



# I am a great open book: Narcissistic individuals feel transparent toward others<sup>☆</sup>

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## ABSTRACT

Narcissists over-estimate their ability to read social cues, misunderstand how others perceive them, and lack perspective-taking abilities. Thus, people high on narcissism might feel more transparent toward others (i.e., felt transparency) than people low on narcissism. But is this the case? We performed a pre-registered mixed-design online study ( $n = 334$ ) to test whether narcissism is positively or negatively linked to feelings of transparency and to explore whether this link depends on situational factors. Our results show that the more people score high in narcissism, the more they feel transparent toward other(s). Situational factors (referent, dimension, and valence) do not moderate the narcissism-transparency link, except for valence and narcissism rivalry. We discuss potential theoretical contributions to the literature on narcissism, transparency and metaperception.

## 1. Introduction

The extent to which someone feels transparent to others impacts interpersonal relations (Cameron & Vorauer, 2008; Carlson, 2016; Elfenbein et al., 2009; Goffman, 1959). Being able to correctly infer what others perceive of oneself is an important ability that relies on self-awareness (Taylor, 2010; Taylor & Bright, 2011). Estimating how we come across requires individuals to consider external cues (e.g., others' impressions) instead of relying on internal cues (Albright et al., 2001; Albright & Malloy, 1999).

This capacity might be challenging for narcissists because they often misunderstand how they are perceived by others (Morf & Rhodewalt, 2001). Narcissism is usually associated with egocentrism (Wink, 1991), self-absorption (Emmons, 1987), and poor perspective-taking (Watson et al., 1984). Accordingly, one might think that narcissists feel transparent toward others, namely they expect others to easily read their internal states (Gilovich et al., 1998). But is this truly the case? Do narcissists feel more or less transparent toward others?

Answering these questions will advance our understanding of how narcissists form expectations about their social environment and our

understanding of egocentric processes involved in metaperception. This is important because the egocentric aspect of narcissism might lead people to rely too heavily on internal cues when construing their metaperception (Kenny & DePaulo, 1993).

The present research provides empirical insights into narcissists' metaperception by testing the association between narcissism and felt transparency (FT) in a high-powered pre-registered experiment.<sup>1</sup> Additionally, we took into account key variables to more validly assess this link: First, we distinguish the effects of the different facets of narcissism on FT. Second, we include covariates commonly associated with narcissism. Third, we explore the effect of situational factors on the narcissism-transparency link by introducing potential moderators.

### 1.1. Narcissism

Narcissism is considered both as a clinical disorder and as a personality dimension normally distributed in the population (which is the focus here) (e.g., Emmons, 1987; Raskin & Terry, 1988). On the intra-personal level, narcissism is characterized by a search for a grandiose self, a high sense of entitlement, and uniqueness (APA, 2013). On the

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<sup>1</sup> The OSF pre-registration includes our theoretical background, hypotheses, the study design, and analysis plan. A proposal and the codebook were registered on OSF before collecting data (<https://osf.io/evsd7/>).

interpersonal level, narcissism is associated with egocentrism (Wink, 1991), self-absorption (Emmons, 1987), and failed perspective-taking (Watson et al., 1984).

Two common measures of narcissism are the Narcissistic Personality Inventory – NPI (Gentile et al., 2013; Raskin & Terry, 1988) and the Narcissistic Admiration and Rivalry Questionnaire – NARQ (Back et al., 2013). The NPI is based on a unidimensional conceptualization of narcissism (i.e., grandiose) and includes three factors (leadership/authority, grandiose exhibitionism, and entitlement/exploitativeness); The NARQ proposes a two-dimensional conceptualization of narcissism (i.e., admiration and rivalry). We used both scales for two reasons. First, this made it possible to observe which facets of narcissism better explain variations in FT. Second, we sought to benefit from the well recognized validity of the NPI and from the interpersonal focus examined by the NARQ.

### 1.2. Narcissism and felt transparency

Do narcissistic individuals believe that others see them as open books (e.g., felt transparency)? This judgement is based on meta-perceptive processes and refers to expectations people form about whether others perceive their internal states (e.g., emotions, behavioral intentions they experienced in specific situations). In that sense, transparency estimations are one particular form of metaperception and refer to expectations that others can read one's internal states (Gilovich et al., 1998).

