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# Ego, Elevation, and Exclusion: Bidirectional Prospective Associations Between Narcissism and Status and Inclusion

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## ABSTRACT

**Objective:** The current longitudinal study tested whether different expressions of narcissism prospectively predict increased desires for status, perceptions of having attained status, and assertiveness—relative to desires for inclusion, perceptions of being included, and affiliativeness—and vice versa.

**Method:** University students ($N = 528$) completed a three-wave longitudinal study, with waves spaced 2 weeks apart. Narcissism, desires for status and inclusion, perceptions of having attained status and inclusion, and assertiveness and affiliativeness were assessed at each wave.

**Results:** Grandiose, agentic, and antagonistic narcissism related to increasing desires for status and perceived status attainment, and vice versa, depending on how grandiose narcissism was assessed. In contrast, vulnerable narcissism related to diminishing desires for status and inclusion, and vice versa, depending on how vulnerable narcissism was assessed.

**Conclusion:** Grandiose narcissism may encourage status aspirations and help people achieve higher status; higher status aspirations and perceived attainment, in turn, may encourage grandiose, agentic, and antagonistic narcissism. In contrast, vulnerable narcissism may shift motivations away from social validation, reducing desires for both status and inclusion in the medium term. These findings are generally consistent with and extend evidence for recent models of how grandiose narcissism relates to status.

Narcissism is associated with higher social status. Celebrities, leaders, and people with more prestigious jobs, including highly paid CEOs, tend to be more narcissistic than their lower status counterparts (Leckelt et al. 2019; O'Reilly III et al. 2014; Piff 2014; Young and Pinsky 2006). This could be because narcissistic individuals are highly motivated to achieve status, which may help them to attain higher status positions (Grapsas et al. 2020; Mahadevan and Jordan 2022; Zeigler-Hill et al. 2019), or because higher status positions encourage narcissism. It has been suggested that prestigious jobs and leadership positions both attract and cultivate narcissism (Chatterjee and Hambrick 2007; Piff 2014; Rosenthal and Pittinsky 2006). Recent models of how narcissism relates to status imply that they may form a recursive cycle, with narcissism encouraging status pursuit, assertiveness, and status attainment, and these status-related factors enhancing narcissism in turn (Grapsas et al. 2020; Mahadevan et al. 2019a). In the current study, we test whether narcissism prospectively predicts increases in desire for status, assertiveness, and perceptions of having attained status (relative to desire for inclusion, affiliativeness, and perceptions of being included by others) while also testing the prospective effects of these status-related factors on narcissism. We do so in a short-term longitudinal study, during a period of life—studying at university—when shifts in status, inclusion, and social identity are common (Griffin et al. 2025; Rahal et al. 2020, 2022). We additionally examine the roles of distinct expressions of narcissism,

both in terms of grandiose and vulnerable narcissism, as well as the lower-order dimensions of agentic narcissism, antagonistic narcissism, and neurotic narcissism.

## 1 | Expressions of Narcissism

Narcissism is a collection of personality features that includes arrogance, a sense of entitlement, a willingness to exploit others, and a lack of empathy (Krizan and Herlache 2018; Miller et al. 2017; Morf and Rhodewalt 2001). These personality features disperse into distinct expressions of narcissism (Crowe et al. 2019). At the highest differentiated level is the long-held distinction between grandiose and vulnerable narcissism (Cain et al. 2008; Dickinson and Pincus 2003; Wink 1991). Grandiose narcissism is extraverted, arrogant, and self-aggrandizing, whereas vulnerable narcissism is neurotic, insecure, and withdrawn. Below this two-factor level is a three-factor structure that includes agentic, antagonistic, and neurotic narcissism (Crowe et al. 2019; Krizan and Herlache 2018; Miller et al. 2017). Agentic narcissism is uniquely grandiose and includes extraversion, self-promotion, and dominance. Antagonistic narcissism is common to both grandiose and vulnerable narcissism and includes exploitativeness, a sense of entitlement, and disagreeableness. Neurotic narcissism is uniquely vulnerable and includes avoidance, hypersensitivity, and insecurity. Despite their differences, these expressions of narcissism share a strong motivation to attain status (Grapsas et al. 2020; Mahadevan and Jordan 2022; Zeigler-Hill et al. 2019).

## 2 | Narcissism, Status, and Inclusion

Social status refers to one's position in social hierarchies and the degree to which one is respected and admired by others, whereas social inclusion refers to one's position in social communities and the degree to which one is accepted and liked by others (Anderson et al. 2015). Status and inclusion are both considered to be fundamental human motives (Anderson et al. 2015; Baumeister and Leary 1995), though people differ in how strongly they are motivated to achieve them. Several theories posit that the desire for status specifically is a core motive of narcissistic individuals that creates coherence among their personality features (Back 2018; Campbell and Foster 2007; Grapsas et al. 2020; Mahadevan and Jordan 2022). All expressions of narcissism are characterized by a strong desire for status but vary in how they relate to a desire for inclusion (Mahadevan and Jordan 2022; Zeigler-Hill et al. 2019; Zeigler-Hill and Dehaghi 2023). Grandiose narcissism, as well as agentic and antagonistic narcissism, relate more strongly to desires for status than inclusion, whereas vulnerable and neurotic narcissism relate strongly to desires for both status and inclusion.

The present study tests whether each expression of narcissism prospectively predicts status aspirations, perceived status attainment, and status-seeking assertive behavior, and whether these status-related factors prospectively predict each expression of narcissism. We compare these processes for status to parallel processes for inclusion, testing whether each expression of narcissism prospectively predicts inclusion aspirations, perceived inclusion attainment, and inclusion-seeking affiliative behavior, and whether these inclusion-related factors prospectively predict each expression of narcissism. This allows us to model status- and inclusion-related processes simultaneously, which is important because they correlate positively with each other (e.g., people with a stronger desire for status also have a stronger desire for inclusion, perhaps reflecting a general desire for social validation; Fournier 2009; Mahadevan et al. 2019b). Although all expressions of narcissism are characterized by the desire for status, they differ in how they relate to status attainment and assertiveness.

### 2.1 | Grandiose and Agentic Narcissism

Most research on how narcissism relates to status focuses on grandiose narcissism. Cross-sectional studies find that grandiose narcissism and its unique component, agentic narcissism, relate to greater status aspirations and perceived status attainment, even taking inclusion aspirations and perceived inclusion attainment into account (Mahadevan et al. 2016; Mahadevan and Jordan 2022; Zeigler-Hill et al. 2019; Zeigler-Hill and Dehaghi 2023). In addition, daily diary studies find that people report higher daily grandiose narcissism on days they experience higher status (Benson and Giacomin 2020; Giacomin and Jordan 2016; Mahadevan et al. 2020; Zeigler-Hill et al. 2019), and experience sampling studies find that agentic narcissism relates to aggregate perceptions of having attained higher status (Kroencke et al. 2023). Likewise, people in high-ranking positions tend to be higher in trait grandiose narcissism than those in low-ranking positions (Leckelt et al. 2019; O'Reilly III et al. 2014; Piff 2014; Spurk et al. 2016; Young and Pinsky 2006). Grandiosely narcissistic individuals also tend to emerge as leaders in groups (Brunell et al. 2008; Grijalva et al. 2015; Nevicka et al. 2011) and to be afforded higher status by other group members, at least in the short term (Carlson and DesJardins 2015). In experiments, assuring people that they will achieve high status (but not assuring them that they will be highly included by others) increases state grandiose narcissism (Mahadevan et al. 2019a), whereas inducing them to lose competitions decreases it (Edershile et al. 2024). In terms of status-relevant behavior, grandiosely narcissistic individuals report behaving more assertively (but not more affiliatively) in general (Mahadevan et al. 2016), and people behave more assertively (but not more affiliatively) on days their grandiose narcissism is higher (Mahadevan et al. 2020). Furthermore, those high in agentic narcissism are willing to use both prestige-based (e.g., highlighting accomplishments) and dominance-based (e.g., aggressive tactics) strategies to pursue status (Zeigler-Hill et al. 2019, 2021). Thus, grandiose and agentic narcissism relate positively to status aspirations, status attainment, and assertiveness.

### 2.2 | Antagonistic Narcissism

Antagonistic narcissism is common to both grandiose and vulnerable narcissism. It relates consistently to a desire for status (even controlling for desire for inclusion; Mahadevan et al. 2019b; Mahadevan and Jordan 2022; Zeigler-Hill et al. 2019; Zeigler-Hill and Dehaghi 2023), but less consistently to perceived status attainment. Antagonistic narcissism relates negatively to daily

experiences of status (Zeigler-Hill et al. 2019; Zeigler-Hill and Dehaghi 2023), but positively to overall perceptions of status (Mahadevan and Jordan 2022). These findings likely reflect the inconsistency between short- and long-term experiences of status. Antagonistic narcissism may lead people to be vigilant to threats to status, which signal lower perceived status in the moment (Grapsas et al. 2020; Zeigler-Hill et al. 2019), and may also increase efforts to protect status (e.g., by derogating others), which help maintain or increase status over the longer term. Perhaps reflecting these dynamics, antagonistic narcissism has been found to relate to the perception that status is precarious and unstable (Benson and Giacomin 2020) or under attack (Kroencke et al. 2023). With respect to status-relevant behavior, those high in antagonistic narcissism behave more combatively (e.g., being critical and unfriendly) in everyday contexts (Kroencke et al. 2023) and are more willing to use dominance-based strategies to pursue status (Zeigler-Hill et al. 2019, 2021). Thus, antagonistic narcissism relates positively to status aspirations and assertiveness, but inconsistently to perceived status attainment.

