

Which leadership style do more narcissistic subordinates prefer in supervisors?

Jennifer Eck¹  | Christiane Schoel^{1,2} | Constantine Sedikides³ |
Jochen E. Gebauer^{1,4} | Dagmar Stahlberg¹

¹School of Social Sciences, University of Mannheim, Mannheim, Germany

²Department of Social Work, Fulda University of Applied Sciences, Fulda, Germany

³Department of Psychology, University of Southampton, Southampton, UK

⁴Department of Psychology, University of Copenhagen, Copenhagen, Denmark

Correspondence

Jennifer Eck, School of Social Sciences, University of Mannheim, 68131 Mannheim, Germany.
Email: jennifer.eck@uni-mannheim.de

Abstract

Background and Objective: Subordinates in Western cultures generally prefer supervisors with a democratic rather than autocratic leadership style. It is unclear, however, whether more narcissistic subordinates share or challenge this prodemocratic default attitude. On the one hand, more narcissistic individuals strive for power and thus may favor a democratic supervisor, who grants them power through participation. On the other hand, similarity attracts and, thus, more narcissistic subordinates may favor an autocratic supervisor, who exhibits the same leadership style that they would adopt in a leadership position.

Method: Four studies ($N_{\text{total}} = 1284$) tested these competing hypotheses with two narcissism dimensions: admiration and rivalry. Participants indicated the leadership style they generally prefer in a supervisor (Study 1), rated their own supervisor's leadership style (Study 2a: individual ratings; Study 2b: team ratings), and evaluated profiles of democratic and autocratic supervisors (Study 3).

Results: We found a significantly weaker prodemocratic default attitude among more narcissistic subordinates: Subordinates' narcissism was negatively related to endorsement of democratic supervisors and positively related to endorsement of autocratic supervisors. Those relations were mostly driven by narcissistic rivalry rather than narcissistic admiration.

Conclusion: The results help clarify the narcissistic personality and, in particular, how more narcissistic subordinates prefer to be led.

KEYWORDS

leadership styles, narcissism, narcissistic admiration, narcissistic rivalry, similarity-attraction principle

Jennifer Eck and Christiane Schoel shared first authorship.

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2024 The Author(s). *Journal of Personality* published by Wiley Periodicals LLC.

1 | INTRODUCTION

Narcissists tend to emerge as leaders (Brunell et al., 2008; Grijalva et al., 2015). An inherent feature of social hierarchies is, however, that most individuals find themselves in subordinate positions (Dufner et al., 2016; Schjelderup-Ebbe, 1922). Absolutely speaking, then, even narcissists can be found more frequently in subordinate than leadership positions. Yet, very little is known about the psychology of more (vs. less) narcissistic subordinates (Benson et al., 2016; Nevicka & Sedikides, 2021). We aim to help fill that gap in the literature by studying more narcissistic subordinates.

In particular, we address a fundamental question: How do more narcissistic subordinates prefer to be led? Subordinates in Western cultures generally prefer supervisors with a democratic rather than autocratic leadership style (Bass, 2008; Schoel et al., 2011). It is unclear, though, whether this prodemocratic default attitude (PDDA; Schoel et al., 2011) also holds true for more narcissistic subordinates. On the one hand, democratic supervisors share power with their subordinates, and narcissistic individuals strive for power and dominance (Krizan & Herlache, 2018; Sedikides, 2021). Thus, more narcissistic subordinates may show a particularly strong PDDA. On the other hand, autocratic supervisors exhibit a leadership style that more narcissistic individuals themselves would adopt in a leadership position (Matosic et al., 2017; Semenyina & Honey, 2015), and similarity attracts (Byrne, 1971; Montoya et al., 2008). Thus, more narcissistic subordinates may show a particularly weak PDDA. We test these competing hypotheses.

1.1 | Narcissism

Subclinical narcissism (hereafter: narcissism)—a normally-distributed trait in the general population—is a multidimensional construct. Three narcissism dimensions that have consistently emerged are grandiosity/exhibitionism, entitlement/antagonism, and vulnerability/neuroticism (Krizan & Herlache, 2018; Miller et al., 2016). Given the dimensions' specific features, we consider the former two ones—also known as narcissistic admiration and narcissistic rivalry—particularly relevant for the present research. Narcissistic admiration is characterized by assertive self-promotion, manifesting in striving for uniqueness, grandiosity, and charming behavior. Narcissistic rivalry, by contrast, is characterized by antagonistic self-protection, manifesting in striving for supremacy, devaluation of others, and aggressive behavior (Back et al., 2013).

Narcissistic admiration and rivalry are linked differentially to outcomes such as interpersonal liking, leadership,

and strategies to gain status. Specifically, narcissistic admiration fosters interpersonal liking in the early stages of acquaintance, but over time this liking weakens, whereas narcissistic rivalry fosters disliking (Leckelt et al., 2015). Moreover, narcissistic admiration, but not rivalry, predicts leadership emergence in social groups and being in a leadership position 2 years later (Härtel et al., 2023; Leckelt et al., 2019). Finally, narcissistic admiration and rivalry are positively associated with the status-seeking motive but differ in their unique links with strategies to gain status: Narcissistic admiration is primarily associated with willingness to rely on prestige-based strategies (e.g., displaying competence) and less so with willingness to rely on dominance-based strategies (e.g., fear and intimidation), whereas narcissistic rivalry has a positive association only with willingness to rely on dominance-based strategies (Zeigler-Hill et al., 2019).

1.2 | Preferences for democratic versus autocratic leadership

Starting with Lewin et al. (1939), researchers have distinguished between two opposing clusters of leadership styles: democratic and autocratic (Bass, 2008).¹ Democratic leaders are concerned with subordinates' needs. They encourage subordinates to participate in decision-making processes as well as to initiate and select their own strategies for dealing with occupational tasks and interacting with each other. Autocratic leaders, by contrast, focus on getting the job done. They make most of the decisions alone, prescribe rules and goals, and control actions and interactions within the group. Democratic and autocratic leadership, then, are two poles of a continuum ranging from high to low levels of granted participation. Democratic leadership grants high levels of subordinate influence and autocratic leadership grants low such levels. Thus, democratic supervisors are more autonomy supportive, whereas autocratic supervisors are more dominant.

Subordinates in Western cultures evince a robust and prevalent preference for democratic over autocratic leadership—the PDDA (Schoel et al., 2011). Autocratic leadership is usually viewed with suspicion and aversion. It makes subordinates feel less valued by their organization (Chan et al., 2013), experience more negative emotions (Pellegrini & Scandura, 2008), and feel less satisfied with their job (Foels et al., 2000). Group members reject autocratic leaders when resolving public good conflicts (Van Vugt & De Cremer, 1999) and are more likely to exit the group under an autocratic than a democratic leader (Van Vugt et al., 2004). Even groups that start with an autocratic decision rule (e.g., the most

senior member makes decisions alone) nearly always revert to a democratic rule (e.g., members make decisions together by choosing the majority preference), regardless of performance quality (Nielsen & Miller, 1997). Taken together, the less dominant and more autonomy supportive leadership style of democratic supervisors is more admired by subordinates than the more dominant and less autonomy supportive leadership style of autocratic supervisors (Slemp et al., 2018; Van den Broeck et al., 2016).

1.3 | Leadership preferences of more narcissistic subordinates

The key difference between democratic and autocratic supervisors is that the former behave less dominantly than the latter (Bass, 2008; Lewin et al., 1939). Moreover, individuals higher in narcissism are characterized by strivings for dominance and power (Krizan & Herlache, 2018; Sedikides, 2021) and adopt a more autocratic leadership style (Matosic et al., 2017; Semenyina & Honey, 2015). We therefore considered the dominance dimension of interpersonal behavior most relevant for predicting how more narcissistic subordinates prefer to be led. Specifically, we derived two competing hypotheses regarding more narcissistic subordinates' endorsement of democratic versus autocratic supervisors.

The first hypothesis is based on the dominance-complementarity principle (Tiedens et al., 2007). Dominance complementarity has its roots in the interpersonal circumplex (Leary, 1957), represented by the two primary dimensions of interpersonal behavior: affiliation and dominance. Based on the interpersonal circumplex, interpersonal theory proposes more satisfaction with relationships characterized by "sameness on the affiliation dimension and oppositeness on the dominance dimension" (Sadler et al., 2011, p. 126). Regarding task-oriented relationships, such as supervisor-subordinate relationships, interactions characterized by dominance complementarity result in more positive relational and task outcomes (Estroff & Nowicki, 1992; Tiedens & Fragale, 2003). Particularly, dominance complementarity between a person's interpersonal goals (e.g., prefers to behave dominantly) and the partner's interpersonal behavior (e.g., behaves submissively) results in greater satisfaction (Dryer & Horowitz, 1997).² Given that democratic supervisors grant subordinates power through participation, their behavior is complementary to the interpersonal goal of more narcissistic individuals to dominate others. Thus, the first hypothesis states that subordinates' narcissism is positively related to endorsement of democratic supervisors and negatively related to endorsement of autocratic

supervisors (stronger PDDA among more narcissistic subordinates). Indirect evidence for this hypothesis indicates that more narcissistic individuals disapprove of being in a subordinate position (Benson et al., 2016).

The second hypothesis is based on the similarity-attraction principle (Byrne, 1971). Individuals seek consensual validation of their characteristics (e.g., values, goals, and personality), and others with similar characteristics provide such validation (Festinger, 1954). The similarity-attraction principle therefore proposes that people evaluate others' characteristics more positively, the more similar those characteristics are to their own, resulting in increased attraction. There is meta-analytic evidence for the similarity-attraction association across different populations and contexts (Montoya et al., 2008), including supervisor-subordinate relationships (Kristof-Brown et al., 2005). Moreover, individuals favor for management positions fictitious job candidates whose leadership style (relationship-oriented vs. task-oriented) is similar to their own (Eagleson et al., 2000). The leadership style of autocratic supervisors is similar to the leadership style more narcissistic individuals would exhibit themselves if they were leaders. Thus, the second hypothesis states that subordinates' narcissism is negatively related to endorsement of democratic supervisors and positively related to endorsement of autocratic supervisors (weaker PDDA among more narcissistic subordinates). Indirect evidence for this hypothesis indicates that more narcissistic individuals support organizational hierarchies from a subordinate position when they expect to rise in rank (Zitek & Jordan, 2016).

According to existent theory, both hypotheses should apply more strongly to narcissistic rivalry than narcissistic admiration: Narcissistic admiration and rivalry are both related to strivings for dominance, but narcissistic admiration is also strongly related to strivings for admiration (Krizan & Herlache, 2018; Sedikides, 2021). Moreover, individuals higher in narcissistic admiration rely primarily on prestige-based strategies and less strongly on dominance-based strategies to gain status, whereas individuals higher in narcissistic rivalry rely only on dominance-based strategies to gain status (Zeigler-Hill et al., 2019). Democratic leadership is less dominant but typically more admired by subordinates than autocratic leadership (Van Vugt & De Cremer, 1999). It is therefore conceivable that for individuals higher in narcissistic admiration the interpersonal goal to dominate others (and accordingly the tendency to adopt an autocratic leadership style) competes against the interpersonal goal to be admired by others (and accordingly the tendency to adopt a democratic leadership style). Those competing goals might cancel each other out, resulting in no relation between narcissistic admiration and the PDDA. Alternatively, depending on which goal is

stronger, results for narcissistic admiration might parallel results for narcissistic rivalry (if the goal to dominate others is stronger) or oppose them (if the goal to be admired by others is stronger).

1.4 | Overview

We conducted four studies to test the two competing hypotheses that subordinates' narcissism—particularly their narcissistic rivalry—is (1) positively related to endorsement of democratic supervisors and negatively related to endorsement of autocratic supervisors (stronger PDDA) or (2) negatively related to endorsement of democratic supervisors and positively related to endorsement of autocratic supervisors (weaker PDDA). In all studies, participants reported their level of narcissistic admiration and rivalry. In Study 1, participants indicated the leadership style they generally prefer in a supervisor. In Studies 2a–b, we examined whether the link between those general leadership preferences and narcissism translates to subordinates' attraction to their own supervisor. These were field studies in which subordinates indicated their own supervisor's leadership style (individual ratings in Study 2a, team ratings in Study 2b) and evaluated their supervisor as a leader. In Study 3, we used tighter experimental control to test the critical role of supervisors' leadership style in how attracted more narcissistic subordinates are to supervisors. Participants evaluated a fictitious supervisor whose leadership style was either democratic or autocratic. In the latter three studies, participants also indicated the leadership style they would exhibit in a leadership position (i.e., own hypothetical leadership style). This practice allowed us to examine whether more narcissistic subordinates prefer supervisors whose leadership style is complementary or similar to their own hypothetical leadership style (and accordingly to their interpersonal goal to dominate others detached from their subordinate position). In other words, we tested the dominance-complementarity principle versus the similarity-attraction principle as a potential mechanism underlying the leadership preferences of more narcissistic subordinates.