Metaperception, in general, and transparency estimations, in particular, are usually biased (Carlson, Vazire, & Furr, 2011; Kenny & DePaulo, 1993). This is because people mostly rely on internal cues (self-based information), information not accessible to others (Kenny & DePaulo, 1993). People thus tend to believe that their internal states (e.g., emotions) are more transparent than they are, leading to an illusion of transparency (Gilovich et al., 1998; Savitsky & Gilovich, 2003; Vorauer & Ross, 1999). In contrast, when people consider external cues (e.g., others' impressions), this bias is reduced (Albright et al., 2001; Albright & Malloy, 1999).

Do narcissistic tendencies lead people to overly rely on the self or to consider external information in their transparency estimations? This is an important question not only because of a rise in narcissistic tendencies in the overall population, but also because the existing literature suggests competing hypotheses regarding the narcissism-FT link.

On the one hand, the literature suggests that narcissistic individuals might rely more heavily on their self-view when developing their metaperception, thereby increasing feelings of transparency. This is because narcissism is characterized by self-centeredness (Emmons, 1987), egocentrism (Wink, 1991), and a lack of perspective-taking (Watson et al., 1984). Narcissistic people project onto others what they think of themselves (Oltmanns et al., 2005) and may expect that others perceive them as they perceive themselves or as they themselves experience a particular situation (e.g., feeling proud about achieving an important project). In that sense, Oltmanns et al. (2005) found a strong correlation between self-perception and metaperception among narcissistic people. Similarly, Ames and Kammrath (2004) showed that narcissistic tendencies lead individuals to over-estimate their interpersonal sensitivity, but also that narcissism is not linked to self-awareness. These studies support the narcissistic ignorance hypothesis (Carlson, Vazire, & Oltmanns, 2011), namely that narcissists develop an inaccurate metaperception because they over-estimate how others perceive them. Accordingly, narcissism should be positively associated to FT. If true, then the entitlement/exploitativeness (NPI) and rivalry (NARQ) dimensions should be more strongly associated with FT. This is because these dimensions capture the maladaptive side of narcissism (Back et al., 2010; Back et al., 2013). For instance, entitlement/exploitativeness is negatively correlated with empathy and rivalry is characterized by social conflict.

On the other hand, narcissism could decrease feelings of transparency since narcissism is also characterized by good social skills (Back

et al., 2013; Rauthmann, 2011). Research suggests that narcissists are aware that others perceive them less favorably than they perceive themselves (Carlson, Vazire, & Oltmanns, 2011; Lukowitsky & Pincus, 2013; Maples-Keller & Miller, 2018; Oltmanns et al., 2005). Renier et al. (2016) observe a negative effect of narcissism on FT. This supports the narcissistic awareness hypothesis (Carlson, Vazire, & Oltmanns, 2011) suggesting that narcissists know that others do not perceive them as they perceive themselves. But is this also true for transparency estimations? If true, then the leadership/authority (NPI) and admiration (NARQ) dimensions should be more strongly, and negatively, related to FT. This is because both dimensions appear to tap into the adaptive aspect of narcissism (Back et al., 2010; Emmons, 1987). Leadership/authority and admiration dimensions might characterize the aptitude of narcissists to distance themselves from their own self-view and to change perspective. In brief, while being egocentric, narcissistic individuals are also socially skilled and they might be aware of not being so transparent to others, as the majority of people might expect (according to the illusion of transparency bias).

To sum up, while considering the existing literature, we cannot hypothesize whether narcissism is positively or negatively linked to FT. This paper aims at clarifying the narcissism-transparency link and highlights which facets of narcissism better explain this link.

Our research differs from the existing literature in four different ways. First, our focus is on feelings of transparency among narcissists independent of the content of their metaperception (Oltmanns et al., 2005). In that sense, we do not look at narcissists' insights about others' positive or negative perceptions of them, but rather on the extent to which narcissistic people feel transparent toward others. In other words, the current paper does not focus on the “*how I am seen by others?*” question (Carlson, Vazire, & Furr, 2011), but on the “*I am seen by others?*” question. Second, we do not focus on meta-accuracy (see Carlson, Vazire, & Furr, 2011), self- and other-perception (see Ames & Kammrath, 2004). We believe it is important to first understand the link with felt transparency before investigating narcissists' transparency estimations. Third, we control for key variables that could influence the narcissism-transparency link (e.g., self-esteem). Fourth, we test two alternative hypotheses regarding FT. This differentiates this study from others that looked at narcissism in relation with other forms of metaperception (e.g., how narcissists think they are seen by others).

