Sawicki, et al., 2021). However, our research also has the potential for novel contributions.

One such contribution would be made if results obtained for participants high in ACN were duplicated by those high in CCN. Such results would be especially noteworthy if they emerged from analyses in which ACN and CCN were simultaneously entered as predictors, with each construct independently predicting the outcome variables. Moreover, if their utility in explaining different outcomes differed, such results would further indicate that ACN and CCN are both valid but conceptually distinct forms of collective narcissism.

Another potentially novel contribution lies in the nature of the sample: The sample size was large and contained participants from many countries. Thus, significant results ought to be thought of as (a) highly trustworthy and (b) highly generalizable.

An additional potentially novel contribution lies in our consideration of whether and how the relation between an individual's fear level and the outcome variables depends on the individual's level of collective narcissism. Let us note, first, that we expected fear to positively predict the outcome variables. For example, the higher the fear of COVID-19, the more individuals should endorse unfounded beliefs about COVID-19. However, we speculated that this relation might itself depend on an individual's level of collective narcissism. There are at least two views of the form that this moderation might take.

The first view assumes that collective narcissists already have a highly active self-protective system in place (Cichocka et al., 2022; Douglas et al., 2017; Golec de Zavala et al.,

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2020), so they will exhibit greater levels of base rate activity on the outcome variables (e.g., will be especially likely to engage in self-protective actions, will be especially likely to endorse unfounded beliefs). This leads to the prediction that adding fear to this already active system will have less of an impact on those high in collective narcissism than on those low in collective narcissism. Thus, for example, this view suggests that the relation between fear level and the endorsement of unfounded beliefs about COVID should show less elasticity (i.e., should evince a flatter slope) for those high in collective narcissism than for those low in collective narcissism. However, a second possibility is that, because of their greater need for self-protection, those high in collective narcissism may be especially sensitive to situational dangers such as the pandemic. Fear may act to enhance this heightened sensitivity. Thus, for example, this view suggests that the relation between fear level and the endorsement of unfounded beliefs about COVID-19 should evince more elasticity (i.e., should evince a steeper slope) for those high in collective narcissism than for those low in collective narcissism.

The final potentially novel contribution stems from our examination of how the fear level in the country in which an individual resides might be linked to the relations between an individual's collective narcissism levels and the outcome variables. As before, two lines of reasoning lead to different predictions about the form these relations might take.

The first line assumes that fear prompts self-protective responses. Imagine that COVID-19 fear is very high among those who live in the fictional country of Cardassia but very low among those who live in the fictional country of Alderaan. Given the high fear level among Cardassians, there might be a high baseline tendency in the entire populace to engage in self-protective actions and thoughts, such as endorsing unfounded COVID-19 conspiracy beliefs. This will produce considerable shared reality among the populace (Cichocka et al., 2022; Sternisko et al., 2023). Hence, because of the high baseline level of self-protective thoughts and actions in Cardassia, variations in collective narcissism levels across individuals in Cardassia would not have as much of a relation to the endorsement of unfounded COVID-19 conspiracy beliefs as among residents of Alderaan, where the baseline tendency to engage in self-protective thoughts and actions will be weaker. More generally, self-protective

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thoughts and actions will evince greater elasticity in response to variations in fear of COVID-19 levels among residents of low-fear countries (e.g., Alderaan) than among residents of high-fear countries (e.g., Cardassia).

The second line of reasoning leads to a different prediction. This line relies on the idea that heightened fear may prompt collective narcissists to especially desire to believe and act in accordance with their group (be 'good' group members). We further assume that high fear in a country prompts a general trend in the country's population toward a heightened likelihood of endorsing unfounded COVID-19 beliefs and toward more frequent engagement in various COVID-related actions. Given these assumptions, it seems plausible that there could be heightened elasticity in the relations between collective narcissism and the outcome variables (e.g., a steeper slope) in high-fear countries than in low-fear countries. To return to our example, variations in collective narcissism levels across individuals in high-fear Cardassia would have a stronger relation (e.g., greater slope) to endorsement of unfounded COVID-19 conspiracy beliefs than among residents of low-fear Alderaan.

Assorted Project Details

The authors have no conflict of interest to disclose. The project received ethical approval from the first author's institution (KEiB – 32/2020). We follow the Declaration of Helsinki rules for studies involving humans. We report all relevant measures and all data exclusions, and we follow Journal article reporting standards (Kazak, 2018). The authors declare that, following the national law of several countries, there was no direct collaboration between researchers from conflicting countries (where applicable). Datasets, codes, and Supplementary Material (which includes the research protocol) can be found at https://osf.io/m9atn/?view_only=8363457afcfe40fe93d6df2f5c2711b6.

Method

Participants

As part of the international project [MASKED[1]] spanning 61 countries, we collected all data online in 2020 between April 24th and November 20th. We recruited participants via email or posts on Facebook forums devoted to pandemic-related topics. These forums

[1] The project was preregistered. We do not provide the relevant link, because the preregistration was eponymous.

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included a link to the project's website. We recruited in each country's official language. Most participants (M = 96.17%, SD = 6.46%) selected their country's official language as their preferred mode of communication (e.g., Italians selected Italian). Latvians were the exception: Only 64.90% selected Latvian. We did not offer remuneration except to participants from either the Republic of South Africa or the United Kingdom (2GBP/≈2.5USD)[2].

We included in the final data set only responses from participants over the age of 18 and only from those who responded to all measures and who answered correctly all three attention-check items (e.g., "This item aims to check your attention. Please mark 2"). As we were interested in exploring country-level effects, we included a given country in our dataset only if more than 40 residents of that country responded (Snijders, 2005).

Characteristics of the final sample, presented by country, appear in Supplementary Material, Table S1. The sample comprised 15,039 participants (65.66% women, 34.34% men) ranging in age from 18 to 87 years (M = 31.68, SD = 12.35). Their highest education levels varied: Primary school = 0.80%, Secondary school = 30.53%, Bachelor's degree = 38.97%, Master's degree = 23.32%, Ph.D. = 6.39%. We also assessed socioeconomic status ("How would you describe the economic status of your family?": 1 = *much lower than average*, 4 = *average*, 7 = *much higher than average*; M = 4.32, SD = 1.15).

Procedure and Measures

Participants responded to several questionnaires online. They were invited (in their local language) to engage in the study via either email or an announcement on Facebook forums devoted to COVID-related topics that included a link to the project's website, where they could select the link to the survey in their preferred language (out of 35 options)[3]. Therefore, all information was presented in the participant's preferred language.

Whenever possible, we used existing translations. When a new translation was needed, team members who spoke the needed language translated the questionnaire from the original

[2] We lacked funding for data collection. We successfully relied on volunteers in all countries, except for the Republic of South Africa and United Kingdom where local collaborators secured fundings from their home institutions.

[3] Most participants in each country (M = 96.17%, SD = 6.46%) selected the country's official language (e.g., Italians selected Italian). Latvians were the exception: Only 64.90% of them selected Latvian. We distributed invitations and announcements in official languages.

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language to the desired language using a back-translation procedure (Brislin, 1970). The questionnaires appeared in a random order, separately determined for each participant.