We report all manipulations, measures, and exclusions in these studies. If not otherwise indicated, we analyzed the data in *R* (version 4.2.1; R Core Team, 2022). All data, data-analysis scripts, and research materials are publicly available at <https://madata.bib.uni-mannheim.de/427/>. The studies were not preregistered.

2 | STUDY 1

In Study 1, we examined the relation between narcissism and how subordinates generally prefer to be led. We asked

participants to take a subordinate's perspective and indicate the leadership style they would like to see in their supervisor. We tested whether the relation of subordinates' narcissism—particularly their narcissistic rivalry—with endorsement of democratic versus autocratic supervisors is positive (stronger PDDA) or negative (weaker PDDA).

2.1 | Method

2.1.1 | Participants

We opted for 300 participants, because we sought to estimate stable relations with high precision (Schönbrodt & Perugini, 2013). In total, 322 MTurk workers completed the study (participation requirements: US resident; approval rating for past MTurk work >95%). We excluded six participants, because they stated that they did not take their participation seriously. The final sample comprised 316 participants (126 women and 190 men; age: 18–84 years, $M = 35.37$, $SD = 10.88$). The sample size provided 80% power to detect a unique relation of $f^2 = 0.025$ in a linear multiple regression (two to three predictors, $\alpha = 0.05$, two-tailed; Faul et al., 2009). For reference, the median effect size of meta-analyses in social–personality psychology is $f^2 = 0.033$ (Richard et al., 2003).

2.1.2 | Procedure and materials

Participants first completed questionnaires (in counter-balanced order) assessing narcissism and impression management (the latter served as a covariate to rule out that differences between more and less narcissistic individuals were simply due to social desirability concerns). Next, they imagined themselves being in a subordinate position and reflected on what it means and how it feels to be a subordinate. Then, they responded to an attention check asking them whether they had imagined themselves as leader, subordinate, or elephant. Those who failed this check were directed to an early-end page. The remaining participants indicated their leadership preferences and provided demographic information.

Narcissism

We administered the Narcissistic Admiration and Rivalry Questionnaire (NARQ; Back et al., 2013), comprising the 9-item Admiration subscale ($\alpha = 0.91$; e.g., “I deserve to be seen as a great personality”) and the 9-item Rivalry subscale ($\alpha = 0.91$; e.g., “I enjoy it when another person is inferior to me”; 1 = *not agree at all*, 6 = *agree completely*).³

Impression management

We administered the 8-item Impression Management subscale ($\alpha=0.78$; e.g., “I sometimes tell lies if I have to” [reverse-coded]; 1 = *strongly disagree*, 7 = *strongly agree*) of the Balanced Inventory of Desirable Responding Short Form (C. M. Hart et al., 2015).

Leadership preferences

We assessed leadership preferences with two complementary but highly correlated approaches, $r(314)=0.70$, $p<0.001$. First, participants read descriptions of democratic and autocratic leadership in counterbalanced order. We derived the descriptions from classic definitions of these leadership styles (Bass, 2008; Lewin et al., 1939). For example, the democratic leadership description stated that “the supervisor lets the subordinates initiate most actions and interactions within the group,” whereas the autocratic leadership description stated that “the supervisor directs most actions and interactions within the group” (for full descriptions, see the material file at <https://ma-data.bib.uni-mannheim.de/427/>). For each description, participants indicated how much they, as subordinates, would want their supervisor to show the described leadership style (1 = *not at all*, 6 = *very much*).⁴

Further, participants read 10 democratic leadership behaviors (e.g., “put suggestions made by the group into operation”) and 10 autocratic leadership behaviors (e.g., “decide what shall be done and how it shall be done”) in alternating order. We adopted these behaviors mainly from the Leader Behavior Description Questionnaire XII (The Ohio State Leadership Studies, 1962). For each behavior, participants indicated how frequently they, as subordinates, would want their supervisor to show it (1 = *very seldom, never*, 6 = *very often, always*).

Democratic and autocratic leadership can be construed as two poles of a continuum (Bass, 2008; Lewin et al., 1939). We therefore reverse-coded responses to the autocratic leadership description and behaviors before averaging all responses to a measure. The result was a single leadership

descriptions measure and a single leadership behaviors measure. For both measures, high values indicated preference for clearly democratic leadership and low values indicated preference for clearly autocratic leadership, with values in between indicating preference for a mixture of democratic and autocratic leadership. We obtained highly similar results for the two leadership measures. Thus, for brevity, we report the results for the average of the two (z -standardized) measures ($\alpha=0.82$) here and the results of the single measures in Supplementary Material.

2.2 | Results and discussion

Table 1 summarizes descriptive statistics and zero-order correlations. The sample means for narcissistic admiration and rivalry were comparable to past research (Back et al., 2013; Zeigler-Hill et al., 2019). The sample means of leadership descriptions and behaviors indicated that, on average, subordinates preferred democratic over autocratic supervisors, replicating the PDDA (Bass, 2008; Schoel et al., 2011). More important, narcissistic admiration and particularly narcissistic rivalry correlated negatively with leadership preferences, indicating a weaker PDDA among more narcissistic subordinates.

To test whether that relation was unique to each narcissism dimension, we conducted two regression models. In Model 1, we entered both narcissism dimensions as simultaneous predictors. In Model 2, we additionally entered impression management as third predictor. We report the results in Table 2. Narcissistic rivalry, but not narcissistic admiration, showed a unique negative relation to leadership preferences, $f^2=0.20$, $\Delta R^2=0.16$, $F(1, 313)=62.59$, $p<0.001$; that is, only subordinates higher in narcissistic rivalry showed a weaker PDDA.⁵ This finding remained virtually unchanged when we controlled for impression management.⁶

In summary, Study 1 replicated the PDDA but showed that it is weaker among subordinates higher in narcissistic

TABLE 1 Descriptive statistics and zero-order correlations in Study 1.

Variable	<i>M</i>	<i>SD</i>	1	2	3
ADM	3.35	1.20			
RIV	2.66	1.20	0.54***		
IM	4.34	1.17	-0.15**	-0.45***	
Leadership preferences	0.00	0.92	-0.18**	-0.44***	0.10

Note: For leadership preferences, high values indicated preference for democratic leadership and low values indicated preference for autocratic leadership. $M_{\text{leadership preferences}}=0.00$ equates to $M_{\text{leadership descriptions}}=4.35$, $SD=1.01$, and $M_{\text{leadership behaviors}}=4.12$, $SD=0.66$. The sample means of leadership descriptions and behaviors were significantly above the scale-midpoint of 3.5, $t(315)\geq 15.00$, $ps<0.001$, $ds\geq 0.84$.

Abbreviations: ADM, narcissistic admiration; IM, impression management; RIV, narcissistic rivalry.

** $p<0.01$; *** $p<0.001$.

TABLE 2 Unique relations of narcissistic admiration and rivalry to leadership preferences in Study 1.

Predictor	Model 1				Model 2			
	β	95% CI	<i>t</i>	<i>p</i>	β	95% CI	<i>t</i>	<i>p</i>
ADM	0.07	[-0.04, 0.19]	1.23	0.221	0.09	[-0.03, 0.21]	1.51	0.131
RIV	-0.48	[-0.59, -0.36]	-7.91	<0.001	-0.55	[-0.68, -0.42]	-8.20	<0.001
IM ^a					-0.14	[-0.25, -0.02]	-2.38	0.018
	$R^2 = 0.19, F(2, 313) = 37.76, p < 0.001$				$R^2 = 0.21, F(3, 312) = 27.44, p < 0.001$			

Note: For leadership preferences, high values indicated preference for democratic leadership and low values indicated preference for autocratic leadership. Abbreviations: ADM, narcissistic admiration; CI, confidence interval; IM, impression management; RIV, narcissistic rivalry.

^aThe zero-order correlation between impression management and leadership preferences was not significant, $r(314) = 0.10, p = 0.084$ (Table 1). By contrast, the semi-partial correlation between impression management and leadership preferences in Model 2 was significant, $sr(312) = -0.12, p = 0.034$. That semi-partial correlation was also significant when narcissistic admiration was omitted from Model 2, $sr(313) = -0.11, p = 0.048$, but it was not significant when narcissistic rivalry was omitted from Model 2, $sr(313) = 0.07, p = 0.213$. These results suggest that narcissistic rivalry acts as a suppressor in the relation between impression management and leadership preferences (Paulhus et al., 2004).

rivalry. Previous research suggests that narcissistic rivalry is associated with the inclination to adopt a more autocratic leadership style (Matosic et al., 2017). Thus, the weaker PDDA among subordinates higher in narcissistic rivalry is in line with a stronger preference for a supervisor who shows a leadership style that they would exhibit in a leadership position (similarity-attraction principle) rather than a supervisor who shows a leadership style that is complementary to their own (hypothetical) leadership style in terms of dominance (and accordingly to their interpersonal goal to dominate others; dominance-complementarity principle). Yet, a direct test of similarity-attraction as a process driving the relation between subordinates' narcissistic rivalry and their leadership preferences is needed. Moreover, it is unclear whether those leadership preferences translate to subordinates' attraction to their own supervisor. We addressed both issues in Studies 2a–2b.

3 | STUDIES 2A–2B

Studies 2a–2b had two goals. The first goal was to test whether the relation of narcissistic admiration and rivalry with subordinates' endorsement of democratic versus autocratic supervisors in general translates to how attracted more narcissistic subordinates are to *their own* supervisor—that is, the real-life supervisor they actually have. Studies 2a–2b therefore examined the relation of narcissistic admiration and rivalry with subordinates' attraction to their own supervisor as a function of their own supervisor's leadership style. Participants occupying subordinate positions in organizational hierarchies indicated *their own* supervisor's leadership style and evaluated their supervisor as a leader. In Study 2a, assessment of supervisor's leadership style was based on individual ratings. In Study 2b, it was based on organizational team ratings to enhance

reliability and objectivity of ratings. Following Study 1's results, we had a single hypothesis in the present study (recall that we had two competing hypotheses in Study 1). Our hypothesis was that subordinates' narcissistic rivalry is negatively related to endorsement of democratic supervisors and positively related to endorsement of autocratic supervisors (weaker PDDA).

The second study goal was to directly test similarity-attraction as a process driving the relation between subordinates' narcissistic rivalry and their leadership preferences. Therefore, in addition to the leadership style of participants' supervisor, we measured participants' hypothetical leadership style—that is, their leadership style if they were in a leadership position. Similarity attracts if the relation between a democratic own hypothetical leadership style and attraction to supervisor is positive for democratic supervisors and negative for autocratic supervisors. We hypothesized that a negative relation of subordinates' narcissistic rivalry with a democratic own hypothetical leadership style accounts for the weaker PDDA among subordinates higher in narcissistic rivalry.

3.1 | Method of Study 2a

3.1.1 | Participants

We gathered data using a snowballing procedure. A student assistant distributed the study invitation via organizational contacts and social networks (e.g., Facebook, Xing). We recruited as many participants as possible within 1 month. In total, 158 participants completed the German online survey (participation requirement: have been working with their supervisor for at least 1 year). We excluded two participants due to an error in data recording (inexplicably, their data included ratings of a

female and a male supervisor). The final sample comprised 156 participants (103 women and 53 men; age: 19–62 years, $M = 33.83$, $SD = 11.11$). Participants had been working with their supervisor between 1 and 25 years ($M = 3.95$, $SD = 4.01$). Most participants (81%) reported seeing their supervisor at least once a week. The sample size provided 80% power to detect (1) a unique relation (main or interaction effect) of $f^2 = 0.051$ in a linear multiple regression (five predictors, $\alpha = 0.05$, two-tailed; Faul et al., 2009) and (2) an indirect effect with each path's effect (predictor \rightarrow mediator; mediator \rightarrow outcome) being $f^2 = 0.068$ (bias-corrected percentile bootstrap method; Fritz & MacKinnon, 2007).

