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Why is the Followers-to-Following Ratio so Important?

Cody E. Harrell

Shenandoah University, charrell15@su.edu

Scott King

Shenandoah University, sking4@su.edu

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Abstract

The impact of social media exposure on various aspects of users' personality and mental health has become a popular topic for psychological research over the past ten years. Instagram provides users with numbers indicating how many accounts they follow and how many accounts follow them. This ratio carries social status, in that someone with more followers than people they follow could be viewed as a more popular user. The current study explores the relationship between Instagram use, user popularity, the Big 5 personality traits, self-esteem, histrionic tendencies, and narcissistic tendencies in a sample of 125 undergraduates. We hypothesized that users with larger follower-to-following ratios would have lower self-esteem, and higher narcissistic and histrionic tendencies. There were few significant correlations between the personality traits and followers-to-following ratios, suggesting that more research is needed in order to determine the impact that an individual's personality has on the amount of attention and effort they spend on their ratio.

Keywords: histrionic, narcissistic, personality

Followers-to-Following Ratio: Why is it so Important?

An Examination of Undergraduate Personality and Social Media Habits

Since social media's rise in popularity in the early 2000's, psychologists have been interested in its relationships with users' mental well-being. For example, according to Aalbers, McNally, Heeren, de Wit, and Fried (2018), individuals who spend more time passively scrolling through social media without active participation experience higher levels of depressed mood. Along with users' mood, personality, the focus of the current study, is an important correlate of social media use as well.

Errasti, Amigo, and Villadangos (2017), found a positive correlation between social media use and narcissism, and a negative correlation between social media use and self-esteem. Findings like theirs give reason to believe that social media is creating a user population of vulnerable narcissists. The vulnerability aspect stems from the decline in self-esteem through social media use. Individuals are becoming more and more self-conscious about themselves due to potentially constant exposure to others' posts, which may not be congruent with reality (Guadagno, Okdie, & Kruse, 2012).

From September 2017 to June 2018, the number of Instagram users increased from 800 million to one billion monthly active users (Clement, 2019). Instagram is a social media platform that provides users with a means to communicate with one another through visual images as well as typed comments and direct messages. The majority of the network is centered around posting pictures that are appealing or otherwise interesting to the world. Many people use this site to store their photos, but for the most part individuals use it for self-expression and interpersonal interaction (Alhabash & Ma, 2017; Sheldon & Bryant, 2016).

The ongoing internal comparisons and judgements that occur through the use of Instagram suggest that social media can be linked to narcissism, specifically, the self-conscious type. A self-conscious, or vulnerable, narcissist is described as someone who is hypersensitive and insecure especially when a threat to their grandiosely positive self-image is present (Pincus et al., 2009). Posting pictures that show an affiliation with others is associated with vulnerable narcissism (Barry, Reiter, Anderson, Schoessler, & Sidoti, 2019). McCain and Campbell (2016) define narcissism as a trait consisting of a grandiose self-concept and the intention to maintain this type of self-concept even when faced with reality. Social media can essentially be the creation of an alternate reality for individuals to escape real life for a period of time, whether it be on a bus, before bed, or while using the bathroom. Individuals are able to customize various aspects of their online persona in order to create the life they want to show the world. This alternate reality acts for some as a way to physically create their grandiose self-concept, but with all of the competition also comes the feeling of never being good enough. Therefore, vulnerable narcissism occurs when a narcissist is incapable of acquiring the approval necessary to maintain their grandiose self-concept. No matter how many likes they get, they will always think they need more recognition.

The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association, 2013) describes individuals with Histrionic Personality Disorder as one who engages in attention seeking behavior and excessive emotionality. Additionally, they are usually uncomfortable when they are not the center of attention or when they are alone. There is currently little research on social media and histrionic tendencies, but there is research linking histrionic traits to acting for the approval of an audience. Actors scored significantly higher than non-actors on histrionic personality disorder scales (Davidson & Furnham, 2018) giving reason

to believe there may be a relationship between behaviors on social media and histrionic tendencies, considering the degree to which actors engender emotional reactions from their audience. This tendency involves attention-seeking behavior, self-dramatizing, theatrical, and exaggerated emotional expression, all of which can be useful in gaining followers on Instagram, where users may see an incentive to change their biographies, acquire fake followers, exaggerate their accomplishments, and do whatever it takes to prove their worth to their followers (e.g., Joy, 2020).

