



## Full Length Article

# Day by day on display: A daily diary study of narcissists' social media self-presentation, perceptions of social outcomes, and subjective well-being

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## ABSTRACT

Narcissism implies maintaining self-worth through social feedback, yet little is known about how individuals high-vs-low in narcissism experience day-to-day consequences of self-presentation. Using a daily-diary design ( $N = 154$ ), we examined whether grandiose and vulnerable narcissism predict social media posting behaviours, perceived social outcomes, and subjective well-being. Narcissistic admiration positively predicted daily self-presentation, positivity, and favourable interpersonal outcomes, whereas narcissistic rivalry or vulnerability predicted poorer outcomes or greater unmet expectations. Vulnerable narcissism predicted lower well-being and amplified the negative impact of unmet relationship-initiation expectations. These findings show that perceived social outcomes are shaped primarily by individuals' expectations and interpretations rather than posting behaviour, highlighting the importance of unmet interpersonal goals for the well-being of those high in vulnerable narcissism.

## 1. Introduction

Narcissism is a personality system oriented toward regulating self-worth through social feedback (Morf & Rhodewalt, 2001). Although decades of research show that narcissistic traits shape interpersonal behaviour and outcomes, we still know remarkably little about how individuals high in narcissism experience the day-to-day consequences of their self-presentation attempts. For these individuals, social interactions provide opportunities for self-presentation, designed to elicit positive feedback (Morf & Rhodewalt, 2001) and maximise social status (Sedikides, 2021).

Social media platforms are now deeply embedded in everyday life and have a wide global reach. They allow individuals to form large numbers of relatively superficial friendships, post self-presented information, and receive immediate feedback from broad audiences, while also offering greater control over self-presentation than face-to-face contexts, thus making them potentially ideal environments for people high in narcissism (Buffardi & Campbell, 2008; Gnambs & Appel, 2018; McCain & Campbell, 2018). Those high in narcissism can readily engage in self-promotion on social networking sites (SNS), gaining others' admiration, thus reinforcing their inflated self-concepts (McCain & Campbell, 2018). This aligns with the Agency Model of narcissism (Campbell & Foster, 2011), which conceptualises grandiose narcissism

as a functional system whereby narcissists' fundamental personality characteristics (e.g., inflated self-concept), self-regulation strategies (e.g., fantasies of power), interpersonal skills (e.g., charm), and interpersonal strategies (e.g., self-promotion) mutually reinforce each other, leading to people high in narcissism feeling good (Campbell & Foster, 2011). Therefore, social media can provide an ecologically valid context for examining how frequent and visible feedback supports narcissistic self-regulation and pursuit of interpersonal benefits.

Additionally, the Uses and Gratifications (U&G) theory emphasises that individuals actively use SNS, their individual characteristics (i.e., personality traits) influence the gratifications and goals they pursue, and SNS behaviours have consequences for users (Rubin, 2002). Previous research has predominantly focused on social media behaviours of those high or low in narcissism, with less attention paid to the responses they receive (Choi et al., 2015). We address this gap by examining associations between narcissism, real-life posting tendencies (i.e., self-presentation, valence, honesty), subsequent interpersonal outcomes, and the link between unmet interpersonal expectations of people high or low in narcissism and their subjective well-being, making a novel contribution to the literature.

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### 1.1. Grandiose and vulnerable narcissism

Narcissism is characterised by a highly positive and inflated self-concept, constant motivation for self-enhancement and attention-seeking, and limited interest in others' needs and in building close, warm relationships (Campbell et al., 2006). Literature differentiates between two dimensions of narcissism: grandiose narcissism and vulnerable narcissism.

Grandiose narcissism is characterised by entitlement, arrogance, inflated self-esteem, initial likability, and dominance (Miller et al., 2021; Sedikides, 2021). Individuals high in this trait strive to maintain their grandiose self through assertive self-enhancement and antagonistic self-protection, corresponding to narcissistic admiration and narcissistic rivalry (Back et al., 2013). While narcissistic admiration involves fantasies of grandiosity, assertiveness, interpersonal charm, and actively pursuing status, uniqueness, and self-enhancement opportunities, rivalry refers to defending one's superior status through arrogance, hostile behaviour, and devaluation and exploitation of others (Back et al., 2013; Miller et al., 2021; Sedikides, 2021).

People high in grandiose narcissism are admired by others in the short-term and successful at initiating relationships, but these positive impressions often fade, and they have difficulties maintaining relationships (Campbell et al., 2006; Campbell & Foster, 2011). This reflects their continuous strive for self-affirmation, admiration, and gaining status, at the expense of social approval, being liked, and developing close connections (Morf & Rhodewalt, 2001; Zeigler-Hill et al., 2018). Additionally, individuals high in narcissistic traits make biased interpretations of social feedback (Miller et al., 2021; Morf & Rhodewalt, 2001), therefore it remains uncertain whether their interpersonal advantages or difficulties stem primarily from their behavioural and self-presentational tendencies, or from distorted expectations and interpretations of interactions.

Charming behaviours characteristic of narcissistic admiration are often associated with desired interpersonal outcomes, including admiration, others' interest, and social status, especially in the short-term; by contrast, insensitive behaviours typical of narcissistic rivalry are associated with negative interpersonal outcomes, such as rejection, unpopularity, or reduced trust, as well as issues with long-term relationship maintenance (Back et al., 2013; Miller et al., 2021). Leckelt et al.'s (2020) longitudinal study showed that agentic, assertive behaviours mediated the positive association between narcissistic admiration and popularity across stages of acquaintance; by contrast, antagonistic, critical, manipulative behaviours mediated the negative association between narcissistic rivalry and popularity, in later stages of acquaintance. Similarly, Wehner and Ziegler (2023) showed that, while both admiration and rivalry predicted conflict in friendships, rivalry was also associated with lower intimacy and appreciation.

In contrast to the assertive and self-enhancing characteristics of grandiose narcissism, vulnerable narcissism is characterised by fragile self-esteem, negative affect, defensiveness, and interpersonal difficulties (Miller et al., 2021; Sedikides, 2021), reflecting a more inhibited and insecurity-driven form of narcissistic self-regulation. However, rivalrous and vulnerable narcissism share an inclination towards antagonistic behaviours (Sedikides, 2021). Compared to the extensive literature on grandiose narcissism, research on vulnerable narcissism, particularly in relation to interpersonal outcomes, remains comparatively limited. People high in narcissistic vulnerability often distrust others, are socially isolated (Miller et al., 2021), highly sensitive to social evaluations, fear rejection (Hendin & Cheek, 1997), and feel ignored (Kroencke et al., 2023), indicating that their interpersonal experiences may differ from those associated with grandiose narcissism.

### 1.2. Narcissists' social media behaviours

Self-presentation is a common behaviour on SNS, these platforms allowing individuals to plan, edit, and enhance their profiles before

posting (Bij de Vaate et al., 2018). In line with Goffman's (1959) impression management theory, self-presentation is a strategic process through which individuals construct a desirable self-image to shape others' impressions (Börsting & Trepte, 2025). Different features of self-related information, including aspects such as valence or honesty of shared content, can be altered in an individual's self-presentation process (Kim & Dindia, 2011). In the present study, we conceptualise valence and honesty as features of self-presentation that signal social desirability and authenticity, respectively.

Both grandiose and vulnerable narcissism are positively associated with self-reported frequency of self-presentation and online social interaction (Brailovskaia & Bierhoff, 2016). However, the nature of this self-presentation appears to differ across narcissism dimensions. Grandiose narcissistic traits positively predict self-enhancement and strategic self-presentation on SNS, quantity of self-related information, photo attractiveness, number of online friends, intimacy of status updates (Buffardi & Campbell, 2008; Utz et al., 2012; Winter et al., 2014), as well as seeking and obtaining social gratifications through SNS (Huang & Liu, 2020). Grandiose narcissism also predicts posting selfies and other self-presenting photos, frequency of updating profile pictures, time spent on Instagram, attractiveness-inducing posts (Kim et al., 2016; Moon et al., 2016; Vanhoffelen et al., 2025), and deceptive like-seeking (e.g., using appearance-altering software; Dumas et al., 2017), suggesting a tendency towards less honest forms of self-presentation. Furthermore, grandiose narcissism is positively associated with posting about achievements and material possessions, but unrelated or negatively associated with posts about relationships, family, or social activities (Marshall et al., 2015; Scott et al., 2018).

Unlike grandiose narcissism, vulnerable narcissism is positively associated with higher incongruence between true self and online self, likely illustrating feelings of inadequacy that prevent authentic self-presentation (Geary et al., 2021; Grieve et al., 2020). Compared to narcissistic grandiosity, relatively little is known about how vulnerable narcissism is expressed in social media behaviour.

Although prior literature has not directly examined specific features such as the valence or honesty of social media posts made by individuals high in narcissism, these self-presentation patterns, along with broader interpersonal tendencies, may allow for tentative expectations regarding posting behaviour. Thus, admiring narcissism, characterised by self-promotion and emphasis on personal achievements (Back et al., 2013), may be associated with more positively valenced content. Contrary to that, rivalrous and vulnerable narcissism, characterised by antagonistic, derogatory behaviour, and/or heightened negative affect (Sedikides, 2021; Sheldon & Bryant, 2016) may be associated with less positive and more negative posting.

Overall, most research linking narcissism and social media behaviours has focused on grandiose narcissism. Meta-analytic evidence found that narcissism, and particularly narcissistic grandiosity, is positively associated with frequency and duration of using social media, number of online friends, and engagement in written and visual self-presentation; however, vulnerable narcissism, longitudinal associations, and more specific SNS activities remain comparatively under-examined, with inconsistent associations between vulnerable narcissism and indicators of SNS use (Gnambs & Appel, 2018; McCain & Campbell, 2018).

### 1.3. Interpersonal outcomes of narcissists' social media behaviours

Previous research shows positive associations between SNS self-presentation and indicators of early interpersonal success, including self-reported friendship initiation (Lee & Borah, 2020), and attention as measured through 'likes' and comments (Bareket-Bojmel et al., 2016). However, evidence also suggests that the interpersonal consequences of self-presentation may vary across relational stages. In established relationships, audiences may question the accuracy of SNS self-presentation (Young and Quan-Haase 2009) and report feeling more connected to posters of candid photos rather than posed (Berger &

Barasch, 2018). Therefore, we expect self-presentation to be positively associated with interpersonal outcomes indicative of early relationship stages (i.e., initiation), validation, or attention, but negatively associated with later relational stages benefits (i.e., maintenance and closeness).

Additionally, positive posts are associated with higher interpersonal liking and attraction than negative posts (Qin et al., 2025; Rosenthal-Stott et al., 2015). Similarly, status updates' positivity is associated with increased feelings of connectedness (Utz, 2015), indicating SNS are overall more favourable towards positive content, in line with the social media positivity bias (Bazarova, 2012).

Social media provides an ecologically valid context for examining whether narcissistic self-regulation produces desired interpersonal outcomes. Individuals high in grandiose narcissism report posting for attention, validation, and popularity (Marshall et al., 2015; Utz et al., 2012). Grandiose narcissism is overall positively associated with caring about others' comments and reactions (Lee & Sung, 2016), with higher narcissistic grandiosity and entitlement predicting retaliation against comments perceived as unpleasant, and being angry or dissatisfied with not receiving comments as desired (Carpenter, 2012; Zell & Moeller, 2017). Furthermore, grandiose narcissism is positively associated with trying to appear popular on social media and exaggerating amounts of received responses (Zell & Moeller, 2017). Yet, narcissistic status updates are perceived more negatively than neutral statuses (Kauten et al., 2015), and narcissism can moderate the association between SNS behaviour and network response: the positive association between number of status updates and received comments is weaker for individuals higher in grandiose narcissism (Choi et al., 2015).

