

Social Media Feedback: Its Effect on Self Esteem and Instagram Usage

Andrew Sanchez

Department of Psychological and Brain Sciences, University of California, Santa Barbara

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Dr. Vanessa Woods

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Abstract

Social media has become increasingly influential on our daily social lives due to its platform that allows users to connect, interact, and present themselves to others. Previous studies have found that the type of social media feedback an individual receives has a connection with an individuals' self-esteem (Burrow & Rainone, 2017). Additionally, personality has been found to be a leading factor in understanding an individual's use and engagement of social media (Amichai-Hamburger & Vinitzky, 2010). This study aims to examine how levels of extraversion and hypothetical social media feedback interact with participants' self-esteem and how it affects their engagement in social gratification usage of Instagram. In this study 99 participants (69 females, 26 males, 4 non-binary) were placed in a hypothetical social media feedback situation (positive vs. negative) and were measured for levels of extraversion using the TIPI. Previous research suggests that those placed in the positive social media situation would report higher levels of self-esteem. Our findings failed to support previous research due to the non-significant main effect of social media feedback on self-esteem. However, our study found a significant main effect for extraversion on self-esteem, individuals who scored high on the extraversion scale scored low for self-esteem. Additionally, our findings showed no significant main effects for both social media and extraversion on all 3 of our subscales measuring gratification usage of Instagram. Future research can further examine research on other demographic features of individuals to find new relationships between social media, self-esteem, and personality.

People's social lives have revolved around the internet in the modern day, it has become a way many people choose to interact with others. Instagram is one of the most popular social media platforms, it allows users to create their own platform through the publication of pictures and/or videos. It also allows users to interact with others through likes and follows with the click of a button. Instagram provides a sufficient enough environment for users to present themselves, by allowing its users to post images, videos, and commentary under each post. Evidence shows that the amount of social media feedback received such as likes and followers, corresponds with one's self-esteem (Burrow & Rainone, 2017). However, we are interested in expanding these findings and seeing how differences in extraversion can interact with this evidence. One study found that extraverted individuals will use social media sites like Instagram to maintain or create relationships (Kircaburun et al. 2018). In the current study, we aim to examine how levels of extraversion interact with participants placed in hypothetical social media feedback situations and how it affects their engagement in social gratification usage of Instagram.

Personality has been found to be the leading factor in understanding why people behave and present themselves the way they do on social media sites (Amichai-Hamburger & Vinitzky, 2010). Amichai-Hamburger and Vinitzky (2010) found that extroverted individuals made a greater use of social media services, as a result of extraverted individuals being shown to be talkative, social, passionate, and active. Extraversion, as a personality trait, also displays the tendency to experience positive emotions and be sociable. Significantly, Amichai-Hamburger and Vinitzky (2010) found a positive effect of extraverted individuals on the number of friends. This link between extraverted individuals and number of friends on social media can be explained by the fact that extraverted individuals rely on their social skills and displaying more

of themselves on social media compared to introverted individuals who are more weary of what they post and how they present themselves.

The feedback one gains from posting on social media platforms, such as Instagram, often indicates acceptance and fulfills one's self-esteem (Burrow & Rainone, 2017). Multiple studies have shown that one's self esteem is elevated when they are accepted or included by others (Denissen et al., 2008). These findings suggest that individuals who receive positive social media feedback will experience higher self-esteem, compared to individuals who receive negative social media feedback since their social needs are being satisfied. The Sociometer theory is linked to self-esteem in that it is a prediction of how people's feelings are highly sensitive to the idea of being rejected or excluded (Leary & Baumeister, 2000). Similarly, the Sociometer theory also predicts that feelings of value such as love, bonding, and inclusion within a social group are associated with higher self-esteem. The theory constantly monitors the environment for inclusion cues or signals. Previous researchers address how those who scored higher in self-esteem will be more motivated to seek interpersonal relationships in different social settings, compared to those who scored lower for self-esteem (Leary, 2011) which is expected given what we know about the interaction of self-esteem and social media feedback.