3.1.2 | Procedure and materials

Participants first provided demographic information and completed the NARQ (Back et al., 2013; $\alpha_{\text{Admiration}} = 0.84$; $\alpha_{\text{Rivalry}} = 0.80$).⁷ Then, in counterbalanced order, they indicated (1) their supervisor's leadership style followed by an evaluation of their supervisor, and (2) their own hypothetical leadership style.

Supervisor's leadership style

Participants read the autocratic and democratic leadership descriptions from Study 1 (autocratic description first). For each description, they indicated the degree to which it corresponded with their supervisor's leadership style (1 = *not at all*, 7 = *very much*). Next, they read the 10 democratic and 10 autocratic leadership behaviors from Study 1 in alternating order. For each behavior, they reported how often their supervisor showed it (1 = *never*, 5 = *almost always/regularly*). As in Study 1, we first formed one leadership descriptions measure and one leadership behaviors measure and then averaged them (z -standardized) to obtain a single index ($\alpha = 0.90$). We report results on this index here and results for the separate measures in [Supplementary Material S2](#).

Subordinate's hypothetical leadership style

Participants imagined themselves being in their supervisor's position and read the same leadership descriptions and behaviors used to assess their supervisor's leadership style. For each description, they indicated the degree to which it corresponded with the leadership style they would show if they were in their supervisor's position (1 = *not at all*, 7 = *very much*). For each behavior, they reported how often they would show it if they were in their supervisor's position (1 = *never*, 5 = *almost always/regularly*). Parallel to supervisor's leadership style, we formed a single index of subordinate's hypothetical leadership style ($\alpha = 0.77$).

Attraction to supervisor

Participants rated their supervisor on 23 items (e.g., “How much do you like your supervisor as a leader?”; 1 = *not at all*, 7 = *very much*) that covered eight aspects of attraction to supervisor, such as liking for their supervisor and their supervisor's competence (for all aspects and their items, see the material file at <https://madata.bib.uni-mannheim.de/427/>). Those aspects were so closely interrelated that only a single factor showed up in a principal components analysis. This factor explained 71.17% of the total variance, and all aspects manifested high loadings on it (all loadings ≥ 0.68). Hence, we z -standardized and averaged them to form the outcome: attraction to supervisor ($\alpha = 0.94$).

3.2 | Results of Study 2a

We organized this section in two parts. First, we conducted a moderation analysis to test whether the relation of narcissistic admiration and rivalry with subordinates' attraction to their own supervisor was moderated by their own supervisor's leadership style. In particular, we tested whether the relation of subordinates' narcissistic rivalry with attraction to their own supervisor was negative for democratic supervisors and positive for autocratic supervisors. Second, we conducted a mediation analysis with the R -package *lavaan* (v0.6-17; Rosseel, 2012) to test whether a negative relation of subordinates' narcissistic rivalry with a democratic own hypothetical leadership style accounts for those relations.

[Table 3](#) summarizes descriptive statistics and zero-order correlations. The sample means for narcissistic admiration and rivalry were again comparable to past research (Back et al., 2013; Zeigler-Hill et al., 2019). The sample means of leadership descriptions and behaviors indicated that, on average, supervisors' leadership style was more democratic than autocratic, and subordinates would adopt a more democratic than autocratic leadership style if they were in their supervisor's position.

3.2.1 | Moderation analysis

We simultaneously regressed attraction to supervisor on both narcissism dimensions, supervisor's leadership style, and their two-way interactions (all z -standardized). We report the results in [Table 4](#). The effect of supervisor's leadership style was significant, indicating stronger attraction to supervisors with a more democratic leadership style (a replication of the PDDA). As hypothesized, narcissistic rivalry interacted with supervisor's leadership style, $f^2 = 0.07$, $\Delta R^2 = 0.03$, $F(5, 150) = 9.92$, $p = 0.002$. The relation of subordinates'

TABLE 3 Descriptive statistics and zero-order correlations in Studies 2a–2b.

Variable	Study 2a		Study 2b		1	2	3	4	5
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>					
ADM	3.19	0.81	3.06	0.80		0.47***	−0.26***	−0.20**	−0.09
RIV	2.25	0.76	2.04	0.75	0.31***		−0.48***	−0.30***	−0.18**
SHLS	0.00	0.90	0.00	0.89	−0.06	−0.45***		0.34***	0.25***
SLS	0.00	0.95	0.04	0.96	−0.10	−0.03	0.09		0.70***
Attraction	0.00	0.84	0.00	0.87	−0.08	0.03	0.07	0.67***	

Note: Zero-order correlations of Study 2a (Study 2b) are reported below (above) the diagonal. For SHLS and SLS, high values indicated a democratic leadership style and low values indicated an autocratic leadership style. In Study 2a, $M_{\text{SHLS}} = 0.00$ equates to $M_{\text{leadership descriptions}} = 5.44$, $SD = 1.33$, and $M_{\text{leadership behaviors}} = 3.51$, $SD = 0.47$, and $M_{\text{SLS}} = 0.00$ equates to $M_{\text{leadership descriptions}} = 4.38$, $SD = 1.82$, and $M_{\text{leadership behaviors}} = 3.23$, $SD = 0.75$. In Study 2b, $M_{\text{SHLS}} = 0.00$ equates to $M_{\text{leadership descriptions}} = 4.89$, $SD = 0.90$, and $M_{\text{leadership behaviors}} = 4.52$, $SD = 0.57$, and $M_{\text{SLS}} = 0.04$ equates to $M_{\text{leadership descriptions}} = 4.22$, $SD = 1.16$, and $M_{\text{leadership behaviors}} = 4.13$, $SD = 0.82$. The sample means of all SHLS and SLS measures were significantly above the respective scale-midpoint, $t(155) \geq 2.61$, $ps \leq 0.010$, $ds \geq 0.21$, in Study 2a and $t(210) \geq 9.05$, $ps < 0.001$, $ds \geq 0.62$, in Study 2b.

Abbreviations: ADM, narcissistic admiration; Attraction, attraction to supervisor; RIV, narcissistic rivalry; SHLS, subordinate's hypothetical leadership style; SLS, supervisor's leadership style (individual ratings in Study 2a, team ratings in Study 2b).

** $p < 0.01$. *** $p < 0.001$.

TABLE 4 Unique effects of narcissistic admiration and rivalry on attraction to supervisor moderated by supervisor's leadership style in Studies 2a–2b.

Predictor	Study 2a				Study 2b			
	β	95% CI	<i>t</i>	<i>p</i>	<i>zPE</i>	95% CI	<i>z</i>	<i>p</i>
(Intercept)					−0.06	[−0.18, 0.06]	−1.06	0.290
ADM	−0.01	[−0.13, 0.11]	−0.16	0.871	0.06	[−0.06, 0.17]	0.93	0.350
RIV	0.02	[−0.11, 0.14]	0.25	0.803	−0.03	[−0.22, 0.16]	−0.32	0.747
SLS	0.67	[0.55, 0.79]	11.02	<0.001	0.75	[0.67, 0.83]	18.07	<0.001
ADM × SLS	−0.03	[−0.16, 0.09]	−0.55	0.584	−0.01	[−0.13, 0.12]	−0.14	0.890
RIV × SLS	−0.20	[−0.32, −0.07]	−3.15	0.002	−0.11	[−0.22, 0.002]	−1.92	0.054
	$R^2 = 0.50$, $F(5, 150) = 29.98$, $p < 0.001$				$R_{\text{total}}^{2(fvm)} = 0.53^a$			

Note: For SLS, high values indicated a democratic leadership style and low values indicated an autocratic leadership style. In Study 2b, the variance of the random intercept was 0.010, and the variance of the random slopes was less than 0.001 for narcissistic admiration and 0.007 for narcissistic rivalry.

Abbreviations: ADM, narcissistic admiration; CI, confidence interval; RIV, narcissistic rivalry; SLS, supervisor's leadership style (individual ratings in Study 2a, team ratings in Study 2b); *zPE*, standardized point estimate.

^aWe estimated $R_{\text{total}}^{2(fvm)}$ with the *R*-package *r2mlm* (v 0.3.7; Shaw et al., 2023). That package estimates $R_{\text{total}}^{2(fvm)}$ based on model parameters computed in *R*. Those model parameters slightly differed from the reported model parameters computed in *Mplus* 8.5, but the differences were negligible.

narcissistic rivalry with attraction to supervisor was negative for democratic supervisors, $\beta = -0.32$, 95% CI [−0.58, −0.05], $t(150) = -2.35$, $p = 0.020$, and positive for autocratic supervisors, $\beta = 0.45$, 95% CI [0.18, 0.73], $t(150) = 3.28$, $p = 0.001$ (weaker PDDA). We display simple slopes in Figure 1a.⁸ The main effects of both narcissism dimensions and the Admiration × Supervisor's Leadership Style interaction were not significant.⁹

3.2.2 | Mediation analysis

As depicted in Figure 2a, we tested a moderated mediation model. To this end, we extended the former regression model as follows: (1) We included subordinate's

hypothetical leadership style as an additional predictor. (2) We specified the two-way interaction between subordinate's hypothetical leadership style and supervisor's leadership style. (3) We specified indirect effects of both narcissism dimensions on attraction to supervisor via subordinate's hypothetical leadership style (path a of indirect effect: narcissism dimension → subordinate's hypothetical leadership style; path b of indirect effect: Subordinate's Hypothetical Leadership Style × Supervisor's Leadership Style interaction → attraction to supervisor; model 15 in Hayes, 2018, p. 592). We report the results in Table 5.

As expected, subordinates' narcissistic rivalry (but not admiration) was negatively related to a democratic own hypothetical leadership style, $f^2 = 0.27$, $\Delta R^2 = 0.21$, $F(1, 153) = 40.63$, $p < 0.001$. The Subordinate's

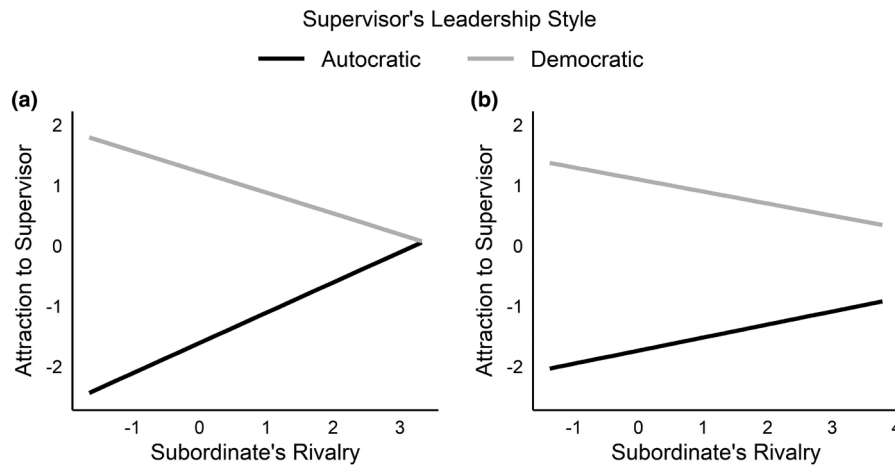


FIGURE 1 Attraction to supervisor as a function of subordinate's narcissistic rivalry and supervisor's leadership style in Study 2a (a) and Study 2b (b). All variables were *z*-standardized. Supervisor's leadership style was based on individual ratings in Study 2a (a) and team ratings in Study 2b (b). Simple slopes were estimated for supervisors whose leadership style was clearly democratic or clearly autocratic—that is, for the leadership style values of the most democratic (Study 2a: standardized value = 1.83; Study 2b: standardized value = 1.54) and the most autocratic (Study 2a: standardized value = -2.40 ; Study 2b: standardized value = -2.24) supervisors in the studies (for corresponding values on the leadership descriptions and leadership behaviors measures, see Footnotes 8 and 12). Simple slopes were controlled for narcissistic admiration and the Admiration \times Supervisor's Leadership Style interaction.

Hypothetical Leadership Style \times Supervisor's Leadership Style interaction on attraction to supervisor was also significant, $f^2 = 0.10$, $\Delta R^2 = 0.05$, $F(1, 148) = 15.41$, $p < 0.001$. Consistent with the similarity-attraction principle, the relation between a democratic own hypothetical leadership style and attraction to supervisor was positive for democratic supervisors and negative for autocratic supervisors (Figure 2a).