In contrast, comparatively little is known about how individuals high in vulnerable narcissism perceive social outcomes on SNS. However, their heightened concern about rejection and tendencies to feel ignored or unappreciated in social contexts (Hendin & Cheek, 1997; Kroencke et al., 2023) suggest that they may perceive their online interactions as less successful, and report dissatisfaction with responses they receive from their social media network.

More broadly, previous literature provides limited insight into how narcissistic self-regulation operates in everyday social contexts, such as SNS. Social media research often relies on experimental manipulations of posting behaviours, audience impressions of the poster, or cross-sectional data capturing general SNS use; longitudinal examinations of post-specific interpersonal outcomes perceived following real-life SNS behaviours are thus necessary (Şurariu et al., 2025). Consequently, it remains unclear whether perceived social outcomes are driven primarily by actual online behaviour performed by individuals high in narcissism, their interpersonal expectations, or interpretations of social feedback. To address these gaps, we use a diary design and examine day-to-day interpersonal outcomes reported by individuals high in grandiose or vulnerable narcissism, following real, specific SNS posting behaviours.

The first research question (RQ1) we pose is: How does narcissism impact self-presentation behaviours on social networking sites, and what social outcomes do these behaviours yield for individuals high or low in narcissism? To address this question, and consistent with previous findings on the association between narcissistic traits and self-presentation (Brailovskaia & Bierhoff, 2016) we hypothesise that all forms of narcissism will be positively associated with self-presentation levels (H1). In line with active self-enhancement characteristic of narcissistic admiration (Back et al., 2013), we propose that this narcissistic trait will be positively associated with positively-valenced posts and negatively associated with negatively-valenced posts (H2a). However, given the antagonistic and defensive tendencies associated with narcissistic rivalry and vulnerability (Sedikides, 2021), we expect these traits to be associated with less positive and more negative posting (H2b). Moreover, based on evidence that grandiose narcissism is associated with deceptive like-seeking on SNS (Dumas et al., 2017), we hypothesise that narcissistic rivalry and admiration will be negatively associated with posts' honesty (H3). Moving on to social outcomes,

drawing on evidence linking admiring narcissism with high interpersonal likability in initial interactions and tendencies to create positive first impressions (Miller et al., 2021), we expect that individuals higher in narcissistic admiration will report greater relationship initiation benefits (H4a). In contrast, consistent with evidence of lower long-term likability and interpersonal difficulties characteristic of individuals high in narcissistic traits (Miller et al., 2021), individuals higher in narcissistic rivalry or vulnerable narcissism will report lower relationship maintenance and closeness benefits (H4b). Furthermore, due to their dissatisfaction with interpersonal responses and heightened sensitivity to rejection (Hendin & Cheek, 1997), individuals higher in vulnerable narcissism will expect greater attention, validation, and popularity benefits than they actually receive (H5).

Recognising that social outcomes perceived by people high in narcissism may be (partly) due to their behaviours on SNS, our second research question (RQ2) asks the following: To what extent does self-presentation mediate the association between narcissism and social outcomes? We hypothesise that individuals higher in narcissistic rivalry or vulnerable narcissism will report lower closeness and relationship maintenance benefits due to their negatively-valenced posting and self-presentation (H6a), given that negatively valenced content is generally less favourably received on SNS (e.g., Qin et al., 2025). However, individuals higher in narcissistic admiration will report greater popularity, attention, validation, and relationship initiation benefits due to their engagement in self-presentation (H6b). Mediation and moderation models are illustrated in Fig. 1.

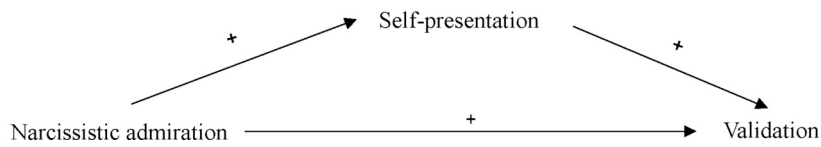
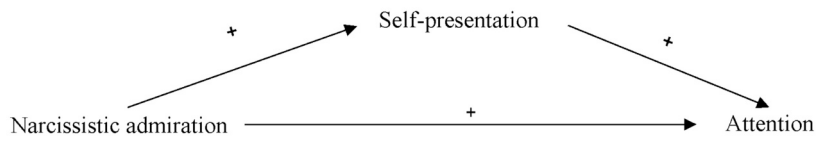
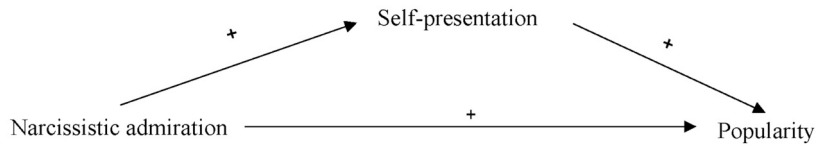
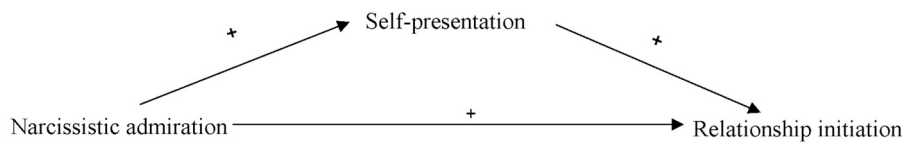
#### 1.4. Narcissism, interpersonal outcomes, and subjective well-being

An additional aim was to examine the association between narcissism and subjective well-being, via perceived social outcomes. Subjective well-being involves making positive evaluations of one's life, through both emotional (affect) and cognitive (life satisfaction) judgements, and usually follows the satisfaction of important needs, desires, and goals (Diener et al., 2018).

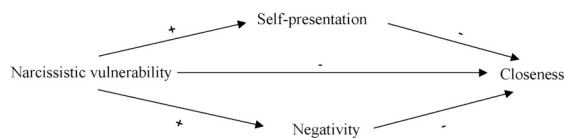
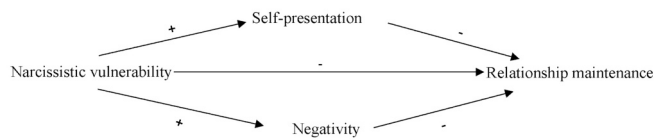
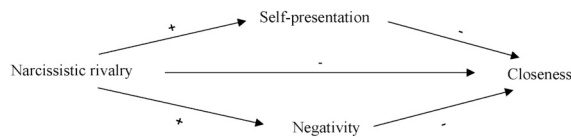
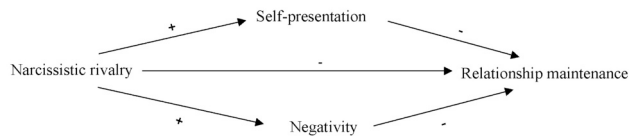
In social media contexts, receiving supportive comments, reactions, and positive feedback is positively associated with well-being and life satisfaction (Cary et al., 2024; Maclean et al., 2020; Saha et al., 2025; Tian et al., 2023; Ye & Ho, 2025). By contrast, receiving insufficient social validation (i.e., fewer 'likes') is associated with feelings of rejection and increased negative affect (Lee et al., 2020). Importantly, whether social media improves or decreases well-being may depend on individual traits (e.g., personality characteristics, such as narcissism) and usage patterns (e.g., specific posting behaviours), however, these processes have rarely been examined longitudinally (Kross et al., 2021; Valkenburg, 2022). Additionally, we note the limited findings in the area linking unmet social expectations and well-being. For example, Şurariu et al. (2026) found that not meeting one's interpersonal expectations (e.g., in terms of relationship initiation, closeness, popularity, etc.) on social media was associated with lower subjective well-being; here, we examine whether this association differs as a function of narcissistic trait levels.

Research suggests that relationships between narcissism and well-being differ across narcissistic dimensions. Sedikides et al.'s (2026) meta-analysis showed that higher grandiose narcissism is associated with higher well-being, whilst higher vulnerable narcissism is associated with lower well-being, including reduced life satisfaction (Sheldon & Bryant, 2016). However, Sedikides et al.'s (2026) meta-analysis included four times as many grandiose narcissism studies compared to vulnerable narcissism, predominantly cross-sectional research, and did not address the role of interpersonal goals in relation to well-being. In general, grandiosity buffers against negative feedback, while the opposite is true for vulnerable narcissism (Sedikides, 2021). Illustrating this pattern, social media validation (e.g. 'likes') was associated with reduced psychological distress for some expressions of grandiose narcissism (e.g., leadership/authority); the association was not significant for

**a**



**b**



**Fig. 1.** Proposed mediation and moderation models. (a) Mediation models with narcissistic admiration as predictor. (b) Mediation models with narcissistic rivalry or vulnerability as predictors. (c) Moderation models with narcissistic vulnerability as moderator.

c

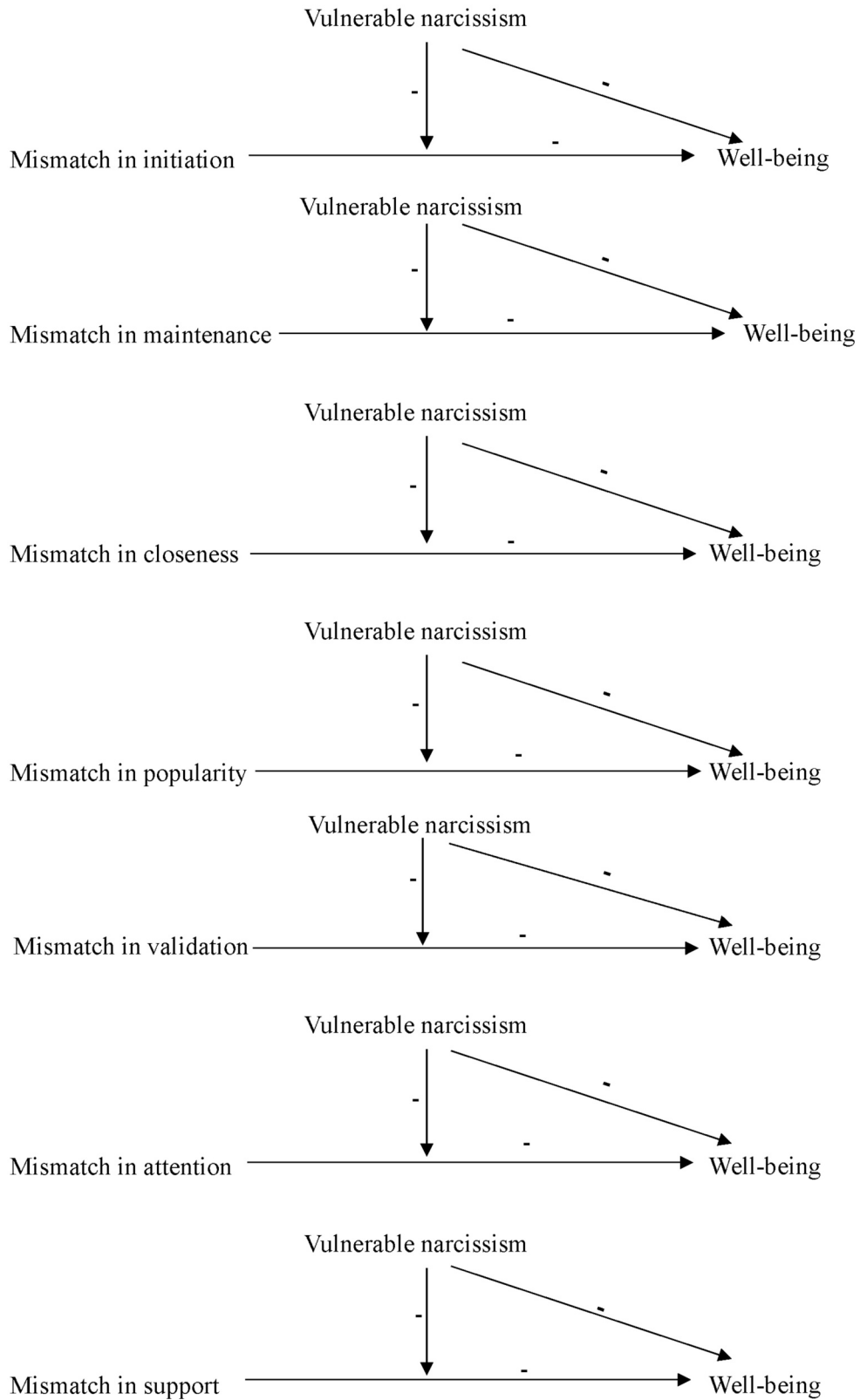


Fig. 1. (continued).

antagonistic or entitlement-related narcissistic tendencies (Nash et al., 2019). By contrast, individuals high in vulnerable narcissism report greater insecurity and shame when feeling ignored (Kroencke et al.,

2023); thus, they are likely to experience lower well-being when their social expectations are unmet. We aim to novelly contribute to the literature by examining narcissism as a moderator of the association

between unmet interpersonal expectations and subjective well-being, using a longitudinal diary design.