Collective Narcissism: Agentic and Communal

We worded all collective narcissism items such that the participant's nation was the target group. We assessed agentic collective narcissism using the 8-item Collective Narcissism Scale (Golec de Zavala et al., 2009; 1 = *strongly disagree*, 7 = *strongly agree*; α = .89)[4]. We assessed communal collective narcissism with the 7-item Communal Collective Narcissism Inventory (Żemojtel-Piotrowska, Piotrowski, Sedikides, et al., 2021; 1 = *strongly disagree*, 7 = *strongly agree*; α = .87).

Fear of COVID-19

We assessed fear of COVID-19 with the 7-item Fear of COVID-19 Scale (FCV-19S, Ahorsu et al., 2022; Sawicki et al., 2022). Sample items are "I am most afraid of Coronavirus-19" and "I am afraid of losing my life because of Coronavirus-19" (1 = *strongly disagree*, 7 = *strongly agree*; α = .90).

Endorsement of Unfounded Beliefs About COVID-19

We assessed the endorsement of unfounded beliefs about COVID-19 with the 8-item COVID-19 misperceptions scale (Brzóska et al., 2023; Pennycook et al., 2022; 1 = *strongly disagree*, 7 = *strongly agree*). Four items refer to conspiracy (e.g., "Coronavirus was created to be a bio-weapon"; α = .85) and four to health (e.g., "Eating garlic cures the coronavirus"; α = .86). We treated these sets of four in analyses as separate subscales, each of which referred to a different construct.

Likelihood of Having Enacted Pandemic-Linked Behaviors During COVID-19

We assessed the likelihood with which people enacted pandemic-linked behaviors during COVID-19 with the modified 10-item Nowak et al. (2020) scale. Participants indicated whether they enacted these behaviors within the week preceding data collection (1 = *definitely not*, 4 = *definitely yes*). Four behaviors reflected prevention (e.g., "more frequent washing of hands"; α = .73), three reflected hoarding (e.g., "buying food products, like rice, flour, milk,

[4] We deleted the item "If my group had a major say in the world, the world would be a much better place," as per prior practice (Sternisko et al. 2022; Żemojtel-Piotrowska et al., 2023; Żemojtel-Piotrowska, Piotrowski, Sedikides, et al., 2021): This item overlaps, at least partially, with communal collective narcissism.

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canned goods"; α = .72), and three reflected prosociality (e.g., "provide emotional help to those in need"; α = .59). We treated in analyses these three sets of items as separate subscales, referring to different constructs.

Data Handling and Analysis Evaluation Notes

We employed R software in all analyses. We inspected the data via simple descriptive statistics and then conducted factor analyses via the "lavaan" package (Roseell, 2012) and multilevel modeling via the "lme4" package (Bates et al., 2015). In the factor analyses, we used the Robust Maximum Likelihood estimator to account for deviations from normality (Yuan & Bentler, 2000) and relied on the following thresholds of fit indices: CFI > .90, RMSEA < .08, SRMR < .08 (Brown, 2015; Byrne, 1994). In the cross-cultural Multigroup Confirmatory Factor Analysis, we relied on the following thresholds to test metric invariance: ΔCFI < -.02, ΔRMSEA < .03 (Rutkowski & Svetina, 2004). We compared the effect sizes of multilevel models by comparing their confidence intervals, with lack of overlap between them as indicator of significant difference.

Results

Confirming Factor Structures of Measures Across Countries

One step in our analyses was establishing the cross-country comparability of the assessed constructs. First, to test whether the measures provided structurally valid data, we conducted Confirmatory Factor Analyses on the data from those 50 countries in which n > 100 (Sawicki et al., 2022). Second, to establish the level of measurement invariance (and, by extension, the potential range of our inferences) in the data, we conducted Multigroup Confirmatory Factor Analyses. Given that at least a metric level of invariance was necessary to test our hypotheses, we allowed for partial metric invariance and, in some cases, excluded items.

Our factor analytic examinations and occasional measure alterations (via item deletions) led us to decide that the measures we collected were usable in subsequent analyses. For a more detailed description of our approach, see the Factor Analyses section in Supplementary Material. We report descriptive statistics for all measures in Supplementary Material, Table S2.

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The Multilevel Modeling Analyses

We tested many of our hypotheses about relations between collective narcissism (ACN, CCN) and the outcome variables via multilevel model analyses, which took into account cross-country variability in effects observed and controlled for country-level variables in effects obtained. We carried out the analyses in a series of steps in which we consecutively added predictive variables to each model. We constructed these additional steps to facilitate the examination of the issues of interest. We present results in Supplementary Material, Tables S3 through S8. We summarize the results from the final step of each model in Table 1.

Issue #1: Do Agentic Collective Narcissism and Communal Collective Narcissism Predict Fear of COVID-19, Endorsement of Unfounded Beliefs About COVID-19, and COVID-Linked Behavior Likelihood?

Our analytic approach allowed testing of whether ACN and CCN independently predicted an individual's emotions, thoughts, or behaviors, and whether these predictive effects varied across the two collective narcissism forms. We obtained initial insight into this issue by examining correlations among the various measures (for correlations across all measures, see Supplemental Material, Table S2). Both ACN and CCN predicted the outcome variables in similar way: Higher levels of narcissism predicted greater (a) fear of COVID-19, (b) endorsement of unfounded COVID-19 conspiracy beliefs, (c) endorsement of unfounded COVID-19 health beliefs, (d) likelihood of recently enacting COVID-19 pandemic-linked prevention behaviors, (e) likelihood of recently enacting COVID-19 pandemic-linked hoarding behaviors, (f) likelihood of having recently engaged in COVID-19 pandemic-linked prosocial behaviors.

The tests of whether the predictive effects of ACN and CCN on these outcome variables were independent of each other come from our multilevel model analyses. The relevant results appear in the Model 2 column of Tables S3 through S8, Supplemental material. In Model 2, we simultaneously entered ACN and CCN into the last step of the model. The results are clear: ACN and CCN always significantly and positively predicted each outcome variable. Sizes of their effects differed, however (Supplementary Table S10).

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Specifically, ACN was more strongly related than CCN to unfounded beliefs, and CCN was more strongly related then ACN to prosocial behaviors. Moreover, those differences were robust and remained significant after controlling for fear of COVID-19 in the model.

Thus, not only do increases in each form of collective narcissism significantly predict increases in each outcome variable, but the predictive effects of the two collective narcissism forms are independent of each other. Moreover, their relative predictive strength is congruent with expectations derived from prior research.

Issue #2: Narcissism Level as a Moderator of Fear of COVID-19-Outcome Variable Relations

We reclassified the fear of COVID-19 measure from an outcome variable to a predictor variable. This reclassification occurred because one of our interests was to explore the possibility that fear was a moderator of the relation between an individual's narcissism level and each of the remaining belief and/or behavior outcome variables.

Results appear in the Model 4a (ACN interaction examined) and Model 4b (CCN interaction examined) columns of Tables S4 through S8 in the Supplemental Material. The fear effects of relevance are the Level 1 (L1) interaction effects in each column; in the multilevel model, these are the fear effects as they are modeled at the level of the individual participant. The standardized coefficients for the two final model runs for each variable, one examining the interaction with ACN and the other examining the interaction with CCN, appear in Table 1. To clarify our terminology, in Table 1, by "individual level of fear" we refer to participants' results relative to the average score in their country (group-mean centered scores); by "national level of fear" we refer to the nation's average relative to the average score of all countries (grand-mean centered scores).