Most important, the index of moderated mediation (Hayes, 2018) for narcissistic rivalry was significant, *estimate* = -0.13 , 95% CI [-0.24 , -0.04], $z = -2.58$, $p = 0.010$. The indirect effect of narcissistic rivalry on attraction to supervisor via subordinate's hypothetical leadership style was negative for democratic supervisors, *estimate* = -0.24 , 95% CI [-0.48 , -0.07], $z = -2.40$, $p = 0.016$, and positive for autocratic supervisors, *estimate* = 0.29 , 95% CI [0.10 , 0.56], $z = 2.47$, $p = 0.014$. By contrast, the index of moderated mediation for narcissistic admiration was not significant, *estimate* = 0.02 , 95% CI [-0.01 , 0.07], $z = 1.15$, $p = 0.249$.

3.3 | Method of Study 2b

3.3.1 | Participants

We gathered data through a snowballing procedure. A student assistant distributed the study invitation via organizational contacts and social networks (e.g., Facebook, Xing). To obtain more reliable and objective ratings of

the leadership style of supervisors, we sought to recruit members of organizational teams. Specifically, we asked participants to invite other members of their organizational team who had the same supervisor to take part in the study. We recruited as many participants as possible within 1 month. In total, 226 participants completed the German online survey (participation requirements: have been working with a supervisor, but to maximize sample size we did not specify the minimum duration; have at least two colleagues who had been working with the same supervisor and were willing to take part in the study). Of these, 212 could be matched with at least one other team member. In one team, however, one participant indicated a different gender of the supervisor and was therefore excluded from analyses. The final sample comprised 211 participants (123 women, 86 men, and 2 undisclosed; age: 18–63 years, $M = 33.00$, $SD = 11.26$) across 70 teams with two to six team members ($M = 3.01$, $SD = 0.84$). Except for 12 participants (6%), they had been working with their supervisor for at least 1 year (1–35 years, $M = 4.33$, $SD = 4.65$). Most participants (73%) reported seeing their supervisor at least once a week.

It is possible to estimate power for cross-level interactions with Monte Carlo simulations (Green & MacLeod, 2016). However, that method requires a number of parameters that we were unable to specify for our hypothesized cross-level interactions without prior data. Instead, we report observed power and evaluate evidence from this study within the broader evaluation of our research in General Discussion (cf. Wegener et al., 2022).

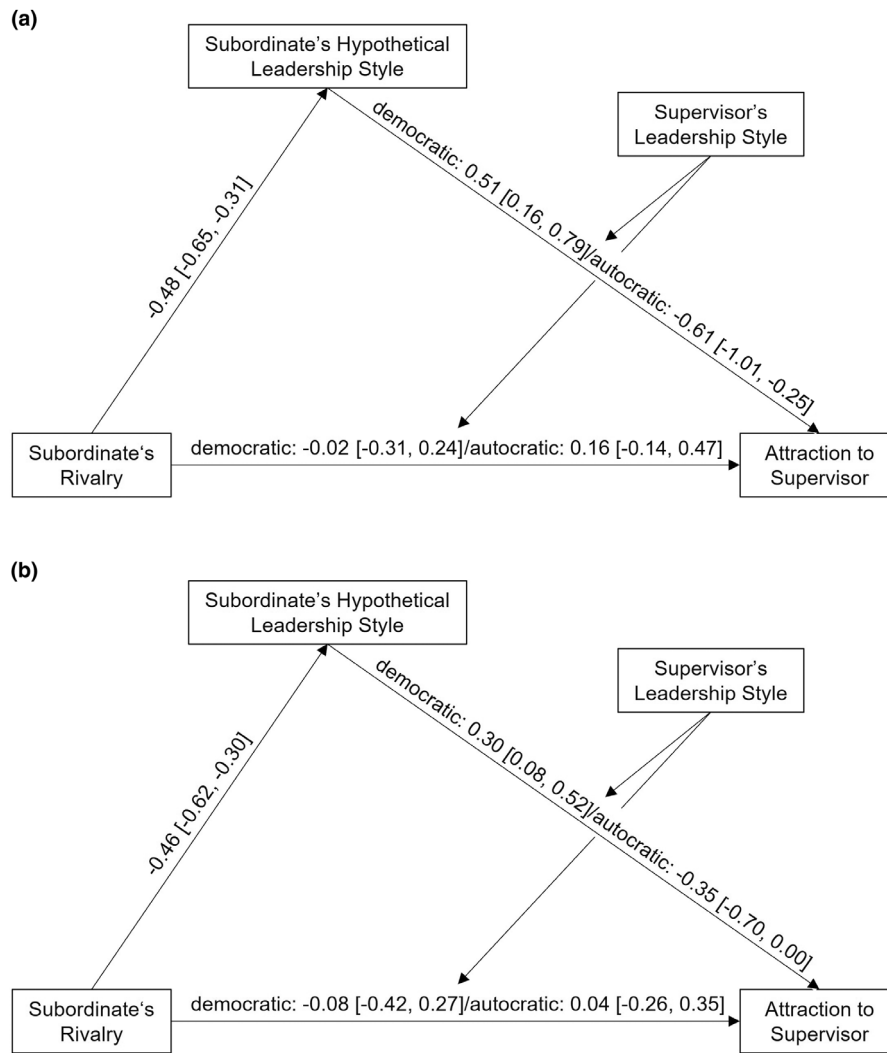


FIGURE 2 Moderated mediation model in Study 2a (a) and Study 2b (b). All variables were z-standardized. Path coefficients are standardized estimates with 95% confidence intervals. For subordinate's hypothetical leadership style, high values indicated a democratic leadership style and low values indicated an autocratic leadership style. Supervisor's leadership style was based on individual ratings in Study 2a (a) and team ratings in Study 2b (b). Path coefficients are displayed separately for supervisors whose leadership style was clearly democratic or clearly autocratic—that is, for the leadership style values of the most democratic (Study 2a: standardized value = 1.83; Study 2b: standardized value = 1.54) and the most autocratic (Study 2a: standardized value = -2.40; Study 2b: standardized value = -2.24) supervisors in the studies (for corresponding values on the leadership descriptions and leadership behaviors measures, see Footnotes 8 and 12). The path from subordinate's rivalry to subordinate's hypothetical leadership style was controlled for narcissistic admiration; all other paths were controlled for narcissistic admiration and the Admiration \times Supervisor's Leadership Style interaction.

3.3.2 | Procedure and materials

Participants first rated their supervisor's leadership style followed by an evaluation of their supervisor. Next, they completed the NARQ (Back et al., 2013; $\alpha_{\text{Admiration}}=0.83$; $\alpha_{\text{Rivalry}}=0.82$) and indicated their own hypothetical leadership style. Finally, they provided demographic information.

Supervisor's leadership style

We used the leadership behaviors and descriptions from Studies 1–2a with minor changes. To increase

participation rate, we reduced the study duration by using only half of the leadership behaviors and shorter leadership descriptions. Moreover, we introduced 6-point rating scales for both measures. We aggregated each measure's individual values on team level (reliability of team-level means: $\text{ICC}[2]_{\text{behaviors}}=0.87$; $\text{ICC}[2]_{\text{descriptions}}=0.83$).¹⁰ Then, congruent with Study 2a, we averaged team-level means of both measures (z-standardized) to obtain a single index for the leadership style of each team's supervisor ($\alpha=0.95$). As in Studies 1–2a, we focus on this index here and report results for the separate measures in [Supplementary Material S2](#).

TABLE 5 Results of the moderated mediation model in Studies 2a–2b.

Predictor	Study 2a				Study 2b			
	β	95% CI	z	p	zPE	95% CI	z	p
<i>Subordinate's hypothetical leadership style</i>								
ADM	0.09	[−0.06, 0.23]	1.22	0.221	−0.04	[−0.17, 0.09]	−0.60	0.550
RIV	−0.48	[−0.65, −0.31]	−5.46	<0.001	−0.46	[−0.62, −0.30]	−5.66	<0.001
$R^2 = 0.21, F(2, 153) = 20.67, p < 0.001$					$R_{total}^{2(fvm)} = 0.31^a$			
<i>Attraction to supervisor</i>								
(Intercept)					−0.09	[−0.21, 0.03]	−1.44	0.149
ADM	−0.03	[−0.16, 0.09]	−0.49	0.624	0.02	[−0.11, 0.15]	0.32	0.747
RIV	0.06	[−0.06, 0.18]	0.90	0.368	−0.03	[−0.27, 0.22]	−0.22	0.829
SHLS	0.03	[−0.12, 0.18]	0.35	0.728	0.03	[−0.11, 0.18]	0.46	0.646
SLS	0.63	[0.50, 0.75]	10.22	<0.001	0.74	[0.66, 0.82]	18.19	<0.001
ADM × SLS	−0.05	[−0.19, 0.08]	−0.72	0.470	0.04	[−0.10, 0.18]	0.57	0.569
RIV × SLS	−0.04	[−0.17, 0.08]	−0.70	0.483	−0.03	[−0.15, 0.09]	−0.52	0.601
SHLS × SLS	0.26	[0.11, 0.41]	3.50	<0.001	0.17	[0.04, 0.30]	2.62	0.009
$R^2 = 0.55, F(7, 148) = 25.58, p < 0.001$					$R_{total}^{2(fvm)} = 0.59^a$			

Note: For SHLS and SLS, high values indicated a democratic leadership style and low values indicated an autocratic leadership style. In Study 2b, the variance of the random intercept was 0.010, and the variance of the random slopes was less than 0.001 for narcissistic admiration, 0.007 for narcissistic rivalry, and 0.055 for subordinate's hypothetical leadership style.

Abbreviations: ADM, narcissistic admiration; CI, confidence interval; RIV, narcissistic rivalry; SHLS, subordinate's hypothetical leadership style; SLS, supervisor's leadership style (individual ratings in Study 2a, team ratings in Study 2b); zPE , standardized point estimate.

^aWe estimated $R_{total}^{2(fvm)}$ with the *R*-package *r2mlm* (v 0.3.7; Shaw et al., 2023). That package estimates $R_{total}^{2(fvm)}$ based on model parameters computed in *R*. Those model parameters slightly differed from the reported model parameters computed in *Mplus 8.5*, but the differences were negligible.

Subordinate's hypothetical leadership style

Participants imagined themselves being in their supervisor's position and read the leadership behaviors and descriptions from Studies 1–2a but—as for supervisor's leadership style—with fewer leadership behaviors, shorter leadership descriptions, and 6-point rating scales. As in Study 2a, we formed a single index of subordinate's hypothetical leadership style ($\alpha = 0.75$).

Attraction to supervisor

Participants rated their supervisor on 12 items (e.g., “How much do you like your supervisor as a leader?”; 1 = *not at all*, 7 = *very much*) that covered six aspects of attraction to supervisor, such as liking for their supervisor and their supervisor's competence (for all aspects and their items, see the material file at <https://madata.bib.uni-mannheim.de/427/>). As in Study 2a, those aspects were so closely interrelated that only a single factor showed up in a principal components analysis. This factor explained 75.64% of the total variance, and all aspects manifested high loadings on it (all loadings ≥ 0.80). Hence, we z -standardized and averaged them to form the outcome: attraction to supervisor ($\alpha = 0.93$).

3.4 | Results of Study 2b

As in Study 2a, we first conducted a moderation analysis to test whether the relation of subordinates'

narcissistic rivalry with attraction to their own supervisor was negative for democratic supervisors and positive for autocratic supervisors. Next, we conducted a mediation analysis to test whether those relations were attributable to a negative relation of subordinates' narcissistic rivalry with a democratic own hypothetical leadership style. To account for the nested data structure (participants nested in teams), we conducted random-intercept random-slope models (Barr et al., 2013). We computed the models with *Mplus 8.5* (Muthén & Muthén, 1998–2017), because the currently available *R*-packages do not allow testing indirect effects of multilevel moderated mediation models that include random slopes. To achieve model convergence, we set the correlations between the random intercept and the random slopes to zero (Bates et al., 2015). We z -standardized all variables to obtain standardized coefficients.¹¹

Table 3 summarizes descriptive statistics and zero-order correlations. The sample means for narcissistic admiration and rivalry were again comparable to past research (Back et al., 2013; Zeigler-Hill et al., 2019). The sample means of leadership descriptions and behaviors indicated that, on average, supervisors' leadership style was more democratic than autocratic, and subordinates would adopt a more democratic than autocratic leadership style if they were in their supervisor's position.