#### 1.2.1. Exploration of potential moderators

The narcissism-transparency link may be governed by specific mechanisms (e.g., exacerbated self-enhancement or self-protection motives, Back et al., 2013). Accordingly, the narcissism-transparency link might depend on the interaction between dispositional (narcissism's dimension) and situational factors. In this case, no clear link may be readily observable as other variables might moderate the narcissism-transparency link. For instance, in Renier et al. (2016), researchers found a negative link between narcissism and felt transparency. However, the dimension and the valence are not balanced (e.g., metaperception on emotions concerns mostly negatively valenced items).

We thus study three situational factors: the *referent* toward whom feelings of transparency occur (people in general vs. a specific person), the *dimension* concerned by feelings of transparency (emotions vs. behaviors) and the *valence* (positive vs. negative). Given the competing hypotheses on the narcissism-transparency link and the exploratory nature of this part of the study, we hypothesized the main effects (based on the literature), but not the interaction effects.

Concerning *referent*, felt proximity increases transparency over-estimation (Vorauer & Cameron, 2002) and boosts egocentric biases (Toma et al., 2012). Accordingly, individuals might feel more transparent toward a specific person than toward others in general.

Concerning *dimensions*, our preliminary studies suggest a negative link narcissism-transparency for emotions, but not for behaviors (see Renier et al., 2016). It is plausible that showing behaviors is more desirable than displaying emotions (Ekman & Friesen, 1969).

Accordingly, individuals might feel less transparent about their emotions than about their behaviors.

Concerning *valence*, according to social desirable responding (Zerbe & Paulhus, 1987), people show their desirable characteristics and hiding their undesirable ones. Past research showed that narcissism was positively correlated with metaperception of being liked, and the reverse for metaperception of not being liked (Usher et al., 2018). Accordingly, individuals might feel more transparent for positive domains compared to negative domains.

### 1.2.2. Control variables

Given the risks of endogeneity inherent to our design, we sought to foster potential causal claims by controlling for related but conceptually different variables. Self-esteem and other personality traits (i.e., extraversion, neuroticism, and agreeableness) are associated with narcissism (see Ackerman et al., 2011; Bushman & Baumeister, 1998; Gentile et al., 2013). We thus included measures of self-esteem and personality traits (i.e., extraversion, neuroticism and agreeableness from Big Five) associated with narcissism to control for their effect.

People tend to rely too heavily on their self-perceptions when they construe their metaperceptions (Gilovich et al., 1998; Kenny & DePaulo, 1993). We aim to control for self-perception in order to control for the intensity of one's internal states.

## 2. Method

### 2.1. Participants

The results of the a priori power analysis are presented under the Supplementary materials section (Table 1). We recruited 334 participants aged 18 to 76 years old (167 women,  $M_{\text{age}} = 36.46$ ,  $SD_{\text{age}} = 11.97$ ) via the Prolific platform<sup>2</sup> (see Supplementary materials for the sample characteristics). Participants were paid £1.25 for a 15-minute online experiment.

### 2.2. Procedure

First, participants completed the self-perception measure. Second, they completed three scales assessing individual characteristics (i.e., narcissism, personality, and self-esteem).

The design of the study was mixed: 2 (referent, between-subject: others in general vs. Person X) by 2 (dimension, within-subject: emotion vs. behavior) by 2 (valence, within-subject: negative vs. positive). Participants were randomly assigned to one of two referent conditions: judging how (1) others in general or (2) a specific person perceive(s) them before starting the third part of the questionnaire on FT. Participants from the "specific person" condition were first asked to think of someone they knew, called 'Person X', and to report how they perceive their relationship with Person X. Fourth, participants reported their socio-demographics (gender, age, education level, and employment status).