### 2.3 | Vulnerable and Neurotic Narcissism

Compared with grandiose narcissism, less research has examined how vulnerable narcissism and its unique component, neurotic narcissism, relate to status. Cross-sectional studies find that they relate positively to desires for status and inclusion but negatively to perceptions of having attained them (Mahadevan and Jordan 2022; Zeigler-Hill and Dehaghi 2023). In an experience sampling study, state neurotic narcissism related to perceived status neglect (i.e., feeling ignored or sidelined; Kroencke et al. 2023). Interacting with dominant and cold people (which may threaten one's sense of relative status) also predicted higher state vulnerable narcissism (Edershile and Wright 2021; Edershile et al. 2024). Similarly, experimentally inducing people to lose in a competition increased state vulnerable narcissism (Edershile et al. 2024). These findings suggest that vulnerable narcissism is associated with low perceived status attainment. With respect to status-relevant behavior, those higher in vulnerable and neurotic narcissism behave less assertively in social contexts (e.g., being avoidant and reserved; Kroencke et al. 2023; Miller et al. 2017). Thus, vulnerable and neurotic narcissism relate positively to status aspirations, but negatively to perceived status attainment and assertiveness.

## 3 | Prospective Effects of Narcissism and Status

Taken together, primarily three types of evidence link narcissism to desire for status, perceived status attainment, and assertiveness: Cross-sectional correlations with trait narcissism, naturalistic within-person associations with state narcissism, and momentary experimental effects on state narcissism. Experimental findings provide evidence for causal direction, finding that some status-relevant events causally affect state grandiose and vulnerable narcissism. Being assured of having high status in the future or winning a competition enhances state grandiose narcissism, whereas interacting with cold, dominant interaction partners or losing a competition increases state vulnerable narcissism (Edershile and Wright 2021; Edershile et al. 2024; Mahadevan et al. 2019a). It remains unclear, however, if trait narcissism—in each of its expressions—prospectively predicts increases in desire for status, perceived status attainment, and assertiveness, or vice versa. Carlson and DesJardins (2015) examined the prospective effects of grandiose narcissism on status in an ongoing discussion group, finding that those higher in grandiose narcissism initially attained higher status but that this status waned over 4 months. This study, however, did not examine prospective effects of status on narcissism and only tested grandiose narcissism. It also examined status afforded by members of a specific small group, whereas our study examines perceptions of status within the ongoing stream of university students' lives. In addition, the sample size ($N = 94$) was small based on current standards.

There are theoretical models linking grandiose narcissism and status that are consistent with the possibility of prospective links between the two. The *Status Pursuit in Narcissism* (SPIN) model posits that features of grandiose narcissism act as a self-regulatory processing system focused on enhancing status through self-promotion (agentic narcissism) or other-derogation (antagonistic narcissism; Grapsas et al. 2020; see also Campbell and Foster 2007; Morf and Rhodewalt 2001; Zeigler-Hill et al. 2019). It specifies situational processes by which narcissistic individuals seek out, monitor, and use social situations to enhance and maintain social status. The recurrent, situational pursuit of status by these means is predicted to "crystallize" into stable patterns that represent higher trait grandiose narcissism (Back 2018; Grapsas et al. 2020). Similarly, *hierometer theory* posits that grandiose narcissism operates as a psychological mechanism that acts as a gauge of status—of the extent to which one is respected and admired by others (Mahadevan et al. 2016, 2019a). As one achieves a higher status, state grandiose narcissism increases, encouraging more assertive behavior and status pursuit, which can further enhance status. These recursive processes may lead to increases in both narcissism and status over time.

These models focus on grandiose narcissism. The SPIN model further posits that the situational activation of agentic narcissism (assertive self-promotion), as one component of grandiose narcissism, is the "default mode" for narcissistic status pursuit (Grapsas et al. 2020). Considering these theoretical models as well as the strong empirical links between grandiose and agentic narcissism and status-related factors, we hypothesized that these expressions of narcissism will prospectively predict increased desire for status, perceived status attainment, assertiveness, and vice versa.

In the SPIN model, antagonistic narcissism is expected to be activated less frequently when status is threatened, motivating efforts to maintain status by derogating rivals. Evidence linking antagonistic narcissism to status attainment is also inconsistent. Accordingly, we hypothesize that antagonistic narcissism will positively, but less strongly, prospectively predict desire for status, perceived status attainment, and assertiveness, and vice versa.

Empirically, vulnerable and neurotic narcissism relate positively to status aspirations but negatively to perceived status

attainment and assertiveness. Hierometer theory posits that lower status attainment leads to lower self-regard (which is related to vulnerable narcissism) that reduces assertiveness and subsequent status attainment (Mahadevan 2024; Mahadevan et al. 2016, 2020). Status threats may also increase vulnerable narcissism (Edershile and Wright 2021; Edershile et al. 2024). Extensions of the SPIN model similarly posit that neurotic narcissism is activated when status is neglected, leading to withdrawal from status pursuit (Back 2018; Kroencke et al. 2023). Based on these perspectives and the available evidence, we hypothesize that vulnerable and neurotic narcissism will prospectively predict increased desires for status, but decreased perceived status attainment and assertiveness, and vice versa.

## 4 | Overview

We conducted a 2-week interval, three-wave longitudinal study to test the prospective effects of each expression of narcissism on desires for status, perceived status attainment, and assertiveness, and vice versa. Having three waves of data allowed us to fit random-intercept cross-lagged panel models (RI-CLPMs) to test the lagged associations of narcissism and status-related constructs (while simultaneously considering parallel lagged associations of narcissism and inclusion-related constructs). RI-CLPMs explicitly model the stable, between-person variance in study variables such that the cross-lagged paths test the within-person prospective associations of those variables, reducing the likelihood of finding spurious associations due to stability in the variables (Hamaker et al. 2015; Lucas 2023).

We recruited participants in a life phase when changes in status and inclusion—and thus potential effects of narcissism on status and inclusion, and vice versa—are relatively common: studying at university (Griffin et al. 2025; Rahal et al. 2020, 2022). University life often involves shifting social networks and group memberships, which can affect social status and inclusion. Students may also be affected by the "big-fish-little-pond effect," where self-evaluations are affected by one's relative social standing in a particular environment (Fang et al. 2018; Marsh and Parker 1984). For example, students who were academically exceptional in high school may feel less distinguished at university (Becker and Neumann 2016). Their perceptions of status, moreover, may change across time as academic performance varies.

## 5 | Method

### 5.1 | Procedure

We hosted the study online on *Qualtrics*. Participants were recruited from an undergraduate participant pool at a Canadian university to participate in a study with three online surveys each spaced 2 weeks apart. Participants received partial course credit and one entry in a raffle for a $100 Amazon gift card for each wave they completed. Participants who completed the intake survey (Wave 1) were sent email invitations to complete Waves 2 and 3 2 weeks later. At each wave, they received three additional invitations every 12 h if they had not already completed that wave. For each survey, participants read an information sheet that described the study's aims and objectives in general terms and indicated their consent to participate by checking a box. They then completed questionnaire measures and, at Wave 1, provided basic demographic information.

### 5.2 | Participants

A total of 718 participants completed Wave 1; 549 completed Wave 2; and 492 completed Wave 3. At each wave, we sequentially excluded participants who: (a) completed the study multiple times (2.5% Wave 1; 2.2% Wave 2; 0.01% Wave 3); (b) had extensive missing data (over 10% of items; 2.4% Wave 1; 2.0% Wave 2; 1.0% Wave 3); (c) had unvarying responses to questionnaires with forward- and reverse-coded items (2.8% Wave 1; 4.0% Wave 2; 4.9% Wave 3); or (d) completed the wave very quickly (< 1 s per item; 0% Wave 1; 0.001% Wave 2; 0.01% Wave 3) or very slowly (over 36 h; 0.02% Wave 1; 0.001% Wave 2; 0% Wave 3). Finally, we excluded participants who completed only one wave (142 participants), leaving 528 participants (12 did not complete Wave 1 and did not report any demographics). Analyses that retained participants who completed only one wave were virtually identical in model fit, magnitude of estimated model parameters, and statistical significance to those that excluded these participants (see Tables S8–S11).

The remaining participants identified their gender as male (90), female (432), non-binary (2), agender (1), unlabeled (1), or did not specify their gender (2). They ranged in age from 17 to 46 years ($M = 19.9$, $SD = 3.60$). Participants identified their ethnic backgrounds as Caucasian (60.4%), South Asian (12.9%), East Asian (6.6%), Caribbean (4.2%), Middle Eastern (4.0%), African (3.6%), Latin, Central, and South American (1.9%), Indigenous (0.4%), or other (5.3%).

To estimate statistical power, we conducted Monte Carlo simulations specifying our structural model (three-wave, three-variable RI-CLPM with stationarity constraints) as the population model using the lavaan package in R (Rosseel 2012). We estimated the fitted model ($N = 528$) with robust maximum likelihood estimation. Across 1000 replications, empirical power, computed as the proportion of replications in which cross-lagged paths (set to 0.10) were statistically significant ($p < 0.05$), ranged from 0.89 to. 90.

