Can communal work activities reduce supervisors' state grandiose narcissism? A 10-day experience sampling study

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Abstract

Narcissism is heavily investigated in psychology, including work and organizational psychology. Despite research underscoring that narcissism has a meaningful state component, there is currently no research available on within-person fluctuations in narcissism at work. The current study explores the role of particular activities that can either enhance or reduce narcissism states while at work. Specifically, the effects of agentic (i.e., directing and achieving) and communal (i.e., relating and coaching) work activities on state narcissism are examined in a sample of 121 supervisors. We assessed the work activities and supervisors' state of narcissism two times a day over a 10-day period. Concurrent and lagged associations were examined using Dynamic Structural Equation Modelling (DSEM). The results first indicated a substantial amount of momentous fluctuation in narcissism, with up to 12% of the variability in supervisors' narcissism scores being situated at the within-person level. Further, two types of work activities (i.e., achieving and coaching) were found to have a positive (enhancing) effect on supervisors' state narcissism. None of the work activities emerged as a factor reducing state narcissism in this study. Implications and future research directions are discussed.

Keywords: narcissism, within-person fluctuations, work activities, agency, communion

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Applied psychology has paid increased attention to the concept of narcissism over the past two decades, and a bulk of research has documented the consequences of this "dark side" personality trait in organizational contexts, including the leadership domain (e.g., LeBreton et al., 2018). In this research tradition, narcissism is typically conceptualized as a stable trait, and the focus lies on investigating how stable (between-person) differences in this trait *predict* (between-person) outcomes, such as leadership emergence and effectiveness (Grijalva et al., 2015). A different – and largely unexplored – question, however, is to what extent supervisors demonstrate fluctuations in narcissism while being at work. This is an important and timely question, given that dynamics in personality constructs other than narcissism (e.g., fluctuations in the Big Five) have already significantly improved our understanding of personality functioning in applied contexts such as work (Abrahams et al., in press; Sosnowska et al., 2021).

The central objective of the current study is to extend this idea of dynamic personality to narcissism, by exploring how short-term (within-person) fluctuations in supervisors' narcissism, further referred to as state narcissism, can be explained by fluctuations in their work activities. We specifically focus on grandiose narcissism, which is by far the most studied variant of narcissism in the work context (Campbell et al., 2011). Grandiose narcissism is accompanied by a sense of entitlement, feelings of superiority, and a strong need for power. Consistent with the idea that narcissism is a "mixed blessing" (Paulhus, 1998), it has been associated with both positive (e.g., extraversion, self-confidence, high self-esteem, charm) and negative features (e.g., disagreeableness, arrogance, aggressiveness, entitlement) (Ackerman et al., 2011; Back et al., 2013; Miller et al., 2011; Morf & Rhodewalt, 2001; Wink, 1991). In a leadership context, the positive side of leaders' narcissism may impress

others during initial conversations (i.e., in the *emerging* zone), but the negative effects typically become apparent afterward, meaning that it is beneficial at first but harmful when long-term relationships are required (i.e., in the *enduring* zone) (Campbell et al., 2011). This two-sided nature of grandiose narcissism is further reflected in its positive associations with career advancement, leadership emergence, and adaptive leadership styles like charismatic leadership (Galvin et al., 2010; Grijalva et al., 2015; Spain et al., 2014; Wille et al., 2019), while at the same time, it has been linked to adverse outcomes such as counterproductive work behavior (CWB; Grijalva & Newman, 2015) and abusive supervision (O'Boyle et al., 2012). Among other reasons, these findings might be related to the fact that narcissism is characterized by certain unique (agentic) motivational strivings (e.g., to gain competence, achievement, and/or status) focusing on the self, and not so much on interpersonal warmth or connectedness to others (cf. communal strivings – see further). Hence, the degree to which supervisors are confronted with agentic or communal work activities is assumed to influence their narcissistic states. Tapping into daily fluctuations in both narcissism and these specific types of work activities allows us to shed light on important questions, such as: "Can work activities with a communal focus, which run counter to the typical motivational strivings of the grandiose narcissist, reduce the expression of supervisors' narcissism?".

The current study aims to contribute to research on narcissism at work in two important ways. First, and most importantly, this is the first study to explore fluctuations in narcissism states in the work context. In this way, we aim to expand the conceptualization of narcissism in work and organizational psychology by pointing at the relevance of momentous within-person expressions of this notable personality characteristic, next to the stable between-person differences that have already been extensively documented in this literature. Second, we also aim to enrich our understanding of these within-person fluctuations by exploring the role of particular work activities as situational influences on narcissism states.

For this purpose, we rely on the extended agency model (Campbell & Foster, 2007) and the Trait Activation Theory (TAT; Tett & Guterman, 2000) to hypothesize on the precise role of more agentic versus communal work activities in instigating narcissism states. Finally, in terms of practical implications, insight into the work activities that may reduce workers' narcissism may inform job redesign interventions aimed at minimizing undesired state expressions.

Although narcissism can be expected to play a role across different types of jobs, previous work on this personality trait has paid particular attention to the leadership context. Indeed, narcissistic tendencies have been shown to be overrepresented in leadership positions (e.g., Grijalva et al., 2015) and the consequence of narcissistic behavior by people in these positions are substantial (e.g., O'Reilly et al., 2018). For these reasons, the current study investigates fluctuations in narcissism states in a sample of people in supervisory roles.

Dynamic Approaches to Personality

After decades of debate about whether the person or the situation has more power over behavior (Mischel, 2009), theoretical perspectives on personality functioning now converge on the idea that personality incorporates both stable and dynamic aspects (Dalal et al., 2015; Li et al., 2021; Tett et al., 2021; Woods et al., 2019). As a consequence, personality research has shifted from a static perspective toward a more dynamic view in which *intra-individual variability* in thoughts, feelings, and behavior across time and contexts is receiving increased attention (Jayawickreme et al., 2021). Conceptually, Fleeson's (2001) density distribution model posits that personality consists of both traits and states. Traits reflect general tendencies of feelings, thoughts, and behavior and describe how a person is in general, whereas states represent within-person variability of the corresponding trait. Indeed, also in the work context, people can react differently to various situations, which translates into momentary state

fluctuations. For instance, an individual might behave extraverted in one situation, but more introverted in another, partly in response to what the situation calls for (Kuijpers et al., 2022).

Similarly, in applied psychology, increasing attention for dynamic aspects of personality has led to a better understanding of how work and personality are reciprocally intertwined (e.g., Podsakoff et al., 2019; Woods et al., 2013). On a conceptual level, the TAT (Tett et al., 2021) is particularly relevant in this regard, and posits that personality traits are expressed as valued (work) behavior in response to trait-relevant situational cues. The key feature in this model is situational trait-relevance; i.e., a situation is relevant to a trait if it offers the opportunity for its expression. For example, a social gathering is relevant to extraversion and a call for help is relevant to agreeableness. TAT was initially intended to model situational effects on trait expression, but it easily extends to personality states (Tett et al., 2021). Specifically, the motivational processes underlying states are similar to those affecting traits, although they operate on shorter timelines. In the work context, this implies that states are activated by (fluctuating) work demands or activities in which the state is relevant (i.e., situational "state-relevance").

To date, research has provided solid support for the notion that personality states indeed vary meaningfully within individuals at work, and that this variation can be explained by situational factors. Employees' state neuroticism, for example, is influenced by work pressure, task complexity, and task demand (Debusscher et al., 2014, 2016; Wood et al., 2019). For state conscientiousness, activating factors have been identified such as task urgency, difficulty, focus, and demand (Huang & Ryan, 2011; Minbashian et al., 2010; Wood et al., 2019). Finally, friendliness in client interactions has been found to trigger state agreeableness and extraversion (Huang & Ryan, 2011). However, as this brief review of the literature already illustrates, extant work on personality fluctuations at work is currently limited to personality aspects that can be subsumed under the Big Five model, whereas

within-person variability in maladaptive personality at work remains unexplored (Sosnowska et al., 2021).

Within-Person Fluctuations in State Narcissism

Research has begun to explore within-person fluctuations in narcissism states outside the work context (Edershile & Wright, 2020; Giacomin & Jordan, 2016). Specifically, using a 10-day daily diary study, Giacomin and Jordan (2016) collected 1,294 daily reports from 178 undergraduates. Each day, students completed the NPI-16 (Ames et al., 2006), rating the extent to which they identified with narcissistic features "right now". Results indeed indicated significant and non-random within-person variability in daily narcissism. Next, Edershile and Wright (2020) examined fluctuations in narcissism in three different samples (i.e., two undergraduates and one community sample) with participants completing up to seven assessments per day during a 10-day study. Again, the results indicated the existence of meaningful within-person variability in grandiose narcissism.