Our third and final research question (RQ3) focuses on the less-studied narcissistic dimension of vulnerable narcissism: What is narcissism's role in moderating the association between social outcomes and subjective well-being? Given the heightened rejection sensitivity of vulnerable narcissism, and the negative association between this personality trait and well-being and life satisfaction, we expected this trait to shape how discrepancies between expected and received social outcomes relate to subjective well-being. We hypothesise that vulnerable narcissism will moderate the negative associations between receiving lower-than-expected social benefits and well-being, such that this association will be stronger for individuals higher in vulnerable narcissism (H7).

## 2. Method

The present study was part of a larger longitudinal project; all measures, hypotheses, and analyses plan were pre-registered on Open Science Framework (<https://osf.io/fqvc9/>). The project investigated associations between personality traits, SNS use, social outcomes, and well-being.

### 2.1. Participants

Based on diary / experience sampling studies on similar topics (Karsay et al., 2023; Li et al., 2021; Manuoğlu & Uysal, 2020; Wenninger et al., 2019), we aimed to recruit 150 participants. We obtained ethical approval from the University of XX Ethics Committee. The target population of the present study was adult social media users who engage in regular posting behaviour. Eligibility criteria were: being over 18 years old, speaking English, having an active SNS account, and posting a minimum of ten times per month on this account. The posting frequency criterion served to ensure that participants would have sufficient opportunity to report on a minimum of seven social media posts during the 21-day diary period, rather than to restrict the sample to highly active users.

We collected data via Prolific (for non-student participants;  $n = 151$ ) and the University's participant pool (for student participants;  $n = 3$ ), between October 2024 and June 2025. The predominance of non-student participants reflects the primary recruitment strategy and allowed for greater demographic variability than a typical student sample. Non-student participants received £13, while students received research participation credits for taking part; we provided compensation to all participants who completed the initial survey, final survey, and reported on a minimum of seven social media posts across the study sessions. We collected data from 300 participants; however, 146 participants were excluded for failing to provide information about a minimum of seven posts and/or not completing the last study session. Participants were required to report on at least seven posts to ensure that they contributed a sufficient number of observations for reliable estimation of effects in the multilevel analyses. This threshold reflects common practice in diary and experience sampling research, where studies typically require high completion rates to ensure reliable effect estimation. Diary entries without reported posts did not include completed measures of posting behaviour or associated social outcomes, resulting in limited usable data for participants with fewer than seven posts. We excluded participants once it was no longer possible for them to meet this threshold based on missed diary entries. Comparative analyses (see Supplementary material) indicated that included and excluded participants did not differ on baseline measures, except for posting frequency, which was higher among included participants.

Our final sample ( $N = 154$ ) was aged between 18 and 76 years ( $M = 39.08$ ,  $SD = 12.29$ ); 76 participants identified as male, 77 identified as female, and 1 identified as non-binary. A large majority of participants indicated Facebook ( $n = 54$ ) or Instagram ( $n = 50$ ) as their preferred

social media platform, followed by X ( $n = 21$ ), TikTok ( $n = 10$ ), YouTube ( $n = 7$ ), or others. Participants had a median number of 270 'friends' / 'followers' on their preferred platform and had an account for an average of 10.7 years ( $SD = 4.94$ ). Most participants reported checking their preferred account several times a day (64.3%), while many others did so at least once per hour (26%); the remaining participants indicated that they checked their account once per day or less. Additionally, most participants posted several times per week (39.6%); 19.5% posted at least once per day, 11.7% posted once a week, 13.6% post several times per month, and the remaining 15.5% posted less than once per month. Importantly, posting frequency was assessed in the initial survey, prior to the diary phase, and may reflect participants' interpretations of posting as more permanent content (e.g., traditional profile posts). During the diary phase, we instructed participants that they can also include more transient forms of content (e.g., 24-hour 'stories'), which may account for differences between baseline frequency reports and posting behaviour observed across diary sessions.

### 2.2. Procedure

We advertised the study as investigating social media use and perceptions of outcomes, under the title "Social Media Diaries". Participants completed a set of 11 surveys on Qualtrics, after accessing the information sheet and providing informed consent. The first survey assessed: demographic data and participants' general social media use, grandiose and vulnerable narcissism, and desirable responding. Next, participants provided details about their most recent social media post and answered items on social benefits they expected from the post. After the first session, ten subsequent diaries followed, at two-day intervals, across a total of 21 days. In each follow-up session, participants used their unique participant platform ID to access their previous post description and remind themselves of its content. The follow-up sessions asked about social outcomes received due to the previous post, followed by a measure of subjective well-being, as well as a section on describing a new post and expected benefits of this post. The last session did not contain questions related to a new post; instead, participants completed questions about their general self-presentation strategies on social media. Following study completion, participants accessed a Debriefing Statement and received compensation.

### 2.3. Measures

Descriptives for all study variables are in Tables 1, 2 and 3; measures are described below.

#### 2.3.1. Demographics and social media use (Day 1)

Participants provided demographic data (e.g., age, gender, ethnicity, relationship status). They specified which social media platforms they currently used and answered questions in relation to their preferred platform (e.g., time having account, frequency of checking the account, frequency of posting, number of friends/followers).

#### 2.3.2. Grandiose narcissism (Day 1)

We used the Narcissistic Admiration and Rivalry Questionnaire (NARQ; Back et al., 2013) to measure grandiose narcissism. The 18 items are divided into two subscales, assessing narcissistic admiration (e.g., "I will someday be famous") and narcissistic rivalry (e.g., "I secretly take pleasure in the failure of my rivals"). Participants provide their responses on a 6-point Likert scale (1 = *disagree completely*, 6 = *agree completely*).

#### 2.3.3. Vulnerable narcissism (Day 1)

We used the Hypersensitive Narcissism Scale (HSNS; Hendin & Cheek, 1997) to assess narcissistic vulnerability. The scale has 10 items (e.g., "I often interpret the remarks of others in a personal way"). Participants rated their agreement on a 5-point scale from 1 (*very*

**Table 1**  
Means, standard deviations and correlations between received social outcomes, well-being, and desirable responding.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Relationship initiation	2.61	1.61								
2. Relationship maintenance	4.31	2.06	0.74***							
3. Closeness	6.26	1.06	0.39***	0.65***						
4. Popularity	4.57	1.36	0.81***	0.81***	0.560***					
5. Receiving attention	5.90	1.12	0.38***	0.50***	0.71***	0.62***				
6. Validation	5.14	1.23	0.73***	0.81***	0.66***	0.91***	0.65***			
7. Support	5.34	1.24	0.62***	0.65***	0.60***	0.71***	0.61***	0.74***		
8. Well-being	7.36	1.77	0.24***	0.26***	0.40***	0.35***	0.37***	0.39***	0.32***	
9. Desirable responding	4.93	1.15	0.06*	0.04	0.12***	0.08**	0.15***	0.12***	0.13***	0.24***

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

**Table 2**  
Means, standard deviations and correlations between expected social outcomes.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Relationship initiation	2.95	1.73						
2. Relationship maintenance	4.41	2.07	0.72***					
3. Closeness	4.30	2.33	0.64***	0.86***				
4. Popularity	3.57	2.01	0.86***	0.76***	0.68***			
5. Receiving attention	3.59	2.28	0.76***	0.67***	0.61***	0.86***		
6. Validation	3.89	2.02	0.82***	0.80***	0.70***	0.93***	0.84***	
7. Support	3.54	2.43	0.70***	0.64***	0.57***	0.72***	0.71***	0.74***

Note. \*\*\*  $p < 0.001$ .

**Table 3**  
Means, standard deviations, and correlations between narcissistic traits, general self-presentation, and desirable responding.

	<i>M</i>	<i>SD</i>	$\alpha$	1	2	3	4
1. Narcissistic admiration	3.06	0.95	0.88				
2. Narcissistic rivalry	2.05	0.73	0.82	0.28***			
3. Vulnerable narcissism	2.71	0.68	0.79	0.08	0.44***		
4. General self-presentation	5.27	1.37	0.91	0.38***	-0.03	0.06	
5. Desirable responding	4.93	1.15	0.74	0.02	-0.43***	-0.28***	-0.04

Note.  $N = 154$ . \*\*\*  $p < 0.001$ .

uncharacteristic or untrue/strongly disagree) to 5 (very characteristic or true/strongly agree).

2.3.4. Desirable responding (Day 1)

We measured desirable responding, our proposed control variable, with the impression management subscale of the Balanced Inventory of Desirable Responding (BIDR-16; Hart et al., 2015). We controlled for desirable responding due to prior research showing that it can bias self-report assessments (Paulhus, 1991; Uziel, 2010), which could add confounders to our measurements of social media behaviour, social outcomes, and well-being. The subscale has 8 items (e.g., “I don’t gossip about other people’s business”); four items are reverse-coded. Participants used an 8-point Likert scale (1 = totally disagree, 8 = totally agree) to rate their agreement with the items.

2.3.5. Post characteristics (Days 1–10)

Participants copied and pasted the written content of their most recent SNS post into Qualtrics and described images/videos included in the posts, if applicable. In each session, they were reminded to delete any identifiable information. Temporary posts (e.g., 24-hour ‘stories’) were also eligible. Afterwards, participants rated the post’s honesty from 1 to 3, and the post’s positivity and negativity (e.g., “how negative is your post?”) from 1 to 4, ranging from 1 = not negative/positive at all, to 4 = highly negative/positive; higher values on these scales indicated greater levels of each attribute (e.g., higher honesty). These ratings were treated as independent dimensions, such that posts could be rated as both positive and negative to varying degree; positivity and negativity were moderately associated ( $r_s(1365) = -0.45, p < 0.001$ ), but not

redundant. We provided a definition of self-presentation, asking participants to categorise their posts according to this behaviour (0 = no self-presentation at all, 1 = implicit self-presentation [implied desirable traits or achievements], 2 = explicit self-presentation [directly describing oneself using desirable traits]). Had they not made a new post prior to the diary session, they were asked to skip this section.

