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It Is All About Being Popular: The Effects of Need for Popularity on Social Network Site Use

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Abstract

Prior research on predictors of social network site (SNS) use has mainly focused on the Big Five, narcissism, and self-esteem. Results have been inconsistent, and variance explained was rather low. Need for popularity (NfP) might be a better predictor of SNS use, because SNSs are ideal venues for people with a high NfP. Study 1 tested NfP, self-esteem, need to belong, entitlement, and vanity as predictors for a range of SNS behaviors; Study 2 replaced entitlement and vanity with narcissism and added the Big Five as predictors. SNS behaviors assessed were grooming, strategic self-presentation, profile enhancement, disclosure of feelings, routine use of SNS, and number of friends. Results showed that NfP was the strongest and most consistent predictor of SNS behaviors. This pattern indicates that NfP plays an important role in SNSs.

Introduction

Individuals use social network sites (SNSs) such as Facebook to present themselves and to maintain their relationships. The present article examines how personality characteristics influence SNS use. Prior research focusing on the explanatory role of the Big Five, self-esteem, and narcissism in SNS use has often shown only weak or inconsistent results.1–5 The present research proposes need for popularity (NfP) as an alternative predictor of a wide range of SNS behaviors.

Prior research on personality and SNS use

Several studies on personality and SNS use have focused on the Big Five—extraversion, agreeableness, conscientiousness, emotional stability/neuroticism, and openness to experience.6 Although the Big Five predict a variety of offline behaviors,7 they turned out to be only weakly related to SNS use. Moreover, findings were inconsistent across studies, even though similar populations (student or convenience samples) and similar leisure-oriented SNSs such as Facebook or StudiVz were used. Overall, extraversion emerged as the most consistent predictor, being positively related to time spent on SNSs,8 number of friends,9 number of group memberships,9 and leisure-oriented SNS use.10 Also, extraverts used nonstandard profile pictures (e.g., altered colors) more often than introverts did.8 However, some studies reported no relationship between extraversion and number of SNS friends, time spent online, or use of communicative features.9 For other Big Five traits even less systematic patterns emerged.3,8 SNSs allow users to carefully plan their self-presentation and appear more social and popular.11 Such strategic SNS use may obscure the more subtle effects of Big Five personality differences.

A few studies focused on the relationship between self-esteem and SNS use. Mehdizadeh found self-esteem to be negatively related to frequency of login, time spent per login, and self-promotion via profile pictures.2 However, no effects on self-presentation through the status updates, the “about me” and “notes” sections, and other pictures were found.2 Krämer and Winter found no effect of self-esteem on SNS self-presentation.5 Christofides et al. reported a positive relationship between self-esteem and information control, but none with self-disclosure.12 The problem with using self-esteem as a predictor for SNS use might be that it is both a cause and consequence of SNS use. If low self-esteem promotes SNS use, negative correlations should be expected. If certain SNS behaviors in turn increase self-esteem, positive correlations should occur. Both effects could cancel each other out, explaining the frequent null findings.

Some scholars argue that SNSs are optimal venues for narcissists.1 Indeed, narcissism correlated with SNS activity and self-promoting profile content: photo attractiveness, photo sexiness, and self-promotion.1,2 Yet other research suggests that need to belong is a key factor in SNS use, because a principle goal of SNS use is to maintain one’s connections to friends and acquaintances. Indeed, need to belong was found to positively affect attitudes toward SNSs.13

To conclude, prior research did not find very systematic relationships between personality variables and SNS use.
Extraversion turned out to be the most consistent predictor; self-esteem, narcissism, and need to belong may be of relevance as well. Later we argue that NfP might be a better predictor of SNS use.

Need for popularity

NfP refers to the motivation to do certain things in order to appear popular.14 NfP appears related to narcissism, but whereas narcissists actually believe they are superior, especially when it comes to agentic traits,15 individuals with a high NfP merely want to be perceived as popular. Thus, NfP could be considered as a chronic, but very specific impression management goal. Two characteristics make SNSs ideal venues for individuals with a high NfP. First, SNSs facilitate selective self-presentation.16,17 Individuals can carefully select profile pictures and self-descriptions that might make them appear more popular.18 Second, SNSs facilitate reaching a large audience with one mouse click.