### 5.3 | Measures

At each wave, participants completed measures of status and inclusion aspirations, perceived status and inclusion attainment, assertiveness, affiliativeness, and narcissism.[1]

#### 5.3.1 | Status Aspirations

We assessed status aspirations using a 10-item questionnaire (Mahadevan et al. 2019b). Participants indicated the extent to which they generally desire to have status (e.g., "Having the respect of others is essential to me," "Getting ahead of the competition really matters to me"; 1 = *strongly disagree*, 5 = *strongly agree*).

#### 5.3.2 | Inclusion Aspirations

We assessed inclusion aspirations using a parallel 10-item questionnaire (Mahadevan et al. 2019b). Participants indicated the extent to which they generally desire to be included (e.g., "Being liked by others is essential to me," "Above all, I want to be accepted"; 1 = *strongly disagree*, 5 = *strongly agree*).

#### 5.3.3 | Perceived Status Attainment

We assessed perceived status attainment using an 8-item questionnaire (Huo et al. 2010; Mahadevan et al. 2019a, 2019b). Participants indicated the extent to which they feel that others respect and admire them (e.g., "Most of the time I feel people...", "admire me," "respect my achievements," "consider me a high-status person"; 1 = *strongly disagree*, 5 = *strongly agree*).

#### 5.3.4 | Perceived Inclusion Attainment

We assessed perceived inclusion attainment using a parallel 9-item questionnaire (Huo et al. 2010; Mahadevan et al. 2019a, 2019b). Participants indicated the extent to which they feel others like and accept them (e.g., "Most of the time I feel that people..." "accept me" "like me as a person," "would be willing to be friends with me"; 1 = *strongly disagree*, 5 = *strongly agree*).

#### 5.3.5 | Assertiveness and Affiliativeness

Participants indicated to what extent they behaved in an assertive and affiliative way over the prior 2 weeks by rating the frequency with which they engaged in nine assertive behaviors (e.g., "I stood up for myself") and seven affiliative behaviors (e.g., "I smiled and laughed with others"; 1 = *never*, 6 = *almost always*), adapted from the Social Behavior Inventory (Moskowitz 1994; see Mahadevan et al. 2020).

#### 5.3.6 | Narcissism

We assessed narcissism with three measures intended to capture expressions of narcissism at two hierarchically nested levels: (1) a two-factor model consisting of grandiose and vulnerable narcissism, and (2) a three-factor model consisting of agentic narcissism, antagonistic narcissism, and neurotic narcissism. The three measures were the Narcissistic Personality Inventory (NPI; Raskin and Terry 1988), the short form of the Five Factor Narcissism Inventory (FFNI-SF; Sherman et al. 2015), and the vulnerability subscale of the Pathological Narcissism Inventory (PNI; Pincus et al. 2009). These scales were selected to provide a broad assessment of these expressions of narcissism.

We used the 40-item NPI to assess grandiose narcissism. It consists of 40 pairs of statements, one narcissistic (e.g., "I really like to be the center of attention") and one non-narcissistic (e.g., "It makes me uncomfortable to be the center of attention"). Participants were asked to respond according to how they felt "right now," and chose the statement that fit them better.

We used the 60-item FFNI to assess both two- and three-factor models of narcissism. It has 15 4-item facets that assess the three-factor model of agentic narcissism (e.g., "Others say I brag too much, but everything I say is true") based on acclaim seeking, authoritativeness, grandiose fantasies, and exhibitionism; antagonistic narcissism (e.g., "I'm pretty good at manipulating people") based on manipulativeness, exploitativeness, entitlement, lack of empathy, arrogance, reactive anger, distrust, and thrill seeking; and neurotic narcissism (e.g., "When I realize I have failed at something, I feel humiliated") based on shame, indifference (reverse scored), and need for admiration. Alternatively, these facets can be used to assess the two-factor model of grandiose narcissism based on exhibitionism, authoritativeness, grandiose fantasies, manipulativeness, exploitativeness, entitlement, lack of empathy, arrogance, acclaim seeking, and thrill seeking; and vulnerable narcissism based on reactive anger, shame, need for admiration, and distrust. Participants indicated the extent of their agreement with each statement (1 = *disagree strongly*, 5 = *agree strongly*).

We used the 32-item vulnerability subscale of the PNI to assess vulnerable narcissism (e.g., "I often find myself envying others' accomplishments") based on the facets of contingent self-esteem, hiding the self, and devaluing. Participants indicated the extent to which each item described them (1 = *Not at all like me*, 6 = *Very much like me*).

These measures were chosen based on the results of a large-scale factor analysis of existing narcissism measures (Crowe et al. 2019), which indicated that the NPI was the single-best indicator of grandiose narcissism, the FFNI subscales were good indicators of both two- and three-factor models of narcissism, and the PNI-vulnerability subscale was the single-best indicator of vulnerable narcissism.

### 5.4 | Analyses Overview

We analyzed the data with structural equation modeling (SEM) in AMOS 26.0 (Arbuckle 2019). All SEM analyses used full information maximum likelihood estimation to deal with missing data, which produces less biased and more reliable results than other ways of dealing with missing data (Schafer and Graham 2002). Fit was assessed by the comparative fit index (CFI), Tucker-Lewis index (TLI), and root-mean-square error of approximation (RMSEA; Hu and Bentler 1999).

We first tested metric measurement invariance across waves to ensure the validity of our cross-lagged models (Schmitt and Kuljanin 2008). We constructed measurement models for each measure and tested metric invariance by comparing the fit of models where factor loadings varied freely across waves to models where they were constrained to be equal. For measurement models (Figure S1), we used item parcels, which produce more reliable latent variables than items and minimize bias due to item-specific variance (Little et al. 2002). For status- and inclusion-related measures, we used the balancing technique

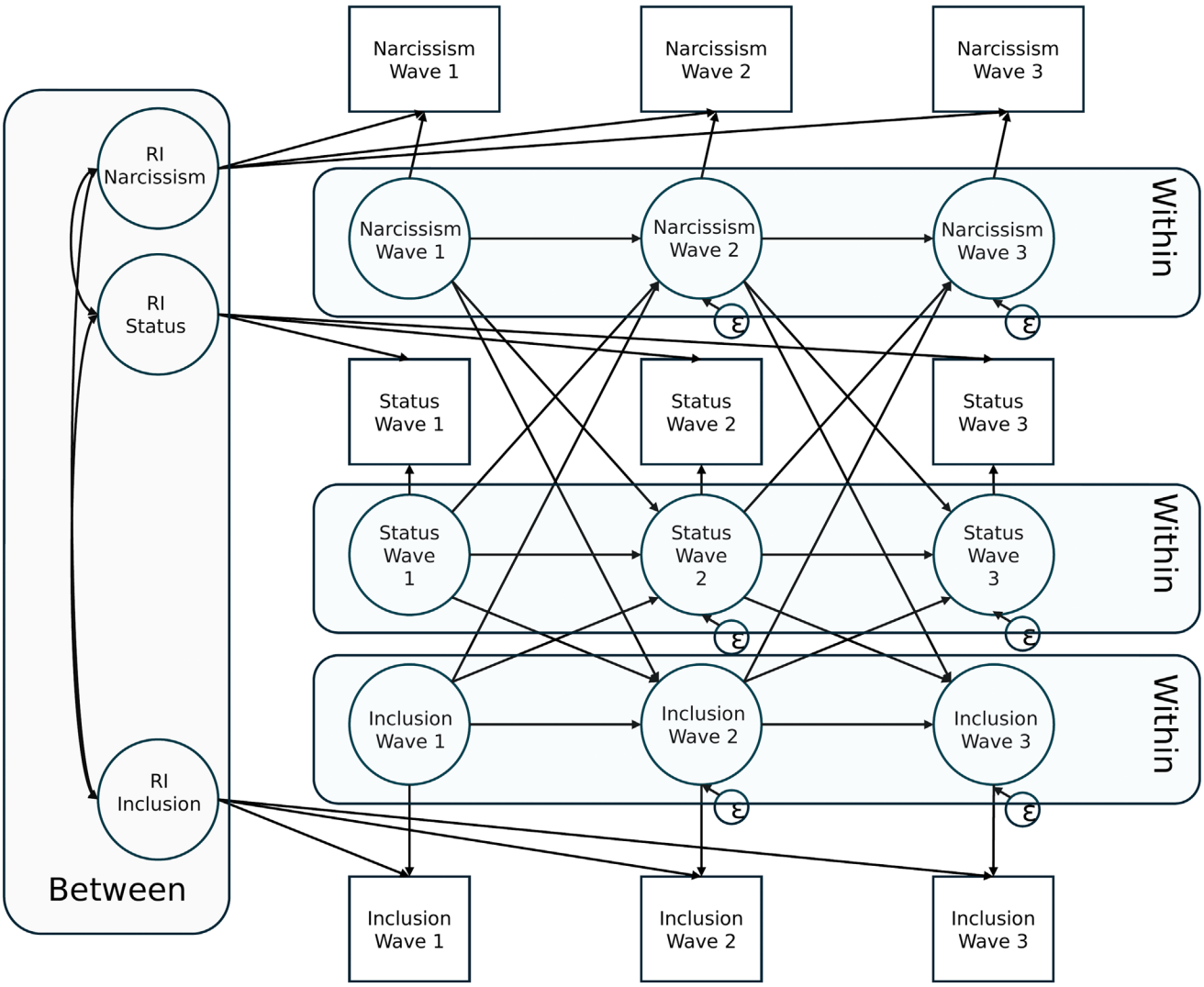


**FIGURE 1** | Example of a structural model (random intercept cross-lagged panel model) used for analyses. "Narcissism," "Status," and "Inclusion" are generic labels here used to represent specific measures of each construct type used across analyses. Each model included one narcissism construct and parallel status and inclusion constructs (aspirations, perceived attainment, or behavior). Correlations between residuals at Waves 2 and 3 were also included but are not depicted here. The design of this figure is adapted from Federico et al. (2021).

described by Little et al. (2002) to create parcels. For narcissism measures, we used facets as parcels. For the NPI, we used facets based on factors identified by Ackerman et al. (2011). We allowed the residuals of each parcel to correlate across waves (Cole and Maxwell 2003).

