The Relationship Between Social Network Usage and Narcissism

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Abstract

This study was designed to test the relationship between social network usage and narcissism. The participants (N=90, 87% female) were asked to first complete a social network questionnaire to measure the subject's frequency of usage, then we measured the subject's level of vulnerable narcissism using the Hypersensitive Narcissism Scale (HSNS) and level of grandiose narcissism using the Narcissistic Personality Inventory (NPI-16). We found that there was a correlation between social network usage and narcissism such that those who used social networks more frequently scored higher on grandiose narcissism. We found that each social network site along with the average of the three when correlated with grandiose narcissism resulted in a statistically significant positive correlation (p<0.05). The strongest correlation being between social network use and grandiose narcissism ($r^2=0.0373$).
The Relationship Between Social Network Usage and Narcissism

There has been conversation about whether or not social network usage is linked to narcissism in young adults. In order to study this we must first ask, what is a social networking site? According to Barker (2009), “social networking sites are websites where users can create a profile and connect that profile to others to form an explicit personal network”. With 1.23 Billion facebook users, 150 million instagram users, and 500 million twitter user, social networking is a large part of our society today (Smith, 2014). One area that researchers have examined is the link between use of social network sites and narcissistic behaviors. A narcissistic individual is defined by the National Institute of Health (2012) as someone with a high sense of self importance, lack of empathy towards others, exaggerated preoccupation with the self, extreme fantasies of success and power, constant need for attention and admiration, and unreasonable expectation of acceptance by others. Narcissism goes beyond a sense of healthy self love to become a sort of over glorifying of the self. Chronically high levels of narcissism results in narcissistic personality disorder, which is “characterised by an exaggerated sense of self-importance and self-involvement.” (Engler, 2008). Those with narcissistic personality disorder are characterized by baseless feelings of high self-importance. Narcissism and narcissistic personality disorder also deals with how others perceive the self; these individuals want to be held by others in high regard. Narcissistic personality disorder potentially causes problems in an individual’s relationships with the self and with others by creating false perception of the self and a lack of empathy towards others. Thus, narcissists' views are often inflated and tend to be contrary to reality. For example, an individual who exaggerates
his or her talents and achievements in order to gain the admiration of others may be considered narcissistic.

According to a study originally done in 2008 by Stinson, Dawson, Goldstein, et al; Joel Stein of TIME magazine reported, “The incidence of narcissistic personality disorder is nearly three times as high for people in their 20s as for the generation that's now 65 or older, according to the National Institutes of Health; 58% more college students scored higher on a narcissism scale in 2009 than in 1982.” This means that more than half of college students who took the narcissism inventory in 2009 scored higher than the college students scored who took the test in 1982. This suggests college age people are more narcissistic than they used to be.

In social media, narcissistic behavior is illustrated by the various form of “self-promoting” behaviors individuals often exhibit such as frequent posting of “selfies” and witty statuses. With these, individuals may be seeking affirmation and attention from others. Narcissists like the feeling of having widespread social approval; social network outlets allow for them to have believe they have achieved this status. Facebook allows individuals young people can fool themselves into thinking they have hundreds or thousands of “friends.” These narcissistic individuals have the fluidity to delete any posted comments that they perceive as unflattering towards them or the option to “block” anyone who disagrees with them or deflates their ego. If their egos are deflated in such a manner, it reduces their sense of self importance and high esteem. With the ability to control which pictures they post and which photographs they allow on their profile, they can choose to project only the most flattering and attention getting pictures of themselves.
Other than Facebook, within microblogging sites like Twitter, you can see narcissistic tendencies by how they allow individuals to create their own fan base in a sort of way in which they try to be “follower-worthy”, or attempting to gain the most followers on twitter by posting interesting tweets that people will be the most receptive to and thus creates a sense of false fame (Ablow). By taking note of how many likes, follows, favorites and retweets one receives, an individual can potentially heighten their sense of self and their believed superiority. In a study done by Elliot Panek in 2013 on facebook and twitter’s links to narcissism, researchers concluded that as individuals are attempting to widen their social network and showcase their views and ideologies they in turn are able to overestimate how important their opinions and thoughts really are. This allows an individual to overestimate the amount of power and influence they actually hold.