Uses and Gratification theory (U>) explains the motivation and gratification caused by social media usage (Katz et al., 1973). The U> has four primary assumptions (i) media use is goal-directed or motivated, (ii) people use media to satisfy their needs and desires, (iii) social and psychological factors mediate media use, and (iv) media use and interpersonal communication are related. Additionally, the U> provides two gratifications that motivate users of social media: gratification sought (expectations gained from using social media) and gratification obtained (needs satisfied by social media sites) (Kircaburun et al., 2018). Social

media gratification usage, whether it is to make new friends or maintain current relationships, corresponds to personality traits. According to the research conducted by Amichai-Hamburger and Vinitzky (2010), extroverted individuals were more likely to use social media for communicating (Correa et al., 2010), maintaining existing relationships (Ross et al., 2009), and sharing their status messages (Lee et al., 2014). Significantly Kuss and Griffiths (2011) found that primary motivations for social media usage were establishing and maintaining online and offline connections. Furthermore, Instagram had a high usage intensity among undergraduate college students (Alhabash & Ma, 2017), likely due to its use for self-expression, social interaction, surveillance/knowledge about others, and coolness (Sheldon & Bryant, 2016).

Rationale

As previously mentioned, social media feedback is a phenomenon that affects one's sensitivity to social media use and self-esteem. Self-esteem involves how one feels about themselves, where high self-esteem feels good and low self-esteem the opposite (Leary et al., 1995). Findings from previous research has shown that the Sociometer theory argues that if you receive positive feedback on social media sites then you will be more likely to have higher self-esteem and are more likely to use social media to seek interpersonal relationships. Instagram will be used as our hypothetical social media site due to its high usage among university students as previously mentioned. The Uses and gratifications theory (U>) explains the motivation and gratification caused by social media usage (Katz et al., 1973). Factors being used for this study are maintaining existing relationships (MER), meeting new people and socializing (MNPS), and expressing or presenting more popular self (MEPO). In a previous study, it was found that those with high self esteem are correlated with greater general ability to make friends, including online friends (Jenkins et al., 2012). With these findings, we predict that those who

score higher for extraversion will also score higher for factors of social media use (MER, MNPS, MEPO). We also predict that people with high levels of extraversion lead to a stronger motivation in seeking interpersonal relationships through social media use. Lastly, people who receive positive social media feedback are more likely to have a higher self esteem which then leads to a greater general ability to make friends.

Hypotheses

We hypothesize that participants who are in the positive social media feedback condition will show higher levels of self esteem and will be more likely to engage in gratification use of Instagram compared to participants in the negative social media feedback condition who will score lower for self esteem and less likely to engage in gratification use. Our second hypothesis is that higher extraverted people will score higher for gratification use to make friends compared to participants with lower levels of extraversion regardless of social media feedback conditions. Lastly, we hypothesize that participants who are in the positive social media feedback condition will show higher levels of self esteem and will be more likely to engage in gratification use of Instagram compared to participants in the negative social media feedback condition who will score lower for self esteem and less likely to engage in gratification use, and this effect will be more pronounced for people with higher levels of extraversion compared to lower levels of extraversion.

Methods

Design

This study is a 2 (Social media feedback: Positive vs. Negative) x 2 (Extraversion: High vs. Low) between-subjects experimental design with self-esteem and gratification use of Instagram as our dependent variables. The independent variable is the type of hypothetical social

media situation that participants were randomly assigned to, either positive or negative.

Extraversion is also being measured as a moderator by using the TIPI scale. The dependent variables in this experiment are global self esteem and gratification use for Instagram.

Participants

Data was collected from 99 participants (69% females) between the ages of 18 to 23. Convenience sampling was used to recruit participants that were enrolled in the PSY120L course due to class participation. The remainder of the participants were personally solicited via invitation from the researchers and through social media sites, such as Instagram and Groupme, and completed the survey voluntarily receiving no compensation. Participants enrolled in the PSY120L course were compensated with class credit. This study was covered by an educational Institutional Review Board (IRB) and Dr. Woods reviewed and approved all parts of the study.