Delving further into the dynamic nature of state narcissism, research has also started to consider the specific nature of the situational context in which this trait is displayed (Giacomin & Jordan, 2014, 2016), paying particular attention to the distinction between agency and communion (Bakan, 1966) as an organizing framework. In this context, agency can be used to describe situations in which the focus lies on the self, with the aim to enhance (or at least maintain) personal competence, status, superiority and/or uniqueness. Communion, on the other hand, refers to a general focus on others, that is, to (deeply) connect with others, care for them and/or nurture them (Campbell & Foster, 2007; Gebauer et al., 2012). This distinction has also been used in socioanalytic theory (Hogan, 1982), where agency and communion tap into the primary human motives of "getting ahead" and "getting along", respectively.

In a unique set of studies, Giacomin and Jordan (2014, 2016) have shown the relevance of agency and communion to understand situational influences on state narcissism. In a daily diary study, students were asked whether a series of agentic and communal events had occurred during the last 24 hours. The agentic events were "*Did you feel you had power over anyone?*", "*Were you assigned an important role in a group?*", and "*Did you receive any recognition?*". The communal events were, for instance, "*Did you have a pleasant interaction with someone?*", "*Did someone do something caring for you?*", and "*Did you give someone a gift?*" (for the full list, see Giacomin & Jordan, 2016, p. 156-157). Results showed that state narcissism was higher on days when participants experienced more agentic events. Further, state narcissism was positively related to communion when provided by others (i.e., someone cared for them), but unrelated to communion provided by themselves (i.e., caring for someone else). In another study, Giacomin and Jordan (2014) conducted three studies examining whether an increased communal focus would reduce students' state narcissism. In a first experiment, this communal focus was induced by letting participants read about a drunk-drive accident from the perspective of the victim. In studies two and three, participants were primed with an interdependent self-construal (i.e., a self-concept valuing group memberships and social roles). Across the three studies, it was found that participants indeed demonstrated lower state narcissism after a communal focus was experimentally induced.

Work Activities as Triggers of State Narcissism

An important, yet unanswered, question is to what extent these effects of agentic/communal situations on narcissism states can also be identified in real-life contexts where the nature of situations can be diverse and volatile, such as work. To investigate this, and in line with TAT (Tett et al., 2021), the current study proposes focusing on concrete work activities as the situational characteristics of work that may either enhance or reduce the expression of narcissism. Indeed, according to Saucier et al. (2007), situations can be defined

according to various criteria including “location” (i.e., where does it take place), “interpersonal associations” (i.e., who is present), “passively experienced processes” (i.e., affectedness and passivity), or finally “activities” (i.e. what one does) – the focus of the present study.

Previous research has already shown the relevance of the agency-communion framework in the work context, for instance to classify affective work events (Ohly & Schmitt, 2015) or to categorize responsibilities and orientations within a leadership context (e.g., Redeker et al., 2014; Thrasher et al., 2019). In light of the work by Giacomin and Jordan in student samples, the current study adopts this framework to distinguish between work activities with an agentic versus more communal focus as potential triggers or inhibitors of supervisors’ state narcissism at work. Specifically, drawing on the definitions provided above (Bakan, 1966; Campbell & Foster, 2007; Gebauer et al., 2012), agentic work activities in supervisory roles represent situations that either require more directive, assertive interaction (e.g., to give others instructions) or that heavily focus on personal achievements and results. Communal work activities, on the other hand, require a focus on others, by connecting with them on a personal level and/or coaching them to succeed in their work.

Our expectations on how such agentic and communal work activities are associated with fluctuations in supervisors’ state narcissism are based on two theoretical models: (a) the extended agency model (Campbell & Foster, 2007), and (b) the TAT (Tett et al., 2021). The extended agency model (Campbell & Foster, 2007) posits that narcissism contains four core elements: (1) a greater concern with agency than communion, (2) approach orientation, (3) desire for self-esteem, and (4) entitled and inflated self-views. Accordingly, these elements are mutually reinforcing and connected by positive feedback loops, meaning that an increase in one element is likely to cause an increase in all other elements. In this regard, narcissists have been shown to prefer situations with an agentic focus (e.g., when there is a perceived

opportunity for glory and status; Wallace & Baumeister, 2002), while narcissistic leaders have also been shown to thrive more in contexts that require agency compared to contexts that require communion (Campbell et al., 2011). Given these mutually reinforcing feedback loops, situations that highlight agency, such as agentic work activities, may feed the entitled and inflated self-views, leading to an increase in supervisors' state narcissism. On the other hand, a reduction in any of these elements, such as situations that deemphasize agency – and rather highlight communion –, may lead to a decrease in supervisors' state narcissism.

Further, from the perspective of TAT (Tett et al., 2021), agentic work activities are more relevant for the activation of state narcissism than communal work activities. For instance, an agentic focus on personal competence and achievement is state-relevant because it offers the opportunity for glory and status (cf. Wallace & Baumeister, 2002). Therefore, agentic work activities are expected to increase supervisors' state narcissism, which is in line with previous research demonstrating that daily agentic events have been associated with higher levels of state narcissism in students (Giacomin & Jordan, 2016). Communal situations, on the other hand, have been argued to run counter to the narcissist's motivational strivings given the focus on others rather than on the self (Campbell & Foster, 2007). Yet, research on the effect of communion on narcissistic states is limited and yielded mixed results. Whereas initial experimental research has shown how an increased communal focus can indeed reduce people's state narcissism (Giacomin & Jordan, 2014), other research has shown opposite effects (Giacomin & Jordan, 2016). Moreover, it has been noted that narcissism might come with an *indifference* toward communion rather than especially low levels of this motivational striving (Jones & Paulhus, 2011). In light of this, our prediction regarding the influence of communal work activities on supervisors' state narcissism is more tentative. Combined, we propose the following hypotheses:

Hypothesis 1: Agentic work activities positively predict supervisors' state narcissism.

Hypothesis 2: Communal work activities negatively predict supervisors' state narcissism.

Method

Procedure

Data were collected over a period of three weeks in October 2021. Supervisors were recruited by three research associates via their personal and professional networks. Regarding inclusion criteria, supervisors had to work a minimum of four days per week and had to have one or more subordinates. Potential participants received an invitation including a web link for registration. They were informed about the purpose of the study and were provided with the opportunity to raise questions. At the beginning of the study, participants completed an online baseline questionnaire assessing demographic characteristics and information about their job. Trait narcissism was also assessed. One week later, the experience sampling study started. For two weeks, the supervisors received two text messages a day on their smartphones with the request to fill out an online survey. These invites were sent at a random time during the workday (i.e., one in the morning and one in the afternoon). First, participants were asked whether they were at work. If not, they did not have to fill out a questionnaire. They were informed that they had a two-hour response window in which to respond to each text message and that if they were unable to do so within this period, they should wait for the next text message. After participation, all participants took part in a prize draw of 15 vouchers. The study design was formally approved by the Ethical Commission of the Faculty of Psychological and Educational Sciences of Ghent University (application number: 2021/115).

Participants

The sample consisted of 121 participants (63.9% male, 36.1% female) in a supervisory role at work. The average age of the participants was 44.30 years (*SD* = 10.78). Most of the supervisors completed higher education (81.10%). The occupations ranged from head nurse to

chief executive officer. On average, participants completed 12.03 reports (60.13%) across the 10-day experience sampling study. The total number of observations is 1,455. According to the simulation study of Schultzberg and Muthén (2018), 15 or more participants and 10 or more observations per person were needed to obtain a good relative bias (i.e., average estimate/true value), which we exceeded.

Measures

State Grandiose Narcissism

In the daily surveys, state grandiose narcissism was assessed using a Dutch translation of the validated short version of the Narcissistic Grandiosity Scale (NGS-6; Edershile et al., 2019). Participants were asked questions in the following form: "*To what degree do you currently feel* [ADJECTIVE]*?*". Ratings were made on a scale from 1 (*disagree strongly*) to 7 (*agree strongly*). The adjectives were "*glorious*", "*envied*", "*prestigious*", "*brilliant*", "*powerful*", and "*superior*".