3.4.1 | Moderation analysis

We simultaneously regressed attraction to supervisor (Level 1) on both narcissism dimensions (Level 1), supervisor's leadership style (Level 2), and their cross-level interactions. We report the results in Table 4. The effect of supervisor's leadership style was significant, indicating stronger attraction to supervisors with a more democratic leadership style (a replication of the PDDA). The Rivalry \times Supervisor's Leadership Style interaction was not significant, but the pattern of results paralleled that of Study 2a: Descriptively, the relation of subordinates' narcissistic rivalry with attraction to supervisor was negative for democratic supervisors, *standardized point estimate* (*zPE*) = -0.20 , 95% CI [-0.44 , 0.04], $z = -1.62$, $p = 0.104$, and positive for autocratic supervisors $zPE = 0.21$, 95% CI [-0.12 , 0.54], $z = 1.23$, $p = 0.220$ (trend for a weaker PDDA). We display simple slopes in Figure 1b.¹² The main effects of both narcissism dimensions and the Admiration \times Supervisor's Leadership Style interaction were not significant.

3.4.2 | Mediation analysis

The total effect of the Rivalry \times Supervisor's Leadership Style interaction was not significant. Yet, our predicted indirect effect via subordinate's hypothetical leadership style might be present because the total effect is the sum of the direct and the indirect effect. If the direct and the indirect effect differ in their direction, the total effect might be null, whereas the indirect effect might be significant (Hayes, 2018).

As in Study 2a, we tested a moderated mediation model (Figure 2b). To this end, we extended the former multilevel model as follows: (1) We included subordinate's hypothetical leadership style as an additional (Level 1) predictor. (2) We specified the cross-level interaction between subordinate's hypothetical leadership style and supervisor's leadership style. (3) We specified indirect effects of both narcissism dimensions on attraction to supervisor via subordinate's hypothetical leadership style. We report the results in Table 5.

Again, subordinates' narcissistic rivalry (but not admiration) was negatively related to a democratic own hypothetical leadership style. The Subordinate's Hypothetical Leadership Style \times Supervisor's Leadership Style interaction on attraction to supervisor was also significant. Consistent with the similarity-attraction principle, the relation between a democratic own hypothetical leadership style and attraction to supervisor was positive for democratic supervisors and negative for autocratic supervisors (Figure 2b).

Most important, the index of moderated mediation for narcissistic rivalry was significant, *estimate* = -0.08 , 95% CI [-0.14 , -0.02], $z = -2.55$, $p = 0.011$. The indirect effect

of narcissistic rivalry on attraction to supervisor via subordinate's hypothetical leadership style was negative for democratic supervisors, *estimate* = -0.14 , 95% CI [-0.24 , -0.03], $z = -2.55$, $p = 0.011$, and positive for autocratic supervisors, *estimate* = 0.16 , 95% CI [0.00 , 0.32], $z = 1.96$, $p = 0.050$. By contrast, the index of moderated mediation for narcissistic admiration was not significant, *estimate* = -0.01 , 95% CI [-0.03 , 0.02], $z = -0.56$, $p = 0.572$.

3.5 | Discussion of Studies 2a–2b

Studies 2a–2b provided evidence that the general leadership preferences of more narcissistic subordinates found in Study 1 translate to how attracted more narcissistic subordinates are to their own supervisor. Specifically, subordinates' narcissistic rivalry was negatively related to endorsement of democratic supervisors and positively related to endorsement of autocratic supervisors (albeit not significant in Study 2b). Moreover, consistent with the similarity-attraction principle, a negative relation of subordinates' narcissistic rivalry with a democratic own hypothetical leadership style accounted for those relations. These findings held for assessments of supervisor's leadership style at the individual level (Study 2a) and at the team level (Study 2b).

A strength of Studies 2a–2b is their high ecological validity, as participants occupied subordinate positions in real organizational hierarchies. Yet, all data were cross-sectional. It can therefore not be ruled out that subordinates had adopted their supervisors' leadership style over time when they were attracted to their supervisor, instead of being more attracted to their supervisor when their own hypothetical leadership style was similar to their supervisor's leadership style. In an effort to provide firmer evidence for the critical role of supervisors' leadership style in how attracted more narcissistic subordinates are to supervisors, we used tighter experimental control in Study 3.

4 | STUDY 3

In Study 3, we tested whether a low democratic and high autocratic leadership style elicits stronger attraction to a supervisor for subordinates higher in narcissistic rivalry. We presented participants with a fictitious supervisor whose leadership style was either clearly democratic or clearly autocratic. Following our findings from Studies 1–2, we hypothesized that subordinates' narcissistic rivalry is negatively related to endorsement of the democratic leader profile and positively related to endorsement of the autocratic leader profile. We again expected the

similarity between subordinate's hypothetical leadership style and the fictitious supervisor's leadership style to mediate those relations.

4.1 | Method

4.1.1 | Participants

We opted for 300 participants per condition (600 in all), because we sought to (1) estimate stable relations with high precision within each condition (Schönbrodt & Perugini, 2013), and (2) ensure high reliability of indirect effects (Fritz & MacKinnon, 2007). In total, 601 MTurk workers (318 women, 282 men, and 1 undisclosed; age: 18–75 years, $M=36.85$, $SD=11.20$) completed the study (participation requirements: US resident; approval rating for past MTurk work >95%).¹³ The sample size provided 80% power to detect (1) a unique relation (main or interaction effect) of $f^2=0.013$ in a linear multiple regression (five predictors, $\alpha=0.05$, two-tailed; Faul et al., 2009) and (2) an indirect effect with each path's effect being $f^2=0.02$ (bias-corrected percentile bootstrap method; Fritz & MacKinnon, 2007).

4.1.2 | Procedure and materials

Participants first completed the NARQ (Back et al., 2013; $\alpha_{\text{Admiration}}=0.88$; $\alpha_{\text{Rivalry}}=0.88$) and indicated their own hypothetical leadership style. Next, they were randomly assigned to the democratic or autocratic leader profile of a fictitious supervisor and evaluated this person. Finally, they stated how they perceived the supervisor's leadership style and provided demographic information.

Supervisor's leadership style

Participants read the ostensible answers of a male leader to the democratic and autocratic leadership descriptions and behaviors from Studies 1–2a and imagined that they were given by a leader who was their supervisor (but not the real-life supervisor they actually have).¹⁴ The ratings of the fictitious supervisor were either clearly democratic (“6” for the democratic description and “2” for the autocratic description on 7-point scales; $M=4.50$ for democratic behaviors and $M=1.50$ for autocratic behaviors on 5-point scales) or clearly autocratic (“6” for the autocratic description and “2” for the democratic description; $M=4.50$ for autocratic behaviors and $M=1.50$ for democratic behaviors). We presented the democratic description together with the democratic behaviors and the autocratic description together with the autocratic behaviors to help participants notice that the supervisor's leadership style was clearly democratic or autocratic. Participants viewed the

democratic items and the autocratic items in counterbalanced order.

Subordinate's hypothetical leadership style

Participants imagined themselves being in a leadership position and read the same items that we used for the leader profile of the fictitious supervisor (in the same order as in the supervisor's leader profile). Participants indicated correspondence with the two leadership descriptions (1 = *not at all*, 7 = *very much*) and frequency of each leadership behavior (1 = *never*, 5 = *always*). As in Studies 2a–2b, we formed a single index of subordinate's hypothetical leadership style ($\alpha=0.80$).

Attraction to supervisor

Participants rated the fictitious supervisor on 21 items (e.g., “How much would you like this supervisor as a leader?”; 1 = *not at all*, 7 = *very much*) that covered seven aspects of attraction to supervisor, such as liking for the supervisor and the supervisor's competence (for all aspects and their items, see the material file at <https://ma-data.bib.uni-mannheim.de/427/>). As in Studies 2a–2b, those aspects were so closely interrelated that only a single factor showed up in a principal components analysis. This factor explained 83.38% of the total variance, and all measures manifested high loadings on it (all loadings ≥ 0.85). Hence, we z-standardized and averaged them to form the outcome: attraction to supervisor ($\alpha=0.97$).

Perceived leadership style

Participants stated how they perceived the leadership style of the fictitious supervisor (1 = *democratic*, 6 = *autocratic*).

4.2 | Results and discussion

First, we tested whether participants perceived the supervisor's leadership style as intended. Second, as in Studies 2a–2b, we conducted a moderation analysis to test whether subordinates' narcissistic rivalry is negatively related to endorsement of the democratic leader profile and positively related to endorsement of the autocratic leader profile. Finally, we conducted a mediation analysis to test whether a negative relation of subordinates' narcissistic rivalry with a democratic own hypothetical leadership style accounted for those relations.

Table 6 summarizes descriptive statistics and zero-order correlations. The sample means for narcissistic admiration and rivalry were again comparable to past research (e.g., Back et al., 2013; Zeigler-Hill et al., 2019). The sample means of leadership descriptions and behaviors indicated that, on average, subordinates would adopt a more democratic than autocratic leadership style if they were in a leadership position.

TABLE 6 Descriptive statistics and zero-order correlations in Study 3.

Variable	Democratic condition (<i>n</i> = 299)		Autocratic condition (<i>n</i> = 302)		1	2	3	4
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
ADM	3.31	1.00	3.18	1.03				
RIV	2.35	1.08	2.27	0.95	0.42***			
SHLS	0.00	0.94	0.00	0.89	-0.19***	-0.38***		
SLS	0.50	0.00	-0.50	0.00	0.07	0.04	0.004	
Attraction	0.66	0.58	-0.65	0.69	0.10*	0.07	-0.03	0.72***

Note: For SHLS, high values indicated a democratic leadership style and low values indicated an autocratic leadership style. $M_{\text{SHLS}} = 0.00$ equates to $M_{\text{leadership descriptions}} = 5.18$, $SD = 1.28$, and $M_{\text{leadership behaviors}} = 3.57$, $SD = 0.53$. The sample means of both SHLS measures were significantly above the respective scale-midpoint, $t(600) \geq 22.60$, $ps < 0.001$, $ds \geq 0.92$.

Abbreviations: ADM, narcissistic admiration; Attraction, attraction to supervisor; Autocratic condition, participants viewed the autocratic leader profile of the fictitious supervisor; Democratic condition, participants viewed the democratic leader profile of the fictitious supervisor; RIV, narcissistic rivalry; SHLS, subordinate's hypothetical leadership style; SLS, supervisor's leadership style (predetermined; $-0.5 = \text{autocratic}$, $0.5 = \text{democratic}$).

* $p < 0.05$. *** $p < 0.001$.

4.2.1 | Perceived leadership style

As intended, participants perceived the supervisor's leadership style as democratic in the democratic condition ($M = 1.94$, $SD = 1.38$), $t(298) = -19.50$, $p < 0.001$, $d = -1.13$, 95% CI $[-1.27, -0.98]$, and as autocratic in the autocratic condition ($M = 5.18$, $SD = 1.47$), $t(301) = 19.79$, $p < 0.001$, $d = 1.14$, 95% CI $[0.99, 1.28]$, resulting in a large difference between the two leader profiles, $t(599) = 27.77$, $p < 0.001$, $d = 2.27$, 95% CI $[2.06, 2.47]$.¹⁵

4.2.2 | Moderation analysis

We simultaneously regressed attraction to supervisor on both narcissism dimensions, supervisor's leadership style ($-0.5 = \text{autocratic}$, $0.5 = \text{democratic}$), and their two-way interactions (all z -standardized). We report the results in Table 7. The effect of supervisor's leadership style was significant, indicating stronger attraction to the democratic than the autocratic supervisor (a replication of the PDDA). As hypothesized, the Rivalry \times Supervisor's Leadership Style interaction was significant, $f^2 = 0.02$, $\Delta R^2 = 0.01$, $F(1, 595) = 11.35$, $p < 0.001$. The relation of subordinates' narcissistic rivalry with attraction to supervisor descriptively tended to be negative for the democratic supervisor, $\beta = -0.07$, 95% CI $[-0.16, 0.01]$, $t(595) = -1.71$, $p = 0.089$, and was positive for the autocratic supervisor, $\beta = 0.14$, 95% CI $[0.05, 0.23]$, $t(595) = 3.02$, $p = 0.003$ (weaker PDDA). We display simple slopes in Figure 3. The main effects of both narcissism dimensions and the Admiration \times Supervisor's Leadership Style interaction were not significant.¹⁶

4.2.3 | Mediation analysis

As depicted in Figure 4, we tested the same moderated mediation model as in Study 2a. We report the results in Table 7. Again, subordinates' narcissistic rivalry (but not admiration) was negatively related to a democratic own hypothetical leadership style, $f^2 = 0.13$, $\Delta R^2 = 0.11$, $F(1, 598) = 74.76$, $p < 0.001$. The Subordinate's Hypothetical Leadership Style \times Supervisor's Leadership Style interaction on attraction to supervisor was also significant, $f^2 = 0.14$, $\Delta R^2 = 0.06$, $F(1, 593) = 83.19$, $p < 0.001$. Consistent with the similarity-attraction principle, the relation between a democratic own hypothetical leadership style and attraction to supervisor was positive for the democratic supervisor and negative for the autocratic supervisor (Figure 4).