Another important aspect of histrionic personality disorder is the specific attention placed on appearance (Novais, Araujo, & Godinho 2015). Individuals with histrionic tendencies feel a need to attract others through their physical appearance. This could include their clothing, hair style, and their physical fitness, all of which tend to be featured on Instagram. Various filters and editing tools are utilized in order to create the most likable post, and the categories can be promoted through hashtags in an attempt to gain even more attention. Users are now willing to go as far as to advertise a fake and fully edited image of themselves in order to gain approval from their followers. Not only are they posting enhanced pictures, they are also distorting their self-image for the sole purpose of obtaining recognition. Users give those with high follower counts the title of Influencer as a way to categorize them as being more adept in the practice of social media use. This is also someone who is entertaining and popular enough on social media that they are capable of earning money for their activity on the platform.

Personality is further connected to Histrionic Personality Disorder through associations with the Big Five traits, specifically extraversion (Samuel & Widiger, 2008). Extraversion does not have a negative connotation associated with it at face value, but there is evidence of an association between this trait and increased activity in the brain's reward regions (Kennis,

Rademaker, & Geuze, 2013). Therefore, an extravert would be more likely to engage in attention-seeking behavior to trigger more activity in the reward centers of the brain. This sort of behavior can become toxic and self-destructive if the necessary self-monitoring is not applied. Narcissism, another aspect associated with social media use, tends to be correlated with low agreeableness (Samuel & Widiger, 2008). Combining these concepts could imply that Instagram facilitates the elicitation of extraverted and disagreeable tendencies within the platform's user population, leading to the unhealthy need of constant attention and gratification. This type of individual is likely not one who would be able to successfully communicate and interact in a healthy manner with respect to others around them. The biggest downside of this facilitation is the negative correlation found with self-esteem. Users are spending countless hours on Instagram, Twitter, Facebook, Snapchat, and many other platforms in order to increase their social status, only to find themselves feeling worse about who they are in relation to society. Much research has pointed to connections between growing rates of depression and social media usage, especially among adolescents and emerging adults (Twenge, 2018). As such, emerging adults in the United States serve as a useful population on which to focus the lens of this study, as their mental health as a whole is in need of close examination with the changing world.

The present study includes a focus on how users are managing their accounts through their number of followers and the number of accounts they are following. The objective is to determine the relationship, if any, between the followers-to-following ratio and histrionic tendencies, narcissism, self-esteem, and the Big Five personality traits. We expected that users with higher follower-to-following ratios would be more likely to have lower self-esteem, but higher narcissistic and histrionic tendencies.

Method

Participants

125 participants (including one identifying as androgynous, 55 identifying as men and 69 identifying as women), all students enrolled in introductory psychology, were surveyed through the online survey platform Qualtrics. They were given credit for their Psychology 101 course for completing the survey. The participant pool was comprised of 85 White Americans, 21 African Americans, 3 Hispanic Americans, 4 Asian Americans, 2 Mixed Race individuals, and 10 who did not specify. The mean age of this sample was 18.7 years with a standard deviation of 1.94.

Instruments

The first scale used in the survey was the adapted 10-item Five Factor Histrionic Inventory ($\alpha = .80-.84$) created by Tomiatti, Gore, Lyman, Miller, and Widiger (2012; see Appendix A). This scale is intended to measure histrionic tendencies within an individual. Followed by the FFHI was the Rosenberg Self-Esteem Scale ($\alpha = .77$) used to measure self-esteem within the participants (Rosenberg, 1965; see Appendix B). Thirdly, the Narcissistic Personality Inventory-16 ($\alpha = .69$) was utilized to determine the level of narcissistic tendencies within our subject pool (Ames, Rose, & Anderson, 2006; see Appendix C). The NPI-16 is a shortened version of the NPI, and it consists of 16 questions. The final scale was the Ten Item Personality Inventory ($\alpha = .40-.73$; test-retest $r = .72$), which measures Extraversion, Conscientiousness, Openness, Agreeableness, and Neuroticism (Gosling, Rentfrow, & Swann, 2003; see Appendix D).

Procedure

Informed consent was obtained from each individual before being allowed to begin participation. The survey began with demographic questions including age, gender identity, race, and the number of hours they spend on Instagram per week. Immediately following were the four

different personality tests including the Five Factor Histrionic Inventory, Rosenberg Self-Esteem Scale, Narcissistic Personality Inventory-16, and the Ten Item Personality Inventory. The survey concluded with two separate questions with one asking for the participant's current number of followers and secondly asking for the participant's current amount of accounts they were following on Instagram.