Work activities

In each of the two daily surveys, participants were asked to indicate whether they engaged in a series of 12 work activities ("*In the past two hours I have* [WORK ACTIVITY]"). The possible answers were "*no*" (=1), "*a little*" (=2), or "*yes*" (=3). Similar to Giacomin and Jordan's (2016) daily diary study, items were formulated tapping into possible agentic and communal work activities of supervisors. More specifically, three research associates independently formulated a set of items based on the definitions of agency and communion as reviewed above. For agency, items were formulated to reflect both the "dominant/directive" aspect of this domain (e.g., *told others what to do*) and the more "personal achievement" component (e.g., *finished a task*). For communion, items were formulated that focus either on the more "connecting/relating" aspect of this domain (e.g., *listened to someone*) as well as on the more "supporting/coaching" side (e.g., *motivated*

others). After discussion between the authors, 12 items were retained (i.e., 6 agentic, 6 communal; see Table 1) to tap into these four types of work activities.

Whereas "achieving" and "relating" activities can be considered work activities that cross different occupational roles, "directing" and "coaching" activities are more specific to the supervisory role. In this regard, it is worthy to note that these activities can be aligned with leadership models which have also made the connection with the agency-communion framework. For instance, the leadership circumplex (Redeker et al., 2014) organizes leader behaviors according to a structural model in which agency (i.e., the vertical axis) and communion (i.e., the horizontal axis) span the circular ordering of eight leadership styles. In this model, "directive" and "coaching" leadership are positioned near the positive poles of agency and communion, respectively. In a similar vein, the situational leadership theory (Hersey & Blanchard, 1977) distinguished four leadership types, including directing and coaching – next to supporting and delegating – that effective leaders should use depending on the situation. As such, we formulated a differentiated set of possible work activities that are relevant for capturing daily fluctuations in supervisors' work demands covering the agency-communion domain space.

----------Insert Table 1 about here----------

Statistical procedure

The analyses were executed in two steps. First, the psychometric properties of the measures (i.e., narcissism and work activities) were tested and verified as part of preliminary factor analyses. Second, in order to test the hypotheses, we used Dynamic Structural Equation Modeling (DSEM; Asparouhov et al., 2017). These main analyses used the factor scores taken from the preliminary analyses as input to (partially) control for unreliability (Meyer & Morin, 2016; Skrondal & Laake, 2001). Factor scores were estimated in standardized units ($M = 0$; $SD = 1$). All analyses were conducted in Mplus version 8.4 (Muthén, 2018). The analysis

code (Mplus syntaxes) and data are available in the Open Science Framework (OSF) via this link.

Results

Structural and Reliability Analysis of State Narcissism

We tested the structure of the six adjectives for grandiose narcissism using multilevel factor analysis with continuous factor indicators and the MLR estimator. The model with one factor at both the within and between level fitted the data well (χ^2 (18) = 58.73, CFI = .96, TLI = .94, RMSEA = .04, $SRMR_{within}$ = .03, $SRMR_{between}$ = .03). Table 2 shows the standardized factor loadings for the two-level model. All items show positive, statistically significant loadings.

----------Insert Table 2 about here----------

The reliability of the grandiose narcissism factor was tested using the coefficient omega (Rodriguez et al., 2015). To compute the *within-person omega*, we first removed all between-person variability from the item scores using person-centering. We then computed coefficient omega on the person-centered scores using the psych package in R (Revelle, 2021). This analysis showed that omega was .70 for the grandiose narcissism factor.

Next, *between-person omega* was obtained by first computing per individual and item the average item score across all measurement occasions of that individual, after which coefficient omega was computed on those average item scores. At the between-person level, omega equals .91 for the grandiose narcissism factor.

Structural Analysis of Work Activities

The structure of the work activities was tested using two-level exploratory factor analysis with continuous factor indicators using an oblique rotation of GEOMIN and the Maximum Likelihood estimator. The results were in line with our expectations and showed a four-factor structure at both the within and between level (χ^2 (48) = 117.91, CFI = .98, TLI =

.95, RMSEA = .03, $SRMR_{within}$ = .02, $SRMR_{between}$ = .04). Table 3 shows the standardized factor loadings. Results at the within level – which is the focus of the current study – indicate that most items have the highest loading on their corresponding factor. Given the nature of the items and the fact that work activities are not completely independent, it was expected that there would be cross-loadings.

The Mplus software is not able to save factor scores from EFA. Consequently, this model needed to be adapted for further analyses. To compute factor scores, we applied the EFA within CFA approach (Muthén, 2005). The specific results from the EFA were used as start values. When applying this approach, it is important to use the same number of restrictions as in an EFA model (i.e., number of factors squared). Therefore, the factor variances were fixed to one and loadings of the anchor items (i.e., an item with a large loading for the factor and small loadings on other factors) that need to be fixed for identification purposes were fixed to their EFA values rather than to 0. This approach resulted in a model that is almost identical to the initial structural model (see Appendix). The factor scores resulting from this procedure were used in subsequent analyses.

----------Insert Table 3 about here----------

Descriptive Statistics

Next, we calculated the percentage of between-and within-person variance (i.e., the sum of within and between variance) using a random intercept model. Based on this model the Intra-Class Correlation Coefficient (ICC) for narcissism is .88, which indicates that 12% of the variability in narcissism was due to within-person variation. The ICCs for the four work activities were .29 for directing, .32 for achieving, .30 for relating, and .32 for coaching.

Dynamic Structural Equation Model (DSEM)

To test our central hypotheses, we performed a DSEM analysis in Mplus 8.4. DSEM has been specifically developed for the analysis of intensive longitudinal data with many

repeated measures from a large number of individuals. This framework combines four different modeling techniques: multilevel modeling, time-series modeling, structural equation modeling (SEM), and time-varying effects modeling (TVEM). A key advantage is the ability to deal with unequally spaced measurement occasions due to random sampling with unequal time intervals between measurements. To accommodate this situation, DSEM allows specifying a lag (using the TINTERVAL statement in the VARIABLE command of Mplus). Following this specification, a new time variable is created (i.e., time in hours). In our case, we specified a lag of 1 hour, which means that the new time variable uses increments of 1 hour. Mplus inserts rows for the hours in between two measurement occasions – even though there are no observed data – and the outcome is coded as missing. This strategy allows using all observations in the analysis, while at the same time allowing for a meaningful interpretation of lagged relations (McNeish & Hamaker, 2019).

Our analyses are based on the example of Hamaker et al. (2014) which shows how experience sampling data from 129 participants are used to examine the associations between negative affect (*y*) and unpleasantness of events (*x*). We performed our analysis in the same manner. Figure 1 represents the DSEM model used for testing concurrent and lagged associations between narcissism and work activities. The autoregression effects ϕ_{nar} and ϕ_{wa} represent the effect of respectively narcissism at time T-1 on narcissism at time T and the effect of the work activity at time T-1 on work activity at time T. The other parameters represent the cross-regressions: β_{nar} represents the effect of work activity at time T *on narcissism* at time T (i.e., hypotheses 1 and 2). Note that this effect was not statistically lagged because the phrasing during the data collection already included a time lag. Participants reported the work activities of the past two hours and how narcissistic they felt "right now". Finally, β_{wa} represents the effect of narcissism at time T-1 *on work activity* at time T. We tested four models, and each model included a different work activity (i.e.,

directing, achieving, relating, or coaching). In these models, random slopes were modeled and those random slopes were allowed to correlate. DSEM uses Bayesian estimation. In the specifications of the analysis, we used a minimum of 3,000 iterations and a thinning parameter of 5. The intercepts of narcissism and the work activities were equal to zero because we used within-person factor scores as an input, which have an average of zero and a standard deviation of 1.

----------Insert Figure 1 about here----------

Autoregression effects and cross-regression from narcissism to work activity

When looking at the autoregression (see Table 4), we found narcissism at time T-1 to be associated with narcissism at time T and that there are between-person differences in the strength of this association. Regarding all four work activities, the autoregressive effect was not statistically significant, which means that within-person variation in the work activity on time T-1 did not predict within-person variation in the work activity at time T. Despite the non-significance of these fixed effects, we found between-person differences in the association. These random effects indicate that the variance of the random slope is significantly different from zero, such that the effects of within-person variation in work activities at time T-1 on within-person variation in those same work activities at time T differs between individuals.

The cross-regression from narcissism to work activity is a lagged effect meaning that it represents the effect of state narcissism at time T-1 on the work activity at time T. All cross-regression effects are non-significant (see Table 4), meaning that within-person variation in state narcissism at time T-1 did not predict within-person variation in the agentic work activities (i.e. directing and achieving), nor the communal activities (i.e., relating and coaching) at time T. However, we again found significant random effects (i.e., between-person differences).