We tested prospective effects of narcissism on status-related and inclusion-related constructs, and vice versa, using RI-CLPMs, an example of which can be seen in Figure 1. Traditional cross-lagged panel models (CLPMs) conflate between- and within-person associations (Hamaker et al. 2015). RI-CLPM extends CLPM by adding latent trait (random intercept) factors that model stable between-person variability across the duration of the study; factor loadings attached to these observed variables at each wave are fixed to 1. Latent residual factors are also modeled, representing within-person variability, each attached to one observed variable at one wave, with loadings fixed to 1. Autoregressive and cross-lagged paths are modeled using these within-person factors. The random intercept factors are allowed to correlate, as are the residuals of the within-person factors at each wave. We constrained parallel paths across waves to be equal to reduce model complexity and increase precision (Orth et al. 2021). Even with these constraints, standardized parameter estimates varied across waves, so we report averaged estimates (Lucas and Rohrer 2024).

In RI-CLPMs, a significant cross-lagged path indicates, for example, that when individuals are higher than usual in perceived status attainment (relative to their own typical levels) at one wave, they subsequently display higher grandiose narcissism at the next. Traditional CLPMs also require specific assumptions that are rarely satisfied in panel data in psychology (Lucas 2023). Because the CLPM is nested within the RI-CLPM, we compared the fit of the two in our data and found that CLPMs did not fit our data well, whereas RI-CLPMs fit well and significantly improved model fit (see Table S6). We tested 21 RI-CLPMs; each model included one of the seven narcissism measures alongside parallel status- and inclusion-related constructs, specifically (1) status and inclusion

**TABLE 1** | Means, standard deviations, and cronbach's alpha coefficients of measures.

| | Wave 1 | | | Wave 2 | | | Wave 3 | | |
|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **M** | **SD** | **α** | **M** | **SD** | **α** | **M** | **SD** | **α** |
| Status aspirations | 3.11 | 0.70 | 0.83 | 3.10 | 0.72 | 0.85 | 3.08 | 0.74 | 0.86 |
| Inclusion aspirations | 3.15 | 0.82 | 0.90 | 3.10 | 0.80 | 0.91 | 3.11 | 0.79 | 0.90 |
| Perceived status attainment | 3.17 | 0.73 | 0.89 | 3.23 | 0.76 | 0.91 | 3.26 | 0.77 | 0.90 |
| Perceived inclusion attainment | 3.65 | 0.72 | 0.83 | 3.64 | 0.69 | 0.82 | 3.63 | 0.75 | 0.85 |
| Assertiveness | 4.00 | 0.87 | 0.87 | 4.03 | 0.86 | 0.86 | 4.07 | 0.88 | 0.86 |
| Affiliativeness | 4.66 | 0.90 | 0.91 | 4.57 | 0.93 | 0.92 | 4.50 | 0.96 | 0.93 |
| NPI-Grandiose narcissism | 12.94 | 6.71 | 0.85 | 12.46 | 7.03 | 0.87 | 12.38 | 7.37 | 0.87 |
| FFNI-Grandiose narcissism | 27.82 | 5.51 | 0.92 | 28.11 | 5.54 | 0.92 | 28.30 | 5.84 | 0.93 |
| FFNI-Vulnerable narcissism | 12.83 | 2.37 | 0.82 | 12.79 | 2.37 | 0.84 | 12.80 | 2.33 | 0.84 |
| PNI-Vulnerable Narcissism | 10.56 | 2.47 | 0.91 | 10.69 | 2.39 | 0.92 | 10.77 | 2.45 | 0.92s |
| FFNI-Agentic narcissism | 12.68 | 2.42 | 0.85 | 12.70 | 2.38 | 0.85 | 12.72 | 2.41 | 0.85 |
| FFNI-Antagonistic narcissism | 15.35 | 3.89 | 0.89 | 15.60 | 4.05 | 0.90 | 15.76 | 4.36 | 0.91 |
| FFNI-Neurotic narcissism | 10.35 | 2.33 | 0.89 | 10.25 | 2.35 | 0.90 | 10.23 | 2.26 | 0.90 |

Abbreviations: FFNI, Five-Factor Narcissism Inventory; NPI, Narcissistic Personality Inventory; PNI, Pathological Narcissism Inventory.

aspirations, (2) perceived status and inclusion attainment, or (3) assertiveness and affiliativeness.

## 6 | Results

Table 1 shows the descriptive statistics and internal consistencies for the study variables. We conducted attrition analyses to test whether participants who completed only Wave 1 (and thus were excluded from analyses) differed systematically from the other participants on Wave 1 measured variables. There were no significant differences (all $ps > 0.05$) except for FFNI-Antagonism, $F(1, 646) = 10.47$, $p = 0.001$, and PNI-Vulnerability, $F(1, 646) = 5.33$, $p = 0.02$. Participants who completed only Wave 1 were higher in FFNI-Antagonism ($M = 16.62$) and PNI-Vulnerability ($M = 11.13$) than those who completed additional waves ($Ms = 15.35$ and 10.56, respectively). We report the correlations between the same variables across waves (stabilities), and the cross-sectional correlations of variables within the same wave in Tables S1–S4. All measures displayed good evidence of metric invariance based on criteria of $\Delta CFI \leq 0.1$ and $\Delta RMSEA \leq 0.015$. The ΔRMSEA for status aspirations exceeded this cutoff, but did not show significant ΔCFI (Table S5).

### 6.1 | Autoregressive Parameters and Stability

Autoregressive parameters in RI-CLPM represent the degree of within-person carry-over effect between waves (Hamaker et al. 2015): To what extent do participants who are higher than typical on a variable at one wave tend to be higher again at the next? Autoregressive parameters for a particular variable were sometimes inconsistent across models (being significant in some cases, but not others), depending on which other variables were included in the model (see Table 2). However, the NPI, FFNI-Antagonism, and FFNI-Neuroticism had consistently positive autoregressive paths. Perceived status attainment also tended to have significant autoregressive paths, though less consistently. Note, however, that all measures had significant rank-order stability across waves, as seen in the correlations of the same measures across waves and ICCs (Table S1). Measures of narcissism had the highest rank-order stability, whereas measures of assertiveness and affiliativeness had the lowest. This stability is modeled in RI-CLPMs in the random intercepts, leaving relatively little variability to be modeled by the within-person factors. Nevertheless, other personality variables with high rank-order stability have demonstrated significant cross-lagged and autoregressive parameters in RI-CLPMs (e.g., Osborne and Sibley 2020). Measures of trait narcissism, moreover, can display significant variability over shorter time frames than 2 weeks (e.g., Giacomin and Jordan 2014) and, as noted, RI-CLPMs fit our data well (Table 3).

### 6.2 | Correlations Between Stable, Between-Person Factors (Random Intercepts)

Correlations in RI-CLPMs between the random-intercept latent variables represent associations between the stable, between-person variability in each construct (Table 4). These correlations in our models are highly consistent with the correlations observed between measures at each wave (Tables S2–S4). Status-related constructs correlated positively with inclusion-related constructs: participants who aspired to higher status also aspired to greater inclusion, those who felt they had attained high status also felt they were more included, and those who behaved more assertively also behaved more affiliatively. These correlations are consistent with the possibility that status and inclusion both serve a common motivation for social validation and the possibility that people may sometimes use affiliative