Most important, the index of moderated mediation for narcissistic rivalry was significant, $estimate = -0.09$, 95% CI $[-0.13, -0.07]$, $z = -6.41$, $p < 0.001$. The indirect effect of narcissistic rivalry on attraction to supervisor via subordinate's hypothetical leadership style was negative for the democratic supervisor, $estimate = -0.08$, 95% CI $[-0.12, -0.06]$, $z = -5.07$, $p < 0.001$, and positive for the autocratic supervisor, $estimate = 0.10$, 95% CI $[0.07, 0.14]$, $z = 5.42$, $p < 0.001$. By contrast, the index of moderated mediation for narcissistic admiration was not significant, $estimate = -0.01$, 95% CI $[-0.03, 0.01]$, $z = -0.77$, $p = 0.439$.

In summary, Study 3 provided firmer evidence that a low democratic and high autocratic leadership style elicits stronger attraction to a supervisor for subordinates higher in narcissistic rivalry. Moreover, consistent with the similarity-attraction principle, a negative relation of subordinates' narcissistic rivalry with a democratic own hypothetical leadership style accounted for this stronger attraction.

TABLE 7 Results of the moderation model and the moderated mediation model in Study 3.

Predictor	Moderation model				Moderated mediation model			
	β	95% CI	<i>t</i>	<i>p</i>	β	95% CI	<i>z</i>	<i>p</i>
<i>Subordinate's hypothetical leadership style</i>								
ADM					-0.03	[-0.11, 0.05]	-0.78	0.433
RIV					-0.36	[-0.44, -0.28]	-9.13	<0.001
					$R^2 = 0.14, F(2, 598) = 49.31, p < 0.001$			
<i>Attraction to supervisor</i>								
ADM	0.05	[-0.01, 0.11]	1.61	0.109	0.04	[-0.03, 0.11]	1.11	0.267
RIV	0.03	[-0.03, 0.09]	1.06	0.289	0.02	[-0.04, 0.09]	0.68	0.495
SHLS					-0.03	[-0.08, 0.03]	-0.97	0.331
SLS	0.71	[0.66, 0.77]	25.26	<0.001	0.71	[0.66, 0.77]	27.16	<0.001
ADM × SLS	-0.04	[-0.10, 0.03]	-1.16	0.248	-0.03	[-0.10, 0.04]	-0.78	0.434
RIV × SLS	-0.11	[-0.17, -0.04]	-3.37	<0.001	-0.01	[-0.08, 0.06]	-0.30	0.767
SHLS × SLS					0.26	[0.20, 0.31]	9.27	<0.001
					$R^2 = 0.53, F(5, 595) = 134.61, p < 0.001$			
					$R^2 = 0.59, F(7, 593) = 121.20, p < 0.001$			

Note: For SHLS, high values indicated a democratic leadership style and low values indicated an autocratic leadership style.

Abbreviations: ADM, narcissistic admiration; CI, confidence interval; RIV, narcissistic rivalry; SHLS, subordinate's hypothetical leadership style; SLS, supervisor's leadership style (predetermined; -0.5 = autocratic, 0.5 = democratic).

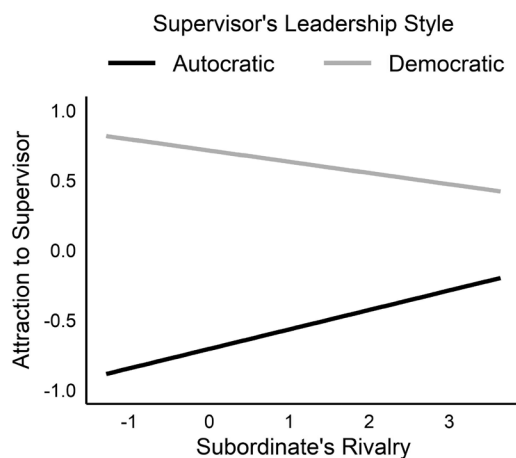


FIGURE 3 Attraction to supervisor as a function of subordinate's narcissistic rivalry and supervisor's leadership style in Study 3. All variables were *z*-standardized. Supervisor's leadership style was predetermined. Simple slopes were controlled for narcissistic admiration and the Admiration × Supervisor's Leadership Style interaction.

5 | GENERAL DISCUSSION

We replicated previous findings showing that subordinates generally prefer democratic over autocratic supervisors (Bass, 2008; Schoel et al., 2011). However, we also found that this PDDA is significantly weaker among more narcissistic subordinates—especially those higher in narcissistic rivalry. Our findings were highly consistent across

four studies using different methods (hypothetical scenarios and evaluations of own supervisors in organizations).

5.1 | Implications

Our findings attest to the utility of investigating specific narcissism dimensions. In particular, the findings indicate that the weaker PDDA among more narcissistic subordinates is mostly driven by the entitlement/antagonism dimension (NARQ-Rivalry) and less so by the grandiosity/exhibitionism dimension (NARQ-Admiration). When narcissistic rivalry was controlled, narcissistic admiration did not predict the proclivity to adopt a more autocratic leadership style, nor did it predict the proclivity to adopt a more democratic leadership style. Hence, similarity-attraction did not result in a weaker or stronger PDDA for subordinates higher in narcissistic admiration.¹⁷ By contrast, narcissistic rivalry predicted the proclivity to adopt a more autocratic leadership style. Moreover, in line with the similarity-attraction principle, the size of the PDDA was reduced by about one half (Study 3) up to three quarters (Study 2a) for subordinates higher ($M+1 SD$) versus lower ($M-1 SD$) in narcissistic rivalry. Yet, the PDDA did not reverse. One reason may be that democratic principles constitute such important social values in Western cultures that even most individuals higher in narcissism adhere to them.

Our findings also advance knowledge on traits that attenuate the PDDA and on the underlying processes.

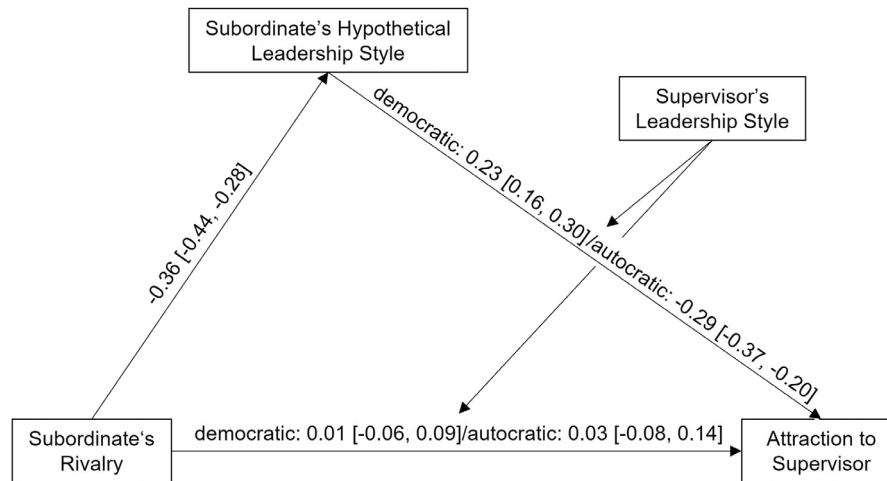


FIGURE 4 Moderated mediation model in Study 3. All variables were z-standardized. Path coefficients are standardized estimates with 95% confidence intervals. For subordinate's hypothetical leadership style, high values indicated a democratic leadership style and low values indicated an autocratic leadership style. Supervisor's leadership style was predetermined. Path coefficients are displayed separately for the democratic and the autocratic supervisor. The path from subordinate's rivalry to subordinate's hypothetical leadership style was controlled for narcissistic admiration; all other paths were controlled for narcissistic admiration and the Admiration \times Supervisor's Leadership Style interaction.

Previous research has shown that subordinates with a lower, unstable self-esteem have a weaker PDDA under conditions of self-uncertainty (Schoel et al., 2011, 2015). Presumably, they are more likely than subordinates with a higher, stable self-esteem to doubt their own ability to handle an uncertain situation well and, thus, prefer to leave decisions solely to a leader (dominance-complementarity principle). We found a weaker PDDA for subordinates higher in narcissistic rivalry when self-uncertainty was probably neither high nor low on average, and this effect was driven by similarity-attraction. Given that narcissistic rivalry is associated with a rather low, unstable self-esteem (Geukes et al., 2017), however, subordinates higher in narcissistic rivalry may show a weaker PDDA under conditions of self-uncertainty because of strivings for dominance-complementarity rather than similarity-attraction. Consequently, traits that attenuate the PDDA may do so through distinct processes depending on situational variables.

Our findings also have implications for the type of supervisor more narcissistic subordinates support. In two field studies (Studies 2a–b), subordinates' narcissistic rivalry was negatively related to a democratic own hypothetical leadership style, and consistent with the similarity-attraction principle, this resulted in a relation of subordinates' narcissistic rivalry with attraction to their supervisor that was negative for democratic and positive for autocratic supervisors. Subordinates who are more attracted to their supervisor should also be more likely to support their supervisor. Therefore, more narcissistic subordinates may pose a threat to the support for democratic

supervisors and contribute to support for autocratic supervisors.

The positive relation of subordinates' narcissism with attraction to autocratic supervisors also has implications regarding support for narcissistic leaders. Given that narcissistic leaders are inclined to adopt a more autocratic leadership style (Matosic et al., 2017), they should receive broad support particularly from their more narcissistic subordinates. Moreover, more narcissistic individuals are more accepting of other's narcissistic characteristics (W. Hart & Adams, 2014) and are more often friends with other more narcissistic individuals (Maaß et al., 2016), rendering it likely that narcissistic leaders prefer to hire more narcissistic subordinates. The combination of narcissistic leaders and more narcissistic subordinates, however, may be detrimental to an organization. Sooner or later, narcissistic leaders will clash with their organization because of their abrasiveness and contentious financial or ethical decisions (Sedikides & Campbell, 2017). Support from more narcissistic subordinates may obscure that conflict in the short run.

5.2 | Limitations and future research

We investigated two narcissism dimensions: grandiosity/exhibitionism in the agentic domain (NARQ-Admiration) and entitlement/antagonism (NARQ-Rivalry). Future research may examine the grandiosity/exhibitionism dimension in the communal domain (i.e., communal

narcissism) or the vulnerability/neuroticism dimension (i.e., vulnerable narcissism). Communal narcissists perceive themselves as both dominant and highly communal (Gebauer et al., 2012). Accordingly, their interpersonal goal to dominate others is likely at odds with their interpersonal goal to care for the needs of others. How that conflict affects the leadership preferences of communal narcissists awaits empirical testing. Vulnerable narcissism is unrelated to dominance (Edershile & Wright, 2021) but negatively related to self-esteem and stable self-views (Krizan & Herlache, 2018). Building on previous research on subordinates with a lower, unstable self-esteem (Schoel et al., 2011, 2015), vulnerable narcissists might show a weaker PDDA particularly under conditions of self-uncertainty. This hypothesis also awaits empirical testing.