Cross-regression from work activity to narcissism

The cross-regressions from work activity to narcissism offer a test of our central hypotheses. As noted above, this effect is not statistically lagged in our model because the phrasing during the data collection already included a time lag of two hours. Hypothesis 1 posits that agentic work activities have a positive effect on supervisors' state narcissism. Results in Table 4 show that *directing* is unrelated to narcissism (γ_{nar20} = -.002, 95% *CI* = [-.05; .05]). We found between-person differences (Var(u_{nar2i}) = .003; 95% *CI* = [.001; .01]), indicating that the effect varies between different individuals. Regarding the second type of agentic work activities, we found *achieving* to be positively associated with narcissism (γ_{nar20} = .05, 95% *CI* = [.02; .08]). In other words, when the supervisor had a stronger engagement in achieving work activities in the past two hours, they experienced an increase in state narcissism. Again, we found between-person differences in the strength of this association (Var(u_{nar2i}) = .002; 95% *CI* = [.001; .005]).

Hypothesis 2 posits that communal work activities have a negative effect on supervisors' state narcissism. Results show that *relating* is unrelated to narcissism (γ_{nar20} = -.02, 95% *CI* = [-.08; .03]), although there are between-person differences in the strength of this relationship (Var(u_{nar2i}) = .01; 95% *CI* = [.00; .02]). Regarding the second type of communal work activities, we found *coaching* to be positively associated with state narcissism (γ_{nar20} = .06, 95% *CI* = [.02; .10]). This means that when the supervisor performed more coaching activities in the past two hours, they experienced an increase in state narcissism. Also for this effect, the effect of coaching on state narcissism is subject to between-person differences (Var(u_{nar2i}) = .004; 95% *CI* = [.001; .01]).

Concerning the hypotheses, we can conclude that, within the agentic activities, achieving has a positive effect while directing is unrelated to supervisors' state narcissism. Regarding the communal activities, coaching has a positive – rather than a negative – effect

while relating does not affect supervisors' state narcissism. For all these effects we found between-person differences that indicate that the variance of the random slope is significantly different from zero, implying that the effects of within-person variation in each category of work activities on within-person variation in narcissism differ between individuals[1]. Finally, Table 5 shows the R^2 of all models indicating that more than 50% of the variance in narcissism can be explained by the model.

----------Insert Table 4 and 5 about here----------

Discussion

Research on narcissism has begun to move beyond the investigation of between-person differences (and their outcomes) and increasingly focuses on the more dynamic aspects of this influential personality construct. The current study represents a first application of this perspective in the work context, focusing particularly on state narcissism in supervisors, and the role that work activities can play therein. The results of this study extend our knowledge about narcissism at work in several important ways. First, the availability of ESM data provides compelling evidence of substantial within-person variability in supervisors' narcissism levels at work, with 12% of the variability in narcissism being due to within-person variation in our sample. This is in line with previous research looking at narcissism states beyond the supervisor roles (Giacomin & Jordan, 2014, 2016; Heyde et al., in press). Second, this study provides first important insights into the role that work activities can play to influence these fluctuations in supervisors' narcissism.

Drawing on the extended agency model (Campbell & Foster, 2007), we expected that agentic work activities such as directing and achieving would activate state narcissism, as an increased agentic focus would also increase other core elements of narcissism, such as entitled

[1] Additional analyses using trait narcissism as a predictor for the random effects at the between level indicate that the between-person differences cannot be explained by trait narcissism (see Appendix).

and inflated self-views, and a desire for self-esteem. Conversely, a reduction in any of the core elements, such as an increased communal focus by engaging in relating and coaching work activities, would rather reduce supervisors' state narcissism. Moreover, according to TAT (Tett et al., 2021; Tett & Guterman, 2000), personality is activated by situations in which the personality state is relevant, and we expected that agentic work activities would be more "state-relevant" compared to communal activities. In line with these expectations, the results indicated that achieving work activities had a positive effect on supervisors' state narcissism. Achieving work activities, such as making progress or finishing a task, might fuel narcissistic states (e.g., inflated self-views; Campbell & Foster, 2007) and provide the opportunity for the expression of state narcissism (i.e., state activation; Tett et al., 2021). Inconsistent with our expectations, however, agentic work activities aimed at directing others did not affect narcissism states. This finding contradicts the result of Giacomin and Jordan (2016) who showed that agentic events, such as having power over someone, were positively related to state narcissism. A plausible explanation is that the surveyed directing activities of our study contain a stronger focus on others (e.g., "*intervened in case of problems*"). Within the work environment, it is probably more difficult to strictly divide the work activities into an agentic and communal category. In other words, directing activities possibly contain a larger communal component than achieving activities do, and are less state-relevant such that the personality state is not – or to a lesser extent – activated.

Regarding the communal activities, on the one hand, *coaching* had a positive effect on the activation of state narcissism. Although this finding contradicts our expectations, it is partially in line with Giacomin and Jordan's (2016) findings showing that state narcissism can be positively affected by both agentic and communal events. However, these researchers found that state narcissism only increased after situations in which communal acts were made by others towards them (e.g., when someone took care of the target person). In the current

study, coaching activities are carried out by the target supervisors themselves. Gebauer et al. (2012) indicate that some individuals may deploy communal means in order to remain their grandiose selves, a tendency labeled as “communal narcissism”. In this regard, our findings suggest that a coaching situation, such as a supervisor teaching something to a subordinate, provides the opportunity to maintain (or boost) the grandiose self. This means that, from the perspective of TAT, coaching work activities do have the potential to act as state-relevant situational cues for narcissism. Indeed, it could be that coaching activities tied to the supervisory role include a component of status and superiority, which may allow or even lead to increases in the self-views of these supervisors (cf. extended agency model; Campbell & Foster, 2007).

Finally, we found that relating work activities were unrelated to state narcissism. Whereas acts that involve deeply connecting with others have been argued to run counter to the mind of narcissists (Campbell & Foster, 2007), others have argued for an *indifference* toward communal activities (Jones & Paulhus, 2011). The current findings could therefore suggest that such work activities (e.g., listening to someone) are less relevant for narcissistic states because the individual is less the center of attention. In such situations, there is no direct opportunity to confirm or strengthen the grandiose self, so state narcissism will not be positively activated.

In sum, only one of the work activities (i.e., achieving) that can be categorized as agentic was found to enhance state narcissism, consistent with our expectations. Conversely, no evidence was found in the current study that more communal activities such as relating or coaching actually reduces state narcissism. Even contrary to what we expected, coaching demonstrated a positive effect, potentially highlighting that such work activities – although the focus lies on developing others – may offer a ground for supervisors to boost their self-image.

In terms of practical implications, we argued that knowledge of the work activities that reduce manifestations of narcissism could be used for job redesign interventions aimed at minimizing the expression of this trait. However, given that no such reducing effects were found in the current study, no concrete tools can currently be provided to directly reduce state narcissism via altered (communal) work activities. Importantly, the fact that achieving and coaching work activities enhanced state narcissism, should probably not translate into attempts to reduce these specific work activities, given that they make up an important and valuable aspects of supervisors' roles. Instead, the current findings do point to potential side-effects of such work activities, in the sense that they may boost self-images of supervisors. Especially for supervisors who already have aggrandized views of the self, this type of dynamics could potentially become a concern, especially knowing that repeated activation of personality states can eventually translate into elevated levels of the corresponding personality trait (Wrzus & Roberts, 2017).

Strengths, Limitations, and Future Directions

This is the first study to look at work activities as predictors of within-person fluctuations in narcissism. Several strengths of this work can be mentioned. First, by using an experience sampling design we were able to move beyond the question about who is narcissistic and who is not, to a more complex question about when people demonstrate more or less state narcissism. A major advantage of experience sampling is that it is less influenced by memory biases than a daily diary study. People report how they feel or what they do at that moment instead of having to remember how they felt or what they did in the past 24 hours. Second, the sample consisted of people in supervisory positions at work. This group is particularly interesting for examining narcissism since narcissists are overrepresented in leadership positions (Grijalva et al., 2015). Moreover, it can be expected that this work role offers ample opportunities to switch between a relatively diverse set of work activities. Third,

by organizing work activities using the agentic-communal framework, we were able to connect our hypotheses to theoretical perspectives on narcissism, such as the extended agency model. Although our results did not entirely match with our theory-based expectations, the availability of such an overarching framework to define the work environment (see also Ohly & Schmitt, 2015) will help to structure and integrate future research in this emerging study area.