**TABLE 2** | Autoregressive coefficients for narcissism, status, and inclusion across waves.

| | Narcissism | | Status-related construct | | Inclusion-related construct | |
|---|---|---|---|---|---|---|
| **Model** | ***β*** | ***p*** | ***β*** | ***p*** | ***β*** | ***p*** |
| NPI-Grandiose with aspirations | 0.43 | < 0.001 | 0.08 | 0.42 | 0.07 | 0.49 |
| NPI-Grandiose with attainment | 0.47 | < 0.001 | 0.25 | 0.004 | −0.06 | 0.63 |
| NPI-Grandiose with behavior | 0.50 | < 0.001 | 0.17 | 0.06 | −0.02 | 0.84 |
| FFNI-Grandiose with aspirations | 0.30 | 0.005 | −0.01 | 0.94 | 0.07 | 0.59 |
| FFNI-Grandiose with attainment | 0.02 | 0.87 | 0.17 | 0.07 | −0.09 | 0.46 |
| FFNI-Grandiose with behavior | −0.08 | 0.60 | 0.14 | 0.14 | 0.03 | 0.77 |
| FFNI-Vulnerable with aspirations | 0.16 | 0.18 | −0.01 | 0.95 | 0.03 | 0.81 |
| FFNI-Vulnerable with attainment | 0.28 | 0.01 | 0.26 | 0.005 | −0.08 | 0.50 |
| FFNI-Vulnerable with behavior | 0.33 | 0.003 | 0.12 | 0.23 | 0.03 | 0.75 |
| PNI-Vulnerable with aspirations | 0.22 | 0.04 | 0.02 | 0.85 | 0.16 | 0.15 |
| PNI-Vulnerable with attainment | 0.22 | 0.06 | 0.32 | < 0.001 | 0.06 | 0.63 |
| PNI-Vulnerable with behavior | 0.07 | 0.54 | 0.08 | 0.44 | −0.01 | 0.89 |
| FFNI-Agency with aspirations | 0.00 | 0.98 | −0.03 | 0.77 | 0.05 | 0.69 |
| FFNI-Agency with attainment | 0.04 | 0.75 | 0.25 | 0.007 | −0.03 | 0.81 |
| FFNI-Agency with behavior | 0.01 | 0.92 | 0.15 | 0.10 | 0.04 | 0.64 |
| FFNI-Antagonism with aspirations | 0.51 | < 0.001 | −0.09 | 0.59 | 0.05 | 0.66 |
| FFNI-Antagonism with attainment | 0.49 | < 0.001 | 0.12 | 0.22 | −0.09 | 0.46 |
| FFNI-Antagonism with behavior | 0.51 | < 0.001 | 0.08 | 0.25 | 0.02 | 0.84 |
| FFNI-Neuroticism with aspirations | 0.34 | 0.006 | −0.04 | 0.70 | 0.02 | 0.84 |
| FFNI-Neuroticism with attainment | 0.37 | 0.003 | 0.21 | 0.03 | −0.08 | 0.50 |
| FFNI-Neuroticism with behavior | 0.39 | 0.001 | 0.16 | 0.17 | 0.02 | 0.86 |

*Note:* The coefficients were estimated with models that were structurally equivalent to the model shown in Figure 1.
Abbreviations: FFNI, Five Factor Narcissism Inventory; NPI, Narcissistic Personality Inventory; PNI, Pathological Narcissism Inventory.

strategies to attain status and assertive strategies to attain inclusion (Mahadevan and Jordan 2022). Empirically, these relations help validate the approach of examining parallel status- and inclusion-related constructs within the same models to account for their common influence on narcissism, and vice versa.

With respect to narcissism and status, all narcissism expressions related positively to status aspirations. Grandiose, agentic, and antagonistic narcissism also related positively to perceived status attainment, whereas vulnerable and neurotic narcissism related negatively to it. Grandiose, agentic, and antagonistic narcissism related positively to assertiveness, whereas vulnerable and neurotic narcissism related negatively to it.

With respect to narcissism and inclusion, grandiose, agentic, and antagonistic narcissism did not relate to inclusion aspirations, whereas vulnerable and neurotic narcissism related positively to inclusion aspirations. Grandiose and agentic narcissism related positively to perceived inclusion attainment, whereas antagonistic narcissism did not, and vulnerable and neurotic narcissism related negatively to it. Grandiose narcissism (when assessed by the NPI) and agentic narcissism related positively; antagonistic narcissism related negatively; and vulnerable and neurotic narcissism did not relate to affiliativeness.[2]

### 6.3 | Cross-Lagged Parameters

We tested prospective relations of narcissism and status- and inclusion-related constructs, and vice versa, through the cross-lagged parameters in RI-CLPM (Table 5). With respect to prospective relations from narcissism to status, individuals higher on grandiose narcissism, as assessed by the NPI, and antagonistic narcissism at one wave (relative to their typical levels), had stronger status aspirations at the next wave. Higher grandiose narcissism, as assessed by the FFNI, also prospectively predicted increased perceived status attainment. In contrast, higher vulnerable narcissism, as assessed by the PNI, prospectively predicted weaker status aspirations and less assertiveness. Interestingly, higher agentic narcissism also prospectively predicted less assertiveness.

**TABLE 3** | Fit of the structural (RI-CLPM) models.

| Model | $\lambda^2$ | df | p | CFI | TLI | RMSEA |
|---|---|---|---|---|---|---|
| NPI-Grandiose with aspirations | 9.50 | 12 | 0.66 | 1.00 | 1.00 | 0.000 |
| NPI-Grandiose with attainment | 21.78 | 12 | 0.04 | 0.998 | 0.991 | 0.039 |
| NPI-Grandiose with behavior | 18.32 | 12 | 0.11 | 0.998 | 0.993 | 0.032 |
| FFNI-Grandiose with aspirations | 18.03 | 12 | 0.12 | 0.998 | 0.993 | 0.031 |
| FFNI-Grandiose with attainment | 24.85 | 12 | 0.02 | 0.997 | 0.987 | 0.045 |
| FFNI-Grandiose with behavior | 16.05 | 12 | 0.17 | 0.999 | 0.995 | 0.027 |
| FFNI-Vulnerable with aspirations | 18.03 | 12 | 0.12 | 0.998 | 0.993 | 0.031 |
| FFNI-Vulnerable with attainment | 14.46 | 12 | 0.27 | 0.999 | 0.997 | 0.020 |
| FFNI-Vulnerable with behavior | 15.31 | 12 | 0.23 | 0.999 | 0.995 | 0.023 |
| PNI-Vulnerable with aspirations | 13.33 | 12 | 0.35 | 1.00 | 0.999 | 0.015 |
| PNI-Vulnerable with attainment | 23.74 | 12 | 0.02 | 0.996 | 0.987 | 0.043 |
| PNI-Vulnerable with behavior | 23.74 | 12 | 0.11 | 0.996 | 0.987 | 0.043 |
| FFNI-Agency with aspirations | 10.00 | 12 | 0.61 | 1.00 | 1.00 | 0.000 |
| FFNI-Agency with attainment | 13.99 | 12 | 0.30 | 0.999 | 0.998 | 0.018 |
| FFNI-Agency with behavior | 8.71 | 12 | 0.72 | 1.00 | 1.00 | 0.000 |
| FFNI-Antagonism with aspirations | 13.89 | 12 | 0.31 | 0.999 | 0.998 | 0.017 |
| FFNI-Antagonism with attainment | 31.08 | 12 | 0.00 | 0.995 | 0.980 | 0.055 |
| FFNI-Antagonism with behavior | 17.35 | 12 | 0.14 | 0.998 | 0.993 | 0.029 |
| FFNI-Neuroticism with aspirations | 22.29 | 12 | 0.03 | 0.997 | 0.990 | 0.040 |
| FFNI-Neuroticism with attainment | 19.24 | 12 | 0.08 | 0.998 | 0.993 | 0.037 |
| FFNI-Neuroticism with behavior | 23.14 | 12 | 0.03 | 0.996 | 0.987 | 0.042 |

Abbreviations: FFNI, Five Factor Narcissism Inventory, with subscales of Grandiose Narcissism, Vulnerable Narcissism, Agentic Narcissism, Antagonistic Narcissism, and Neurotic Narcissism; NPI, Narcissistic Personality Inventory; PNI, Pathological Narcissism Inventory.

With respect to prospective relations from status to narcissism, higher status aspirations prospectively predicted higher grandiose narcissism, as assessed by the NPI. Higher perceived status attainment prospectively predicted higher grandiose narcissism, as assessed by the FFNI, as well as higher agentic and antagonistic narcissism. In contrast, higher status aspirations prospectively predicted lower vulnerable narcissism, as assessed by the PNI. Higher perceived status attainment also prospectively predicted higher vulnerable narcissism, as assessed by the FFNI. This relation likely reflects the prospective association of perceived status attainment on antagonistic narcissism (given that vulnerable narcissism consists of antagonistic and neurotic narcissism) as there was no link to neurotic narcissism.

With respect to prospective relations of narcissism and inclusion, there were fewer, but still some prospective effects. Higher grandiose narcissism, as assessed by the NPI, prospectively predicted stronger inclusion aspirations, and higher agentic narcissism prospectively predicted lower affiliativeness. In contrast, higher vulnerable narcissism, as assessed by the PNI, prospectively predicted lower inclusion aspirations. With respect to the effects of inclusion on narcissism, higher perceived inclusion attainment prospectively predicted lower grandiose narcissism, as assessed by the NPI, and greater affiliativeness prospectively predicted lower vulnerable narcissism, as assessed by the PNI.