Popularity plays a central role in SNSs. Evidence has been found for both the rich-get-richer and the social-compensation hypotheses.11 Popular extraverts with a high self-esteem were also popular on Facebook, but introverts with low self-esteem who considered themselves unpopular offline also managed to look popular on Facebook. Effects of NfP on SNS use have not been examined systematically so far, but research shows a positive relationship between NfP and self-disclosure12 and SNS jealousy.19

We build on these results and argue that NfP affects a wide range of SNS behaviors. NfP might influence self-centered behaviors such as working on one’s profile, because such behaviors may help to create a more popular impression. However, NfP might also influence other-centered behaviors such as social grooming,20 because high NfP individuals are likely to cultivate their bonds with others. In this respect, NfP differs from narcissism: Narcissists portray themselves favorably, but do not strive for interpersonal intimacy.2 NfP also differs from need to belong; which is characterized by a drive to form “lasting, positive, and significant interpersonal relationships.”21 This need might be satisfied by a few intimate relationships, whereas high NfP individuals will rather form many (often superficial) relationships to satisfy the goal of becoming more popular.

To summarize, our hypothesis is that NfP predicts a range of SNS behaviors over and above previously tested personality variables. Two online surveys were conducted. In Study 1, effects of NfP were compared with those of need to belong, self-esteem, vanity, and entitlement. In Study 2, we replicated and extended Study 1 by adding the Big Five as predictors and focusing on narcissism instead of entitlement and vanity.22

Study 1

Method

Participants and procedure. Two hundred fifty-five Dutch participants (90 men and 165 women) completed an online survey wherever they wanted; 71 percent participated as part of a course and 29 percent were recruited externally. The reported data are part of a larger survey. Completion of the survey took about 25 minutes. Mean age of the respondents was 23.7 (SD = 7.26); 59.5 percent had attended college. Participants primarily used Dutch SNS Hyves (69.4 percent) or Facebook (21.4 percent). On average, they were online 18.49 hours per week (SD = 11.33).

Dependent measures. If not noted otherwise, all constructs were measured on 7-point scales. Grooming assessed the frequency of several socializing behaviors on SNSs, such as leaving messages on, or browsing around, friends’ profiles (six items, x = 0.86, 1 = never, 7 = daily).19 Profile enhancement refers to behaviors such as editing profiles or uploading pictures (five items, x = 0.78). Strategic self-presentation assesses the motivation to deliberately use the Internet as a means to strategically present oneself (six statements, e.g., “I use the Internet to influence my image;” 1 = disagree strongly, 7 = agree strongly; x = 0.77).23 Disclosure of feelings addresses the likelihood of using SNSs to disclose personal feelings to others (five items, e.g., “Disclose anger about something;” 1 = very unlikely, 7 = very likely; x = 0.88). Routine use of SNS refers to participants’ perception of SNSs as a part of daily life (five statements, e.g., “My favorite SNS is part of my daily life;” 1 = disagree strongly, 5 = agree strongly; x = 0.88).24

Number of friends indicates participants’ number of SNS friends.

Independent measures. The independent measures were assessed with 7-point scales ranging from 1 = disagree strongly to 7 = agree strongly. Need to belong measures individuals’ need to be part of a group and to feel needed (10 statements, e.g., “I want other people to accept me”; x = 0.74).25 Self-esteem consisted of 10 statements (e.g., “On the whole, I am satisfied with myself”; x = 0.85).26 We decided to focus on entitlement and vanity as facets of narcissism, because overall narcissism scores had been criticized by some authors.27 Entitlement: nine statements, e.g., “I demand the best because I’m worth it”; x = 0.86,28 and vanity: four statements, e.g., “My looks are worth noticing”; x = 0.67.29 NfP measures individuals’ motivations to conform to peer pressure (seven statements, e.g., “At times, I’ve changed the way I dress in order to be more popular”; x = 0.83.24

Results

Table 1 shows descriptive statistics and all intercorrelations between dependent and independent measures. The hypotheses were tested by a series of hierarchical regression analyses with NfP as a predictor. Need to belong, self-esteem, entitlement, and vanity were entered in the first block; NfP was entered in the second block. This procedure allows to detect whether NfP explains variance over and above the default variables. Dependent variables were grooming, strategic self-presentation, profile use, disclosure of feelings, routine use of SNS, and number of friends.