Despite these strengths, several limitations of this study also need to be acknowledged. First, our results indicated that, despite having four types of work activities, we were neither able to specify communal work activities that reduced state narcissism, nor did we identify directing activities that enhanced state narcissism. On the one hand, the items we formulated may be perhaps not sufficiently outspoken in their agentic or communal nature, potentially limiting their ability to increase or reduce state narcissism. A challenge for future research is therefore to consider more "powerful" agentic and communal work activities. On the other hand, the factor analysis of these work activities indicated that it is difficult to strictly divide them into exclusive categories. Indeed, agency and communion have been represented as two orthogonal axes (Redeker et al., 2014; Wiggins, 1991), such that work activities can be situated somewhere in this circumplex space, with their exact location always representing a weighted combination of agency and communion (see also Ohly & Schmitt, 2015). In reality, supervisors will always have to combine agentic (i.e., getting ahead) and communal (i.e., getting along) activities when performing their job and specific activities in these jobs. Future research using the agentic-communal framework to structure work-related influences on narcissism will need to take these complexities into account.

Second, although the NGS-6 is to date the only validated instrument for the momentary assessment of grandiose narcissism, the questionnaire represents an undifferentiated measure of this complex construct. Research has shown that different

subdimensions of narcissism can have differential effects on outcomes at work (e.g., Helfrich & Dietl, 2019). So arguably, the work environment could have a differential effect on the activation of these various forms of narcissism. In this regard, the most commonly made distinction in personality and social psychology separates the more extraverted/agentic aspects of grandiose narcissism from the more antagonistic/disagreeable aspects (Back et al., 2013). It remains to be examined to which extent work activities have a differential effect on these two distinct forms of narcissism.

Finally, although narcissists often appear in leadership positions (Grijalva et al., 2015), it remains to be examined what happens when narcissists outside the supervisory role face situational variability in terms of agentic and communal work activities. To generalize our findings, future research should investigate the enhancing or reducing effects of a diverse set of work activities outside of the supervisory context.

Conclusion

The current study introduced a more dynamic approach to narcissism in the work context by demonstrating substantial within-person fluctuations in this personality construct in a sample of supervisors. Although several work activities were also found to affect these fluctuations, this was not always in line with our expectations, and factors reducing state narcissism could not be identified. Future research can build on this work to further extend our understanding of when and why narcissism fluctuates at work, especially by expanding the type of work activities that may affect the expression of this influential trait. As our knowledge of the situational forces influencing state narcissism will grow, concrete levers will also become available aimed at keeping this maladaptive personality tendency in check.

References

Abrahams, L., Vergauwe, J., & De Fruyt, F. (in press). Within-person personality variability in the work context: A blessing or a curse for job performance? *Journal of Applied Psychology*. doi:10.1037/apl0001101

Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the Narcissistic personality inventory really measure? *Assessment, 18*(1). https://doi.org/10.1177/1073191110382845

Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism. *Journal of Research in Personality*, *40*(4). https://doi.org/10.1016/j.jrp.2005.03.002

Asparouhov, T., Hamaker, E. L., & Muthén, B. (2017). Dynamic structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal* , *25*(3), 359–388. https://doi.org/10.1080/10705511.2017.1406803

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

Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion.* Rand Mcnally.

Campbell, W. K., & Foster, J. D. (2007). The narcissistic self: Background, and extended agency model, and ongoing controversies. In C. Sedikides & S. Spencer (Eds.), *Frontiers of social psychology: The self* (pp. 115–138). Psychology Press. https://doi.org/10.4324/9780203818572

Campbell, W. K., Hoffman, B. J., Campbell, S. M., & Marchisio, G. (2011). Narcissism in organizational contexts. *Human Resource Management Review*, *21*(4), 268–284. https://doi.org/10.1016/j.hrmr.2010.10.007

Dalal, R. S., Meyer, R. D., Patrick Bradshaw, R., Green, J. P., Kelly, E. D., & Zhu, M. (2015). Personality strength and situational influences on behavior: A conceptual review and research agenda. *Journal of Management*, *41*(1), 261–287. https://doi.org/10.1177/0149206314557524

Debusscher, J., Hofmans, J., & De Fruyt, F. (2014). The curvilinear relationship between state neuroticism and momentary task performance. *PLOS ONE*, *9*(9), e106989. https://doi.org/10.1371/JOURNAL.PONE.0106989

Debusscher, J., Hofmans, J., & De Fruyt, F. (2016). From state neuroticism to momentary task performance: A person × situation approach. *European Journal of Work and Organizational Psychology*, *25*(1), 89–104. https://doi.org/10.1080/1359432X.2014.983085

Edershile, E. A., Woods, W. C., Sharpe, B. M., Crowe, M., Miller, J. D., & Wright, A. G. C. (2019). A day in the life of narcissus: Measuring narcissistic grandiosity and vulnerability in daily life. *Psychological Assessment*, *31*(7), 913–924. https://doi.org/10.1037/pas0000717

Edershile, E. A., & Wright, A. G. C. (2020). Fluctuations in grandiose and vulnerable narcissistic states: A momentary perspective. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/pspp0000370

Fleeson, W. (2001). Toward a structure- and process-integrated view of personality: Traits as density distributions of states. *Journal of Personality and Social Psychology*, *80*(6), 1011–1027. https://doi.org/10.1037/0022-3514.80.6.1011

Galvin, B. M., Waldman, D. A., & Balthazard, P. (2010). Visionary communication qualities as mediators of the relationship between narcissism and attributions of leader charisma. *Personnel Psychology*, *63*(3). https://doi.org/10.1111/j.1744-6570.2010.01179.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

Giacomin, M., & Jordan, C. H. (2014). Down-regulating narcissistic tendencies: Communal focus reduces state narcissism. *Personality and Social Psychology Bulletin*, *40*(4), 488–500. https://doi.org/10.1177/0146167213516635

Giacomin, M., & Jordan, C. H. (2016). The wax and wane of narcissism: Grandiose narcissism as a process or state. *Journal of Personality*, *84*(2), 154–164. https://doi.org/10.1111/jopy.12148

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

Grijalva, E., & Newman, D. A. (2015). Narcissism and counterproductive work behavior (CWB): Meta-analysis and consideration of collectivist culture, big five personality, and narcissism's facet structure. *Applied Psychology*, *64*(1), 93–126. https://doi.org/10.1111/APPS.12025

Hamaker, E. L., Asparouhov, T., & Muthén, B. (2014). Dynamic structural equation modeling as a combination of time series modeling, multilevel modeling, and structural equation modeling. In R. H. Hoyle (Ed.), *The Handbook of Structural Equation Modeling* (2nd ed.). Guilford Press. https://ellenhamaker.github.io/DSEM-book-chapter/

Helfrich, H., & Dietl, E. (2019). Is employee narcissism always toxic? – The role of narcissistic admiration, rivalry and leaders' implicit followership theories for

employee voice. *European Journal of Work and Organizational Psychology , 28*(2), 259–271. https://doi.org/10.1080/1359432X.2019.1575365

Hersey, P., & Blanchard, K. H. (1977). *Management of organizational Behavior: Utilizing human resources*. Prentice Hall.

Heyde, F., Wille B., Kuijpers, E., Vergauwe, J., & Hofmans, J. (in press). Translating trait to state assessment: The case of grandiose narcissism. *PLOS ONE*.

Hogan, R. (1982). A socioanalytic theory of personality. In M. Page (Ed.), *Nebraska symposium on motivation* (Vol. 30, pp. 55–89). University of Nebraska Press.