### 2.3. Measures

#### 2.3.1. Potential covariates

For self-esteem, personality, and self-perception (see the Supplementary materials section), participants reported their level of agreement for each item using a 5-point Likert-type scale (1 = *strongly disagree*; 5 = *strongly agree*).

#### 2.3.1.1. Self-esteem. We used the Rosenberg Self-Esteem Scale (RSE,

<sup>2</sup> We used the Prolific platform because its use is well recognized for online studies, less dishonest responses, and less failed attention checks (Peer et al., 2017).

Rosenberg, 1965) composed of 10 items (five reversed). Items were averaged ( $M = 3.37$ ,  $SD = 0.92$ ,  $\alpha = 0.93$ ), a higher score indicates a higher level of self-esteem.

2.3.1.2. *Personality*. Extraversion, agreeableness, and neuroticism were measured using the Big-Five Inventory (John & Srivastava, 1999). The scores were computed by averaging the concerned items: extraversion based on 8 (3 reversed) items ( $M = 2.79$ ,  $SD = 0.85$ ,  $\alpha = 0.89$ ), agreeableness on 9 (4 reversed) items ( $M = 3.71$ ,  $SD = 0.62$ ,  $\alpha = 0.78$ ), and neuroticism on 8 (3 reversed) items ( $M = 3.03$ ,  $SD = 0.88$ ,  $\alpha = 0.88$ ).

#### 2.3.2. Narcissism

Narcissism was measured with the 13-item version of the Narcissistic Personality Inventory (NPI, Gentile et al., 2013) and the 18-item Narcissistic Admiration and Rivalry Questionnaire (NARQ, Back et al., 2013). Participants reported their level of agreement for each item using a 5-point Likert-type scale (1 = *strongly disagree*; 5 = *strongly agree*). We computed four NPI scores by averaging the concerned items: one overall score ( $M = 2.50$ ,  $SD = 0.68$ ,  $\alpha = 0.86$ ) and three scores corresponding to each dimension of narcissism measured by the NPI (i.e., leadership/authority,  $M = 2.60$ ,  $SD = 0.89$ ,  $\alpha = 0.78$ ; grandiose exhibitionism,  $M = 2.31$ ,  $SD = 0.79$ ,  $\alpha = 0.77$ ; entitlement/exploitativeness  $M = 2.62$ ,  $SD = 0.78$ ,  $\alpha = 0.65$ ). Similarly, we computed three NARQ scores: one overall score ( $M = 2.42$ ,  $SD = 0.53$ ,  $\alpha = 0.84$ ) and two scores corresponding to each dimension (i.e., admiration,  $M = 2.66$ ,  $SD = 0.67$ ,  $\alpha = 0.82$ ; rivalry,  $M = 2.06$ ,  $SD = 0.70$ ,  $\alpha = 0.83$ ).

#### 2.3.3. Felt transparency

Felt transparency referred to the expectation participants had that others would see their emotions and behaviors in specific situations (on a scale from 1 = *not at all* to 7 = *totally agree*). We used a 12-item questionnaire (based on Vorauer & Cameron, 2002) for emotions and a 10-item questionnaire (based on Podsakoff et al., 1990) for behaviors. For each situation, the emotional and behavioral reactions (half positive and half negative) were pretested to be relevant and credible. See Appendix A for examples of situations. We computed four scores of FT by averaging the concerned items: Emotion-Negative ( $M = 3.73$ ,  $SD = 0.68$ ,  $\alpha = 0.66$ ), Emotion-Positive ( $M = 4.04$ ,  $SD = 0.69$ ,  $\alpha = 0.78$ ), Behavior-Negative ( $M = 1.87$ ,  $SD = 0.78$ ,  $\alpha = 0.77$ ), and Behavior-Positive ( $M = 3.69$ ,  $SD = 0.79$ ,  $\alpha = 0.79$ ).

#### 2.3.4. Manipulation and attention check

We used one manipulation check for *referent*. Participants responded to the question: "The questionnaire you have just completed concerned (select the correct answer):" by selecting one of two choices (i.e., "what you think others in general (or 'a specific person') think of you"). Out of 334, 318 participants correctly answered suggesting that the manipulation was successful.

Three attention checks were included to ensure data quality and reliability. Three participants failed at least one of the attention checks and were thus excluded from the dataset, thus resulting in a final sample of 331.