As expected, both simple correlations (Supplemental Material, Table S2) and the multilevel analysis modeling results (Supplemental Material, Tables S4 through S8) showed that individual fear of COVID-19 was positively associated to all the outcome variables. However, the multilevel modeling results produced evidence that this association was, indeed, sometimes moderated by an individual's level of ACN or CCN. For example, the results depicted in Figure 1 (see Table 1 for coefficients) illustrate that the association between fear

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of COVID-19 and endorsement of unfounded conspiracy beliefs about COVID-19 was not moderated either by an individual's level of ACN or by their level of CCN. In contrast, Figure 2 depicts significant moderation of the association between individual fear of COVID-19 and endorsement of unfounded health beliefs by both an individual's level of ACN and their level of CCN (see Table 1 for coefficients; see Table S9, Supplemental Material, for slopes). For both ACN and CCN, the higher the level of collective narcissism, the steeper the slope of the relation between individual fear of COVID-19 and endorsement of unfounded health beliefs.

This inconsistency of moderation also emerged across the behavioral responses. Figure 3 depicts significant moderation of the relation between individual fear of COVID-19 and the reported COVID-19 prevention behaviors by an individual's level of ACN or CCN (see Table 1 for coefficients; see Table S9, Supplemental Material, for slopes). The moderation effect was significant for both ACN and CCN. Figure 3 shows that the slope of the relation between an individual's level of COVID-19-related fear and the reported COVID-19 prevention behaviors flattened as an individual's ACN level or CCN level increased.

Figure 4 depicts the relation between individual fear of COVID-19 and reported COVID-19 related hoarding behaviors by an individual's level of ACN or CCN (see Table 1 for coefficients; see Table S9, Supplemental Material, for slopes). The interaction depicted for ACN was significant, but the interaction depicted for CCN was not. Figure 4, depicting the significant ACN interaction, shows that the slope of the relation between an individual's level of COVID-19 related fear and reported COVID-19 pandemic-linked hoarding behaviors flattened as an individual's ACN level increased.

Figure 5 portrays the relation between individual fear of COVID-19 and reported COVID-19 pandemic-linked prosocial behaviors by an individual's level of ACN or CCN (see Table 1 for coefficients; see Table S9, Supplemental Material for slopes). The interaction was not significant for either ACN or CCN.

Issue #3: Fear Level in a Country as a Possible Moderator of Collective Narcissism-Outcome Variable Relations

This issue is novel in that it refers to how associations among COVID-19-related responses might be altered by societal context. Here, the context is the fear level in the

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country in which an individual resides. The multilevel modeling analyses used participants' country of residence to estimate the fear of COVID-19 level associated with each country (high fear always positively predicted the outcome variables: see Table S2 for simple correlations, and Tables S4 through S8 for multilevel model results, Supplemental Material). The estimate of country-level COVID-19 fear could be used as a group-level variable in multilevel modeling to test whether the relations between an individual's collective narcissism level and the outcome variables are moderated by the fear level characterizing one's country of residence. The results appear in Table 1 and in Tables S4 through S8, Supplemental Material (see interaction results that include the label "Fear [L2]).

First, we consider the relation between individual collective narcissism levels and the endorsement of unfounded COVID-19 conspiracy beliefs. The results of the multilevel modeling analyses showed that this relation was, indeed, moderated by fear levels in a country. The results in Figure 6 depict the moderation effects for both ACN and CCN. The ACN moderation effect shows that the relation between ACN and endorsement of COVID-19 conspiracy beliefs flattens out as fear levels in a country increase. The patterning for CCN is similar, but the slope of the relation between ACN and endorsement of COVID-19 conspiracy beliefs reverses (i.e., higher CCN predicts lower endorsement) in high fear countries.

However, this moderation effect did not emerge for the other kind of beliefs. The country-level fear of COVID-19 did not moderate the relation between collective narcissism level (either ACN or CCN) and endorsement of unfounded COVID-19 health beliefs (Figure 7). In contrast, a moderation effect occurred for preventive behaviors. However, this moderation effect occurred only for ACN, not CCN (Figure 8). The results showed that ACN only predicted preventive behaviors when there was a high level of fear in countries. In contrast, CCN always predicted the likelihood of having engaged in pandemic-linked preventive behaviors, regardless of level of fear on countries. Thus, in these results, the patterns of the predictive relations between ACN and outcome variables and CCN and outcome variables manifested substantial differences.

The absence of the moderation effects extended to one of the behavioral responses, as well. The country-level variable of fear of COVID-19 did not moderate the relation between

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collective narcissism level (either ACN or CCN) and the likelihood of having enacted COVID-19 hoarding behaviors (Figure 9). In contrast, moderation effects for both ACN and CCN emerged for one of the other behavior (Figure 10). Fear level in a country altered the form of the predictive relation between collective narcissism levels and prosocial behavior, such that the slope of the relation steepened with increases in collective narcissism levels.

Discussion

Summary of Findings and Implications

Higher ACN and CCN independently predicted greater (a) fear of COVID-19, (b) endorsement of unfounded COVID-19 conspiracy beliefs, (c) endorsement of unfounded COVID-19 health beliefs, (d) likelihood of recently enacting COVID-19 pandemic-linked prevention behaviors, (e) likelihood of recently enacting COVID-19 pandemic-linked hoarding behaviors, and (f) likelihood of having recently engaged in COVID-19 pandemic-linked prosocial behaviors. We highlight the utility of these findings below.

To begin, the findings attest to the discriminant validity of ACN and CCN in a specific social context, that is, in countries dealing with the COVID-19 disaster. Such validity adds momentum to claims of different forms of collective narcissism. These points are especially notable given the relatively large sample size and the cross-country character of the data.

An additional implication of the findings belies the simplistic notion that high narcissists will behave in ways that are largely selfish and anti-social. Rather, whether collective narcissists will behave in an anti-social or pro-social manner depends on where a researcher looks. Participants high in ACN and CCN, indeed, reported that they were more likely to have engaged in hoarding behavior, but they both also reported that they were more likely to have engaged in COVID-19 preventive behavior and prosocial behavior (though the effects were observed more strongly among CCNs). Obviously, the latter two behavior tendencies are desirable in that they can help ward off the spread of the pandemic and/or ease the burdens of others who are confronted with it. Moreover, these findings fit our theoretical expectations. We expected that the predictive power of ACN and CCN would be especially likely to differ for communal behaviors, with CCN being the more powerful predictor for

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such behaviors (though both would positively predict prevention behavior and prosocial behavior, and negatively predict hoarding).

However, these moderation effects did not consistently emerge, which could reflect an alternative idea. It has been argued that acceptance of pandemic-related conspiracy beliefs involve the denying of the existence of the virus, whereas acceptance of unfounded health beliefs aims at controlling the threat posed by the pandemic (Brzóska et al., 2023; Pennycoock et al., 2023). Given these proposals, it makes sense that unfounded health-related beliefs would be especially endorsed by ACNs, as such collective narcissists are especially likely to feel the need to effectively combat the threats posed by the pandemic (Żemojtel-Piotrowska, Piotrowski, Sawicki et al., 2021; Żemojtel-Piotrowska, Piotrowski, Sedikides, et al., 2021).