2.3.6. Received social outcomes (Days 2–11)

Participants were reminded of the post description they provided in the previous diary and reported the number of one-click reactions and number of comments the post received. Next, they considered the social outcomes obtained as a result of the previous post, providing responses to 31 items on an 8-point Likert scale, from 1 = not at all to 8 = very much; ten items were reverse-coded. The items were inspired by a range of scales used in social media research (e.g., Hollenbaugh & Ferris, 2014; Malik et al., 2016; Menon, 2022) and based on social outcomes of posting previously identified in the literature (Şurariu et al., 2025). The section covered seven social outcomes: relationship initiation (four items capturing the formation of new connections, identifying potential social ties, and initial interactions; e.g., “I found people with similar interests to me”), relationship maintenance (four items reflecting ongoing interactions and connection with existing relationships; e.g., “I was able to keep in touch with friends”), closeness (three items; “I felt closer to my friends”), popularity (seven items; “I felt liked”), receiving attention (three items; “I received a great deal of attention”), validation (eight items; “I felt admired”), and social support (two items; “I received support when I needed it”). An open-ended item gave participants the opportunity to list any additional social outcomes of the post. If no post

was provided in the previous diary session, participants skipped this section.

### 2.3.7. Expected social benefits (Days 1–10)

After describing each post, participants indicated any social benefits they expected from making the post. We used the same agreement scale as for the received social outcomes section. Additionally, we covered the same social outcomes, and used similar forms of the same items, with the exception of excluding reverse-coded items (due to our focus on positive expected outcomes rather than negative outcomes). If the participants had not made and described a new post, they skipped this section.

### 2.3.8. Subjective well-being (Days 2–11)

We used the subjective well-being subscales of the Comprehensive Inventory of Thriving (CIT; Su et al., 2014) to assess well-being in each session. The nine items are divided into three subsections measuring life satisfaction (e.g., “I am satisfied with my life”), positive feelings (e.g., “I feel good most of the time”), and negative feelings (e.g., “I experience unhappy feelings most of the time”). Participants thought about the days following the previous survey completion, and rated agreement on a 10-point Likert scale (1 = *strongly disagree*, 10 = *strongly agree*). We reverse-coded the three items assessing negative feelings, calculating average well-being scores across nine items.

### 2.3.9. General self-presentation (Day 11)

We used three items from Krasnova et al. (2010) to measure general social media self-presentation: “I try to make a good impression on others on social media”, “I try to present myself in a favourable way on social media”, “Social media helps me to present my best side to others”. Participants provided responses on a 7-point Likert scale (1 = *do not agree at all*, 7 = *completely agree*), and we computed mean self-presentation scores across the items.

## 2.4. Data analysis

We used a nested design for the present study, with days (level-1) nested within individuals (level-2). We ran multilevel linear analyses using SPSS v.30, while using MLmed for multilevel mediation analyses (Rockwood, 2017). To handle missing data, we used restricted maximum likelihood (REML). In addition to variables measured with scales described above, we computed differences (i.e., “mismatch”) between social benefit levels expected from a post and received social outcome levels reported in a subsequent diary. Positive mismatch scores indicated unmet expectations, while negative scores suggested that participants received more social benefits than expected.

## 3. Results

### 3.1. Preliminary analyses

We checked distribution normality prior to data analysis, using the  $\pm 2$  skewness threshold and the  $\pm 7$  kurtosis threshold to determine non-normality, as recommended in the literature (West et al., 1995). Non-normality was identified for variables indicating number of social media friends/followers, number of comments and one-click reactions respectively received by posts, number of people tagged, as well as number of posts made since the previous diary, including permanent posts and temporary posts (e.g., 24-hour ‘stories’); we log transformed these variables. Furthermore, we capped outliers at the 5th and 95th percentile, Winsorising all continuous variables; literature suggests this technique is efficient in minimising the influence of extreme values on results while retaining data (Sullivan et al., 2021).

Next, we examined correlations between outcome variables. We report correlations between social outcome variables in Tables 1 and 2, for received and expected social benefits respectively. In our pre-registration we indicated that we would combine social outcomes

correlating above 0.70; we applied this for highly correlating social outcomes that we proposed as outcomes of the same predictor variable, where the same direction of association was expected. In all cases except relationship maintenance, desirable responding significantly correlated with social outcomes, therefore we included desirable responding as a covariate in these analyses; we did the same for analyses having self-presentation and well-being as outcomes. In all models using narcissistic admiration as a predictor, we controlled for narcissistic rivalry, and vice-versa.

### 3.2. Narcissists’ self-presentation behaviours

H1 predicted that all three narcissistic traits would be positively associated with self-presentation. Because we included a self-report measure of general self-presentation, we conducted two regression analyses for the associations between narcissistic traits and self-reported self-presentation. The first model used narcissistic admiration and rivalry as predictors, controlling for desirable responding; the model was significant,  $F(3,149) = 10.73$ ,  $p < 0.001$ , and explained 18% of the variance in self-presentation scores. Higher levels of narcissistic admiration were associated with greater levels of self-presentation,  $\beta = 0.63$ ,  $t(149) = 5.61$ ,  $p < 0.001$ ; surprisingly, higher narcissistic rivalry was associated with lower levels of self-presentation,  $\beta = -0.40$ ,  $t(149) = -2.44$ ,  $p = 0.016$ . The regression model using vulnerable narcissism as key predictor was not significant ( $F(2,151) = 0.31$ ,  $p = 0.737$ ), and vulnerable narcissism was not associated with self-reported self-presentation ( $\beta = 0.10$ ,  $t(151) = 0.59$ ,  $p = 0.556$ ). Desirable responding was not associated with self-presentation in either model ( $p = 0.099$ ,  $p = 0.746$ , respectively).

We also measured reports of self-presentation at the daily level as participants reflected on their post. Accordingly, we conducted multilevel regressions. Table 4 contains statistical results for all regression and moderation models, while Table 5 provides information regarding model fit and variance components for all models predicting SNS behaviours and social outcomes. Vulnerable narcissism was not associated with daily self-presentation. For grandiose narcissism, admiration was positively associated with daily self-presentation, while rivalry was negatively associated with daily self-presentation. In both models, desirable responding was negatively associated with self-presentation. Thus, H1 was only partially supported.

### 3.3. Narcissists’ post characteristics

H2a predicted that narcissistic admiration would be positively associated with posts’ positivity, and negatively associated with posts’ negativity, while H2b predicted the opposite for narcissistic rivalry and vulnerability. As expected, individuals high in narcissistic admiration reported higher daily post positivity, while those high in narcissistic rivalry reported lower daily positivity. Additionally, individuals high in vulnerable narcissism also reported lower daily post positivity. However, neither narcissistic admiration, narcissistic rivalry, nor vulnerable narcissism were significantly associated with daily post negativity. Therefore, our results partly support H2a and H2b.

H3 predicted positive associations between posts’ honesty and both admiring and rivalrous narcissism. Similarly, narcissistic rivalry and admiration were not significantly associated with daily post honesty. H3 is therefore not supported. Both negativity and honesty displayed response pattern skewness, with most responses at the lowest (for negativity) or highest (for honesty) response categories, leaving limited variance to be explained by predictors.

### 3.4. Narcissists’ perceptions of social outcomes

H4a predicted a positive association between narcissistic admiration and perceived relationship initiation benefits, while H4b predicted that narcissistic rivalry and vulnerability will both be negatively associated

**Table 4**  
Regression models predicting posting behaviours and social outcomes, and moderation models predicting well-being.

Predictor	Model 1				Model 2			
	B	SE	p	95% CI	B	SE	p	95% CI
<i>Models predicting self-presentation</i>								
Narcissistic admiration	0.13	0.04	0.003	[0.05, 0.21]				
Narcissistic rivalry	-0.16	0.06	0.010	[-0.28, -0.04]				
Narcissistic vulnerability					0.03	0.06	0.617	[-0.09, 0.15]
Desirable responding (Cov)	-0.13	0.04	<0.001	[-0.21, -0.06]	-0.08	0.04	0.020	[-0.16, -0.01]
<i>Models predicting positivity</i>								
Narcissistic admiration	0.15	0.05	0.002	[0.06, 0.24]				
Narcissistic rivalry	-0.19	0.06	0.002	[-0.31, -0.07]				
Narcissistic vulnerability					-0.21	0.06	0.001	[-0.33, -0.08]
<i>Models predicting negativity</i>								
Narcissistic admiration	-0.04	0.02	0.082	[-0.08, 0.01]				
Narcissistic rivalry	0.03	0.03	0.332	[-0.03, 0.08]				
Narcissistic vulnerability					0.03	0.03	0.226	[-0.02, 0.09]
<i>Model predicting honesty</i>								
Narcissistic admiration	-0.03	0.02	0.062	[-0.06, 0.001]				
Narcissistic rivalry	-0.01	0.02	0.809	[-0.05, 0.04]				
Desirable responding (Cov)			0.071					
<i>Model predicting relationship initiation</i>								
Narcissistic admiration	0.83	0.11	<0.001	[0.61, 1.05]				
Narcissistic rivalry (Cov)	-0.39	0.16	0.018	[-0.71, -0.07]				
Desirable responding (Cov)			0.995					
<i>Models predicting relationship maintenance</i>								
Narcissistic admiration	0.72	0.14	<0.001	[0.44, 1.00]				
Narcissistic rivalry	-0.62	0.19	0.001	[-0.99, -0.26]				
Narcissistic vulnerability					-0.57	0.20	0.006	[-0.97, -0.17]
<i>Models predicting closeness</i>								
Narcissistic admiration	0.23	0.07	<0.001	[0.10, 0.36]				
Narcissistic rivalry	-0.42	0.10	<0.001	[-0.61, -0.23]				
Narcissistic vulnerability					-0.46	0.09	<0.001	[-0.64, -0.28]
Desirable responding (Cov)			0.900				0.383	
<i>Model predicting mismatch in popularity-attention-validation benefits</i>								
Narcissistic vulnerability					0.34	0.17	0.045	[0.01, 0.67]
<i>Moderation models predicting subjective well-being</i>								
Narcissistic vulnerability					-0.82	0.19	<0.001	
Maintenance_Mismatch					-0.04		0.566	
Maintenance_Mismatch * Vulnerability					-0.01		0.815	
Desirable responding (Cov)					0.24		0.033	
Narcissistic vulnerability					-0.85	0.19	<0.001	
Closeness_Mismatch					-0.01		0.830	
Closeness_Mismatch * Vulnerability					-0.01		0.587	
Desirable responding (Cov)					0.24		0.035	
Narcissistic vulnerability					-0.84	0.19	<0.001	
Support_Mismatch					0.00		0.992	
Support_Mismatch * Vulnerability					-0.01		0.677	
Desirable responding (Cov)					0.24		0.035	
Narcissistic vulnerability					-0.80	0.19	<0.001	
Initiation_Mismatch					0.11		0.185	
Initiation_Mismatch * Vulnerability					-0.06	0.03	0.032	
Desirable responding (Cov)					0.23		0.037	
Narcissistic vulnerability					-0.84	0.20	<0.001	
Popularity-Attention-Validation_Mismatch					-0.02		0.818	
Popularity-Attention-Validation_Mismatch * Vulnerability					-0.02		0.552	
Desirable responding (Cov)					0.24		0.037	

Note. Model 1 = regression models with narcissistic admiration and rivalry as main predictors. Model 2 = regression models with narcissistic vulnerability as main predictor. Cov = covariate. X\_Mismatch = discrepancy between expected and received levels of the corresponding social outcome.

with relationship maintenance and closeness. Individuals high in admiring narcissism reported greater daily relationship initiation benefits, thus supporting H4a. Additionally, individuals high in rivalrous narcissism reported lower levels of relationship initiation outcomes. In terms of other outcomes, higher rivalrous narcissism was associated with lower daily closeness, as well as lower relationship maintenance benefits. In the same models, narcissistic admiration was positively associated with both daily closeness and relationship maintenance benefits. The desirable responding covariate was not associated with relationship initiation or closeness outcomes.