## 7 | Discussion

Several lines of theory and research converge on the view that a desire for status is a core motive of narcissistic individuals (Grapsas et al. 2020; Mahadevan and Jordan 2022; Zeigler-Hill et al. 2019). Our findings replicate and extend research in this area. The correlations of latent between-person factors (random intercepts) replicate earlier findings that all expressions of narcissism are characterized by a strong desire for status but differ in their perceptions of having attained status and assertiveness (Mahadevan and Jordan 2022; Zeigler-Hill et al. 2019; Zeigler-Hill and Dehaghi 2023). Individuals higher in grandiose, as well as agentic and antagonistic narcissism, tend to believe they have high status and behave more assertively, whereas those higher in vulnerable and neurotic narcissism believe they have low status and behave less assertively. Different expressions of narcissism also diverge in how they relate to inclusion. Grandiose, agentic, and antagonistic narcissism are unrelated to a desire for inclusion, but those higher in grandiose narcissism and agentic narcissism believe they are included by others and

**TABLE 4** | Correlations between stable, between-person differences (random intercepts).

| | Narcissism with status | | Narcissism with inclusion | | Status with inclusion | |
|---|---|---|---|---|---|---|
| **Model** | ***r*** | ***p*** | ***r*** | ***p*** | ***r*** | ***p*** |
| NPI-Grandiose with aspirations | 0.58 | <0.001 | 0.03 | 0.57 | 0.46 | <0.001 |
| NPI-Grandiose with attainment | 0.57 | <0.001 | 0.31 | <0.001 | 0.74 | <0.001 |
| NPI-Grandiose with behavior | 0.60 | <0.001 | 0.16 | 0.001 | 0.58 | <0.001 |
| FFNI-Grandiose with aspirations | 0.61 | <0.001 | −0.08 | 0.11 | 0.46 | <0.001 |
| FFNI-Grandiose with attainment | 0.43 | <0.001 | 0.21 | <0.001 | 0.76 | <0.001 |
| FFNI-Grandiose with behavior | 0.47 | <0.001 | 0.01 | 0.86 | 0.59 | <0.001 |
| FFNI-Vulnerable with aspirations | 0.35 | <0.001 | 0.56 | <0.001 | 0.46 | <0.001 |
| FFNI-Vulnerable with attainment | −0.41 | <0.001 | −0.44 | <0.001 | 0.75 | <0.001 |
| FFNI-Vulnerable with behavior | −0.20 | 0.001 | 0.02 | 0.70 | 0.60 | <0.001 |
| PNI-Vulnerable with aspirations | 0.48 | <0.001 | 0.56 | <0.001 | 0.45 | <0.001 |
| PNI-Vulnerable with attainment | −0.34 | <0.001 | −0.48 | <0.001 | 0.74 | <0.001 |
| PNI-Vulnerable with behavior | −0.13 | 0.02 | 0.02 | 0.68 | 0.60 | <0.001 |
| FFNI-Agency with aspirations | 0.65 | <0.001 | 0.06 | 0.25 | 0.45 | <0.001 |
| FFNI-Agency with attainment | 0.54 | <0.001 | 0.35 | <0.001 | 0.75 | <0.001 |
| FFNI-Agency with behavior | 0.65 | <0.001 | 0.33 | <0.001 | 0.59 | <0.001 |
| FFNI-Antagonism with aspirations | 0.59 | <0.001 | 0.08 | 0.13 | 0.46 | <0.001 |
| FFNI-Antagonism with attainment | 0.26 | <0.001 | 0.07 | 0.21 | 0.76 | <0.001 |
| FFNI-Antagonism with behavior | 0.22 | <0.001 | −0.19 | <0.001 | 0.59 | <0.001 |
| FFNI-Neuroticism with aspirations | 0.12 | 0.03 | 0.68 | <0.001 | 0.46 | <0.001 |
| FFNI-Neuroticism with attainment | −0.42 | <0.001 | −0.41 | <0.001 | 0.75 | <0.001 |
| FFNI-Neuroticism with behavior | −0.43 | <0.001 | −0.02 | 0.78 | 0.61 | <0.001 |

*Note:* The table displays latent variable correlations standardized coefficients estimated with models that were structurally equivalent to the model shown in Figure 1. Abbreviations: FFNI, Five Factor Narcissism Inventory, with subscales of Grandiose Narcissism, Vulnerable Narcissism, Agentic Narcissism, Antagonistic Narcissism, and Neurotic Narcissism; NPI, Narcissistic Personality Inventory; PNI, Pathological Narcissism Inventory.

behave more affiliatively (though this was not evident for the FFNI-Grandiose). In contrast, antagonistic narcissism was not related to perceptions of being included by others and related negatively to affiliativeness. Lastly, those higher in vulnerable and neurotic narcissism desire inclusion, but believe they are less included and behave less affiliatively. These relations of between-person factors suggest that narcissistic individuals, across all expressions, strongly desire status but differ in their desires for inclusion, perceptions of status and inclusion attainment, assertiveness, and affiliativeness.

Our results extend past research by examining within-person prospective relations between narcissism, the desire for status, and perceptions of status attainment, though the results varied across measures. Specifically, we found that people experiencing higher than usual grandiose narcissism, as assessed by the NPI, or antagonistic narcissism, had a stronger desire for status 2 weeks later. Those with higher than usual grandiose narcissism, as assessed by the FFNI, viewed themselves as having attained higher status 2 weeks later. In contrast, individuals experiencing higher than usual vulnerable narcissism, as assessed by the PNI, had lower status aspirations and behaved less affiliatively 2 weeks later. There was also evidence that status aspirations and perceived attainment relate to narcissism prospectively. People who had higher status aspirations had higher grandiose narcissism, as assessed by the NPI, 2 weeks later. People who felt they had attained higher status had higher grandiose (as assessed by the FFNI), vulnerable (as assessed by the FFNI), agentic, and antagonistic narcissism 2 weeks later. Although relations with vulnerable narcissism were prospectively higher in this way, this relation likely reflects the observed prospective relation with antagonistic narcissism, as there was no observed relation with neurotic narcissism (the unique component of vulnerable narcissism).

There were fewer prospective relations of narcissism with the desire for inclusion, perceived inclusion attainment, or affiliativeness, consistent with the view that narcissistic individuals are more concerned with status than inclusion (e.g., Campbell and Foster 2007). People higher in grandiose narcissism, as assessed

**TABLE 5** | Cross-lagged effects of narcissism, status, and inclusion constructs across waves.

| | Narcissism to status | | Status to narcissism | | Narcissism to inclusion | | Inclusion to narcissism | | Status to inclusion | | Inclusion to status | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | ***β*** | ***p*** | ***β*** | ***p*** | ***β*** | ***p*** | ***β*** | ***p*** | ***β*** | ***p*** | ***β*** | ***p*** |
| NPI-Grandiose with | | | | | | | | | | | | |
| Aspirations | 0.15 | 0.02 | 0.16 | 0.00 | 0.17 | 0.03 | 0.05 | 0.40 | −0.08 | 0.37 | 0.05 | 0.55 |
| Perceived attainment | 0.11 | 0.10 | 0.04 | 0.38 | −0.13 | 0.19 | −0.19 | <0.001 | 0.00 | 0.99 | −0.08 | 0.26 |
| Behavior | 0.06 | 0.29 | −0.01 | 0.84 | 0.06 | 0.36 | −0.06 | 0.24 | −0.02 | 0.79 | −0.07 | 0.35 |
| FFNI-Grandiose with | | | | | | | | | | | | |
| Aspirations | 0.11 | 0.25 | 0.09 | 0.23 | 0.10 | 0.35 | 0.02 | 0.78 | −0.11 | 0.23 | 0.04 | 0.70 |
| Perceived attainment | 0.21 | 0.01 | 0.35 | <0.001 | −0.04 | 0.76 | −0.06 | 0.45 | −0.08 | 0.39 | −0.12 | 0.09 |
| Behavior | −0.11 | 0.18 | 0.04 | 0.69 | −0.12 | 0.16 | −0.01 | 0.20 | −0.05 | 0.55 | −0.09 | 0.26 |
| FFNI-Vulnerable with | | | | | | | | | | | | |
| Aspirations | 0.10 | 0.29 | 0.14 | 0.09 | 0.10 | 0.36 | 0.11 | 0.18 | −0.14 | 0.13 | −0.01 | 0.90 |
| Perceived attainment | 0.05 | 0.56 | 0.17 | 0.02 | 0.15 | 0.19 | −0.02 | 0.75 | −0.08 | 0.44 | −0.13 | 0.07 |
| Behavior | −0.15 | 0.10 | 0.06 | 0.45 | −0.17 | 0.07 | −0.10 | 0.17 | −0.09 | 0.23 | −0.12 | 0.12 |
| PNI-Vulnerable with | | | | | | | | | | | | |
| Aspirations | −0.26 | <0.001 | −0.19 | 0.02 | −0.18 | 0.03 | −0.12 | 0.14 | −0.07 | 0.41 | 0.09 | 0.26 |
| Perceived attainment | 0.05 | 0.47 | 0.10 | 0.24 | 0.16 | 0.07 | 0.03 | 0.68 | 0.03 | 0.72 | −0.03 | 0.73 |
| Behavior | −0.20 | 0.01 | −0.05 | 0.51 | −0.19 | 0.01 | −0.21 | 0.009 | −0.11 | 0.13 | −0.16 | 0.04 |
| FFNI-Agency with | | | | | | | | | | | | |
| Aspirations | −0.06 | 0.53 | 0.08 | 0.42 | 0.12 | 0.20 | 0.08 | 0.42 | −0.14 | 0.11 | 0.03 | 0.65 |
| Perceived attainment | 0.03 | 0.69 | 0.21 | 0.02 | −0.14 | 0.16 | −0.11 | 0.22 | −0.05 | 0.67 | −0.11 | 0.15 |
| Behavior | −0.16 | 0.05 | −0.01 | 0.92 | −0.18 | 0.03 | −0.13 | 0.17 | −0.02 | 0.82 | −0.07 | 0.37 |
| FFNI-Antagonism with | | | | | | | | | | | | |
| Aspirations | 0.21 | 0.02 | 0.06 | 0.25 | 0.07 | 0.51 | −0.02 | 0.16 | −0.12 | 0.16 | −0.01 | 0.96 |
| Perceived attainment | 0.12 | 0.19 | 0.12 | 0.03 | −0.18 | 0.16 | −0.07 | 0.25 | −0.12 | 0.19 | −0.14 | 0.06 |
| Behavior | −0.02 | 0.83 | 0.03 | 0.53 | −0.04 | 0.62 | −0.02 | 0.72 | −0.05 | 0.49 | −0.08 | 0.32 |
| FFNI-Neuroticism with | | | | | | | | | | | | |
| Aspirations | 0.00 | 0.96 | 0.01 | 0.88 | 0.08 | 0.52 | 0.09 | 0.23 | −0.15 | 0.11 | 0.01 | 0.94 |
| Perceived attainment | −0.14 | 0.16 | 0.00 | 0.96 | 0.12 | 0.41 | 0.01 | 0.86 | −0.09 | 0.35 | −0.15 | 0.03 |
| Behavior | 0.02 | 0.85 | 0.07 | 0.30 | −0.10 | 0.40 | −0.02 | 0.81 | −0.11 | 0.15 | −0.14 | 0.09 |