Also, we observed significant moderation by an individual's level of both ACN and CCN on the relation between individual fear of COVID-19 and (a) endorsement of unfounded COVID-19 health beliefs, (b) reported COVID-19 prevention behaviors, and (c) reported COVID-19-linked hoarding (but only for ACN, not for CCN). These findings make theoretical sense if one assumes that, because collective narcissists employ strong self-protective systems, those systems will be relatively inelastic to further changes induced by high fear. Instead, participants low in ACN or CCN, who do not have strong self-protective systems, will be the ones manifesting thoughts and behaviors especially responsive to different levels of fear. The emerging moderation effects fit these ideas.

Moreover, we explored how individual responses to the COVID-19 pandemic are related to the fear level characterizing an individual's country of residence. One explanation for such a relation lies in the notion that high fear in a country produces strong self-protective systems in the residents of that country. Hence, in this high fear context (e.g., a country evincing high chronic fear levels), individuals' self-protective systems will be relatively inelastic to other variables, such as an individual's ACN and CCN levels, that might also be expected to influence the production and use of self-protective systems. In contrast, the self-protective systems of those living in low-fear countries will manifest more elasticity. However, there is an alternative view. Collective narcissists could be especially sensitive to

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the beliefs and responses that are popular in their group. This tendency could be especially strong when fear levels are high. This reasoning suggests stronger relations between collective narcissism and responses to the pandemic in countries with higher levels of fear.

Some of our findings fit the first explanation. For example, the relation between ACN and endorsement of COVID-19 conspiracy beliefs flattened out as fear levels in a country increased. The patterning for CCN was similar, but the slope of the relation between ACN and endorsement of COVID-19 conspiracy beliefs reversed (i.e., higher CCN predicted lower endorsement) in high-fear countries. This last finding may be congruent with the prediction that communal (but not agentic) CNs are more sensitive to the collective interpretation of reality. Given that in the countries with greater fear it was hard to deny the existence of coronavirus, communal CNs adopted beliefs congruent with the official narrative of their governments, which could be explained by the CCN's greater trust (Żemojtel-Piotrowska et al., 2021).

Country-level moderation effects for both ACN and CCN also emerged for two of the behaviors, but these effects fit the second (popular responding) explanation. For example, fear levels in a country altered the form of the predictive relation between collective narcissism levels and prosocial behavior such that the slope of the relation steepened with increases in collective narcissism levels. A similar moderation effect also occurred (but only for ACN, not CCN) for reported COVID-19 preventive behaviors. ACN only predicted this variable in the case of high levels of fear in countries.

Why do fear levels in a country moderated differently pandemic-related beliefs and pandemic-related behaviors? Observability of the outcome variable is an explanation. Overt behaviors may be relatively uninfluenced by a country's fear level, which would allow considerable freedom for other variables that influence behaviors (e.g., an individual's communal narcissism level) to act. In contrast, responding in the less observable belief domain may be driven largely by the shared beliefs and emotions prompted by a country's fear level, which would allow less freedom for other variables that influence beliefs (communal narcissism) to act.

Limitations and Additional Empirical Pathways

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We used convenience samples, and participants were mostly well-educated and relatively affluent. These practices may cause a concern about generalizability across participant types. Also, sample sizes differed across countries. Small sample sizes in a given category can limit the power of the analyses conducted, even when a study overall evinces a large sample size, and this is especially the case when the categories are used as a variable in the analyses (Keppel, 1993; Parra-Frutos, 2013; Rusticus & Lovato, 2019).

Moreover, we relied on retrospective self-reported behaviors. Though these kinds of self-reports are useful, their credibility may sometimes be questioned, especially when they are expected to systematically differ across individuals. For example, some research streams suggest that communal narcissists overestimate their prosociality (Nehrlich et al., 2019; Yang et al., 2018; Żemojtel-Piotrowska, Piotrowski, Sedikides, et al., 2021). This concern might be bypassed through momentary ecological assessment, measuring prosocial activities when they occurred.

Further, many studies on collective narcissism partial out secure identity (Golec de Zavala, 2023; Sternisko et al., 2023). We did not do so. We purposely excluded this variable from our research program after results from extensive pilot studies in Poland and single-country findings that employe two forms of collective narcissism (Nowak et al., 2023; Żemojtel-Piotrowska et al., 2021, 2023) suggested that partialling out secure identity would not alter our results.

Another possible concern lies in the fact that we assessed fear of COVID-19 with the FCV-19S (Ahorsu et al., 2022; Sawicki et al., 2022). This measurement instrument relies on general items referring to physical symptoms of fear due to COVID-19 or general death anxiety due to COVID-19. These items pose a potential concern, because they do not disentangle, but may even co-mingle, some of the alternative sources of threat (Guerra et al., 2021; Kachanoff et al., 2021; Żemojtel-Piotrowska, Piotrowski, Sawicki, et al., 2021). For example, people can be afraid of COVID-19 because of the extent to which it threatens them personally, or they can be afraid of COVID-19 because of the extent to which it threatens their group (e.g., family). This possible co-mingling is of obvious special concern in studies that try to separate the effects of collective thought (e.g., in collective narcissists) from the

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effects of individual thought (e.g., agentic narcissists). This concern can be rectified in future research by separately assessing self-focused fear and collectively-focused fear.

Furthermore, the effects of social norms may differ (Drury, 2018) among individuals evincing different forms of narcissism. The tendency of collective narcissists to engage in undesirable COVID-19 pandemic-related thoughts and actions depends on the extent to which these thoughts and actions reflect consensually accepted social norms (as opposed to legal restrictions). For example, communal collective narcissists may be especially likely to adopt beliefs and behaviors that reflect their social context. These can be a double-edged sword. Unfounded beliefs may be more likely to be rejected when they reflect the cultural context, but they may also be more likely to be accepted when they reflect belief in the cultural context. Similarly, collective communal narcissists may be especially likely to be prosocial in countries where prosocialness is of particular value, as in highly religious or interdependent ones. We did not consider such possibilities here, as they do not directly fit into the scope of our paper. We suggest that this issue be examined in follow-up investigations.

Lastly, the pandemic required collective responses to threats experienced both individually and collectively. Many other threats, like climate change, war, terrorism, or possible future pandemics, pose similar threats. Yet, we emphasize that our findings are limited to the pandemic context. Given potential differences across emergencies, one needs to be cautious about extending our findings to other contexts.

Conclusion

We examined and found out that, across cultures, ACN and CCN largely responded differently to the pandemic emotionally, cognitively, and behaviorally. Also, we showed that collective narcissists can behave both anti-socially and pro-socially, depending on the assessed outcome variable. We look forward to replications and extensions of our findings, advancing our understanding of why individuals differ in their responses to events such as the COVID-19 pandemic.