Higher narcissistic vulnerability was also associated with reporting lower daily closeness and relationship maintenance benefits. Therefore, H4b was fully supported. Desirable responding did not predict perceived daily closeness. Finally, we examined the association between

vulnerable narcissism and the mismatch in popularity, attention, and validation outcomes, expecting vulnerable narcissism to be associated with unmet social outcome expectations (H5); due to high correlations between the three mismatch variables, we combined them and conducted a single analysis. Individuals high in vulnerable narcissism expected higher levels of daily popularity, attention, and validation benefits than they received, supporting H5.

### 3.5. Posting mediators of the associations between narcissism and social outcomes

We proposed both daily self-presentation and negative valence as mediators of the associations between vulnerable narcissism and both relationship maintenance and closeness outcomes (H6a). Higher

**Table 5**  
Model fit and variance components for models predicting posting behaviours and social outcomes.

Outcome	$R_m^2$	$R_c^2$	ICC	$\sigma^2$	$\tau_{00}$
Models with grandiose narcissistic traits as predictors					
Self-presentation	0.05	0.35	0.30	0.39	0.18
Positivity	0.03	0.26	0.23	0.63	0.20
Negativity	0.004	0.09	0.08	0.26	0.02
Honesty	0.02	0.19	0.18	0.09	0.02
Relationship initiation	0.22	0.79	0.57	0.56	1.48
Relationship maintenance	0.12	0.68	0.56	1.39	2.38
Closeness	0.09	0.52	0.42	0.56	0.48
Models with vulnerable narcissism as predictor					
Self-presentation	0.02	0.35	0.33	0.39	0.20
Positivity	0.02	0.26	0.24	0.64	0.20
Negativity	0.002	0.09	0.09	0.26	0.02
Relationship maintenance	0.04	0.68	0.64	1.38	2.74
Closeness	0.10	0.51	0.41	0.56	0.47
Mismatch in attention-validation-popularity	0.02	0.65	0.63	1.04	1.88

Note:  $R_m^2$  = fixed effects variance.  $R_c^2$  = fixed and random effects variance. ICC = proportion of variance attributable to between-person differences.  $\sigma^2$  = within-person (residual) variance.  $\tau_{00}$  = between-person (random intercept) variance.

narcissistic vulnerability was directly associated with lower perceived relationship maintenance outcomes. However, the indirect effects through self-presentation and negative valence were not significant. Similarly, higher vulnerability was associated with lower perceived interpersonal closeness; once again, the indirect effects through self-presentation and negativity were not significant. Statistical results for all mediation models are reported in Table 6.

We conducted similar mediation analyses for narcissistic rivalry, controlling for narcissistic admiration. Individuals high in narcissistic rivalry reported lower closeness outcomes, when accounting for self-presentation and negativity. The indirect effects through self-presentation and negatively-valenced posting were not significant. Higher rivalrous narcissism was also directly associated with lower relationship maintenance benefits. Again, the indirect effects through self-presentation and negativity were not significant.

For the mediation model with narcissistic admiration as the predictor, we controlled for narcissistic rivalry; H6b proposed that self-

**Table 6**  
Mediation models with narcissism traits as predictors, posting behaviours as mediators, and social outcomes.

Predictor	Direct effect			Indirect effect	
	B	SE	p	B	95% CI
<i>Model predicting relationship initiation-popularity-validation</i>					
Narcissistic admiration	0.68	0.09	<0.001		
Self-presentation (M <sub>1</sub> )				0.03	[-0.01, 0.09]
<i>Model predicting received attention</i>					
Narcissistic admiration	0.29	0.07	<0.001		
Self-presentation (M <sub>1</sub> )				0.002	[-0.03, 0.04]
<i>Models predicting relationship maintenance</i>					
Narcissistic rivalry	-0.61	0.19	0.001		
Self-presentation (M <sub>1</sub> )				-0.03	[-0.12, 0.03]
Negativity (M <sub>2</sub> )				0.003	[-0.04, 0.05]
Narcissistic vulnerability	-0.66	0.20	0.001		
Self-presentation (M <sub>1</sub> )				0.06	[-0.04, 0.19]
Negativity (M <sub>2</sub> )				-0.002	[-0.06, 0.05]
<i>Models predicting closeness</i>					
Narcissistic rivalry	-0.41	0.10	<0.001		
Self-presentation (M <sub>1</sub> )				-0.01	[-0.06, 0.03]
Negativity (M <sub>2</sub> )				-0.02	[-0.06, 0.01]
Narcissistic vulnerability	-0.46	0.09	<0.001		
Self-presentation (M <sub>1</sub> )				0.01	[-0.03, 0.05]
Negativity (M <sub>2</sub> )				-0.02	[-0.06, 0.01]

Note. For models with narcissistic admiration as main predictor, we controlled for narcissistic rivalry, and vice-versa. M<sub>1</sub> = first mediator. M<sub>2</sub> = second mediator.

presentation would mediate the associations between admiring narcissism and several social outcomes. Higher admiring narcissism was directly associated with greater received attention. However, the indirect effect through self-presentation was not significant. For the final mediation model, due to high inter-correlations between relationship initiation, validation, and popularity outcomes, we combined these received social benefits. Individuals high in narcissistic admiration reported greater benefits in terms of relationship initiation, validation, and popularity, when accounting for self-presentation. However, the indirect effect via self-presentation was not significant, 95% CI [-0.04, 0.05]. Summing up, results did not support H6a and H6b.

**3.6. Narcissism as moderator of the association between social outcomes and well-being**

Our final section investigates whether vulnerable narcissism moderates the association between mismatches in social outcomes and subjective well-being (H7). Statistical results for all moderation models are available in Table 4, while Table 7 contains details on variance component and model fit for all models predicting well-being. We first tested a model using the interaction between vulnerable narcissism and mismatch in relationship maintenance. Individuals high in narcissistic vulnerability reported lower well-being levels. However, the main effect of relationship maintenance mismatch was not significant, and neither was the interaction effect. Similar results were obtained for mismatch in closeness: narcissistic vulnerability continued to negatively predict well-being, while the main effect of closeness mismatch and the interaction effect were not significant. Additionally, in the model using support mismatch as predictor, vulnerable narcissism was negatively associated with well-being, while the main effect of support mismatch and the interaction effect were not significant.

We next tested whether narcissistic vulnerability moderated the association between relationship initiation mismatch and well-being. Vulnerable narcissism was again negatively associated with well-being, while the main effect of relationship initiation mismatch was not significant. The interaction effect was significant in this case, and is illustrated in Fig. 2. At low levels of vulnerable narcissism, the association between mismatch in relationship initiation is not significant ( $b = -0.02, p = 0.605$ ). However, at medium vulnerable narcissism levels, unmet relationship initiation expectations are associated with lower well-being ( $b = -0.06, p = 0.004$ ), and this association is stronger for people high in vulnerable narcissism ( $b = -0.10, p < 0.001$ ).

In the final model, we combined mismatches in popularity, attention, and validation, to reduce potential issues of multicollinearity. The main effect of this mismatch composite was not significant, while narcissistic vulnerability was consistently negatively associated with well-being; the interaction effect was not significant. H7 is therefore only partly supported.

**Table 7**  
Model fit and variance components for models predicting well-being.

Model (Predictor*Moderator)	$R_m^2$	$R_c^2$	ICC	$\sigma^2$	$\tau_{00}$
Mismatch in Relationship Maintenance *	0.16	0.87	0.72	0.40	2.25
Vulnerable narcissism					
Mismatch in Relationship Initiation *	0.16	0.87	0.72	0.40	2.25
Vulnerable narcissism					
Mismatch in Closeness *	0.16	0.87	0.72	0.40	2.27
Vulnerable narcissism					
Mismatch in Support *	0.15	0.87	0.72	0.40	2.27
Vulnerable narcissism					
Mismatch in Popularity-Attention-Validation * Vulnerable narcissism	0.16	0.87	0.72	0.40	2.29

Note:  $R_m^2$  = fixed effects variance.  $R_c^2$  = fixed and random effects variance. ICC = proportion of variance attributable to between-person differences.  $\sigma^2$  = within-person (residual) variance.  $\tau_{00}$  = between-person (random intercept) variance.

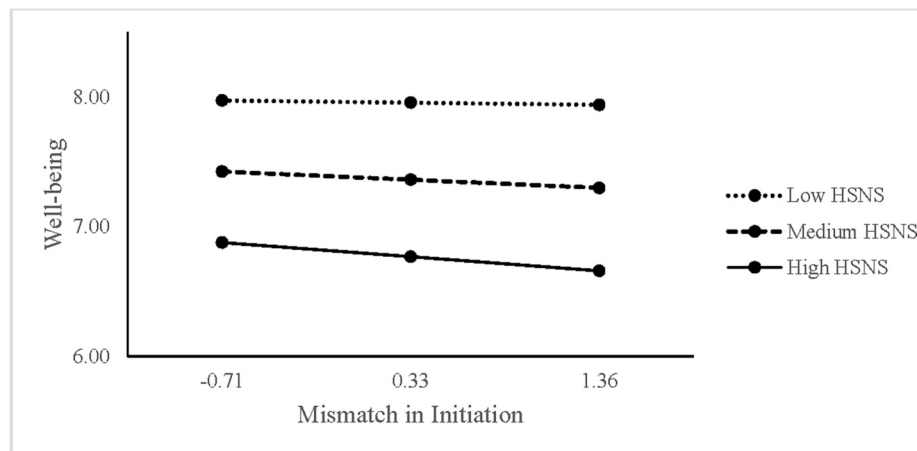


Fig. 2. Association between mismatch in relationship initiation and well-being, with vulnerable narcissism as moderator. Note. HSNS = Hypersensitive Narcissism Scale.

#### 4. Discussion

The current study examined how narcissistic traits shape daily self-regulation in social media environments, focusing on both grandiose and vulnerable narcissism. We used daily diary data and investigated the association between these traits and specific characteristics of SNS posts (i.e., self-presentation, honesty, valence), subsequent social outcomes, as well as subjective well-being, taking the perspective of the poster.

##### 4.1. Narcissists' posting tendencies

As predicted, individuals higher in narcissistic admiration engaged in greater self-presentation and posted content with more positive valence. This is consistent with previous research indicating positive associations between narcissism and making self-promoting and attractiveness-inducing SNS posts (Buffardi & Campbell, 2008; Gnambs & Appel, 2018; Vanhoffelen et al., 2025), as well as with broader theoretical accounts characterising narcissism by a strong motivation for self-promotion and self-enhancement (Campbell et al., 2006). Together, these findings suggest that individuals high in admiring narcissism strategically curate positive self-presentations on social media as part of their ongoing self-regulatory efforts.

However, contrary to our expectations, vulnerable narcissism was not significantly associated with self-presentation, while narcissistic rivalry was negatively associated with this SNS behaviour. On one hand, this finding appears inconsistent with previous literature, which characterises narcissists as experiencing feelings of superiority (Miller et al., 2021; Sedikides, 2021) that they may seek to present to others, and findings suggesting that both grandiose and vulnerable forms of narcissism are associated with online self-presentation (Brailovskaia & Bierhoff, 2016). On the other hand, literature describes people high in narcissistic vulnerability and rivalry as primarily adopting self-defence strategies that protect their self-esteem, rather than actively approaching opportunities to self-promote (Sedikides, 2021), and vulnerable narcissism has not been consistently associated with more general forms of SNS use, such as frequency of posting and time spent on SNS (McCain & Campbell, 2018). From this perspective, reduced or absent self-presentation among individuals high in vulnerable and rivalrous narcissism may reflect avoidance of evaluative exposure, although further research is needed into their self-regulatory motivations.