*Note:* The table displays standardized coefficients. The coefficients were estimated with models that were structurally equivalent to the model shown in Figure 1.
Abbreviations: FFNI, Five Factor Narcissism Inventory; NPI, Narcissistic Personality Inventory; PNI, Pathological Narcissism Inventor.

by the NPI, had a greater desire for inclusion 2 weeks later, and those higher in vulnerable narcissism, as assessed by the PNI, had a lower desire for inclusion and behaved less affiliatively 2 weeks later. These results contrast with the between-person relations of these variables: the lack of a between-person relation of grandiose narcissism to inclusion aspirations and the positive between-person relation of vulnerable narcissism and inclusion aspirations. These differences reflect the distinction between

stable, trait-level relations and within-person prospective associations. People higher in trait vulnerable narcissism may generally desire to be included by others; however, when people experience higher than usual vulnerable narcissism, they may become more reluctant to seek social validation, as reflected in decreased desires for both status and inclusion. In contrast, people higher in trait grandiose narcissism may not particularly desire to be included by others; however, when people experience higher than usual grandiose narcissism, they may become more enthusiastic to seek social validation, as reflected in increased desires for both status and inclusion. Conversely, when people feel more included than usual by others, they may subsequently be less grandiosely narcissistic, as assessed by the NPI.

### 7.1 | Implications

These findings are in many ways consistent with the SPIN model and hierometer theory, which specify positive and reciprocal links between grandiose narcissism and status pursuit (Grapsas et al. 2020; Mahadevan et al. 2016). The between-person correlations we observed replicate findings that higher grandiose, agentic, and antagonistic narcissism relate to higher status aspirations, perceived status attainment, and assertiveness. Our findings for the prospective relations of grandiose, agentic, and antagonistic narcissism are also consistent with these models. The SPIN model posits that grandiose narcissism acts as a self-regulatory processing system focused on enhancing status. Consistent with this model, we found that grandiose narcissism, as assessed by the NPI, and antagonistic narcissism prospectively predict stronger status aspirations. Reciprocally, higher status aspirations prospectively predict higher grandiose narcissism, as assessed by the NPI. Both models also predict that grandiose narcissism should help people attain higher status: We found that higher grandiose narcissism, as assessed by the FFNI, predicts higher perceived status attainment. Hierometer theory, moreover, posits that grandiose narcissism acts as a gauge of status attainment, meaning that attaining higher status should increase grandiose narcissism: Reciprocally, we found that higher perceived status attainment prospectively predicts higher grandiose narcissism, as assessed by the FFNI, as well as higher agentic and antagonistic narcissism.

These findings extend research on the links between antagonistic narcissism and status attainment, which has produced somewhat inconsistent findings. Daily antagonistic narcissism relates negatively to perceived status attainment, whereas cross-sectionally, trait antagonistic narcissism relates positively to it (Leckelt et al. 2019; Mahadevan and Jordan 2022; Zeigler-Hill and Dehaghi 2023; Zeigler-Hill et al. 2019). These inconsistencies may reflect differing relations between antagonistic narcissism and status at different timescales (in the moment versus a longer period of time). Daily measures may reflect the relation of antagonistic narcissism to status threats, whereas cross-sectional correlations reflect more stable relations between the two. We found that higher perceived status attainment prospectively related to higher antagonistic narcissism, which may ultimately contribute to more stable positive relations between the two. Attaining status may increase antagonistic narcissism, which may motivate greater vigilance to status threats, to help maintain status.

Our findings also extend prior research by using RI-CLPMs to assess prospective relations of narcissism and status-related constructs. Prior research in this area has used experimental and experience-sampling studies. Experimental studies have found that status-related factors can affect state narcissism in the short term; experience sampling studies have found that contemporary fluctuations in status-related factors and grandiose narcissism, within or across days, correlate with each other. Our findings provide evidence of temporal relations between narcissism and status over longer periods of time, separating within- and between-person variance in these constructs. Notably, our results provide novel evidence that status aspirations or perceived status attainment prospectively relate to grandiose narcissism, in addition to grandiose narcissism prospectively relating to status-related constructs.

Indeed, other kinds of evidence suggest that grandiose narcissism can help people attain higher status: Narcissistic people tend to emerge as leaders in groups (Brunell et al. 2008; Grijalva et al. 2015; Nevicka et al. 2011), and people in high-ranking positions tend to be more grandiosely narcissistic (Leckelt et al. 2019; O'Reilly III et al. 2014; Piff 2014; Spurk et al. 2016; Young and Pinsky 2006). Our findings relate to questions that have been raised about whether narcissism helps people attain high-ranking positions or high-ranking positions encourage narcissism (Chatterjee and Hambrick 2007; Piff 2014; Rosenthal and Pittinsky 2006). We did not examine specific high-ranking positions, but our findings are consistent with both possibilities: that grandiose narcissism may help people achieve higher status and that higher status may increase grandiose narcissism. Although our results differed depending on how grandiose narcissism was assessed (through the NPI or FFNI), in the time frame we tested, we found that a stronger desire for status prospectively predicted higher grandiose narcissism (NPI), and that higher perceived status attainment prospectively predicted higher grandiose (FFNI), agentic, and antagonistic narcissism.

Our findings are also largely consistent with extensions of the SPIN and hierometer theories to consider the relation of status pursuit to vulnerable narcissism (Back 2018; Mahadevan 2024). It has been suggested that vulnerable narcissism relates to a strong desire for status but also to perceptions of status neglect and frustration over failing to achieve high status (Back 2018; Kroencke et al. 2023; Mahadevan 2024; Mahadevan and Jordan 2022). To prevent further losses to status, people high in vulnerable narcissism may withdraw from status competition and behave less assertively to avoid confrontation or competition (Mahadevan 2024). We found that vulnerable narcissism, when assessed by the PNI, relates positively to the desire for status in terms of stable, between-person relations, but prospectively predicts lower desires for status and assertiveness. However, we did not observe this pattern for vulnerable narcissism when assessed by the FFNI, or for neurotic narcissism. Moreover, we found that vulnerable narcissism, when assessed by the PNI, also prospectively predicts lower desires for inclusion and less affiliativeness. Thus, it is possible that experiencing higher vulnerable narcissism than usual leads people to withdraw from seeking social validation more generally.

Our findings also provide novel evidence that a communal orientation may reduce grandiose narcissism (Campbell and

Foster 2007; Giacomin and Jordan 2014; Jordan et al. 2014). Highlighting communal connections to others can reduce narcissistic tendencies, such as aggression (Konrath et al. 2006) or lack of commitment to romantic partners (Finkel et al. 2009). The extended agency model claims that grandiosely narcissistic individuals are more concerned with agency (such as status) than communion (such as inclusion; Campbell and Foster 2007). Within this model, if the balance of social concerns shifts, grandiose narcissism as a whole is reduced. Consistent with this model, increasing communal focus (e.g., by inducing empathy for others or highlighting one's interdependent self) reduces grandiose narcissism in the short term (Giacomin and Jordan 2014). We observed similar associations across a longer time span: Perceiving oneself to have attained greater inclusion by others prospectively predicted lower grandiose narcissism, as assessed by the NPI.

### 7.2 | Limitations and Future Directions

Our findings provide evidence that status-related constructs and narcissism relate to each other reciprocally over time, but there were inconsistencies in the findings for grandiose and vulnerable narcissism, depending on which measures were used to assess them. There are at least three possible reasons for these inconsistencies. First, different measures of narcissism that are designed to assess the same expressions of narcissism nevertheless differ in the underlying facets they feature most prominently in their content (Crowe et al. 2019). Some effects may reflect some facets more than others. Second, in some cases, the magnitude of observed effects was similar across measures, though they differed in statistical significance (e.g., the prospective effect of grandiose narcissism on status aspirations). This pattern may reflect the fact that cross-lagged parameters in RI-CLPM tend to have relatively large standard errors (compared to traditional CLPM; Hamaker 2018). Although we had a large sample size, this imprecision means that some effects failed to achieve statistical significance. Lastly, some measures differed in the period of time participants were instructed to focus on while completing them. For example, the NPI was administered with state instructions, directing participants to consider how they felt "right now," whereas the FFNI did not direct participants to focus on a specific time period. Compared to the FFNI, the NPI will thus have focused participants on their current experiences to a greater extent. This may have led to the greater association of the NPI with status aspirations and the greater focus of the FFNI-Grandiose with perceived status attainment (see Hamaker 2023). Further research is needed to determine which, if any, of these explanations is most plausible.