## 3. Results

The correlation matrix is presented in the Supplementary materials section (Table 2). We present below the results concerning the narcissism-transparency link. The results pertaining to the effect of the situational factors (i.e., potential moderators) are presented in the Supplementary materials section.

To test the narcissism-transparency link, two sets of multiple linear regressions were conducted, one based on NPI scores and one based on NARQ scores. Results are displayed in the Supplementary materials section, Table 3.1 for NPI and Table 3.2 for NARQ.

Results concerning the overall scores of narcissism show that

narcissism, either measured with the NPI [ $B(SE) = 0.14 (0.04)$ ,  $t(323) = 3.48$ ,  $p = .001$ ] or the NARQ [ $B(SE) = 0.21 (0.05)$ ,  $t(323) = 4.56$ ,  $p = .001$ ] was significantly and positively linked to FT. This suggests that the higher the participants' narcissism scores, the higher their feelings of transparency when controlling for gender, age, self-esteem, extraversion, agreeableness, and neuroticism.

Results concerning the subscales of the NPI and NARQ suggest that the narcissism-transparency link is driven by particular dimensions of narcissism. For NPI, we observe that leadership/authority [ $B(SE) = 0.08 (0.03)$ ,  $t(323) = 2.72$ ,  $p = .007$ ] and entitlement/exploitativeness [ $B(SE) = 0.11 (0.03)$ ,  $t(323) = 3.61$ ,  $p < .001$ ] were significantly linked to FT while grandiose exhibitionism was not. For NARQ, both dimensions were significantly linked to FT, but stronger for admiration [admiration:  $B(SE) = 0.17 (0.04)$ ,  $t(323) = 4.31$ ,  $p < .001$ , rivalry:  $B(SE) = 0.11 (0.04)$ ,  $t(323) = 2.95$ ,  $p = .003$ ]. Mixed ANOVA results (which includes the situational factors and their interaction, see Table 4) additionally showed that the larger effect sizes concerned NPI entitlement/exploitativeness (small-medium effect,  $\eta_p^2 = 0.032$ ) and NARQ admiration (small-medium effect,  $\eta_p^2 = 0.039$ ). The relation between narcissism and felt transparency was not moderated by the referent person or by the dimension of transparency. The valence however did moderate the relation when narcissism was measured with NARQ.

#### 4. Discussion

This paper aimed at testing the narcissism-transparency link while considering key covariates. Our results showed that the link between narcissism and FT was positive such that the more individuals reported being narcissistic, the more they felt transparent. Results were robust in that they remained stable either when controlling for gender, age, self-esteem, and personality (i.e., extraversion, agreeableness, and neuroticism) and/or when introducing the situational factors (i.e., referent, dimension, and valence).

We used two scales to assess narcissism and identify the key factor/dimension behind this positive link. Results suggest that the NPI's entitlement/exploitativeness facet and the NARQ's admiration dimension better explained the positive link with FT. The results on NPI's entitlement/exploitativeness are in line with our hypothesis suggesting that the maladaptive aspects of narcissisms could enhance FT. The results are partially counter-intuitive for the admiration dimension of NARQ. We might have erred when expecting admiration and rivalry to yield opposite effects on FT.

The question is why entitlement/exploitativeness and admiration show the greater positive link with FT. We believe that dimensions are key for narcissistic individuals who need to be perceived in a grandiose light. Thus, narcissistic individuals who strive for entitlement and admiration might find that being transparent to others (especially on positive dimensions) could be a way to reinforce their grandiose aspect.

Our results are in line with the "narcissistic ignorance" hypothesis rather than "narcissistic awareness" hypothesis (Carlson, Vazire, & Oltmanns, 2011). In other words, our results do not suggest that narcissists are inclined to consider external cues when developing their metaperception but that narcissists lack perspective taking skills (Watson et al., 1984) and exhibit egocentric tendency (Wink, 1991). This is also supported by the literature suggesting that biased metaperception stems from the tendency to rely too heavily on one's own feelings or thoughts (e.g., internal cues, Kenny & DePaulo, 1993). Thus, narcissistic tendencies might lead people to pay less attention to external cues, when developing their metaperception (Albright et al., 2001; Albright & Malloy, 1999; Hu et al., 2014). Even if narcissistic individuals have good social skills and seek to develop rewarding relationship to supply their need of grandiosity (Back et al., 2013), even if they have good insights into how they are perceived by others (Carlson, Vazire, & Oltmanns,

2011), they nevertheless remain egocentric by being unaware of others' views of them and with regard to how transparent their behavior and emotions are to others.