With respect to other post characteristics, both narcissistic rivalry and vulnerable narcissism were associated with posting content of lower positivity, consistent with our predictions. While we did not set out to perform content analysis on posts provided by participants, these findings may reflect interpersonal tendencies associated with both rivalrous and vulnerable narcissism, such as derogation of others or antagonistic

tendencies (Sedikides, 2021). Alternatively, particularly for vulnerable narcissism, lower post positivity may also be linked to broader affective patterns, as individuals high in vulnerable narcissism tend to report lower life satisfaction and elevated negative affect (Sheldon & Bryant, 2016), which may be expressed in everyday posting behaviour.

Finally, neither of the narcissistic traits were significantly associated with post negativity and post honesty. In the case of negativity, the findings are partly surprising given prior work highlighting antagonistic and derogative tendencies associated with narcissistic rivalry and vulnerability. However, the pattern is consistent with the well-documented social media positivity bias, which emphasises the predominance of positive content on SNS (Bazarova, 2012). Indeed, most participants described their daily posts as 'not negative at all', resulting in limited variability in post negativity and potentially constraining detectable associations. Regarding honesty, we expected grandiose narcissism to be associated with less honest posting, given inflated self-concepts and self-promotional tendencies among individuals high in this narcissistic trait (Campbell et al., 2006). Nevertheless, the absence of this association may reflect the challenges of operationalising honesty in everyday SNS behaviour. Importantly, examining perceived honesty represents a valuable extension of the existing SNS literature, as this dimension of posting behaviour has received little empirical attention to date.

##### 4.2. Narcissists' perceptions of SNS interpersonal outcomes

As expected, narcissistic admiration was associated with greater perceived relationship initiation benefits, consistent with findings showing that people high in narcissism make good first impressions (Campbell & Foster, 2011). Extending previous research, we further found that narcissistic admiration was positively associated with social benefits indicative of later acquaintance stages, closeness and relationship maintenance. One possible explanation is that admiring narcissism is generally associated with adaptive traits, such as assertiveness and leadership skills (Leckelt et al., 2020; Miller et al., 2021), which are positively evaluated in social environments and may facilitate ongoing social engagement.

Notably, self-presentation did not mediate the association between narcissistic admiration and positive social outcomes, suggesting that for those high in admiring narcissism, perceived social success may not be contingent on their observable posting behaviour. This is somewhat contrary to previous research showing that self-enhancement behaviours are associated with gaining social interest and status among people high in narcissistic admiration (Back et al., 2013). Nevertheless, it is possible that the self-confidence of individuals high in admiring narcissism and their expectations of interpersonal success (Leckelt et al.,

2020; Miller et al., 2021) are sufficient for them to believe they are socially successful on social media, irrespective of their actual posting strategies. From this perspective, social benefits perceived by individuals high in admiring narcissism may be driven more by interpretive or expectancy-based processes than by behavioural self-presentation per se.

With regards to other narcissistic traits, as previous research suggests (e.g., Back et al., 2013; Campbell & Foster, 2011; Leckelt et al., 2020; Miller et al., 2021), both narcissistic rivalry and vulnerable narcissism were negatively associated with interpersonal outcomes pertaining to later relational stages, relationship maintenance and closeness. Moreover, individuals high in narcissistic rivalry also reported lower relationship initiation benefits; it could be that, on social media, through ease of expressing personal opinions and self-presenting in status updates (Buffardi & Campbell, 2008; Gnambs & Appel, 2018), negative narcissistic traits such as hostility or antagonistic behaviour (Back et al., 2013; Leckelt et al., 2020) are immediately apparent, making individuals not wanting to engage with the poster. Finally, as predicted, individuals high in vulnerable narcissism reported expecting more attention, validation, and popularity than they received. These findings are in accordance with the idea that individuals high in vulnerable narcissism are often dissatisfied with social response and worried about being rejected or less appreciated than they deserve (Grieve et al., 2020; Hendin & Cheek, 1997).

Contrary to our expectations, neither negative valence nor self-presentation mediated the association between vulnerable or rivalrous narcissism and perceived social outcomes. This may indicate that, in the present study, perceived social outcomes were not contingent on specific posting behaviours for these forms of narcissism. Instead, individuals high in vulnerable and rivalrous narcissism may be more likely to report poorer interpersonal outcomes, potentially reflecting trait-related self-regulatory mechanisms, such as social insecurity and heightened sensitivity to perceived rejection among those high in vulnerable narcissism (Hendin & Cheek, 1997; Miller et al., 2021), and hostility or derogation of others for those high in rivalrous narcissism (Back et al., 2013). Taken together, these findings suggest that the associations between vulnerable and rivalrous narcissism and perceived social outcomes may not be primarily explained by social media behaviours assessed in the present study, although the underlying mechanisms remain to be established. By examining admiring, rivalrous, and vulnerable narcissism simultaneously, the present study highlights distinct patterns across narcissism dimensions that would not be observable when treating narcissism as a unitary construct.

#### 4.3. Subjective well-being of vulnerable narcissists

Surprisingly, we did not observe main effects of any of the social outcomes on subjective well-being. This contrasts with findings by Șurariu et al. (2026), who reported that receiving lower-than-expected levels of relationship initiation, maintenance, closeness, attention, popularity, and validation outcomes was associated with poorer well-being. The present findings suggest that these associations may depend on individual differences, such as vulnerability to social evaluation and interpretative styles, rather than uniform effects of unmet social expectations. Indeed, vulnerable narcissism remained significantly and negatively associated with subjective well-being across all analyses, in line with broader literature (Sedikides et al., 2026). Furthermore, for individuals with medium or high levels of vulnerable narcissism, unmet relationship initiation expectations were associated with lower subjective well-being. This pattern may stem from the extent to which individuals high in narcissistic vulnerability are sensitive to difficulties in forming new social connections. Vulnerable narcissism did not moderate the association between any of the other social outcomes and subjective well-being. Although vulnerable narcissism was not significantly associated with self-presentation in the present study, previous research links both grandiose and vulnerable narcissism to

problematic SNS use (Casale & Banchi, 2020). Future research may consider investigating other SNS-related behaviours associated with vulnerable narcissism, and their implications for well-being. Notably, the present findings contribute to the limited literature on vulnerable narcissism by demonstrating a consistent negative association with subjective well-being, as well as heightened sensitivity to unmet relationship initiation expectations in social media contexts.

#### 4.4. Practical and theoretical implications

The present study emphasises the role of narcissism as a self-regulatory system, with social media acting as an environment in which its mechanisms are enacted on a daily basis. Social media provides a high-frequency feedback environment (Gnambs & Appel, 2018) in which individuals high in narcissism can pursue self-enhancement and status-related goals (Zeigler-Hill et al., 2018). Accordingly, the applicability of the agency model of narcissism to SNS contexts is evident, as these platforms offer repeated opportunities for admiration that can reinforce inflated self-views (McCain & Campbell, 2018). In line with systematic biases made by individuals high in narcissism when interpreting social feedback (Morf & Rhodewalt, 2001), our findings suggest that perceived social success may not be solely contingent on actual behaviour, but may also be shaped by expectations, interpretations, and sensitivity to social feedback (e.g., expectations of being admired for narcissistic admiration, expectations of and sensitivity towards being rejected for narcissistic vulnerability; Kroenke et al., 2023; Miller et al., 2021). These findings highlight the importance of subjective appraisals in understanding the online social experiences of individuals high and low in narcissism.

From a broader theoretical perspective, while Uses and Gratifications theory recognises the role of personality in shaping online motivations, it may be less well-equipped to explain how individuals experience online social gratifications. The U&G theory states that gratifications emerge from goal-driven, specific social media behaviours (Rubin, 2002), however, in the present study, narcissistic traits predicted daily interpersonal outcomes independent of self-presentation or other posting behaviours. Taken together, these findings advance understanding of narcissism in naturalistic, everyday social media contexts, and underscore the value of integrating media-use frameworks with personality and self-regulation perspectives to more fully capture individual differences in online social experiences.

Our findings also have practical implications for both designers and users of SNS. Platform stakeholders often rely on behavioural analytics, such as frequency of posting, engaging with others' posts, or time spent on the platform, to determine user activity and provide users with prompts; however, as previous authors suggested, these are not sufficient for predicting individual well-being (High et al., 2023; Valkenburg, 2022). Additionally, while recognising negative social media tendencies, such as privacy abuse, cyberbullying, and addictive platform use (Baccarella et al., 2018), previous literature claims that mass-media sources go beyond current scientific evidence when making inferences about potential negative consequence of SNS use (High et al., 2023).

Given social media's capacity to change interaction and communication habits over time (Rubin, 2002) and to provide socially and psychologically rewarding experiences (Nash et al., 2019), SNS stakeholders could allow users more control over personalising their online presence. This may help maximise social and psychological benefits and encourage continued platform use, given that users are more likely to commit to platforms they perceive as supportive (Lin et al., 2021). Furthermore, because perceived social feedback may matter more than actual behaviour, particularly for individuals high in narcissistic traits, platforms could consider ways to help users interpret feedback constructively. As individuals with better online skills report increased benefits from using the internet for social interactions (Li et al., 2022), we emphasise the need to promote digital literacy as part of the attempt to improve user well-being.

#### 4.5. Strengths, limitations, future directions

The current study makes a novel contribution by examining associations between multiple facets of narcissism and within-person variations in social media behaviours and perceived social outcomes, while also testing narcissism as a moderator of the relationship between unmet interpersonal expectations and daily subjective well-being. By including both grandiose (admiration and rivalry) and vulnerable narcissism within the same framework, the study highlights distinct patterns across narcissism dimensions, extending understanding of narcissistic self-regulatory processes operating in daily interpersonal interactions, and contributing to the comparatively limited literature on vulnerable narcissism. In particular, the findings provide insight into how vulnerable narcissism relates to subjective well-being and sensitivity to unmet social expectations in everyday social media use. We investigated perceived interpersonal consequences of social media activity, extending previous research primarily focused on the association between narcissism and SNS behaviours rather than received responses (Choi et al., 2015). We took the perspective of the individuals posting, considering their activity on their chosen SNS; by asking participants to copy their real-life posts into the survey, we hope to have lowered desirable responding and increased accountability. Finally, the daily diary design of the study reduces retrospective bias and increases reliability of the findings (Bolger et al., 2003).

The study also has several limitations. While our sample size was similar to other research on similar topics (e.g., Manuoğlu & Uysal, 2020; Wenninger et al., 2019), it is still possible that our mediation and moderation analyses may have been under-powered. Additionally, we collected data from a Western country (the UK), which may limit the generalisability of the findings across populations of different cultural and/or socio-economic backgrounds (Henrich et al., 2010), while the use of a convenience sample of active social media users may also limit generalisability to broader populations. Another limitation relates to our manner of measuring posting behaviours, as we have used single items to measure self-presentation and other post features, which may lack detail. For example, the responses for post honesty and negativity were of limited variability, with the most common responses being “completely honest” and “not at all negative” respectively, an issue which we attempted to overcome by controlling for desirable responding. Additionally, while we asked participants to provide their posts to increase accountability towards study participation, we relied on self-reported evaluations of posts self-presentation, valence, and honesty, rather than coding of posts; this may have introduced unwanted biases. Finally, an important limitation pertains to the high correlations identified between both the received and expected social outcomes. This could indicate the existence of perceptual overlap between constructs that we considered theoretically distinct, with participants thinking of their posts as overall favourable or harmful to their interactions and relationships. Future research may further investigate whether separate social consequences become more meaningful under certain conditions and provide more depth as to why theoretically distinct interpersonal outcomes merge in individuals' perceptions.