When looking at narcissism more in-depth, we can find two different subtypes of narcissism. In 1993, psychiatrist James Masterson offered this new perspective to the two spectrums of narcissist. One being overt or grandiose narcissism, and the other being covert or vulnerable narcissism. Grandiose narcissists are defined as being less sensitive to the others’ needs and holding a high degree of confidence and self esteem. Grandiose narcissists have an inflated self perception in which they actually believe they are better than all others. Grandiose narcissists seek constant attention from others as means of admiration. The grandiose narcissist is the one that falls under the typical description of the “narcissistic personality disorder” given in the DSM-IV. On the other hand, Vulnerable narcissists are defined as more emotionally sensitive with a deflated self-perception of inadequacy. Vulnerable narcissists seek constant attention from others as means of
approval. Eamonn Arble highlights the distinction of a vulnerable narcissist by stating that “this kind of narcissist is typically quite shy and may often be highly self-critical. S/he expresses great fear over being the center of attention, worrying that such scrutiny will be met with humiliation and rejection” (2008). The vulnerable narcissist would be more hesitant to post on social networks in fear of being harshly judged or criticized by others thus they would only post what they are sure others would like and agree with. The vulnerable narcissists participate in these self-promoting behaviors as a way to overcompensate for their deep-seated insecurities, but do so in a very cautious manner by highlighting only those aspects of the self that they think others will approve of and admire them for.

Previous studies done by researchers offer mixed results as to whether or not the use of social networking sites correlates with higher levels of narcissism. In Soraya Mehdizadeh’s study (2010), subjects took a narcissism inventory and a self-esteem inventory then their facebooks were coded for any features of self promotion. Mehdizadeh’s research indicated that there was a correlation between those with higher online activity and higher narcissism ratings and lower self-esteem ratings. With this in mind, these individual would be deemed vulnerable narcissist. Buffardi and Campbell’s (2008) went beyond just analyzing the content of subjects facebook themselves by having strangers judge their impressions of the subjects facebook (Buffardi and Campbell). They found that narcissistic traits highly correlated with the number of facebook friends the individual has and the frequency of posts individuals made on their own profiles and others profiles. Researchers Ljepava, Orr, Locke, and Ross (2013) did a study to on frequent
facebook users versus non-users to measure their levels of self-disclosure and grandiose and vulnerable narcissism. Contradictory to Mehdizadeh’s study, they found that those who did not have facebook were higher on the vulnerable narcissism scale and self-disclosure scale while those who did were higher on the grandiose narcissism scale and lower on self-disclosure scale.

Given this research, we hypothesized that our subjects’ who are on social networking sites more frequently (indicated by number of posts, number of profile picture changes, and visits) will exhibit higher levels of narcissism according to the narcissism inventory. In accordance with the prior research done on social networking sites and its correlation to low levels of self-esteem, we believe that subjects narcissism levels would be more consistent with the vulnerable narcissism subtype rather than the grandiose narcissism subtype (Mehdizadeh).

Unlike previous research studies done which use web-page coding to search for subjective and objective content features; our study surveys the actual subjects about the extent and reasonings of the social network usage. In order to do this, all participants took an online survey, this survey asked participants about three separate social network accounts, Facebook, Instagram, Twitter. Based upon whether or not participants had an account on these websites they were asked questions about their usage for each. After completing the survey questions regarding the social network use, the subjects were then prompted with a two narcissism questionnaires one measuring vulnerable narcissism and the other measuring grandiose, finally they were thanked and debriefed.