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Table 1

Standardized Coefficients of Multilevel Models

Predictors	Beliefs About COVID-19				Behaviors in Response to COVID-19					
	Conspiracy		Health		Prevention		Hoarding		Prosociality	
Fixed Effects										
Intercept	0.01	0.01	0.04	0.04	0.01	0.01	0.00	0.00	0.03	0.03
Gender (men)	-0.01	-0.01	0.02	0.02	-0.16***	-0.16***	0.02	0.02	-0.04*	-0.04*
Age	-0.05***	-0.05***	0.03	0.03**	0.01	0.01	-0.00	-0.00	0.10**	0.10***
Education level	-0.09***	-0.09***	-0.04**	-0.04***	0.04***	0.05***	0.02*	0.02*	0.03***	0.03***
SES	-0.05***	-0.05***	-0.03***	-0.03***	0.03***	0.03***	0.04***	0.04***	0.03***	0.03***
ACN	0.24***	0.24***	0.16***	0.16***	-0.00	0.00	0.05***	0.05***	0.05***	0.04***
CCN	0.03**	0.03**	0.11***	0.11***	0.06***	0.05***	0.06***	0.06***	0.12***	0.12***
GDP	-0.24***	-0.23***	-0.30***	-0.30***	-0.08	-0.08	-0.11***	-0.11***	-0.16***	-0.16***
Fear of Covid (L1)	0.06***	0.06***	0.09***	0.09***	0.18***	0.18***	0.16***	0.16***	0.09***	0.10***
Fear of Covid (L2)	-0.03	-0.03	0.08	0.08	0.39***	0.39***	0.25***	0.25***	0.11**	0.11**
ACN x Fear (L1)	0.01		0.02*		-0.04***		-0.02*		-0.00	
ACN x Fear (L2)	-0.06***		-0.01		0.02*		0.01		0.04***	
CCN x Fear (L1)		0.01		0.02**		-0.04***		-0.01		-0.01
CCN x Fear (L2)		-0.04***		0.01		0.00		0.02		0.02*
Random Effects										
ICC	.11	.11	.15	.15	.18	.18	.06	.06	.07	.07
Country: intercept	0.12	0.13	.16	.16	.08	.08	.04	.04	.04	.04
Residual	0.99	0.99	.91	.91	.35	.35	.63	.63	.51	.51
Marginal R^2	.209	.206	.235	.236	.209	.208	.133	.133	.096	.094
Conditional R^2	.296	.296	.352	.353	.353	.352	.189	.189	.162	.161

Note. N = 15,039; Number of countries = 61; SES = socioeconomical status; ACN = agentic collective narcissism, CCN = communal collective narcissism; $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

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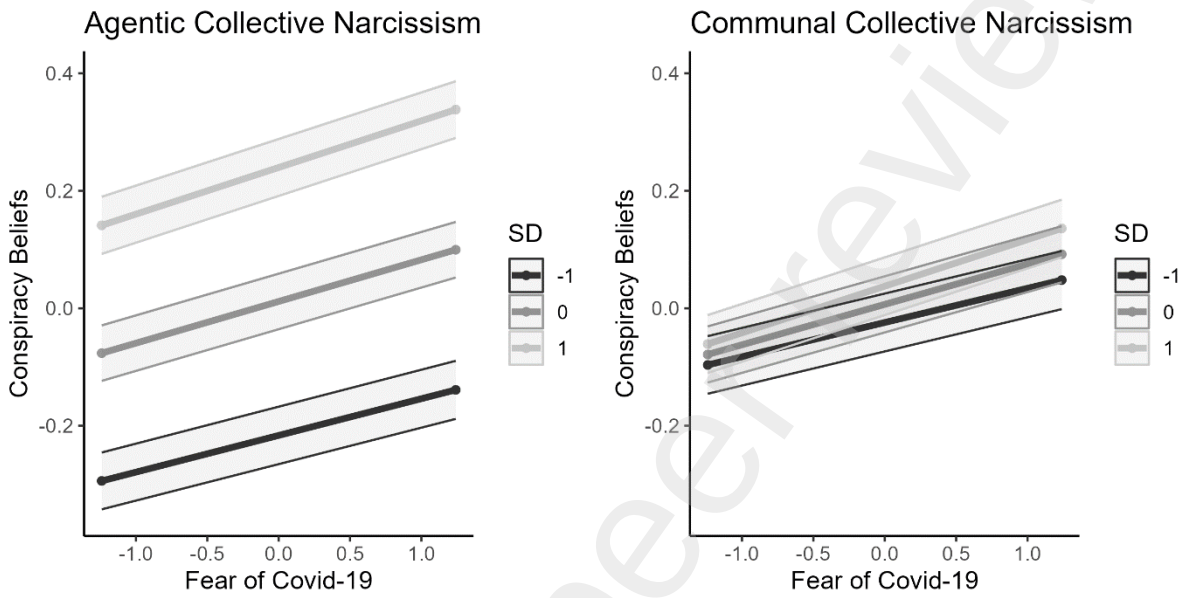
Figure 1

Illustrating Non-significant Moderation of the Link Between Individual Fear of COVID-19 and Endorsement of Unfounded Conspiracy Beliefs for Both Agentic Collective Narcissism and Communal Collective Narcissism



Note. All simple slopes are significant, $p < .05$.

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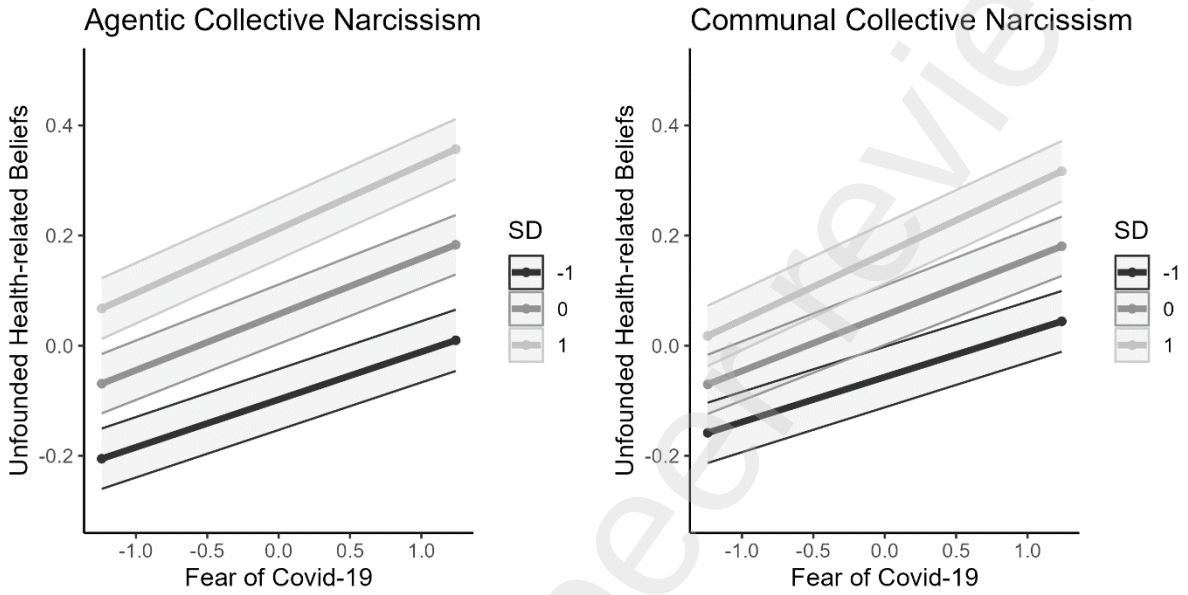
Figure 2

Illustrating Significant Moderation of the Link Between Individual Fear of COVID-19 and Endorsement of Unfounded Health Beliefs for Both Agentic Collective Narcissism and Communal Collective Narcissism



Note. All simple slopes are significant, $p < .05$.