Interestingly, this relation might depend on the valence of those dimensions (see Usher et al., 2018), as suggested by our moderation analyses. Previous research (Renier et al., 2016) showed a negative narcissism-transparency link. However, transparency was measured using predominantly negatively valenced items. Meanwhile, our exploratory study of situational factors showed a larger main effect of valence ( $\eta_p^2 = 0.026$ ) than for narcissism ( $\eta_p^2 = 0.011$  for NPI-all). In addition, we also found an interaction between narcissism (only when measured with NARQ) and valence. This suggests that transparency among narcissists is stronger for the positive dimensions, but also that the valence of items might explain the apparent inconsistency with previous studies (Renier et al., 2016).

Despite our efforts to conduct a rigorous and transparent study, four limitations should be acknowledged. First, we relied on an online survey. Metaperception and FT are interpersonal constructs, occurring during actual interactions and the procedure of our study did not allow for actual interactions. Second, the poor reliability of the measures and the statistical approach did not allow including self-perception in our analyses. Future research might consider including this variable. Third, even if our results seem to support the egocentric hypothesis, our research does not allow to directly test the underlying mechanisms. It could be that narcissistic people are egocentric with regard to transparency because they do not invest much in long-term social relations (Wurst et al., 2017) and might not be particularly motivated to integrate others' feedback and impressions. Future research should investigate this possibility. Fourth, because we do not study transparency accuracy, future research is necessary to test whether narcissistic people are more prone to the illusion of transparency.

Despite these limitations, our research provides robust results obtained from a well-designed experimental study. Indeed, this project gathered an adequate sample size and relevant covariates. The present research suggests that, despite their social skills, narcissistic individuals expect others to see them as open books. This could have important implications to understand narcissistic people's inability to sustain long-term relations (Campbell & Green, 2008) or their difficulty to perform in specific situations (Kleinogel et al., 2020).

#### Statement of ethical compliance

All procedures performed in the following studies are in accordance with the ethical standards of institutional research committees and with the 1964 Helsinki declaration and its later amendments for treatment of human participants. The authors declare no competing interests in the conduct and publication of this research.

#### Data availability and pre-registration

The data, syntaxes, and codebook (and pre-registered proposal) are available on OSF repository: <https://osf.io/evsd7/>.

#### CRediT authorship contribution statement

**Laetitia A. Renier:** Conceptualization, Methodology, Formal analysis, Investigation, Writing – original draft, Writing – review & editing. **Claudia Toma:** Conceptualization, Methodology, Writing – review & editing.

#### Declaration of competing interest

None.

## Appendix A. Manipulation of referent and example of situations

	Others in general	A specific person (Person X)
Emotions	... This time, please think how <b>people in general</b> would see you in those emotional situations. For each situation, three emotions are proposed. Please indicate your level of agreement for each emotion.	... This time, please think how <b>this specific person</b> , 'Person X', would see you in those emotional situations. For each situation, three emotions are proposed. Please indicate your level of agreement for each of these emotions.
Example of items	I work with a colleague on a common project. My colleague does not turn in his/her part of the project in time. We both receive a bad evaluation. In this situation, <b>people in general</b> would see that I feel anger ...	I work with a colleague on a common project. My colleague does not turn in his/her part of the project in time. We both receive a bad evaluation. In this situation, <b>'Person X'</b> would see that I feel anger
Behaviors	... This time, please think about how <b>people in general</b> would see you on these behaviors. Please indicate your level of agreement for each behavior.	... This time, please think about how <b>'Person X'</b> would see you on these behaviors. Please indicate your level of agreement for each behavior.
Example of items	<b>People in general</b> see me as someone who, at work ... (starts arguments with others)	<b>Person X</b> sees me as someone who, at work ... (starts arguments with others)

## Appendix B. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.paid.2022.111585>.

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