Method
Participants

We had a total of ninety participants, 87% female and 12% male, with ages ranging between 18 and +25 years old. Out of our participants, 87% identified with White/Caucasian (n=78), 1% identified with Hispanic (n=1), 7% identified with Black/African American (n=6), 1% identified with Asian (n=1), 1% identified as Biracial (n=1) and 3% did not disclose their race (n=3). Most of the participants received extra credit in classes for participating. To obtain these participants, we sent out emails to 160 Hanover College Students. The participants chosen to receive the emails were randomly chosen off of the Hanover College photo board by scrolling through and picking individuals in no particular order. To increase the pool for participants the experimenters also posted the link to our survey on their personal social network accounts.

Materials

Questionnaire. A questionnaire was formulated to assess subjects’ usage of social network sites specifically Facebook, Twitter, and Instagram. In this survey each subject completed between twenty-nine and sixty-five questions dependent upon whether or not they had a Facebook, Twitter, or Instagram account. The participants were only directed to the questions that were about the social network sites in which they have an account. After participants completed this section of the survey, they were directed to another portion which included Holly Hendin and Jonathan Cheek’s 10-item Hypersensitive Narcissism Scale to measure vulnerable narcissism (1997). Derived from H. A. Murray’s (1938) Narcissism Scale with an MMPI-based composite measure of covert narcissism this
abbreviated scale measured subjects using a 5 point likert scale with possible scores ranging from ten to fifty. After this portion was completed, the subject then completed the 16-item Narcissistic Personality Inventory (NPI-16) (Ames, Rose, & Anderson 2006). This scale had been drawn from across the dimensions of Raskin and Terry’s (1988) forty item measure and it serves as a valid and highly correlated shortened alternative of the original measure.

Procedure

Participants were emailed a link to complete the questionnaire, in additional link to the survey was posted on the personal social networks accounts of the experimenters. At the beginning of the questionnaire, the participants were directed to an informed consent form and were notified that all answers would be given anonymously. The informed consent form informed subjects that the experiment was designed to look at the relationship between beliefs about the self and social network use. All subjects were first prompted about their social network usage. For each site: Facebook, Twitter, Instagram, the participants were first asked if they have an account. If yes, they were redirected to questions about personal usage; if no, then they were directed to a question inquiring about accounts for the next site. After completing the final social network portion, subjects were directed to the Hypersensitive Narcissism Scale and the NPI-16. In the final section, they had to complete a demographic questionnaire asking about age, gender, race, and year of college graduation. Finally the participants viewed a debriefing form that fully explained the experiment as well as thanked them for their time and participation.

Results
The data collected was the frequency of social network use, and participants scores on the narcissism surveys. The social network data was manipulated such that a higher score coincides with a higher use of social networks. To complete this, the researchers transposed the forced choice answers from qualitative to quantitative data by making a scale for the social network usage answers. These choices were ranked in order from least amount of usage to most. All answers were coded in the same manner for each of the social network sites used for the study. Once we had found the different levels for each of the individual sites, we took the average of all three for each participant. The Hypersensitive Narcissism Scale to measure vulnerable narcissism was answered on a one to five likert scale. For the analysis of this data, we took the sum of all of their answers to receive a number between zero to fifty, with higher scores this total meaning a higher degree of vulnerable narcissism. The Narcissistic Personality Inventory consisted of sixteen forced choice questions with two options; one option was a predictor of grandiose narcissism, the other was not. The answers were transformed by the predictor receiving a one while the other option receiving a zero. These codes were then added together, resulting in a sum between zero to sixteen; the higher number indicating a higher level of grandiose narcissism. After completing these data manipulations we were able to run a number of correlations between the different social network sites and the two narcissism surveys.

According to our analysis, in Table 1, we found that each social network site, along with the average of the three, correlated with grandiose narcissism resulted in a statistically significant positive correlation (p<0.05). The strongest correlation being between Social
Network Use and grandiose narcissism ($r^2=0.0373$). You can see this correlation in Figure 1. When all four were correlated with vulnerable narcissism the correlations were negative and not statistically significant (p>0.05). However, when correlated with vulnerable narcissism all were marginally significant except Twitter use (p=0.529). You can see the correlation between Social Network Usage and vulnerable narcissism in Figure 2. Within these two figures you can see that there are no participants who did not have at least one type of social network profile. This can be signified by the lack of points landing on the x-axis. However, in Figures 3, 4, 5, and 6 the points landing on the x-axis indicate that they do not have a profile for the respective social network site.