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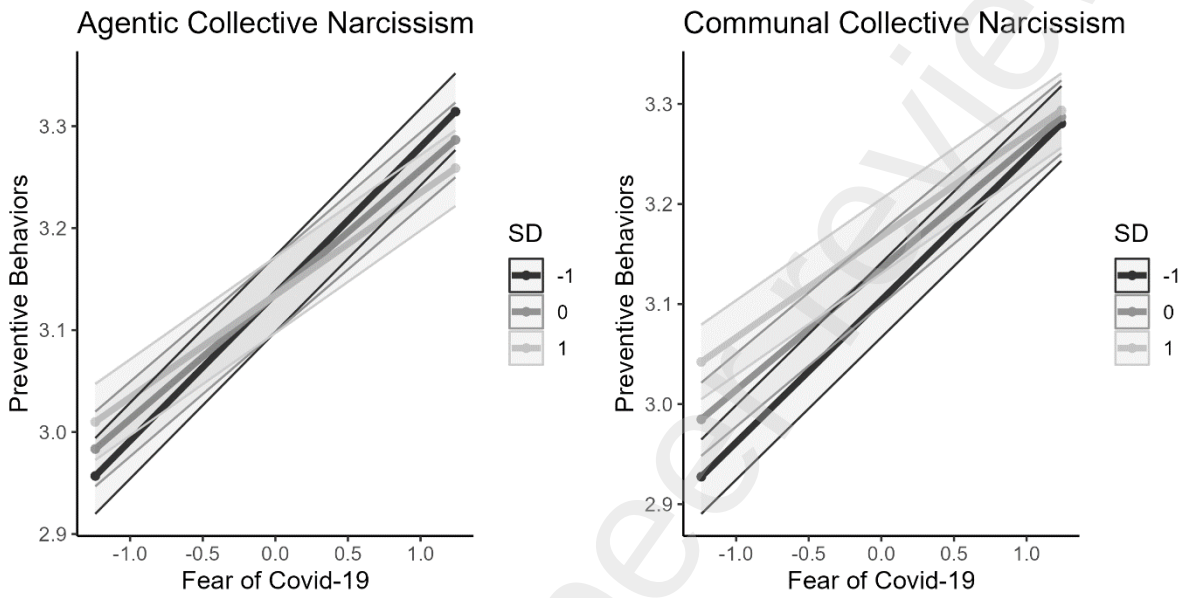
Figure 3

Illustrating Significant Moderation of the Link Between Individual Fear of COVID-19 and the Rated Likelihood of Having Enacted COVID-19 Preventive Behaviors for Both Agentic Collective Narcissism and Communal Collective Narcissism



Note. All simple slopes are significant, $p < .01$.

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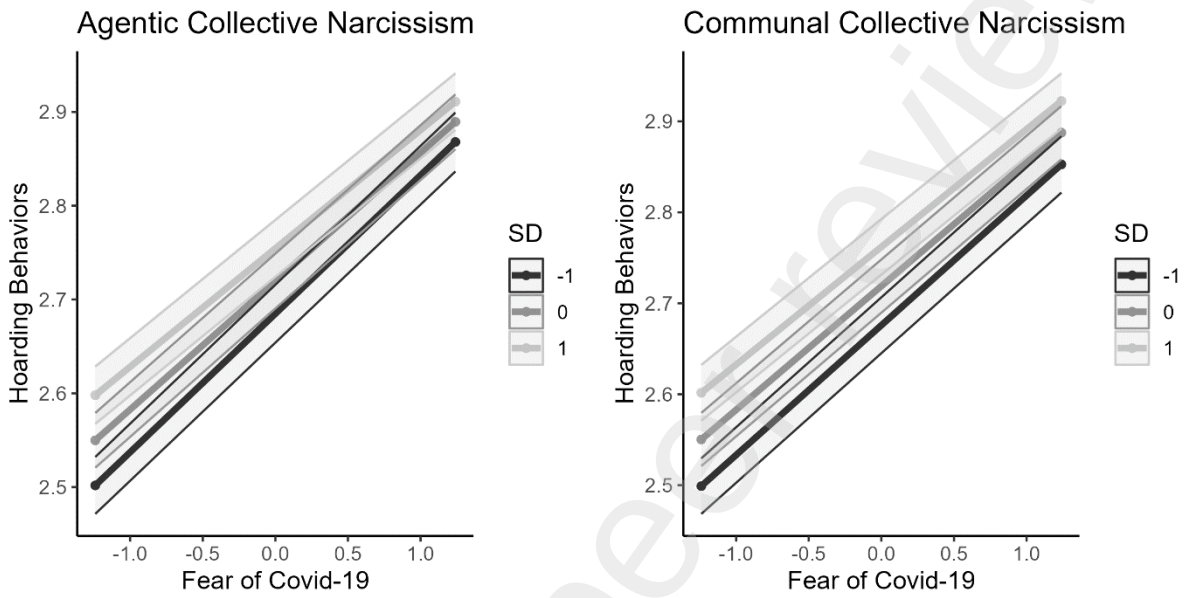
Figure 4

Illustrating Moderation of the Link Between Individual Fear of COVID-19 and the COVID-19-related Hoarding Behaviors for Both Agentic Collective Narcissism (Interaction Significant) and Communal Collective Narcissism (Interaction Not Significant).



Note. All simple slopes are significant, $p < .05$.

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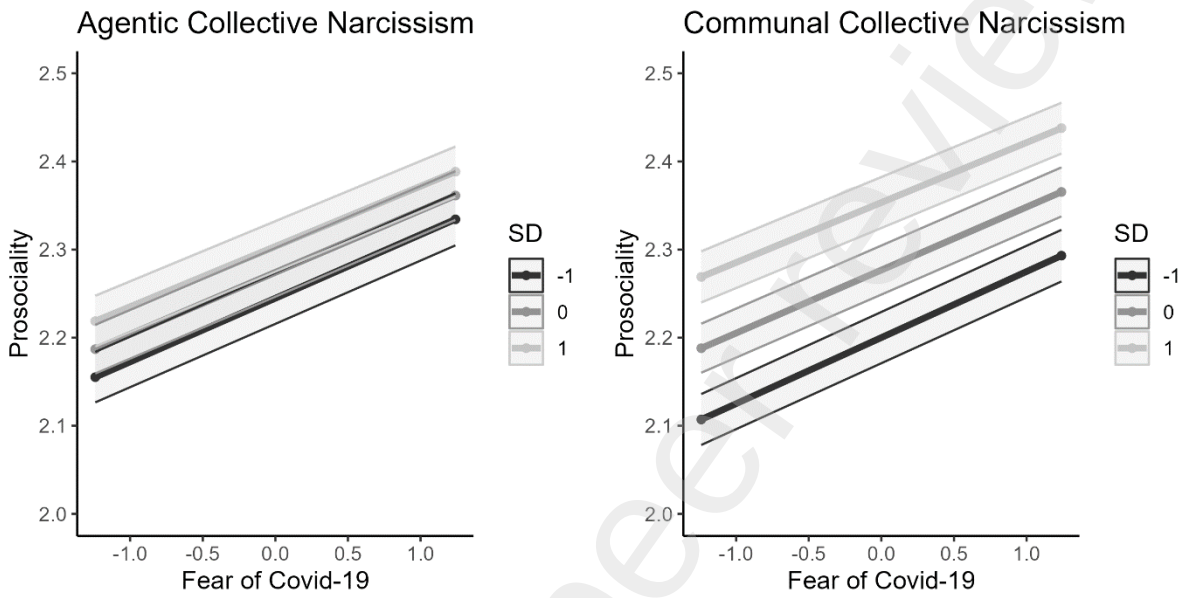
Figure 5

Illustrating Non-significant Moderation of the Link Between Individual Fear of COVID-19 and the COVID-19-related Prosocial Behaviors for Both Agentic Collective Narcissism and Communal Collective Narcissism.