Adding NfP increased R²_adj for all dependent variables except number of friends (Table 2). It had positive effects on grooming (β = 0.18, p < 0.05), strategic self-presentation (β = 0.14, p < 0.05), profile enhancement (β = 0.29, p < 0.001), disclosure of feelings (β = 0.23, p < 0.001), and routine SNS use (β = 0.16, p < 0.05).

Of the default variables, need to belong predicted routine SNS use (β = 0.15, p < 0.05) and marginally predicted grooming (β = 0.12, p < 0.10); self-esteem was negatively related to disclosure of feelings (β = −0.14, p < 0.05); entitlement
predicted strategic self-presentation ($\beta=0.14, p<0.05$); vanity predicted strategic self-presentation ($\beta=0.15, p<0.05$).

Table 2 shows all betas and their significance levels for the final regression models. It shows that NfP quite consistently predicts the dependent variables, whereas other independent variables predict dependent variables only incidentally.

**Discussion**

The results confirm that NfP, over and above need to belong, self-esteem, entitlement, and vanity, strongly predicts SNS use. Prior studies often included the Big Five or used the Narcissistic Personality Inventory (NPI) to measure narcissism. So, possibly our findings are due to the selection of alternative predictors. To test our hypothesis that NfP is a better predictor of SNS use to a stronger test, we included the Big Five and, instead of vanity and entitlement, the NPI in Study 2.

**Study 2**

**Method**

Participants and procedure. One hundred ninety-eight Dutch students (53 men and 145 women) completed an online survey as part of a university course. Mean age was 21.4 years (SD=3.53). Most participants primarily used SNS Facebook (50.0 percent) or Dutch SNS Hyves (45.5 percent). Participants were online 19.29 hours per week on average (SD=11.56).

Dependent measures. Grooming ($\alpha=0.84$), profile enhancement ($\alpha=0.70$), strategic self-presentation ($\alpha=0.78$), disclosure of feelings ($\alpha=0.86$), routine use of SNS ($\alpha=0.88$), and number of friends were measured exactly like in Study 1.

Independent measures. Need to belong ($\alpha=0.79$), self-esteem ($\alpha=0.87$), and NfP ($\alpha=0.83$) were measured like in Study 1. Mean scores indicate that Study 2’s sample is highly similar to Study 1’s. Narcissism was measured using the shortened 16-item NPI-16. Twenty-two participants chose between narcissistic (1) and nonnarcissistic (0) alternatives, e.g., “I think I am a special person” ($\alpha=0.61$). Personality was measured using a 10-item measure of the Big Five personality domains.30 For each domain, agreement with two statements such as “I see myself as extraverted, enthusiastic” was measured: extraversion ($r=0.45, p<0.001$), agreeableness ($r=0.04, n.s.$), conscientiousness ($r=0.28, p<0.001$), emotional stability ($r=0.38, p<0.001$), and openness to experience ($r=0.28, p<0.001$). Except for agreeableness, all interitem correlations were acceptable.30 For agreeableness, only the item “I see
myself as sympathetic, warm” was used. Table 3 shows descriptive and intercorrelations between measures.

**Results**

Hypotheses were tested similarly to Study 1. Results showed that adding NfP increased $R^2_{adj}$ for all dependent variables (Table 4). NfP had positive effects on all dependent variables: Grooming, $\beta=0.19$, $p<0.05$; strategic self-presentation, $\beta=0.27$, $p<0.001$; profile enhancement, $\beta=0.30$, $p<0.001$; disclosure of feelings, $\beta=0.14$, $p<0.10$; routine SNS use, $\beta=0.20$, $p<0.05$; and number of friends, $\beta=0.21$, $p<0.05$.