We focused on the dominance dimension of interpersonal behavior to predict how more narcissistic subordinates prefer to be led. The dominance dimension is related to narcissism as well as democratic and autocratic leadership. It is also related to status hierarchies, rendering it particularly relevant in task-oriented relationships such as supervisor-subordinate relationships (Tiedens et al., 2007). The second primary dimension of interpersonal behavior—affiliation—plays a tangential role in such relationships and is not included in the definition of democratic and autocratic leadership. Moreover, warmth is not only a key feature of the affiliation dimension but also an ingredient of attraction. Thus, it is unclear when higher warmth ratings result in higher attraction and not vice versa. Beyond that, there are certainly processes unrelated to the two primary dimensions of interpersonal behavior that additionally contribute to the attraction of more narcissistic subordinates to supervisors. For example, the weaker PDDA among subordinates higher in narcissistic rivalry may additionally be driven by perceiving the typically admired democratic supervisors as a threat to the inflated ego. Future research may test such additional processes.

Except for supervisor's leadership style in Study 3 (which we predetermined), each participant provided data for all variables at one time point (albeit we aggregated data on supervisor's leadership style in Study 2b across team members to yield higher objectivity). This might have produced common method variance, particularly because self-reports of more narcissistic individuals may be biased to maintain their overly positive self-view. For example, communal narcissists see themselves as highly prosocial, but they do not behave more prosocially than their nonnarcissistic counterparts in the eyes of their peers (Nehrlich et al., 2019). Importantly, controlling for impression management in Study 1 did not change the results. Moreover, in Studies 2a–2b and 3, we tested

interaction effects, and common method variance cannot account for interaction effects, although it can deflate them (Siemsen et al., 2010). Nonetheless, future research may examine whether leadership preferences translate to observable behavior that naturally occurs in group or organizational settings.

We provided converging evidence for a weaker PDDA among more narcissistic subordinates across two vignette-type studies and two field studies. Results showed that the vignette-type studies (Studies 1 and 3) and the first field study (Study 2a) were adequately powered, whereas the second field study (Study 2b) was partly underpowered (observed power: 41% for the Rivalry \times Supervisor's Leadership Style interaction, 100% for path a and 70% for path b of the indirect effect). Yet, given that Study 2b conceptually replicated the results of the other studies, we consider the results all in all reliable. Regardless, as larger datasets increase statistical power, we hope that further data will be added to our publicly available dataset. Moreover, new data may test situational moderators. For example, more narcissistic subordinates support organizational hierarchies only if they expect to rise in rank (Zitek & Jordan, 2016). Maybe more narcissistic subordinates are more attracted to autocratic supervisors especially in light of promotion prospects.

6 | CONCLUDING REMARKS

The PDDA has long been considered a robust, prevalent preference in organizational settings (and not only there). Our findings indicate that the PDDA is weaker for more narcissistic subordinates—an effect predominantly driven by narcissistic rivalry and accounted for by the similarity-attraction principle. Given narcissistic leaders' inclination to more autocratic leadership, they are likely to receive stronger support from more narcissistic subordinates. Together with narcissistic leaders' inclination to hire more narcissistic subordinates, this practice may be harmful to an organization, because stronger support from subordinates may shroud narcissistic leaders' controversial behavior and decisions.

AUTHOR CONTRIBUTIONS

Jennifer Eck: Conceptualization, methodology, formal analysis, visualization, validation, data curation, writing—original draft preparation, writing—review and editing. Christiane Schoel: Conceptualization, methodology, project administration, investigation, formal analysis, visualization, writing—original draft preparation, writing—review and editing. Constantine Sedikides, Jochen E. Gebauer, and Dagmar Stahlberg: Conceptualization, methodology, writing—review and editing.

ACKNOWLEDGMENTS

We thank Maren Oberländer and Jula Grünewald for their help in collecting the data of Study 2a and Study 2b, respectively. Open Access funding enabled and organized by Projekt DEAL.

FUNDING INFORMATION

The authors received no financial support for the research, authorship, and/or publication of this article.

CONFLICT OF INTEREST STATEMENT

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

DATA AVAILABILITY STATEMENT

Deidentified data, data-analysis scripts, and research materials for all studies are publicly available on the University of Mannheim's Research Data Repository (<https://madata.bib.uni-mannheim.de/427/>).

ETHICS STATEMENT

We conducted all studies in accordance with the Ethical Standards of the American Psychological Association. As per local ethics committee regulations, none of the studies required ethical review.

ORCID

Jennifer Eck  <https://orcid.org/0000-0002-0449-7179>

ENDNOTES

¹The meaning of “democratic” and “autocratic” in leadership research (referring to the leadership style of supervisors in groups and organizations) differs from the meaning of those terms in political science (referring to patterns of government). Thus, findings on democratic and autocratic leadership are inapplicable to democratic and autocratic governments, and vice versa.

²Interpersonal complementarity can occur during a particular interaction or across a relationship. We focus on the supervisor–subordinate relationship, because interpersonal goals (also known as trait interpersonal styles; Sadler et al., 2011) are relatively stable and do not need to be reflected in observable behaviors during every interaction (Dryer & Horowitz, 1997).

³We report the results on the NARQ total score in Supplementary Material. In all studies, we also administered the most widely used measure of narcissism—the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988)—for supplementary analyses reported in Supplementary Material. Results on the NARQ total score and NPI conceptually replicated most results on narcissistic rivalry. NPI results were mostly driven by the entitlement/exploitativeness facet of the scale.

⁴Additionally, we asked participants whether they wanted their supervisor to show a more autocratic or more democratic leadership style. Given that we asked this question only in Studies 1 and 2b, we

report the results in [Supplementary Material S1](#) and [S2](#). This measure yielded results similar to the reported ones.

⁵The PDDA was reversed (i.e., preference for autocratic over democratic leadership) for narcissistic rivalry scores $\geq M + 2.07 SD$ (leadership descriptions measure) and $M + 2.06 SD$ (leadership behaviors measure).

⁶Presentation order of the democratic and autocratic leadership descriptions was not a significant moderator ([Supplementary Material S1](#)).

⁷In Studies 2a–2b, we measured the Big Five and self-esteem as covariates. Including the Big Five and self-esteem into analyses did not change the reported results ([Supplementary Material S2](#)).

⁸To derive simple slopes for supervisors whose leadership style was clearly democratic or clearly autocratic, we had to rely on the leadership style values of the most democratic (standardized value = 1.83, composed of leadership descriptions = 7.00, and leadership behaviors = 4.75) and the most autocratic (standardized value = -2.40, composed of leadership descriptions = 1.00, and leadership behaviors = 1.20) supervisors in the study. No leadership style values were outliers.

⁹Completion order of supervisor's leadership style and subordinate's hypothetical leadership style was not a significant moderator ([Supplementary Material S2](#)).

¹⁰The variance in individual values that could be explained by team membership (i.e., the ratio of between-team variance to total variance) was $ICC[1]_{\text{behaviors}} = 0.69$ and $ICC[1]_{\text{descriptions}} = 0.62$. The average within-team agreement was $r_{WG(\text{behaviors})} = 0.87$ and $r_{WG(\text{descriptions})} = 0.72$.

¹¹Level-1 predictors can be grand-mean or group-mean centered: “The choice between the two options for centering can only be made on a theoretical basis” (Kreft et al., 1995, p. 1). We decided to z-standardize level-1 predictors (i.e., all grand means = 0, all SDs = 1), because our hypotheses concerned participants' level of narcissism relative to the entire sample rather than relative to the few other participants of their team.

¹²To derive simple slopes for supervisors whose leadership style was clearly democratic or clearly autocratic, we had to rely on the leadership style values of the most democratic (standardized value = 1.54, composed of leadership descriptions = 5.75, and leadership behaviors = 5.50) and the most autocratic (standardized value = -2.24, composed of leadership descriptions = 2.50, and leadership behaviors = 1.63) supervisors in the study. No leadership style values were extreme outliers.

¹³Six participants completed the study twice (original $N = 607$). We entered only their first round of data into analyses.

¹⁴The fictitious supervisor was male for all participants. People might perceive successful leaders as possessing characteristics typically ascribed to men rather than women (think-manager-think-male phenomenon; Schein, 1973). Moreover, female supervisors might be evaluated less favorably than male supervisors when perceived as dominant (Ma et al., 2022).

¹⁵An additional regression analysis revealed that subordinates higher in narcissistic admiration perceived less pronounced differences between the two leader profiles. Yet, the perceived differences were substantial and highly significant ([Supplementary Material S3](#)).

- ¹⁶Presentation order of democratic and autocratic leadership items was not a significant moderator (Supplementary Material S3).
- ¹⁷Separate analyses for each narcissism dimension conceptually replicated the reported results with one exception: In Studies 2b and 3, subordinates' narcissistic admiration had a significant negative relation with a democratic own hypothetical leadership style, resulting in a significant negative index of moderated mediation (Supplementary Material S2 and S3). In other words, subordinates higher in narcissistic admiration reported a more autocratic own hypothetical leadership style than subordinates lower in narcissistic admiration, and this culminated in a weaker PDDA among subordinates higher in narcissistic admiration. However, these results were likely driven by the relation between narcissistic admiration and narcissistic rivalry.

REFERENCES

- Back, M. D., Küfner, A. C. P., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. A. (2013). Narcissistic admiration and rivalry: Disentangling the bright and dark sides of narcissism. *Journal of Personality and Social Psychology, 105*(6), 1013–1037. <https://doi.org/10.1037/a0034431>
- Barr, D. J., Levy, R., Scheepers, C., & Tily, H. J. (2013). Random effects structure for confirmatory hypothesis testing: Keep it maximal. *Journal of Memory and Language, 68*(3), 255–278. <https://doi.org/10.1016/j.jml.2012.11.001>
- Bass, B. M. (2008). *The Bass handbook of leadership: Theory, research, and managerial applications* (4th ed.). Free Press.
- Bates, D., Kliegl, R., Vasishth, S., & Baayen, R. H. (2015). Parsimonious mixed models. <https://arxiv.org/pdf/1506.04967.pdf>
- Benson, A. J., Jordan, C. H., & Christie, A. M. (2016). Narcissistic reactions to subordinate role assignment: The case of the narcissistic follower. *Personality and Social Psychology Bulletin, 42*(7), 985–999. <https://doi.org/10.1177/0146167216649608>
- Brunell, A. B., Gentry, W. A., Campbell, W. K., Hoffman, B. J., Kuhnert, K. W., & DeMarree, K. G. (2008). Leader emergence: The case of the narcissistic leader. *Personality and Social Psychology Bulletin, 34*(12), 1663–1676. doi:10.1177/0146167208324101
- Byrne, D. E. (1971). *The attraction paradigm*. Academic Press.
- Chan, S. C. H., Huang, X., Snape, E., & Lam, C. (2013). The Janus face of paternalistic leaders: Authoritarianism, benevolence, subordinates' organization-based self-esteem, and performance. *Journal of Organizational Behavior, 34*(1), 108–128. <https://doi.org/10.1002/job.1797>
- Dryer, D. C., & Horowitz, L. M. (1997). When do opposites attract? Interpersonal complementarity versus similarity. *Journal of Personality and Social Psychology, 72*(3), 592–603. <https://doi.org/10.1037/0022-3514.72.3.592>
- Dufner, M., Leising, D., & Gebauer, J. E. (2016). Which basic rules underlie social judgments? Agency follows a zero-sum principle and communion follows a non-zero-sum principle. *Personality and Social Psychology Bulletin, 42*(5), 677–687. <https://doi.org/10.1177/0146167216640902>
- Eagleson, G., Waldersee, R., & Simmons, R. (2000). Leadership behaviour similarity as a basis of selection into a management team. *British Journal of Social Psychology, 39*(2), 301–308. <https://doi.org/10.1348/014466600164480>
- Edershile, E. A., & Wright, A. G. C. (2021). Grandiose and vulnerable narcissistic states in interpersonal situations. *Self and Identity, 20*(2), 165–181. <https://doi.org/10.1080/15298868.2019.1627241>
- Estroff, S. D., & Nowicki, S., Jr. (1992). Interpersonal complementarity, gender of interactants, and performance on puzzle and word tasks. *Personality and Social Psychology Bulletin, 18*(3), 351–356. <https://doi.org/10.1177/0146167292183012>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*(2), 117–140. <https://doi.org/10.1177/001872675400700202>
- Foels, R., Driskell, J. E., Mullen, B., & Salas, E. (2000). The effects of democratic leadership on group member satisfaction: An integration. *Small Group Research, 31*(6), 676–701. <https://doi.org/10.1177/104649640003100603>
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science, 18*(3), 233–239. <https://doi.org/10.1111/j.1467-9280.2007.01882.x>
- Gebauer, J. E., Sedikides, C., Verplanken, B., & Maio, G. R. (2012). Communal narcissism. *Journal of Personality and Social Psychology, 103*(5), 854–878. <https://doi.org/10.1037/a0029629>
- Geukes, K., Nestler, S., Hutteman, R., Dufner, M., Küfner, A. C. P., Egloff, B., Denissen, J. J. A., & Back, M. D. (2017). Puffed-up but shaky selves: State self-esteem level and variability in narcissists. *Journal of Personality and Social Psychology, 112*(5), 769–786. <https://doi.org/10.1037/pspp0000093>
- Green, P., & MacLeod, C. J. (2016). SIMR: An R package for power analysis of generalized linear mixed models by simulation. *Methods in Ecology and Evolution, 7*(4), 493–498. <https://doi.org/10.1111/2041-210X.12504>
- Grijalva, E., Harms, P. D., Newman, D. A., Gaddis, B. H., & Fraley, R. C. (2015). Narcissism and leadership: A meta-analytic review of linear and nonlinear relationships. *Personnel Psychology, 68*(1), 1–47. <https://doi.org/10.1111/peps.12072>
- Hart, C. M., Ritchie, T. D., Hepper, E. G., & Gebauer, J. E. (2015). The Balanced Inventory of Desirable Responding Short Form (BIDR-16). *SAGE Open, 5*(4), 1–9. <https://doi.org/10.1177/2158244015621113>
- Hart, W., & Adams, J. M. (2014). Are narcissists more accepting of others' narcissistic traits? *Personality and Individual Differences, 64*, 163–167. <https://doi.org/10.1016/j.paid.2014.02.038>
- Härtel, T. M., Leckelt, M., Grosz, M. P., Küfner, A. C. P., Geukes, K., & Back, M. D. (2023). Pathways from narcissism to leadership emergence in social groups. *European Journal of Personality, 37*(1), 72–94. <https://doi.org/10.1177/08902070211046266>
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.
- Kreft, I. G., de Leeuw, J., & Aiken, L. S. (1995). The effect of different forms of centering in hierarchical linear models. *Multivariate Behavioral Research, 30*(1), 1–21. https://doi.org/10.1207/s15327906mbr3001_1
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology, 58*(2), 281–342. <https://doi.org/10.1111/j.1744-6570.2005.00672.x>
- Krizan, Z., & Herlache, A. (2018). The narcissism spectrum model: A synthetic view of narcissistic personality. *Personality and Social*