Other suggestions for future studies include countering biases of self-report data by combining surveys with behavioural data from social media as quantified by independent observers. Furthermore, bringing together the perspectives of both posters and audiences could provide great value to social media research, traditionally focused on either the person posting or the impressions of their online networks. While we have considered people high in narcissism as individuals following predominantly status-related interpersonal goals (Morf & Rhodewalt, 2001; Zeigler-Hill et al., 2018), we propose that researchers also examine the role of individual traits of relevance to pursuing affiliation goals, such as attachment style.

## 5. Conclusion

The present study examined the associations between narcissistic traits (i.e., admiring, rivalrous, and vulnerable narcissism), specific social media posting behaviours (i.e., post self-presentation, valence, and honesty), and subsequent social and subjective well-being outcomes. Using a longitudinal diary design, we focused on participants' real social media posts on their preferred platform, and the social benefits they perceived following these posts. We extended previous literature, predominantly focused on grandiose narcissism, by investigating the relationship between the unmet social expectations of individuals high in vulnerable narcissism and their subjective well-being. Narcissistic admiration was positively associated with social media self-presentation and positivity. Narcissistic rivalry was negatively associated with both self-presentation and positivity, while narcissistic vulnerability was negatively associated with positivity and not significantly associated with self-presentation. Narcissistic traits' associations with post honesty and negativity were not significant. Regarding social consequences of posts, admiring narcissism was positively associated with all examined social outcomes; self-presentation did not mediate any of the associations. Rivalrous narcissism was negatively associated with relationship enhancement benefits (i.e., initiation, maintenance, closeness); we obtained similar results for vulnerable narcissism, in addition to high levels of this narcissistic trait being associated with unmet social expectations. No mediators emerged as significant for the relationships between vulnerable and rivalrous narcissism respectively, and social outcomes. Finally, vulnerable narcissism was consistently associated with lower subjective well-being and only moderated the negative association between unmet relationship initiation expectations and well-being. By considering the role of unmet social expectations for the well-being of those high in vulnerable narcissism, this study contributes to understanding narcissism as a self-regulatory system in naturalistic social contexts. Additionally, by examining several theoretically distinct interpersonal outcomes as perceived by individuals high or low in narcissism, the study demonstrates how narcissistic self-regulation unfolds in everyday online interactions.

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### CRedit authorship contribution statement

**Carmen Şurariu:** Writing – review & editing, Writing – original draft, Validation, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Katherine B. Carnelley:** Writing – review & editing, Writing – original draft, Validation, Supervision, Resources, Project administration, Methodology, Formal analysis, Conceptualization. **Claire M. Hart:** Writing – review & editing, Writing – original draft, Supervision, Resources, Project administration, Methodology, Formal analysis, Conceptualization.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jrp.2026.104727>.

## Data availability

The research data for this study are available on the Open Science Framework (<https://osf.io/qfa5u/overview/>).

## References

- Baccarella, C. V., Wagner, T. F., Kietzmann, J. H., & McCarthy, I. P. (2018). Social media? It's serious! Understanding the dark side of social media. *European Management Journal*, 36(4), 431–438. <https://doi.org/10.1016/j.emj.2018.07.002>
- Back, M. D., Küfner, A. C., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. (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>
- Bareket-Bojmel, L., Moran, S., & Shahar, G. (2016). Strategic self-presentation on Facebook: Personal motives and audience response to online behavior. *Computers in Human Behavior*, 55, 788–795. <https://doi.org/10.1016/j.chb.2015.10.033>
- Bazarova, N. N. (2012). Public intimacy: Disclosure interpretation and social judgments on Facebook. *Journal of Communication*, 62(5), 815–832. <https://doi.org/10.1111/j.1460-2466.2012.01664.x>
- Berger, J., & Barasch, A. (2018). A candid advantage? The social benefits of candid photos. *Social Psychological and Personality Science*, 9(8), 1010–1016. <https://doi.org/10.1177/1948550617732390>
- Bij de Vaate, N. A. J. D., Veldhuis, J., Alleva, J. M., Konijn, E. A., & van Hugten, C. H. M. (2018). Show your best self(ie): An exploratory study on selfie-related motivations and behavior in emerging adulthood. *Telematics and Informatics*, 35(5), 1392–1407. <https://doi.org/10.1016/j.tele.2018.03.010>
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, 54(1), 579–616. <https://doi.org/10.1146/annurev.psych.54.101601.145030>
- Börsting, J., & Trepte, S. (2025). Longitudinal dynamics of self-presentation in face-to-face and messenger-based communication. *Psychology of Popular Media*, 14(3), 411–421. <https://doi.org/10.1037/ppm0000568>
- Brailovskaia, J., & Bierhoff, H. W. (2016). Cross-cultural narcissism on Facebook: Relationship between self-presentation, social interaction and the open and covert narcissism on a social networking site in Germany and Russia. *Computers in Human Behavior*, 55, 251–257. <https://doi.org/10.1016/j.chb.2015.09.018>
- Buffardi, L. E., & Campbell, W. K. (2008). Narcissism and social networking web sites. *Personality and Social Psychology Bulletin*, 34(10), 1303–1314. <https://doi.org/10.1177/0146167208320061>
- Campbell, W. K., Brunell, A. B., & Finkel, E. J. (2006). Narcissism, interpersonal self-regulation, and romantic relationships: An agency model approach. In K. D. Vohs, & E. J. Finkel (Eds.), *Self and relationships: Connecting intrapersonal and interpersonal processes* (pp. 57–83). The Guilford Press.
- Campbell, W. K., & Foster, J. D. (2011). The narcissistic self: Background, an extended agency model, and ongoing controversies. In C. Sedikides, & S. J. Spencer (Eds.), *The self* (pp. 115–138). Psychology Press.
- Carpenter, C. J. (2012). Narcissism on Facebook: Self-promotional and anti-social behavior. *Personality and Individual Differences*, 52(4), 482–486. <https://doi.org/10.1016/j.paid.2011.11.011>
- Cary, K. M., Maas, M. K., Greer, K. M., & Meshi, D. (2024). Observed Instagram use and satisfaction with life: Associations with received communications and exploration of others' content after posting a selfie. *PLoS One*, 19(3), Article e0297392. <https://doi.org/10.1371/journal.pone.0297392>
- Casale, S., & Banchi, V. (2020). Narcissism and problematic social media use: A systematic literature review. *Addictive Behaviors Reports*, 11, Article 100252. <https://doi.org/10.1016/j.abrep.2020.100252>
- Choi, M., Panek, E. T., Nardis, Y., & Toma, C. L. (2015). When social media isn't social: Friends' responsiveness to narcissists on Facebook. *Personality and Individual Differences*, 77(1), 209–214. <https://doi.org/10.1016/j.paid.2014.12.056>
- Diener, E., Oishi, S., & Tay, L. (2018). Advances in subjective well-being research. *Nature Human Behaviour*, 2(4), 253–260. <https://doi.org/10.1038/s41562-018-0307-6>
- Dumas, T. M., Maxwell-Smith, M., Davis, J. P., & Giulietti, P. A. (2017). Lying or longing for likes? Narcissism, peer belonging, loneliness and normative versus deceptive like-seeking on Instagram in emerging adulthood. *Computers in Human Behavior*, 71, 1–10. <https://doi.org/10.1016/j.chb.2017.01.037>
- Geary, C., March, E., & Grieve, R. (2021). Insta-identity: Dark personality traits as predictors of authentic self-presentation on Instagram. *Telematics and Informatics*, 63, Article 101669. <https://doi.org/10.1016/j.tele.2021.101669>
- Gnambs, T., & Appel, M. (2018). Narcissism and social networking behavior: A meta-analysis. *Journal of Personality*, 86(2), 200–212. <https://doi.org/10.1111/jopy.12305>
- Goffman, E. (1959). *The presentation of self in everyday life*. Doubleday.
- Grieve, R., March, E., & Watkinson, J. (2020). Inauthentic self-presentation on Facebook as a function of vulnerable narcissism and lower self-esteem. *Computers in Human Behavior*, 102, 144–150. <https://doi.org/10.1016/j.chb.2019.08.020>
- Hart, C. M., Ritchie, T. D., Hepper, E. G., & Gebauer, J. E. (2015). The balanced inventory of desirable responding short form (BIDR-16). *SAGE Open*, 5(4), 1–9. <https://doi.org/10.1177/2158244015621>
- Hendin, H. M., & Cheek, J. M. (1997). Assessing hypersensitive narcissism: A re-examination of Murray's narcissism scale. *Journal of Research in Personality*, 31(4), 588–599. <https://doi.org/10.1006/jrpe.1997.2204>
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences*, 33(2–3), 61–83. <https://doi.org/10.1017/S0140525X0999152X>
- High, A. C., Ruppel, E. K., McEwan, B., & Caughlin, J. P. (2023). Computer-mediated communication and well-being in the age of social media: A systematic review. *Journal of Social and Personal Relationships*, 40(2), 420–458. <https://doi.org/10.1177/02654075221106449>
- Hollenbaugh, E. E., & Ferris, A. L. (2014). Facebook self-disclosure: Examining the role of traits, social cohesion, and motives. *Computers in Human Behavior*, 30, 50–58. <https://doi.org/10.1016/j.chb.2013.07.055>
- Huang, L. V., & Liu, S. (2020). Presenting an ideal self on weibo: The effects of narcissism and self-presentation valence on uses and gratifications. *Frontiers in Psychology*, 11, 1310. <https://doi.org/10.3389/fpsyg.2020.01310>
- Karsay, K., Matthes, J., Schmuck, D., & Ecklebe, S. (2023). Messaging, posting, and browsing: A mobile experience sampling study investigating youth's social media use, affective well-being, and loneliness. *Social Science Computer Review*, 41(4), 1493–1513. <https://doi.org/10.1177/08944393211058308>
- Kauten, R. L., Lui, J. H., Stary, A. K., & Barry, C. T. (2015). "Purging my friends list. Good luck making the cut": Perceptions of narcissism on Facebook. *Computers in Human Behavior*, 51, 244–254. <https://doi.org/10.1016/j.chb.2015.05.010>
- Kim, E., Lee, J. A., Sung, Y., & Choi, S. M. (2016). Predicting selfie-posting behavior on social networking sites: An extension of theory of planned behavior. *Computers in Human Behavior*, 62, 116–123. <https://doi.org/10.1016/j.chb.2016.03.078>
- Kim, J., & Dindia, K. (2011). Online self-disclosure: A review of research. In K. B. Wright, & L. M. Webb (Eds.), *Computer-Mediated Communication in Personal Relationships* (pp. 156–180). Peter Lang Publishing.
- Krasnova, H., Spiekermann, S., Koroleva, K., & Hildebrand, T. (2010). Online social networks: Why we disclose. *Journal of Information Technology*, 25(2), 109–125. <https://doi.org/10.1057/jit.2010.6>
- Kroencke, L., Kuper, N., Mota, S., Geukes, K., Zeigler-Hill, V., & Back, M. D. (2023). Narcissistic status pursuit in everyday social life: A within-person process approach to the behavioral and emotional dynamics of narcissism. *Journal of Personality and Social Psychology*, 125(6), 1519–1541. <https://doi.org/10.1037/pspp0000467>
- Kross, E., Verduyn, P., Sheppes, G., Costello, C. K., Jonides, J., & Ybarra, O. (2021). Social media and well-being: Pitfalls, progress, and next steps. *Trends in Cognitive Sciences*, 25(1), 55–66. <https://doi.org/10.1016/j.tics.2020.10.005>
- Leckelt, M., Geukes, K., Küfner, A. C. P., Niemyer, L. M., Hutteman, R., Osterholz, S., Egloff, B., Nestler, S., & Back, M. D. (2020). A longitudinal field investigation of narcissism and popularity over time: How agentic and antagonistic aspects of narcissism shape the development of peer relationships. *Personality and Social Psychology Bulletin*, 46(4), 643–659. <https://doi.org/10.1177/0146167219872477>
- Lee, D. K. L., & Borah, P. (2020). Self-presentation on Instagram and friendship development among young adults: A moderated mediation model of media richness, perceived functionality, and openness. *Computers in Human Behavior*, 103, 57–66. <https://doi.org/10.1016/j.chb.2019.09.017>
- Lee, H. Y., Jamieson, J. P., Reis, H. T., Beevers, C. G., Josephs, R. A., Mullarkey, M. C., O'Brien, J. M., & Yeager, D. S. (2020). Getting fewer "likes" than others on social media elicits emotional distress among victimized adolescents. *Child Development*, 91(6), 2141–2159. <https://doi.org/10.1111/cdev.13422>
- Lee, J. A., & Sung, Y. (2016). Hide-and-seek: Narcissism and "selfie"-related behavior. *Cyberpsychology, Behavior, and Social Networking*, 19(5), 347–351. <https://doi.org/10.1089/cyber.2015.0486>
- Li, C., Ning, G., Xia, Y., Guo, K., & Liu, Q. (2022). Does the internet bring people closer together or further apart? The impact of internet usage on interpersonal communications. *Behavioral Sciences*, 12(11), 425. <https://doi.org/10.3390/bs12110425>
- Li, L. M. W., Chen, Q., Gao, H., Li, W. Q., & Ito, K. (2021). Online/offline self-disclosure to offline friends and relational outcomes in a diary study: The moderating role of self-esteem and relational closeness. *International Journal of Psychology*, 56(1), 129–137. <https://doi.org/10.1002/ijop.12684>
- Lin, C. Y., Chou, E. Y., & Huang, H. C. (2021). They support, so we talk: The effects of other users on self-disclosure on social networking sites. *Information Technology and People*, 34(3), 1039–1064. <https://doi.org/10.1108/ITP-10-2018-0463>
- Maclean, J., Al-Saggaf, Y., & Hogg, R. (2020). Instagram photo sharing and its relationships with social rewards and well-being. *Human Behavior and Emerging Technologies*, 2(3), 242–250. <https://doi.org/10.1002/hbe2.207>
- Malik, A., Dhir, A., & Nieminen, M. (2016). Uses and gratifications of digital photo sharing on Facebook. *Telematics and Informatics*, 33(1), 129–138. <https://doi.org/10.1016/j.tele.2015.06.009>
- Manuoglu, E., & Uysal, A. (2020). Motivation for different Facebook activities and well-being: A daily experience sampling study. *Psychology of Popular Media*, 9(4), 456–464. <https://doi.org/10.1037/ppm0000262>
- Marshall, T. C., Lefringhausen, K., & Ferenczi, N. (2015). The Big Five, self-esteem, and narcissism as predictors of the topics people write about in Facebook status updates. *Personality and Individual Differences*, 85, 35–40. <https://doi.org/10.1016/j.paid.2015.04.039>
- McCain, J. L., & Campbell, W. K. (2018). Narcissism and social media use: A meta-analytic review. *Psychology of Popular Media Culture*, 7(3), 308–327. <https://doi.org/10.1037/ppm0000137>
- Menon, D. (2022). Updating 'Stories' on social media and its relationships to contextual age and narcissism: A tale of three platforms-WhatsApp, Instagram and Facebook. *Heliyon*, 8(5), Article e09412. <https://doi.org/10.1016/j.heliyon.2022.e09412>
- Miller, J. D., Back, M. D., Lynam, D. R., & Wright, A. G. C. (2021). Narcissism today: What we know and what we need to learn. *Current Directions in Psychological Science*, 30(6), 519–525. <https://doi.org/10.1177/09637214211044109>