Of the default variables, need to belong predicted strategic self-presentation ($\beta=0.21$, $p<0.01$) and routine SNS use ($\beta=0.17$, $p<0.05$); self-esteem related negatively to disclosure of feelings ($\beta=-0.24$, $p<0.01$); narcissism predicted profile enhancement ($\beta=0.17$, $p<0.05$) and disclosure of feelings ($\beta=0.18$, $p<0.05$); extraversion negatively related to profile enhancement ($\beta=-0.14$, $p<0.10$) (marginal) and predicted number of friends ($\beta=0.22$, $p<0.01$); agreeableness was negatively related to strategic self-presentation ($\beta=-0.13$, $p=0.05$) (marginal); conscientiousness predicted profile enhancement ($\beta=0.17$, $p<0.05$); emotional stability did not predict any of the dependent variables; and openness to experience predicted grooming ($\beta=0.18$, $p<0.05$) and strategic self-presentation ($\beta=0.13$, $p=0.05$) (marginal). Table 4 shows all betas and their significance levels for the final regression models. Again, NfP consistently predicted dependent variables, whereas other independent variables predicted dependent variables much less consistently.

**Discussion**

The results of the second study replicated the findings of the first: NfP, over and above the other independent variables, strongly predicted all dependent measures, including participants’ number of SNS friends.

In Study 2, compared with Study 1, we added narcissism as well as the Big Five to the default model. This improved the variance explained for each dependent variable. The Big 5 domain openness to experience predicted social grooming, indicating that grooming may be understood rather as a creative, imaginative activity than as rooted in courtesy or a sense of duty. Conscientiousness was related to profile enhancement, indicating that people who tend to keep things neat and tidy also do so online. Finally, as reported in prior studies, extraversion predicted number of friends. Unsurprisingly, narcissism was related to profile enhancement and to self-disclosure of feelings. Despite the explanatory value of some of the Big Five domains and narcissism, NfP contributed to the prediction of each and every dependent measure.

**General Discussion**

Results of both studies show that NfP14 is a relevant personality characteristic in predicting a range of SNS behaviors. NfP not only predict other-centered behaviors labeled grooming (Studies 1 and 2), but also predicted more self-centered behaviors such as strategic self-presentation (Studies 1 and 2), profile enhancement (Studies 1 and 2), and disclosure of feelings (Studies 1 and 2). NfP was also positively related to
Additionally, age explained grooming (p < 0.05) and additional variance for grooming (p < 0.001), but did not relate to the other components of the profile enhancement scale. Consistent with earlier research, narcissism (NfP) indicates individuals’ chronic motivation to leave a favorable impression.14 We argued that SNSs might be ideal venues for high NfP individuals, because they facilitate selective self-presentation16,17 and provide users with a large audience. Consistently, we found that high NfP individuals more often edited their profiles but also engaged more in social grooming. In both studies, NfP predicted strategic self-presentation, indicating that high NfP individuals deliberately edit their profiles to appear popular.

Interestingly, vanity and entitlement were both related to strategic self-presentation, but not to the more behavioral measure of profile enhancement. Individuals scoring high on entitlement obviously desire a favorable treatment but do not necessarily strive to leave a favorable impression.15 Supports the notion that narcissists believe in their superiority and are relevant during adolescence. In the current samples, NfP was moderated the effects of NfP on SNS jealousy, b u t i t s u n c l e a r of NfP, for example, on its relation to self-esteem. Self-esteem individuals may engage in self-disclosure in order to receive positive feedback and recognition. Longitudinal studies would be necessary to determine the existence of a causal relationship between self-esteem and self-disclosure.

All in all, both studies show that NfP predicts a wide range of SNS behaviors. Limitations of the current studies are the cross-sectional design and the samples consisting mainly of young adults. Future longitudinal studies could examine whether NfP is a stable characteristic or possibly especially relevant during adolescence. In the current samples, NfP was unrelated to age, but most participants were young adults. Future research could extend ours by including older SNS users, possibly in the context of professional SNSs such as LinkedIn. Research could also focus on more conceptual analyses of NfP, for example, on its relation to self-esteem. Self-esteem moderated the effects of NfP on SNS jealousy, 19 but it is unclear whether this pattern also holds for other relationship variables.