Note. All simple slopes are significant, $p < .05$

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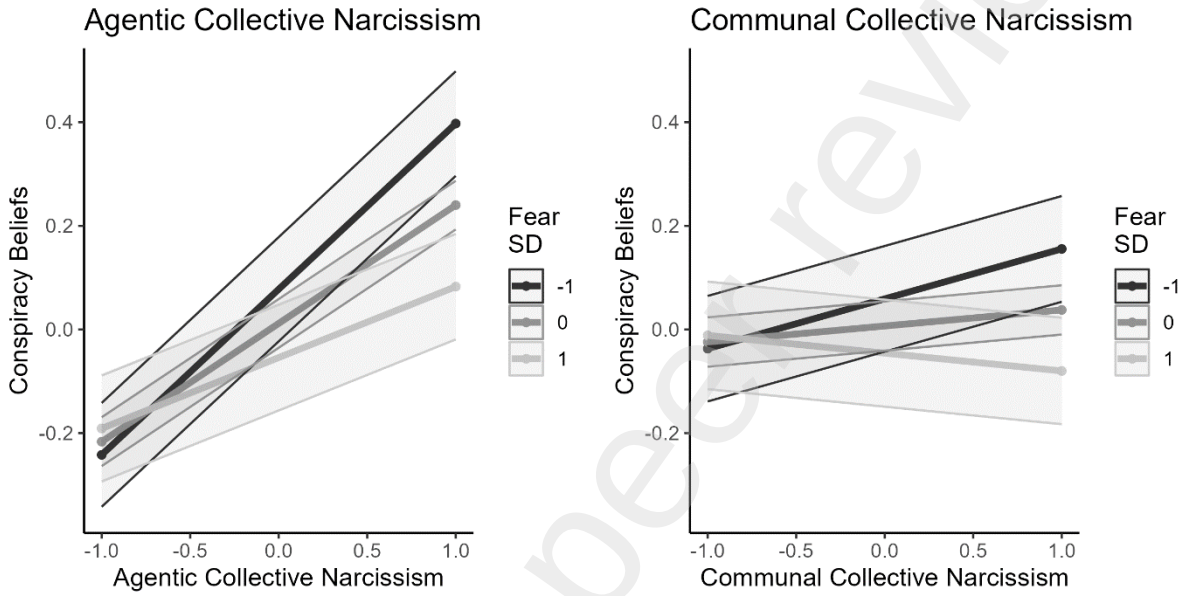
Figure 6

Illustrating Significant Moderation by Country Fear Level of the Link Between Individual Collective Narcissism Levels (Both ACN and CCN) and the Endorsement of Unfounded COVID-19 Conspiracy Beliefs.



Note. All simple slopes are significant, $p < .05$.

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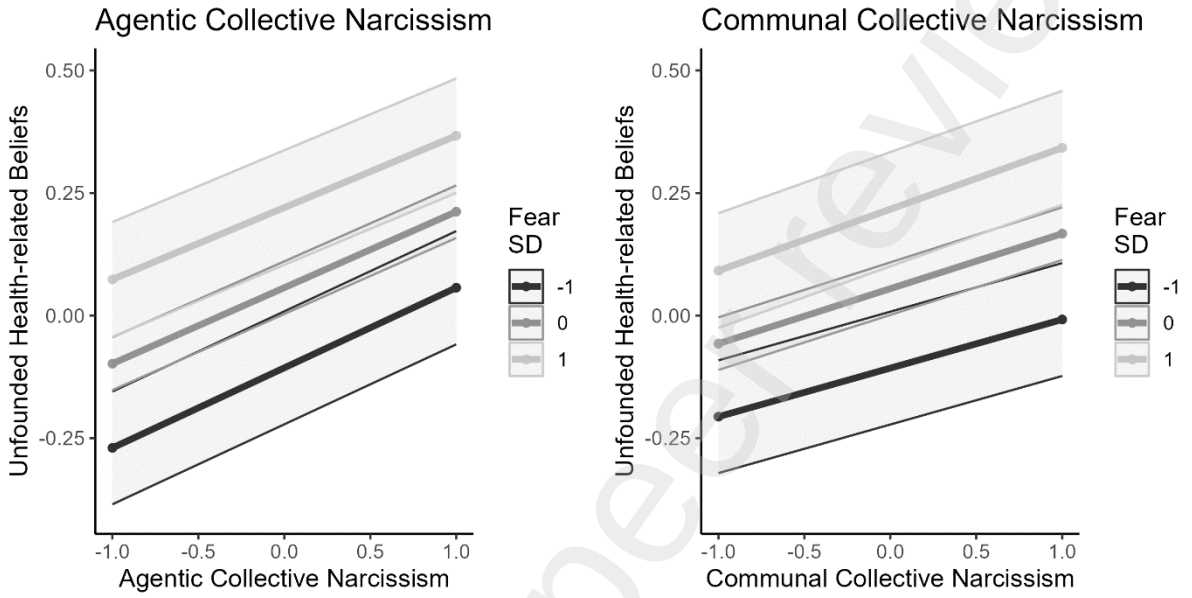
Figure 7

Illustrating Non-Significant Moderation by Country Fear Level of the Link Between Individual Collective Narcissism Levels (Both ACN and CCN) and the Endorsement of Unfounded COVID-19 Health Beliefs.



Note. All simple slopes are significant, $p < .001$.