Huang, J. L., & Ryan, A. M. (2011). Beyond personality traits: A study of personality states and situational contingencies in customer service jobs. *Personnel Psychology, 64*(2), 451–488. https://doi.org/10.1111/J.1744-6570.2011.01216.X

Jayawickreme, E., Fleeson, W., Beck, E. D., Baumert, A., Adler, J. M., & Perugini, M. (2021). Personality dynamics. *Personality Science, 2*, 1–18. https://doi.org/10.5964/PS.6179

Jones, D. N., & Paulhus, D. L. (2011). The role of impulsivity in the Dark Triad of personality. *Personality and Individual Differences, 51*(5). https://doi.org/10.1016/j.paid.2011.04.011

Kuijpers, E., Pickett, J., Wille, B., & Hofmans, J. (2022). Do you feel better when you behave more extraverted than you are? The relationship between cumulative counterdispositional extraversion and positive feelings: *Personality and Social Psychology Bulletin, 48*(4), 606–623. https://doi.org/10.1177/01461672211015062

LeBreton, J. M., Shiverdecker, L. K., & Grimaldi, E. M. (2018). The Dark Triad and workplace behavior. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 387–414. https://doi.org/10.1146/annurev-orgpsych- 032117-104451

Li, W. D., Li, S., Feng, J., Wang, M., Zhang, H., Frese, M., & Wu, C. H. (2021). Can becoming a leader change your personality? An investigation with two longitudinal studies from a role-based perspective. *Journal of Applied Psychology*. https://doi.org/10.1037/apl0000808

McNeish, D., & Hamaker, E. L. (2019). A primer on two-level dynamic structural equation models for intensive longitudinal data in Mplus. *Psychological Methods*, *25*(5), 610–635. https://doi.org/10.1037/MET0000250

Meyer, J. P., & Morin, A. J. S. (2016). A person-centered approach to commitment research: Theory, research, and methodology. *Journal of Organizational Behavior*, *37*(4), 584–612. https://doi.org/10.1002/JOB.2085

Miller, J. D., Hoffman, B. J., Gaughan, E. T., Gentile, B., Maples, J., & Keith Campbell, W. (2011). Grandiose and vulnerable narcissism: A nomological network analysis. *Journal of Personality*, *79*(5), 1013–1042. https://doi.org/10.1111/j.1467-6494.2010.00711.x

Minbashian, A., Wood, R. E., & Beckmann, N. (2010). Task-contingent conscientiousness as a unit of personality at work. *The Journal of Applied Psychology*, *95*(5), 793–806. https://doi.org/10.1037/A0020016

Mischel, W. (2009). From personality and assessment (1968) to personality science, 2009. *Journal of Research in Personality*, *43*(2), 282–290. https://doi.org/10.1016/J.JRP.2008.12.037

Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, *12*(4), 177–196. https://doi.org/10.1207/S15327965PLI1204_1

Muthén, L. K. (2005, May 2). *EFA in CFA Framework using Dichotomous Variables*. http://www.statmodel.com/discussion/messages/9/64.html?1337623838

Muthén, L. K. (2018). *Mplus Users Guide.* (Eight Edition). Muthén & Muthén.

O'Boyle, E. H., Forsyth, D. R., Banks, G. C., & McDaniel, M. A. (2012). A meta-analysis of the Dark Triad and work behavior: A social exchange perspective. *Journal of Applied Psychology*, *97*(3), 557–579. https://doi.org/10.1037/a0025679

Ohly, S., & Schmitt, A. (2015). What makes us enthusiastic, angry, feeling at rest or worried? Development and validation of an affective work events taxonomy using concept mapping methodology. *Journal of Business and Psychology*, *30*(1), 15–35. https://doi.org/10.1007/S10869-013-9328-3/FIGURES/1

O'Reilly, C. A., Doerr, B., & Chatman, J. A. (2018). "See you in court": How CEO narcissism increases firms' vulnerability to lawsuits. *The Leadership Quarterly*, *29*(3), 365–378. https://doi.org/10.1016/J.LEAQUA.2017.08.001

Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, *74*(5), 1197–1208. https://doi.org/10.1037//0022-3514.74.5.1197

Podsakoff, N. P., Spoelma, T. M., Chawla, N., & Gabriel, A. S. (2019). What predicts within-person variance in applied psychology constructs? An empirical examination. *The Journal of Applied Psychology*, *104*(6), 727–754. https://doi.org/10.1037/APL0000374

Redeker, M., de Vries, R. E., Rouckhout, D., Vermeren, P., & de Fruyt, F. (2014). Integrating leadership: The leadership circumplex. *European Journal of Work and Organizational Psychology*, *23*(3), 435–455. https://doi.org/10.1080/1359432X.2012.738671

Revelle, W. R. (2021). *psych: Procedures for Personality and Psychological Research*. Northwestern University. R package version 2.1.9. https://cran.r-project.org/package=psych

Rodriguez, A., Reise, S. P., & Haviland, M. G. (2015). Applying Bifactor Statistical Indices in the Evaluation of Psychological Measures. *Journal of Personality Assessment*, *98*(3), 223–237. https://doi.org/10.1080/00223891.2015.1089249

Saucier, G., Bel-Bahar, T., & Fernandez, C. (2007). What modifies the expression of personality tendencies? Defining basic domains of situation variables. *Journal of Personality*, *75*(3), 479–504. https://doi.org/10.1111/J.1467-6494.2007.00446.X

Schultzberg, M., & Muthén, B. (2018). Number of subjects and time points needed for multilevel time-series analysis: A simulation study of dynamic structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal* , *25*(4), 495–515. https://doi.org/10.1080/10705511.2017.1392862

Skrondal, A., & Laake, P. (2001). Regression among factor scores. *Psychometrika 2001 66:4*, *66*(4), 563–575. https://doi.org/10.1007/BF02296196

Sosnowska, J., Hofmans, J., Rauthmann, J., & Wille, B. (2021). Personality is dynamic and it matters: The role of personality dynamics in applied contexts. *European Journal of Personality*, *35*(4), 418–420. https://doi.org/10.1177/08902070211022491

Spain, S. M., Harms, P., & Lebreton, J. M. (2014). The dark side of personality at work. *Journal of Organizational Behavior*, *35*(SUPPL.1). https://doi.org/10.1002/job.1894

Tett, R. P., & Guterman, H. A. (2000). Situation trait relevance, trait expression, and cross-situational consistency: Testing a principle of trait activation. *Journal of Research in Personality*, *34*(4), 397–423. https://doi.org/10.1006/JRPE.2000.2292

Tett, R. P., Toich, M. J., & Ozkum, S. B. (2021). Trait Activation Theory: A review of the literature and applications to five lines of personality dynamics research. *Annual Review of Organizational Psychology and Organizational Behavior*, *8*, 199–233. https://doi.org/10.1146/ANNUREV-ORGPSYCH-012420-062228

Thrasher, G. R., Biermeier-Hanson, B., Dickson, M. W., & Wang, M. (2019). Getting old at the top: The role of agentic and communal orientations in the relationship between age and follower perceptions of leadership behaviors and outcomes. *Work, Aging and Retirement*, *6*(1), 46–58. https://doi.org/10.1093/WORKAR/WAZ012

Wallace, H. M., & Baumeister, R. F. (2002). The performance of narcissists rises and falls with perceived opportunity for glory. *Journal of Personality and Social Psychology*, *82*(5), 819–834. https://doi.org/10.1037/0022-3514.82.5.819

Wiggins, J. S. (1991). Agency and communion as conceptual coordinates for the understanding and measurement of interpersonal behavior. In D. Ciccetti & W. M. Grove (Eds.), *Thinking clearly about psychology: Essays in honor of Paul E. Meehl, Vol. 2: Personality and psychopathology* (pp. 89–113). University of Minnesota Press.

Wille, B., Hofmans, J., Lievens, F., Back, M. D., & De Fruyt, F. (2019). Climbing the corporate ladder and within-person changes in narcissism: Reciprocal relationships over two decades. *Journal of Vocational Behavior*, *115*. https://doi.org/10.1016/j.jvb.2019.103341

Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology*, *61*(4), 590–597. https://doi.org/10.1037/0022-3514.61.4.590

Wood, R. E., Beckmann, N., Birney, D. P., Beckmann, J. F., Minbashian, A., & Chau, R. (2019). Situation contingent units of personality at work. *Personality and Individual Differences*, *136*, 113–121. https://doi.org/10.1016/J.PAID.2018.01.026

Woods, S. A., Lievens, F., De Fruyt, F., & Wille, B. (2013). Personality across working life: The longitudinal and reciprocal influences of personality on work. *Journal of Organizational Behavior*, *34*(SUPPL 1). https://doi.org/10.1002/job.1863

Woods, S. A., Wille, B., Wu, C. huei, Lievens, F., & De Fruyt, F. (2019). The influence of work on personality trait development: The Demands-Affordances TrAnsactional

(DATA) model, an integrative review, and research agenda. *Journal of Vocational Behavior, 110,* 258–271. https://doi.org/10.1016/j.jvb.2018.11.010

Wrzus, C., & Roberts, B. W. (2017). Processes of personality development in adulthood: The TESSERA framework. *Personality and Social Psychology Review*. https://doi.org/10.1177/1088868316652279

Tables

Table 1

Dutch and English work activities items

English	**Dutch**
In the past two hours I have…	In de voorbije twee uur heb ik…
Agentic	
Directing	
told others what to do.	anderen verteld wat ze moeten doen.
intervened in case of problems.	ingegrepen in geval van problemen.
convinced others of something.	anderen overtuigd van iets.
Achieving	
finished a task.	een taak afgewerkt.
made progress.	vooruitgang geboekt.
learned something.	zelf iets kunnen bijleren.
Communal	
Relating	
had a pleasant conversation.	een leuk gesprek gehad.
helped others.	anderen geholpen.
listened to someone.	geluisterd naar iemand.
Coaching	
taught others something.	anderen iets aangeleerd.
given someone a compliment about their work.	iemand een compliment gegeven over zijn/haar werk.
motivated others.	anderen gemotiveerd.