In sum, NfP seems a promising personality characteristic to consider when studying online social behavior. It strongly predicts a variety of SNS behaviors and may also teach us more about what drives people to make use of SNSs. Perhaps it is just all about being popular.

Table 4. Summary of Hierarchical Regression Analyses for Personality Variables Predicting Social Network Site Behaviors (Study 2)

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Grooming</th>
<th>Strategic self-presentation</th>
<th>Profile enhancement</th>
<th>Disclosure of feelings</th>
<th>Routine SNS use</th>
<th>Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need to belong β</td>
<td>0.10</td>
<td>0.21**</td>
<td>0.10</td>
<td>−0.06</td>
<td>0.17*</td>
<td>0.07</td>
</tr>
<tr>
<td>Self-esteem β</td>
<td>−0.03</td>
<td>0.05</td>
<td>−0.05</td>
<td>−0.24**</td>
<td>0.01</td>
<td>0.04</td>
</tr>
<tr>
<td>Narcissism β</td>
<td>0.07</td>
<td>0.17*</td>
<td>0.15***</td>
<td>0.06</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Extraversion β</td>
<td>0.06</td>
<td>−0.10</td>
<td>−0.14****</td>
<td>−0.12</td>
<td>−0.02</td>
<td>0.22**</td>
</tr>
<tr>
<td>Agreeableness β</td>
<td>−0.00</td>
<td>−0.13****</td>
<td>0.03</td>
<td>−0.04</td>
<td>0.00</td>
<td>0.02</td>
</tr>
<tr>
<td>Conscientiousness β</td>
<td>0.12</td>
<td>0.17*</td>
<td>0.03</td>
<td>0.07</td>
<td>0.07</td>
<td>0.02</td>
</tr>
<tr>
<td>Emotional stability β</td>
<td>−0.00</td>
<td>−0.02</td>
<td>0.01</td>
<td>−0.06</td>
<td>0.01</td>
<td>−0.04</td>
</tr>
<tr>
<td>Openness to express  β</td>
<td>0.18*</td>
<td>0.13****</td>
<td>0.08</td>
<td>0.08</td>
<td>0.09</td>
<td>0.02</td>
</tr>
<tr>
<td>NfP β</td>
<td>0.19*</td>
<td>0.27**</td>
<td>0.30***</td>
<td>0.14****</td>
<td>0.20*</td>
<td>0.21*</td>
</tr>
<tr>
<td>$R^2_{adj}$ block 1</td>
<td>0.05</td>
<td>0.12</td>
<td>0.11</td>
<td>0.12</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td>$R^2_{adj}$ block 2</td>
<td>0.07</td>
<td>0.16</td>
<td>0.18</td>
<td>0.13</td>
<td>0.06</td>
<td>0.07</td>
</tr>
<tr>
<td>$F$ for change in $R^2$</td>
<td>5.01*</td>
<td>12.75***</td>
<td>15.15***</td>
<td>3.22****</td>
<td>5.70*</td>
<td>6.51*</td>
</tr>
</tbody>
</table>

Like for Study 1, we conducted additional analyses including participants’ age, gender, and frequency of internet use in the default model. Frequency of internet use was related to strategic self-presentation (p < 0.01), profile enhancement (p < 0.05), and routine SNS use (p < 0.005). Additionally, age explained grooming (p < 0.05; younger participants groom more) and number of friends (p < 0.01; younger participants have more friends). Gender explained strategic self-presentation (p < 0.05; higher for men). Relative to this extended default model, NfP still explained additional variance for grooming (p < 0.01), strategic self-presentation (p < 0.001), profile enhancement (p < 0.001), routine SNS use (p < 0.01), and number of friends (p < 0.005), but not for disclosure of feelings.

$^p<0.05; ^{**}p<0.01; ^{***}p<0.001; ^{****}p<0.10$.

Disclosure Statement

The authors have no conflict of interest.
References


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