- Moon, J. H., Lee, E., Lee, J. A., Choi, T. R., & Sung, Y. (2016). The role of narcissism in self-promotion on Instagram. *Personality and Individual Differences, 101*, 22–25. <https://doi.org/10.1016/j.paid.2016.05.042>
- 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](https://doi.org/10.1207/S15327965PLI1204_1)
- Nash, K., Johansson, A., & Yogeewaran, K. (2019). Social media approval reduces emotional arousal for people high in narcissism: Electrophysiological evidence. *Frontiers in Human Neuroscience, 13*, 292. <https://doi.org/10.3389/fnhum.2019.00292>
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17–59). Academic Press. <https://doi.org/10.1016/B978-0-12-590241-0.50006-X>
- Qin, Y., Cho, H., Yang, D., & Li, P. (2025). Emotional expressions and first impression formation in social media profiles. *Media Psychology, 28*(4), 548–572. <https://doi.org/10.1080/15213269.2024.2405679>
- Rockwood, N. J. (2017). *Advancing the formulation and testing of multilevel mediation and moderated mediation models [Master's thesis]*. The Ohio State University]. OhioLINK.
- Rosenthal-Stott, H. E., Dicks, R. E., & Fielding, L. S. (2015). The valence of self-generated (status updates) and other-generated (wall-posts) information determines impression formation on Facebook. *PLoS One, 10*(6), Article e0125064. <https://doi.org/10.1371/journal.pone.0125064>
- Rubin, A. M. (2002). The uses-and-gratifications perspective of media effects. In J. Bryant, & D. Zillman (Eds.), *Media effects: Advances in theory and research* (2nd ed., pp. 525–548). Lawrence Erlbaum Associates Publishers.
- Saha, K., Yoo, D. W., Das Swain, V., & De Choudhury, M. (2025). Mental wellbeing effects of disclosing life events on social media. *Scientific Reports, 15*(1), 23519. <https://doi.org/10.1038/s41598-025-07295-w>
- Scott, G. G., Boyle, E. A., Czerniawska, K., & Courtney, A. (2018). Posting photos on Facebook: The impact of narcissism, social anxiety, loneliness, and shyness. *Personality and Individual Differences, 133*, 67–72. <https://doi.org/10.1016/j.paid.2016.12.039>
- Sedikides, C. (2021). In search of narcissus. *Trends in Cognitive Sciences, 25*(1), 67–80. <https://doi.org/10.1016/j.tics.2020.10.010>
- Sedikides, C., Tang, Y., Liu, Y., de Boer, E., Assink, M., Thomaes, S., & Brummelman, E. (2026). Narcissism and wellbeing: A cross-cultural meta-analysis. *Personality and Social Psychology Bulletin, 52*(5), 1222–1238. <https://doi.org/10.1177/01461672241307531>
- Sheldon, P., & Bryant, K. (2016). Instagram: Motives for its use and relationship to narcissism and contextual age. *Computers in Human Behavior, 58*, 89–97. <https://doi.org/10.1016/j.chb.2015.12.059>
- Su, R., Tay, L., & Diener, E. (2014). The development and validation of the Comprehensive Inventory of Thriving (CIT) and the Brief Inventory of Thriving (BIT). *Applied Psychology: Health and Well-Being, 6*(3), 251–279. <https://doi.org/10.1111/aphw.12027>
- Sullivan, J. H., Warkentin, M., & Wallace, L. (2021). So many ways for assessing outliers: What really works and does it matter? *Journal of Business Research, 132*, 530–543. <https://doi.org/10.1016/j.jbusres.2021.03.066>
- Șurariu, C., Carnelley, K. B., & Hart, C. M. (2025). The social benefits of self-disclosure and self-presentation through social media: A systematic review. *Behaviour and Information Technology, 1–45*. <https://doi.org/10.1080/0144929X.2025.2590096>
- Șurariu, C., Carnelley, K. B., & Hart, C. M. (2026). *Share, shine, and feel fine? A daily diary study of social media self-disclosure, self-presentation, social outcomes, and subjective well-being*. Manuscript submitted for publication.
- Tian, L., Zhai, R., Dai, P., & Cui, J. (2023). How different online self-presentations relate to life satisfaction differently in college students: The role of positive online feedback and self-esteem. *Current Psychology, 42*(29), 25460–25475. <https://doi.org/10.1007/s12144-022-03444-w>
- Utz, S. (2015). The function of self-disclosure on social network sites: Not only intimate, but also positive and entertaining self-disclosures increase the feeling of connection. *Computers in Human Behavior, 45*, 1–10. <https://doi.org/10.1016/j.chb.2014.11.076>
- Utz, S., Tanis, M. A., & Vermeulen, I. E. (2012). It is all about being popular: The effects of need for popularity on social network site use. *Cyberpsychology, Behavior, and Social Networking, 15*(1), 37–42. <https://doi.org/10.1089/cyber.2010.0651>
- Uziel, L. (2010). Rethinking social desirability scales: From impression management to interpersonally oriented self-control. *Perspectives on Psychological Science, 5*(3), 243–262. <https://doi.org/10.1177/1745691610369465>
- Valkenburg, P. M. (2022). Social media use and well-being: What we know and what we need to know. *Current Opinion in Psychology, 45*, Article 101294. <https://doi.org/10.1016/j.copsy.2021.12.006>
- Vanhoffelen, G., Schreurs, L., & Vandenbosch, L. (2025). Me, my self-presentations and I: Within-person associations between narcissism, social media use and peer attachment. *Media Psychology, 28*(3), 309–336. <https://doi.org/10.1080/15213269.2024.2366925>
- Wehner, C., & Ziegler, M. (2023). Narcissism and friendship quality: A longitudinal approach to long-term friendships. *Journal of Social and Personal Relationships, 40*(2), 670–692. <https://doi.org/10.1177/02654075221122023>
- Weninger, H., Krasnova, H., & Buxmann, P. (2019). Understanding the role of social networking sites in the subjective well-being of users: A diary study. *European Journal of Information Systems, 28*(2), 126–148. <https://doi.org/10.1080/0960085X.2018.1496883>
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). SAGE Publications.
- Winter, S., Neubaum, G., Eimler, S. C., Gordon, V., Theil, J., Herrmann, J., Meinert, J., & Krämer, N. C. (2014). Another brick in the Facebook wall—How personality traits relate to the content of status updates. *Computers in Human Behavior, 34*, 194–202. <https://doi.org/10.1016/j.chb.2014.01.048>
- Ye, S., & Ho, K. K. W. (2025). University students' subjective well-being in Japan between 2021 and 2023: Its relationship with social media use. *Future Internet, 17*(3), 126. <https://doi.org/10.3390/fi17030126>
- Young, A. L., & Quan-Haase, A. (2009). In June. *Information revelation and internet privacy concerns on social network sites: A case study of Facebook* (pp. 265–274). Association for Computing Machinery. <https://doi.org/10.1145/1556460.1556499>
- Zeigler-Hill, V., McCabe, G. A., Vrabell, J. K., Raby, C. M., & Cronin, S. (2018). The narcissistic pursuit of status. In A. Hermann, A. Brunell, & J. Foster (Eds.), *Handbook of trait narcissism: Key advances, research methods, and controversies* (pp. 299–306). Springer. [https://doi.org/10.1007/978-3-319-92171-6\\_32](https://doi.org/10.1007/978-3-319-92171-6_32)
- Zell, A. L., & Moeller, L. (2017). Narcissism and “likes”: Entitlement/Exploitativeness predicts both desire for and dissatisfaction with responses on Facebook. *Personality and Individual Differences, 110*, 70–73. <https://doi.org/10.1016/j.paid.2017.01.029>