Table 2

Multilevel confirmatory factor analysis of narcissism: Standardized factor loadings

Item		
English	**Dutch**	**Factor loading**
Within-person		
Glorious	Groots	.64***
Envied	Benijd	.40***
Prestigious	Prestigieus	.65***
Brilliant	Briljant	.71***
Powerful	Invloedrijk	.63***
Superior	Superieur	.57***
Between-person		
Glorious	Groots	.57***
Envied	Benijd	.84***
Prestigious	Prestigieus	.57***
Brilliant	Briljant	.50***
Powerful	Invloedrijk	.60***
Superior	Superieur	.67***

Note. *** $p < .001$. χ^2 (18) = 58.73, CFI = .96, TLI = .94, RMSEA = .04, $SRMR_{within}$ = .03, $SRMR_{between}$ = .03.

Table 3

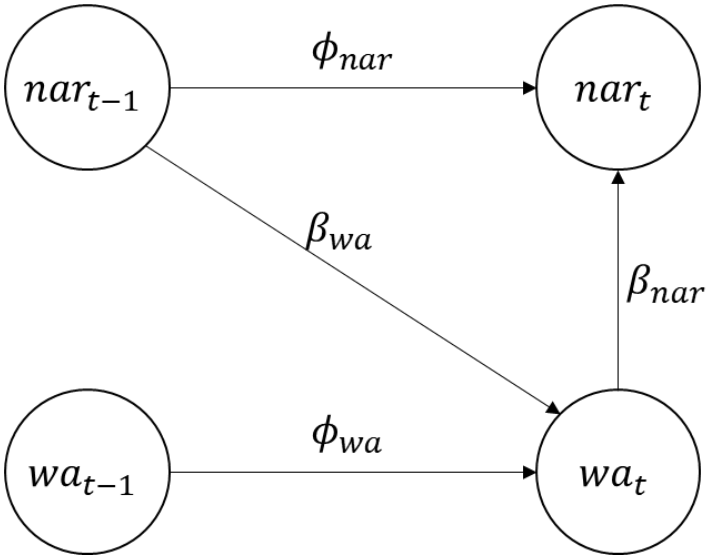
Multilevel exploratory factor analysis of the work activities: Standardized factor loadings

	1	2	3	4
Within-person				
Directing				
told others what to do.	**.66**	.13	.17	.32
intervened in case of problems.	**.61**	.10	.09	.18
convinced others of something.	**.56**	.16	.28	.34
Achieving				
finished a task.	.17	**.36**	.09	.07
made progress.	.25	**1.22**	.20	.24
learned something.	.09	.15	**.25**	.23
Relating				
had a pleasant conversation.	.21	.15	**.81**	.35
helped others.	**.58**	.16	.25	.37
listened to someone.	.34	.08	**.47**	.30
Coaching				
taught others something.	**.48**	.14	.23	.42
given someone a compliment about their work.	.30	.12	.34	**.66**
motivated others.	.51	.16	.32	**.73**
Between-person				
Directing				
told others what to do.	**.69**	.45	.50	-.04
intervened in case of problems.	**1.01**	.40	.28	.06
convinced others of something.	.69	.63	**.73**	-.36
Achieving				
finished a task.	.10	.24	.13	**.77**
made progress.	.19	.43	**.71**	.63
learned something.	.24	.60	**.78**	-.01
Relating				
had a pleasant conversation.	.12	**.70**	.53	.12
helped others.	.60	**.78**	.55	.18
listened to someone.	.62	**.72**	.50	-.08
Coaching				
taught others something.	.48	.64	**.65**	-.13
given someone a compliment about their work.	.34	**.82**	.51	-.26
motivated others.	.58	**.94**	.63	-.17

Note. χ^2 (48) = 117.91, CFI = .98, TLI = .95, RMSEA = .03, $SRMR_{within}$ = .02, $SRMR_{between}$ = .04.

Figure 1

DSEM model for testing the associations between narcissism and work activities



Note. nar = narcissism; wa = work activity.

Table 4

Dynamic Structural Equation Modeling (DSEM) analysis

		Directing			Achieving			Relating			Coaching		
		B	**SE**	**CI**	**B**	**SE**	**CI**	**B**	**SE**	**CI**	**B**	**SE**	**CI**
Fixed													
γ_{nar00}	Intercept narcissism	**-.01**	.00	[-.02; -.01]	**-.01**	.00	[-.02; -.01]	**-.01**	.00	[-.02; -.01]	**-.01**	.00	[-.02; -.01]
γ_{wa00}	Intercept work activities	.02	.02	[-.02; .06]	.05	.03	[-.01; .10]	.02	.02	[-.02; .06]	.01	.02	[-.02; .04]
γ_{nar10}	Autoregression narcissism (ϕ_{nar})	**.68**	.05	[.57; .75]	**.69**	.05	[.55; .76]	**.69**	.04	[.60; .76]	**.69**	.05	[.58; .76]
γ_{nar20}	Cross-regression from work activity to narcissism (β_{nar})	.00	.02	[-.05; .05]	**.05**	.02	[.02; .08]	-.02	.03	[-.08; .03]	**.06**	.02	[.02; .10]
γ_{wa10}	Autoregression work activity (ϕ_{wa})	-.07	.12	[-.35; .15]	-.13	.10	[-.31; .08]	-.16	.12	[-.37; .09]	.02	.13	[-.24; .22]
γ_{wa20}	Cross-regression from narcissism to work activity (β_{wa})	.07	.12	[-.17; .29]	.02	.17	[-.31; .36]	.16	.12	[-.09; .39]	.07	.09	[-.13; -2.96]
γ_{nar30}	Residual variance narcissism (ψ_{nar})	**-3.27**	.17	[-3.59; -2.92]	**-3.32**	.16	[-3.63; -2.99]	**-3.31**	.17	[-3.62; -2.97]	**-3.32**	.17	[-3.63; -2.96]
γ_{wa30}	Residual variance work activity (ψ_{wa})	**-.90**	.10	[-1.11; -.71]	-.05	.10	[-.25; .14]	**-.88**	.10	[-1.08; -.69]	**-.99**	.07	[-1.12; -.85]
Random													
u_{nar1i}	Autoregression narcissism (ϕ_{nar})	**.04**	.01	[.02; .07]	**.04**	.02	[.02; .10]	**.03**	.01	[.02; .06]	**.03**	.01	[.02; .07]
u_{nar2i}	Cross-regression from work activity to narcissism (β_{nar})	**.00**	.00	[.00; .01]	**.00**	.00	[.00; .01]	**.01**	.00	[.00; .02]	**.00**	.00	[.00; .01]
u_{wa1i}	Autoregression work activity (ϕ_{wa})	**.06**	.03	[.02; .14]	**.08**	.04	[.02; .16]	**.06**	.03	[.02; .13]	**.08**	.03	[.03; .15]
u_{wa2i}	Cross-regression from narcissism to work activity (β_{wa})	**.24**	.11	[.09; .49]	**.38**	.21	[.10; .91]	**.24**	.11	[.09; .52]	**.12**	.06	[.04; .28]
u_{nar3i}	Residual variance narcissism (ψ_{nar})	**2.16**	.39	[1.55; 3.09]	**2.10**	.36	[1.51; 2.92]	**2.14**	.37	[1.55; 3.00]	**1.97**	.36	[1.41; 2.78]
u_{wa3i}	Residual variance work activity (ψ_{wa})	**.45**	.13	[.24; .77]	**.65**	.16	[.41; 1.01]	**.44**	.12	[.26; .72]	**.13**	.06	[.05; .27]

Note. Bold values are statistically significant.