Another significant challenge in designing longitudinal studies is choosing an appropriate time lag between data collection waves to capture the psychological processes of interest (Hamaker 2023; Singer and Willett 2003). We based the timing of our data collection waves partly on consideration of what we believed to be a reasonable timescale for the processes outlined in the SPIN model and hierometer theory leading to dynamic changes in status or narcissism (Grapsas et al. 2020; Mahadevan et al. 2019a). Most processes outlined in these models occur in specific, situational interactions in which status is pursued (Back 2018; Kroencke et al. 2023), but the models also predict that the recurrent, situational pursuit of status will consolidate into more enduring patterns (Mahadevan et al. 2016; Grapsas et al. 2020). Our findings are consistent with these predictions, but we did not incorporate situational processes into our study design or analyses. Future research should integrate these processes into prospective studies to test whether particular forms of situational status pursuit (e.g., self-promotion or other-derogation) strengthen the prospective associations between expressions of narcissism and status-relevant factors over time.

We examined 2-week intervals but, as noted earlier, another study found that grandiose narcissism increased status in a discussion group early after its formation, but that this higher status diminished over time (Carlson and DesJardins 2015). A similar pattern has been noted for popularity and liking; grandiosely narcissistic individuals are initially well-liked by others, but this liking diminishes over time (Leckelt et al. 2015; Paulhus 1998; but see Czarna et al. 2014; Leckelt et al. 2020). It is thus possible that the prospective associations between status-related factors and grandiose narcissism we observed would also diminish over longer periods of time. However, other evidence suggests that grandiose narcissism may have longer-term effects on status. Leckelt et al. (2019) found that agentic narcissism predicted a greater likelihood of holding a leadership position 2 years later. It is thus important to examine different time lags to determine the limits of our findings and to separately assess different expressions of narcissism. It is also possible that additional processes relating status-relevant factors to narcissism occur over longer time periods. The processes outlined in the SPIN model may contribute to developmental and lifespan changes in narcissism over longer periods of time (Grapsas et al. 2020). Future research should test prospective effects of status pursuit on different expressions of narcissism across longer time periods.

Another limitation is that we examined only self-reports, which are susceptible to social desirability and shared method variance (Podsakoff et al. 2003). These concerns are mitigated somewhat by our RI-CLPM design, which focuses on within-person change in constructs controlling earlier measures of the same constructs and autoregressive effects. Narcissistic individuals' perceptions of status attainment, for example, may be inflated by self-enhancement (Grijalva and Zhang 2016), but our analyses of later perceptions of status attainment control for earlier perceptions of status attainment, which are similarly affected by self-enhancement. The effects of social desirability, shared method variance, and self-enhancement should thus be controlled in these analyses, helping to assess changes in perceived status beyond these factors. Nevertheless, some participants may lack insight into their own narcissistic tendencies (Carlson 2013) or may not clearly appreciate the strengths of their desires for status or inclusion. Our results also apply only to perceptions, rather than objective attainment of status and inclusion, though self-reports of status and inclusion are typically fairly accurate and are likely to be significant motivators of individual outcomes whether they are accurate or not (Anderson et al. 2006; Fournier 2009). Nevertheless, future research should use methods other than self-report, such as peer or family reports (Vazire and Mehl 2008).

Our focus on perceptions, rather than objective status indicators, can provide a different, albeit still valuable, perspective on how

narcissism relates to status over time. As noted earlier, Carlson and DesJardins (2015) observed declines in status over time for more grandiosely narcissistic individuals based on ratings of status provided by other group members in ongoing discussion groups. These ratings are more objective than self-perceptions of status—reflecting actual conferral of status by others—but they are tied to one specific group. In our study, perceptions of status attainment were not tied to one group or social network, allowing for the possibility that narcissistic individuals cognitively aggregate their status across groups and seek new groups or social networks if they feel their status is diminishing in one (Benson et al. 2019). Abandoning some groups in favor of others could help narcissistic individuals maintain or increase status over time, consistent with the situation selection mechanism of the SPIN model (Grapsas et al. 2020).

There are also limitations on the extent to which we can generalize these findings to other populations. We studied only university students in Canada. We believe this is a useful population to study, as university students experience shifting social networks, groups, identities, status, and inclusion (Griffin et al. 2025; Rahal et al. 2020, 2022). Nevertheless, the relatively pronounced level of malleability within this population may have contributed to the prospective associations we observed. In addition, all participants were students in Canada, preventing any assessment of cultural differences in the psychological processes we studied (Henrich et al. 2010). These processes should be studied in more diverse populations representing different life stages and cultural backgrounds, particularly non-Western cultures, to test the cross-cultural generalizability of these findings. Lastly, attrition analyses indicated that participants high in antagonistic and vulnerable narcissism (as assessed by the PNI) were less likely to complete more than one wave of data collection. This will have resulted in a relatively restricted range on these variables and may have limited our ability to detect associations of them with status- and inclusion-related constructs.

## 8 | Conclusions

Our findings contribute to research suggesting that a desire for status is central to all expressions of narcissism and to research raising questions about whether narcissism contributes to status attainment or whether status attainment cultivates narcissism. People high in all expressions of narcissism have relatively strong desires for status as demonstrated by stable, between-person associations. In addition, those higher than usual in grandiose narcissism, as well as agentic and antagonistic narcissism, had higher desires for status, as well as perceived status attainment, over time. Conversely, people with higher than usual desires for status, or greater than usual perceived status attainment, had higher grandiose, agentic, and antagonistic narcissism over time. In contrast, people with greater than perceived inclusion attainment had lower grandiose narcissism over time. The results were quite different for vulnerable narcissism. Individuals higher than usual in vulnerable narcissism tended to desire status and inclusion less over time; and individuals with greater than usual status aspirations tended to be less vulnerably narcissistic over time. Overall, these findings suggest that the desire for status and perceptions of status attainment encourage grandiose narcissism over time. In contrast, vulnerable narcissism may be linked to greater desires for status and inclusion generally but disengagement from both forms of social connection over time.

### Author Contributions

**Christian H. Jordan:** writing – original draft, writing – review and editing, formal analysis, data curation, conceptualization. **Nikhila Mahadevan:** writing – review and editing, conceptualization.


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### Ethics Statement

All study procedures were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

### Consent

All participants provided informed consent. The authors consented to the submission of this manuscript.

### Conflicts of Interest

The authors declare no conflicts of interest.

### Data Availability Statement

The study materials, Supporting Information, data, and analysis codes are available at: https://osf.io/m84bk/?view_only=ac64d7b8651049be9d8fe444fa96c303.

### Endnotes

[1] Participants completed additional measures at each wave that are not relevant to the research questions addressed here. Specifically, they completed the Social Worldviews Scale (Duckitt and Fisher 2003), Rosenberg (1965) Self-Esteem Scale, Perceived Stress Scale (Cohen et al. 1983) and Behavioral Activation and Behavioral Inhibition Scales (Carver and White 1994).

[2] We also present the correlations between time-varying, within-person residuals at Waves 2 and 3 in Table S7. These correlations represent the association between concurrent fluctuations in variables at each time point (i.e., the within-person deviations) that are not predicted by the autoregressive or cross-lagged coefficients.

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## Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Data S1:** Power Analysis With R-Script. **Table S1:** Correlations of Narcissism, Status-Related Constructs and Inclusion-Related Constructs Across Waves (Stabilities). **Table S2:** Correlations among Narcissism, Status-Related Constructs and Inclusion-Related Constructs at Wave 1. **Table S3:** Correlations among Narcissism, Status-Related Constructs and Inclusion-Related Constructs at Wave 2. **Table S4:** Correlations among Narcissism, Status-Related Constructs and Inclusion-Related Constructs at Wave 3. **Table S5:** Fit of the Measurement Models. **Table S6:** Fit of the Structural (Cross-Lagged) Models with CLPM Models Included. **Table S7:** Correlations Between Time-Varying, Within-Person Deviations (Residuals). **Table S8:** Fit of the Structural (RI-CLPM) Models Including Participants That Completed Only One Wave of Data Collection. **Table S9:** Autoregressive Coefficients for Narcissism, Status, and Inclusion across Waves Including Participants That Completed Only One Wave of Data Collection. **Table S10:** Correlations Between Stable, Between-Person Differences (Random Intercepts) Including Participants That Completed Only One Wave of Data Collection. **Table S11:** Cross-Lagged Effects of Narcissism, Status, and Inclusion Constructs across Waves Including Participants That Completed Only One Wave of Data Collection. **Figure S1:** An example of a measurement model for status aspirations (other measurement models were specified equivalently). At each wave, status aspirations were measured by three parcels (other constructs were measured by 3 to 11 parcels). For narcissism constructs, parcels corresponded to narcissism facets. Error variances of the parcels were correlated across waves to account for parcel-specific systematic variance.