Results

Pearson's correlation coefficients were computed to assess the relationship between the four personality scales (NPI-16, FFHI, RSE, TIPI) and the participants' followers-to-following ratio. The means and correlations among personality items and followers-to-following ratio are shown in Appendix E.

Within the Big Five Personality traits, there was no significant correlation between the participants' followers-to-following ratio and extraversion, $r(123) = .01, p = .898$; Agreeableness, $r(123) = .11, p = .222$; Conscientiousness, $r(123) = .03, p = .770$; Neuroticism, $r(123) = -.12, p = .193$; or Openness, $r(123) = -.06, p = .532$. Additionally, there was no significant correlation between the participants' followers-to-following ratio and narcissism, $r(123) = -.09, p = .301$; histrionic tendencies, $r(123) = .07, p = .470$; or self-esteem, $r(123) = .03, p = .754$.

Between the personality scales, there were positive correlations between narcissism and self-esteem, $r(123) = .33, p < .001$; narcissism and histrionic tendencies, $r(123) = .55, p < .001$; as well as self-esteem and histrionic tendencies, $r(123) = .36, p < .001$.

Discussion

The results suggest that there is no relationship between one's followers-to-following ratio and their self-esteem, narcissistic tendencies, or histrionic tendencies, failing to support the

hypothesis. Narcissism, self-esteem, and histrionic tendencies, however, were positively correlated with one another. The positive relationship between self-esteem and narcissism is incongruent with Barry and colleagues' study (2019), which showed a negative correlation between these traits.

Passive social media use is a common occurrence that involves a user viewing various posts without interacting with any of them (Aalber et al., 2018). An interaction is defined as commenting, liking, favoriting, or messaging social media posts. Considering the likelihood of users to participate in passive social media use, depressed mood as well as lower self-esteem are two negative outcomes that social media users might experience.

Limitations

The current project includes some limitations which need to be highlighted. The participants were not being observed, so they could have been answering without careful consideration to the question. They also received course credit for simply completing the survey, so there was no incentive for completing with specific attention to their answers. More incentive to answer accurately would assist in controlling for reliability issues.

Other limitations pertain to the validity of our study. The present study's anomalous findings may be due to a sample that does not effectively generalize to the population as a whole. A larger and randomly selected group of users would have resulted in better external validity. In order to improve construct validity, we recommend an attention check be incorporated into the online administration of the surveys, so that participants who respond incorrectly can be removed from further analysis.

Future Directions

Future studies using this method may include a researcher asking the participants the questions face-to-face. Answering questions via computer could lead to some participants randomly choosing answers to get through the questions quickly. A face-to-face interview on the other hand would ensure that the participants take time to think about their answer before making a decision. Another idea would be to have at least one researcher in the room with the participants as they complete the survey. The presence of a facilitator shows them that there is a face behind the survey, and more importantly, a face that cares about the accuracy of each answer. The present study was completed wherever each participant decided, so having them all come to the same location and follow the same process would prove beneficial for controlling extraneous variables stemming from the testing environment.

Another route to take this research on would be determining other types of behaviors users perform in order to alter their profile, such as analyzing the effect of changing the number of posts a user has on their profile or examining how often users like others' posts. Presenting other users with likes could be done with the expectation of reciprocity to receive a like from that individual in the future. Determining which behaviors are ingenuine will prove useful to the analysis of Instagram's harm on the population's mental health. Aalbers et al., (2018) found that higher levels of depressed mood were associated with passive social media usage, so future research should focus on deciphering the nuances of why this relationship exists.

The purpose of the current study was to explore the relationship between Instagram use, user popularity, the Big 5 personality traits, self-esteem, histrionic tendencies, and narcissistic tendencies within an undergraduate sample. This research is increasingly important because of the growing number of social media users, as well as rising numbers of mental health issues among emerging adults. Although our hypothesis was not supported, researchers should continue

to examine this relationship. We expect the connections between these variables to only strengthen as more emerging adults face increased screen time and social isolation as a result of the COVID-19 pandemic.

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Appendix A**Five Factor Histrionic Inventory (FFHI)**

1-5 Scale: Strongly Disagree-Strongly Agree

Please answer how strongly you agree or disagree with each of the following statements.