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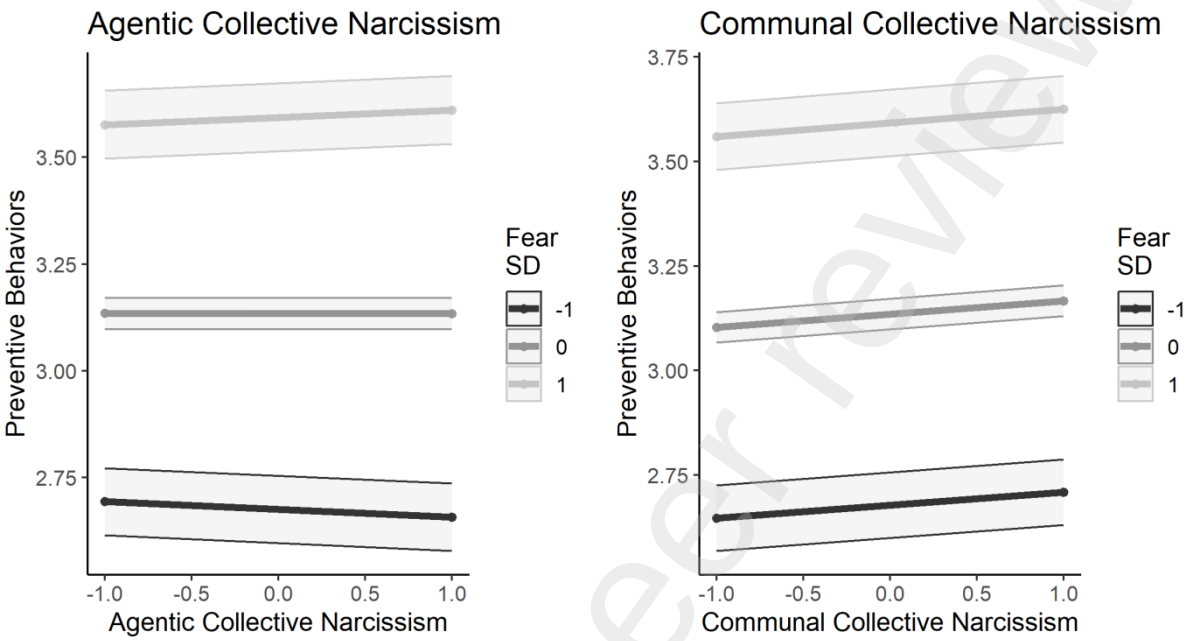
Figure 8

Moderation By Country-Level Fear of COVID-19 of the Link Between Collective Narcissisms and Preventive Behaviors



Note. All simple slopes for communal collective narcissism are significant, $p < .05$. Simple slopes for agentic collective narcissism are not significant with the exception of countries low in fear.

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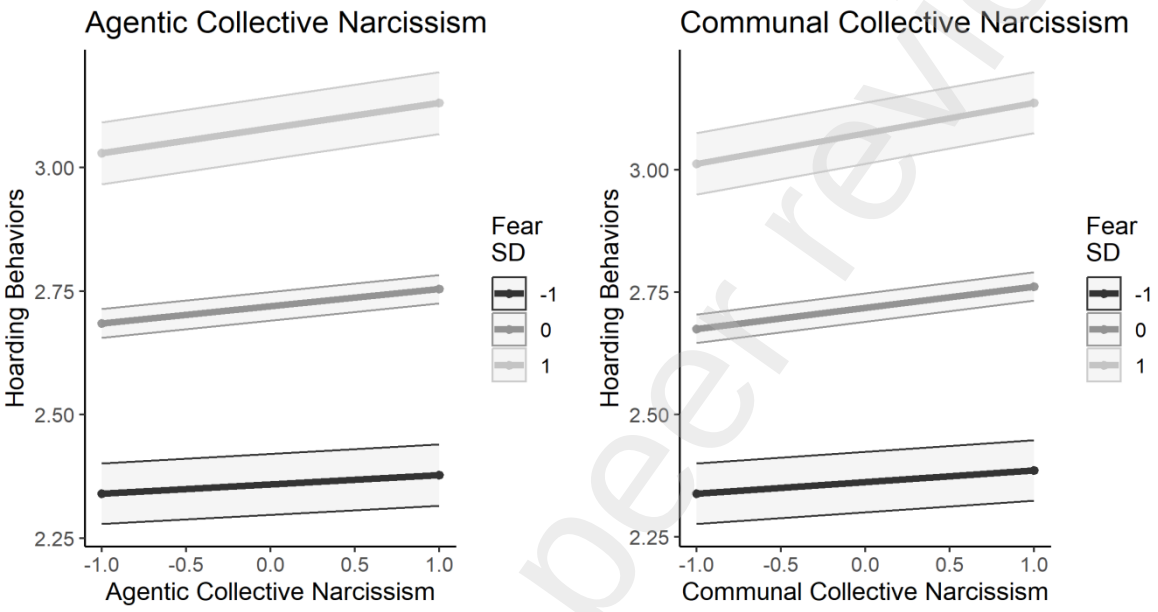
Figure 9

Illustrating Non-Significant Moderation by County Fear Level of the Link Between Individual Collective Narcissism Levels (Both ACN and CCN) and the COVID-19-Related Hoarding Behaviors.



Note. All simple slopes, but agentic collective narcissism among countries low in fear of COVID-19, are significant at $p < .05$.

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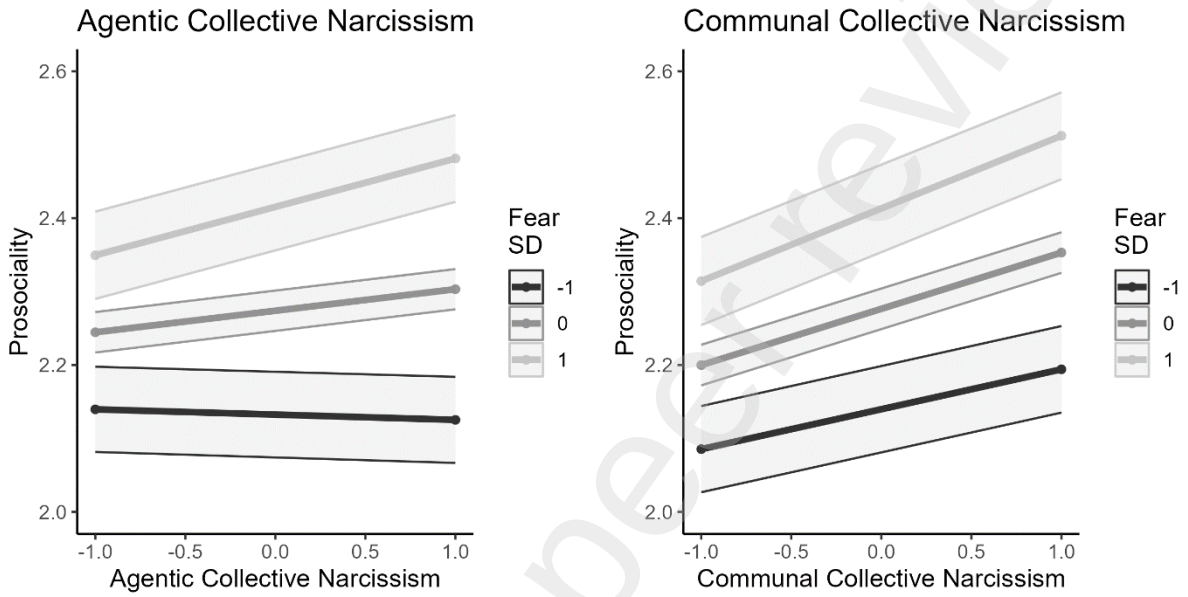
Figure 10

Illustrating Significant Moderation by County Fear Level of the Link Between Individual Collective Narcissism Levels (Both ACN and CCN) and the Rated Likelihood of Having Engaged on Prosocial COVID-19 Behaviors.



Note. All simple slopes, except agentic collective narcissism among countries low in fear of COVID-19, are significant at $p < .05$.

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