<table>
<thead>
<tr>
<th>Social Network Use</th>
<th>Grandiose Narcissism</th>
<th>Vulnerable Narcissism</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>cor 0.381</td>
<td>p-value &lt;0.00*</td>
</tr>
<tr>
<td></td>
<td>cor 0.290</td>
<td>p-value 0.0056*</td>
</tr>
<tr>
<td></td>
<td>cor 0.251</td>
<td>p-value 0.017*</td>
</tr>
<tr>
<td></td>
<td>cor 0.345</td>
<td>p-value &lt;0.001*</td>
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</tbody>
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Table 1. This is a table consisting of all of the correlations coefficients and p-values from the correlations between the social network site usage and the two narcissism surveys.

![Social Network Use vs. Grandiose Narcissism](image1)

Figure 1. Scatterplot of the mean social network use and grandiose narcissism (p<0.00)
Figure 2. Scatterplot of the mean social network use and vulnerable narcissism (p=0.685)

Figure 3. Scatterplot of the Instagram use and grandiose narcissism (p=0.0056)

Figure 4. Scatterplot of the Instagram use and vulnerable narcissism (p=0.0554)
Figure 5. Scatterplot of the Twitter use and grandiose narcissism (p=0.017)

Figure 6. Scatterplot of the Twitter use and vulnerable narcissism (p=0.529)

Figure 7. Scatterplot of the Facebook use and grandiose narcissism (p<0.001)
Our central question was whether or not the use of social network had an impact on levels of narcissism. From this question, we hypothesized that those who use social networks more frequently will exhibit higher levels of narcissism. Additionally, we hypothesized that these levels of narcissism would be more along the lines of vulnerable narcissism rather than grandiose narcissism. We had significant findings for our results such that grandiose narcissism was positively correlated with facebook usage ratings, twitter usage ratings, instagram usage ratings, and overall social network usage ratings. On the other hand, vulnerable narcissism was negatively correlated with facebook usage ratings, twitter usage ratings, instagram usage ratings, and overall social network usage ratings. However, these findings were not significant. Our first hypothesis that those who use social networks more frequently will exhibit higher levels of narcissism was supported. While our second hypothesis, that the levels of narcissism the subject will exhibit, will be more along the lines of vulnerable narcissism, rather than grandiose narcissism, was not
supported. From these findings, we can conclude that those who use social network sites more frequently, exhibit higher levels of grandiose narcissism. However, we must not rule out the idea that those who use social networks less frequently are not narcissist at all. Those who use social networks less frequently may actually be just as narcissistic, yet may be less inclined to expose it through social networks. This would be consistent with the type of characteristics a vulnerable narcissist may display. Vulnerable narcissists may be less likely to use social networks and exhibit those self-promoting behaviors in fear of scrutiny by others. Our results are consistent with this idea because those who did use social networks less tended to have higher ratings of vulnerable narcissism.

In our study we did confront certain limitations. First, there was an error in phrasing while forming the questionnaire; thus one of the questions in the NPI had to be deleted. Another potential error in the study was our reliance upon self-report. By using self-report the issue comes up that subjects could potentially under-report usage because they are self-conscious of heavy social network usage or because the simple fact that people are not the best judges of their social network activity. Finally, we consistently used the social network questionnaire before any of the narcissism questionnaires, possibly creating an order effect. Subjects’ answers on the narcissism questionnaires may have been influenced by how they rated themselves on degree of social network usage.

To conclude, frequency of social network usage has an effect on narcissism. More specifically, those who use social networks more frequently tend to have higher rates of grandiose narcissism. However, those who use social networks less frequently may still be just as narcissistic as but may be less inclined to expose it through social networks.
References


Smith, C. (2014, March 9). How Many People Use 415 of the Top Social Media, Apps and

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