1. I like being the one people are talking about
2. I am a very attractive person
3. I'm a very sexy person.
4. I'm really good at attracting members of the opposite sex
5. I am not the least bit vain. (R)
6. I am a strikingly noticeable person.
7. I make sure to dress in ways that make people notice me.
8. I am easily able to make others sexually attractive to me.
9. I deserve a lot of special attention from others.
10. I do not go out of my way to look sexy (R).

Tomiatti, M., Gore, W. L., Lynam, D. R., Miller, J. D., & Widiger, T. A. (2012). A five-factor measure of histrionic personality traits. *Advances in Psychology Research*, 87, 122.

Appendix B**Rosenberg Self-Esteem Scale**

1-4 Scale: Strongly Disagree-Strongly Agree; no neutral

Please answer how strongly you agree or disagree with the following statements.

1. On the whole, I am satisfied with myself.
2. At times I think I am no good at all. (R)
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of. (R)
6. I certainly feel useless at times. (R)
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself. (R)
9. All in all, I am inclined to feel that I am a failure. (R)
10. I take a positive attitude toward myself.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Appendix C**Narcissism-16 Scale**

1-5 Scale: Strongly Agree-Strongly Disagree

Please answer how strongly you agree or disagree with the following statements.

1. I know that I am good because everybody keeps telling me so.
2. I like to be the center of attention.
3. I think I am a special person.
4. I like having authority over people.
5. I find it easy to manipulate people.
6. I insist upon getting the respect that is due to me.
7. I am apt to show off if I get the chance.
8. I always know what I am doing.
9. Everybody likes to hear my stories.
10. I expect a great deal from other people.
11. I really like to be the center of attention.
12. People always seem to recognize my authority.
13. I am going to be a great person.
14. I can make anybody believe anything I want them to.
15. I am more capable than other people.
16. I am an extraordinary person.

Ames, D. R., Rose, P., & Anderson, C. R. (2006). The NPI-16 as a short measure of narcissism.

Journal of Research in Personality, 40, 440-450.

Appendix D**Ten Item Personality Inventory (TIPI)**

1-7 Scale: Disagree Strongly-Agree Strongly

Please answer how strongly you agree or disagree with the following statements.

I see myself as:

1. ____ Extraverted, enthusiastic. (Extraversion)
2. ____ Critical, quarrelsome. (R) (Agreeableness)
3. ____ Dependable, self-disciplined. (Conscientiousness)
4. ____ Anxious, easily upset. (R) (Neuroticism)
5. ____ Open to new experiences, complex. (Openness)
6. ____ Reserved, quiet. (R) (Extraversion)
7. ____ Sympathetic, warm. (Agreeableness)
8. ____ Disorganized, careless. (R) (Conscientiousness)
9. ____ Calm, emotionally stable. (Neuroticism)
10. ____ Conventional, uncreative. (R) (Openness)

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A very brief measure of the Big Five personality domains. *Journal of Research in Personality, 37*, 504-528.

Appendix E

Means and Intercorrelations Among Personality Items and Followers-to-Following Ratio

Correlations

Pearson Correlation

	Followers-to-Following Ratio	Narcissism Test Score	Self-Esteem Test Score	Histrionic Test Score	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Followers-to-Following Ratio ($M = 1.2, SD = 1.1$)	1	-.093	.028	.065	.012	.110	.026	-.117	-.056
Narcissism Test Score ($M = 2.9, SD = .6$)	-.093	1	.325**	.550**	.295**	-.194*	.289**	.138	.281**
Self-Esteem Test Score ($M = 20.6, SD = 5.5$)	.028	.325**	1	.359**	.199*	.121	.333**	.583**	.212*
Histrionic Test Score ($M = 2.8, SD = .6$)	.065	.550**	.359**	1	.277**	-.112	.028	.166	.013
Extraversion ($M = 4.2, SD = 1.5$)	.012	.295**	.199*	.277**	1	-.028	.120	.140	.239**
Agreeableness ($M = 4.9, SD = 1.0$)	.110	-.194*	.121	-.112	-.028	1	.072	.052	.238**
Conscientiousness ($M = 5.4, SD = 1.1$)	.026	.289**	.333**	.028	.120	.072	1	.110	.320**
Neuroticism ($M = 4.5, SD = 1.4$)	-.117	.138	.583**	.166	.140	.052	.110	1	.036
Openness ($M = 5.2, SD = 1.1$)	-.056	.281**	.212*	.013	.239**	.238**	.320**	.036	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).