Table 5

Within-level R^2 and credibility intervals averaged across clusters

	Narcissism	Work activity
Directing	.50 [.40; .57]	.15 [.08; .23]
Achieving	.54 [.47; .62]	.14 [.06; .19]
Relating	.52 [.43; .59]	.18 [.11; .28]
Coaching	.55 [.43; .61]	.13 [.07; .18]

Appendix A: Factor structure work activities

Table A1

EFA within CFA of the work activities: Standardized factor loadings

	1	2	3	4
Within-person				
Directing				
told others what to do.	**.58*****	.13	.17	.32
intervened in case of problems.	**.58*****	.11***	.10**	.21***
convinced others of something.	**.53*****	.16***	.28***	.36***
Achieving				
finished a task.	.17***	**.29***	.09***	.08**
made progress.	.25	**.77***	.20	.24
learned something.	.11***	.13***	**.23*****	.23***
Relating				
had a pleasant conversation.	.21	.15***	**.72*****	.35
helped others.	**.50*****	.15***	.23***	.36***
listened to someone.	.23***	.07***	**.31*****	.23***
Coaching				
taught others something.	**.45*****	.14***	.23***	.42***
given someone a compliment about their work.	.37***	.14***	.37***	**.73*****
motivated others.	.51	.16***	.32	**.72*****
Between-person				
Directing				
told others what to do.	**.47*****	-.04	.45	.50
intervened in case of problems.	**.47****	.00	.41***	.39
convinced others of something.	.83**	-.43	.72***	**1.08****
Achieving				
finished a task.	-.25	**.46**	.14	-.16
made progress.	.19	.23	.43	**.71**
learned something.	.46*	-.17	.66***	**.85****
Relating				
had a pleasant conversation.	.12	.12	**.66*****	.53
helped others.	.15	.30	**.56****	.25
listened to someone.	.21*	.03	**.51*****	.42**
Coaching				
taught others something.	.54***	-.12	.70***	**.79*****
given someone a compliment about their work.	.53***	-.31	.86***	**1.01*****
motivated others.	.58	-.18	.94	**1.01*****

Note. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. χ^2 (48) = 119.62, CFI = .98, TLI = .94, RMSEA = .03, $SRMR_{within}$ = .02, $SRMR_{between}$ = .04.

Appendix B: Dynamic Structural Equation Modeling with trait narcissism

Additional analyses included trait narcissism as an observed predictor for the random effects at the between level. The within level of this model is equal to the model used for the results described in the study. The between level includes the covariate trait narcissism.

Within level:

$$Nar_{ti} = \beta_{nar0i} + \phi_{nar1i} Nar_{t-1i} + \beta_{nar2i} WA_{ti} + \psi_{nar3i}$$

$$WA_{ti} = \beta_{wa0i} + \phi_{wa1i} WA_{t-1i} + \beta_{wa2i} WA_{t-1i} + \psi_{wa3i}$$

Between level:

$$\beta_{nar0i} = \gamma_{nar00}$$

$$\beta_{wa0i} = \gamma_{wa0}$$

$$\phi_{nar1i} = \gamma_{nar10} + \gamma_{nar11} X_i + u_{nar1i}$$

$$\beta_{nar2i} = \gamma_{nar20} + \gamma_{nar21} X_i + u_{nar2i}$$

$$\phi_{wa1i} = \gamma_{wa10} + \gamma_{wa11} X_i + u_{wa1i}$$

$$\beta_{wa2i} = \gamma_{wa20} + \gamma_{wa21} X_i + u_{wa2i}$$

$$\psi_{nar3i} = \gamma_{nar30} + \gamma_{nar31} X_i + u_{nar3i}$$

$$\psi_{wa3i} = \gamma_{wa30} + \gamma_{wa31} X_i + u_{wa3i}$$

Table B1

Dynamic Structural Equation Modeling (DSEM) analysis with trait narcissism (X_i) as predictor for the random coefficients

		Directing			Achieving			Relating			Coaching		
		B	**SE**	**CI**	**B**	**SE**	**CI**	**B**	**SE**	**CI**	**B**	**SE**	**CI**
Fixed													
γ_{nar00}	Intercept narcissism	**-.01**	.00	[-.02; -.01]	**-.01**	.00	[-.02; -.01]	**-.01**	.00	[-.01; -.01]	-.01	.00	[-.01; -.01]
γ_{wa00}	Intercept work activities	.01	.02	[-.02; .05]	.05	.03	[-.00; .11]	.01	.02	[-02; .05]	.01	.02	[-.03; .04]
γ_{nar10}	Autoregression narcissism (ϕ_{nar})	**.70**	.04	[.60; .77]	**.71**	.04	[.62; .77]	**.71**	.04	[.62; .77]	**.71**	.04	[.61, .77]
γ_{nar20}	Cross-regression from work activity to narcissism (β_{nar})	.01	.01	[-.02; .03]	**.03**	.01	[.01; .05]	-.00	.01	[-.03; .03]	.02	.01	[-.00; .05]
γ_{wa10}	Autoregression work activity (ϕ_{wa})	-.03	.11	[-.25; .18]	-.17	.11	[-.37; .07]	-.05	.13	[-.28; .22]	-.02	.13	[-.27; .24]
γ_{wa20}	Cross-regression from narcissism to work activity (β_{wa})	.10	.08	[-.05; .25]	.08	.10	[-.10; .27]	**.15**	.08	[.00; .30]	.08	.07	[-.05; .21]
γ_{nar30}	Residual variance narcissism (ψ_{nar})	-3.29	.15	[-3.58; -2.99]	**-3.32**	.15	[-3.62; -3.02]	**-3.33**	.15	[-3.61; -3.03]	**-3.32**	.14	[-3.60; -3.04]
γ_{wa30}	Residual variance work activity (ψ_{wa})	-.79	.08	[-.95; -.64]	.02	.09	[-.17; .20]	**-.77**	.08	[-.93; -.61]	**-.92**	.06	[-1.05; -.80]
Effect trait narcissism (X_i)													
γ_{nar11}	Autoregression narcissism (ϕ_{nar})	-.02	.03	[-.07; .03]	-.02	.02	[-.07; .03]	-.03	.03	[-.08; .02]	-.03	.02	[-.08; .02]
γ_{nar21}	Cross-regression from work activity to narcissism (β_{nar})	-.01	.01	[-.03; .01]	-.01	.01	[-.00; .03]	-.02	.01	[-.04; .01]	.02	.01	[.00; .04]
γ_{wa11}	Autoregression work activity (ϕ_{wa})	-.03	.11	[-.25; .18]	.03	.10	[-.16; .22]	.05	.11	[-.19; .23]	.08	.12	[-.17; .27]
γ_{wa21}	Cross-regression from narcissism to work activity (β_{wa})	.07	.07	[-.06; .20]	-.09	.08	[-.26; .08]	.12	.07	[-.03; .26]	.01	.06	[-.11; 13]
γ_{nar31}	Residual variance narcissism (ψ_{nar})	**.41**	.16	[.10; .71]	**.43**	.15	[.12; .72]	**.47**	.15	[.16; .76]	**.45**	.15	[.15; .73]
γ_{wa31}	Residual variance work activity (ψ_{wa})	-.04	.08	[-.18; .11]	-.12	.09	[-.30; .06]	.00	.08	[-.15; .17]	-.03	.06	[-.17; .09]
Random													
u_{nar1i}	Autoregression narcissism (ϕ_{nar})	**.03**	.01	[.01; .07]	**.02**	.01	[.01; .06]	**.02**	.01	[.01; .05]	**.02**	.01	[.01; .06]
u_{nar2i}	Cross-regression from work activity to narcissism (β_{nar})	**.00**	.00	[.00; .00]	**.00**	.00	[.00; .00]	**.00**	.00	[.00; .01]	**.00**	.00	[.00; .00]
u_{wa1i}	Autoregression work activity (ϕ_{wa})	**.02**	.02	[.00; .09]	**.03**	.03	[.00; .10]	**.02**	.02	[.00; .09]	**.02**	.02	[.00; .09]
u_{wa2i}	Cross-regression from narcissism to work activity (β_{wa})	**.08**	.05	[.01; .21]	**.05**	.07	[.00; .26]	**.09**	.06	[.02; .23]	**.06**	.04	[.01; .16]
u_{nar3i}	Residual variance narcissism (ψ_{nar})	**1.68**	.30	[1.19; 2.36]	**1.66**	.30	[1.17; 2.36]	**1.65**	.30	[1.17; 2.33]	**1.56**	.28	[1.13; 2.19]
u_{wa3i}	Residual variance work activity (ψ_{wa})	**.32**	.09	[.19; .54]	**.53**	.13	[.34; .84]	**.34**	.10	[.19; .56]	**.08**	.05	[.02; .19]