- Psychology Review*, 22(1), 3–31. <https://doi.org/10.1177/1088868316685018>
- Leary, T. (1957). *Interpersonal diagnosis of personality*. Ronald Press.
- Leckelt, M., Küfner, A. C. P., Nestler, S., & Back, M. D. (2015). Behavioral processes underlying the decline of narcissists' popularity over time. *Journal of Personality and Social Psychology*, 109(5), 856–871. <https://doi.org/10.1037/pspp0000057>
- Leckelt, M., Richter, D., Wetzel, E., & Back, M. D. (2019). Longitudinal associations of narcissism with interpersonal, intrapersonal, and institutional outcomes: An investigation using a representative sample of the German population. *Collabra Psychology*, 5(1), Article 26. <https://doi.org/10.1525/collabra.248>
- Lewin, K., Lippitt, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created "social climates". *Journal of Social Psychology*, 10(2), 271–299. <https://doi.org/10.1080/00224545.1939.9713366>
- Ma, A., Rosette, A. S., & Koval, C. Z. (2022). Reconciling female agentic advantage and disadvantage with the CADDIS measure of agency. *Journal of Applied Psychology*, 107(12), 2115–2148. <https://doi.org/10.1037/apl0000550>
- Maaß, U., Lämmle, L., Bensch, D., & Ziegler, M. (2016). Narcissists of a feather flock together: Narcissism and the similarity of friends. *Personality and Social Psychology Bulletin*, 42(3), 366–384. <https://doi.org/10.1177/0146167216629114>
- Matosic, D., Ntoumanis, N., Boardley, I. D., Sedikides, C., Stewart, B. D., & Chatzisarantis, N. (2017). Narcissism and coach interpersonal style: A self-determination theory perspective. *Scandinavian Journal of Medicine and Science in Sports*, 27(2), 254–261. <https://doi.org/10.1111/sms.12635>
- Miller, J. D., Lynam, D. R., McCain, J. L., Few, L. R., Crego, C., Widiger, T. A., & Campbell, W. K. (2016). Thinking structurally about narcissism: An examination of the five-factor narcissism inventory and its components. *Journal of Personality Disorders*, 30(1), 1–18. https://doi.org/10.1521/pedi_2015_29_177
- Montoya, R. M., Horton, R. S., & Kirchner, J. (2008). Is actual similarity necessary for attraction? A meta-analysis of actual and perceived similarity. *Journal of Social and Personal Relationships*, 25(6), 889–922. <https://doi.org/10.1177/0265407508096700>
- Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide* (8th ed.). Muthén & Muthén.
- Nehrlich, A. D., Gebauer, J. E., Sedikides, C., & Schoel, C. (2019). Agentic narcissism, communal narcissism, and prosociality. *Journal of Personality and Social Psychology*, 117(1), 142–165. <https://doi.org/10.1037/pspp0000190>
- Nevecka, B., & Sedikides, C. (2021). Employee narcissism and promotability prospects. *Journal of Personality*, 89(4), 847–862. <https://doi.org/10.1111/jopy.12619>
- Nielsen, M. E., & Miller, C. E. (1997). The transmission of norms regarding group decision rules. *Personality and Social Psychology Bulletin*, 23(5), 516–525. <https://doi.org/10.1177/0146167297235007>
- Paulhus, D. L., Robins, R. W., Trzesniewski, K. H., & Tracy, J. L. (2004). Two replicable suppressor situations in personality research. *Multivariate Behavioral Research*, 39(2), 303–328. https://doi.org/10.1207/s15327906mbr3902_7
- Pellegrini, E. K., & Scandura, T. A. (2008). Paternalistic leadership: A review and agenda for future research. *Journal of Management*, 34(3), 566–593. <https://doi.org/10.1177/0149206308316063>
- R Core Team. (2022). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. <https://www.R-project.org/>
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54(5), 890–902. <https://doi.org/10.1037/0022-3514.54.5.890>
- Richard, F. D., Bond, C. F., & Stokes-Zoota, J. J. (2003). One hundred years of social psychology quantitatively described. *Review of General Psychology*, 7(4), 331–363. <https://doi.org/10.1037/1089-2680.7.4.331>
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36. <http://www.jstatsoft.org/v48/i02/>
- Sadler, P., Ethier, N., & Woody, E. (2011). Interpersonal complementarity. In L. M. Horowitz & S. N. Strack (Eds.), *Handbook of interpersonal psychology: Theory, research, assessment, and therapeutic interventions* (pp. 123–142). Wiley.
- Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management characteristics. *Journal of Applied Psychology*, 57(2), 95–100. <https://doi.org/10.1037/h0037128>
- Schjelderup-Ebbe, T. (1922). Beiträge zur Sozialpsychologie des Haushuhns [Observation on the social psychology of domestic fowls]. *Zeitschrift für Psychologie und Physiologie der Sinnesorgane. Abt. 1. Zeitschrift für Psychologie*, 88, 225–252.
- Schoel, C., Bluemke, M., Mueller, P., & Stahlberg, D. (2011). When autocratic leaders become an option—Uncertainty and self-esteem predict implicit leadership preferences. *Journal of Personality and Social Psychology*, 101(3), 521–540. <https://doi.org/10.1037/a0023393>
- Schoel, C., Stahlberg, D., & Sedikides, C. (2015). Psychological insecurity and leadership styles. In P. J. Carroll, R. M. Arkin, & A. L. Wichman (Eds.), *Handbook of personal security* (pp. 55–73). Psychology Press.
- Schönbrodt, F. D., & Perugini, M. (2013). At what sample size do correlations stabilize? *Journal of Research in Personality*, 47(5), 609–612. <https://doi.org/10.1016/j.jrp.2013.05.009>
- Sedikides, C. (2021). In search of narcissus. *Trends in Cognitive Sciences*, 25(1), 67–80. <https://doi.org/10.1016/j.tics.2020.10.010>
- Sedikides, C., & Campbell, W. K. (2017). Narcissistic force meets systemic resistance: The Energy Clash Model. *Perspectives on Psychological Science*, 12(3), 400–421. <https://doi.org/10.1177/1745691617692105>
- Semenyna, S. W., & Honey, P. L. (2015). Dominance styles mediate sex differences in Dark Triad traits. *Personality and Individual Differences*, 83, 37–43. <https://doi.org/10.1016/j.paid.2015.03.046>
- Shaw, M., Rights, J. D., Sterba, S. S., & Flake, J. K. (2023). r2mlm: An R package calculating R-squared measures for multilevel models. *Behavior Research Methods*, 55(4), 1942–1964. <https://doi.org/10.3758/s13428-022-01841-4>
- Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, 13(3), 456–476. <https://doi.org/10.1177/1094428109351241>
- Slemp, G. R., Kern, M. L., Patrick, K. J., & Ryan, R. M. (2018). Leader autonomy support in the workplace: A meta-analytic review.

- Motivation and Emotion*, 42(5), 706–724. <https://doi.org/10.1007/s11031-018-9698-y>
- The Ohio State Leadership Studies. (1962). *Leader Behavior Description Questionnaire–Form XII Self*. Fisher College of Business, The Ohio State University.
- Tiedens, L. Z., & Fragale, A. R. (2003). Power moves: Complementarity in dominant and submissive nonverbal behavior. *Journal of Personality and Social Psychology*, 84(3), 558–568. <https://doi.org/10.1037/0022-3514.84.3.558>
- Tiedens, L. Z., Unzueta, M. M., & Young, M. J. (2007). An unconscious desire for hierarchy? The motivated perception of dominance complementarity in task partners. *Journal of Personality and Social Psychology*, 93(3), 402–414. <https://doi.org/10.1037/0022-3514.93.3.402>
- Van den Broeck, A., Ferris, D. L., Chang, C.-H., & Rosen, C. C. (2016). A review of self-determination theory's basic psychological needs at work. *Journal of Management*, 42(5), 1195–1229. <https://doi.org/10.1177/0149206316632058>
- Van Vugt, M., & De Cremer, D. (1999). Leadership in social dilemmas: The effects of group identification on collective actions to provide public goods. *Journal of Personality and Social Psychology*, 76(4), 587–599. <https://doi.org/10.1037/0022-3514.76.4.587>
- Van Vugt, M., Jepson, S. F., Hart, C. M., & De Cremer, D. (2004). Autocratic leadership in social dilemmas: A threat to group stability. *Journal of Experimental Social Psychology*, 40(1), 1–13. [https://doi.org/10.1016/S0022-1031\(03\)00061-1](https://doi.org/10.1016/S0022-1031(03)00061-1)
- Wegener, D. T., Fabrigar, L. R., Pek, J., & Hoisington-Shaw, K. (2022). Evaluating research in personality and social psychology: Considerations of statistical power and concerns about false findings. *Personality and Social Psychology Bulletin*, 48(7), 1105–1117. <https://doi.org/10.1177/01461672211030811>
- Zeigler-Hill, V., Vrabel, J. K., McCabe, G. A., Cosby, C. A., Traeder, C. K., Hobbs, K. A., & Southard, A. C. (2019). Narcissism and the pursuit of status. *Journal of Personality*, 87(2), 310–327. <https://doi.org/10.1111/jopy.12392>
- Zitek, E. M., & Jordan, A. H. (2016). Narcissism predicts support for hierarchy (at least when narcissists think they can rise to the top). *Social Psychological and Personality Science*, 7(7), 707–716. <https://doi.org/10.1177/1948550616649241>

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Eck, J., Schoel, C., Sedikides, C., Gebauer, J. E., & Stahlberg, D. (2025). Which leadership style do more narcissistic subordinates prefer in supervisors? *Journal of Personality*, 93, 503–523. <https://doi.org/10.1111/jopy.12950>