Measure/Materials

Hypothetical Social Media Feedback Condition

The social media feedback independent variable was manipulated by randomly assigning participants to either a positive or negative social media feedback condition. In the positive social media setting participants were asked to imagine that they posted an image of themselves on Instagram and received more likes and comments that they usually receive. In the negative social media setting participants were asked to imagine that they posted an image of themselves on Instagram and received a lower amount of likes and comments that they usually receive.

Self-esteem

The [Rosenberg Self Esteem Scale](#) created by Rosenberg (1965) is a 10-item scale that assesses global self worth by measuring both positive and negative feelings about the self (Tinakon & Nahathai, 2012). Sample items include “On the whole, I am satisfied with myself”,

“At times I think I am no good at all”, etc. All items are answered on a 4-point likert scale ranging from strongly disagree to strongly agree. Items 2, 5, 6, 8, 9 are reverse scored, and the scores are measured by taking the sum of all 10 items. Higher scores on the scale indicate higher self esteem. Cronbach’s alpha for the Rosenberg Self Esteem Scale were 0.86 and 0.86 (Tinakon & Nahathai, 2012).

Big 5 Traits

The [10 Item FFM Scale](#) or TIPI (Gosling et al., 2003) will measure all Big 5 traits, but we only analyzed results for Extraversion and Agreeableness & Openness. The TIPI is a 10 item scale measuring Big Five dimensions. Sample items start with “I see myself as” and end in “Extraverted, Enthusiastic”, “Critical, Quarrelsome”, etc. The reverse scored items are 2, 4, 6, 8, and 10. It is rated on a 7-point scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Score is recorded by taking the average of the two items (standard and reverse-scored). The scale has reached adequate levels for test-retest reliability and validity. Participants will then be split into high and low levels of extraversion.

Gratification Usage for Instagram

To measure gratification use for Instagram we used the [Purpose of FB Usage scale](#) (Horzum, 2016). This scale will be modified to apply to Instagram and we will use 3 subscales: Maintaining existing relationships (MER), Meeting New People and Socializing (MNPS), and Make, Express, Present, or more Popular Oneself (MEPO). Each subscale contains 4 items and will be scored on a 5-point likert scale ranging from (*Strongly disagree* - *Strongly agree*). MER subscale included sample items such as “Stay in touch with friends of people I know”, “Find out what acquaintances or friends are doing now”, etc. The MNPS subscale included items such as “Meet new friends”, “Develop a romantic relationship”, etc. Lasty the MEPO subscale included

items such as “Popularity contest to have more Instagram friends”, “To be cool”, etc. It was found that the factorial validities of the scale were acceptable. Cronbach’s alpha for the Purpose of FB Usage Scale was 0.91.

Procedure

Once participants received the Qualtrics link to the survey, participants were presented with a consent form agreeing to participate in the study. Participants were also given the option to withdraw their consent at any time during the study. After the consent form participants were asked general, non-identifying demographic questions such as age, year in school, and gender. Participants were then given the 10 item TIPI scale that was used to measure for the big 5 traits, in the case of this study we focused on extraversion and agreeableness & openness. Participants were then randomly assigned to a (hypothetical) positive or negative social media setting. In the positive social media setting participants were asked to imagine that they posted an image of themselves on Instagram and received more likes and comments that they usually receive. In the negative social media setting participants were asked to imagine that they posted an image of themselves on Instagram and received a lower amount of likes and comments that they usually receive. Following, the Rosenberg Self Esteem Scale was assigned to all participants. In addition participants were also given three Facebook usage subscales: Maintaining existing relationships (MER), Meeting New People and Socializing (MNPS), and Make, Express, Present, or more Popular Oneself (MEPO) which will all be modified for usage of Instagram rather than Facebook. At last participants were debriefed and told that the study focused on examining the differences of Instagram usage and self-esteem when placed in different feedback situations, with extraversion as a moderator. The hypotheses of the study were also stated with additional journal

articles used in our study. Lastly, participants were given the emails of all researchers including the instructors.

Results

We assessed our manipulation of the type of social media feedback participants were randomly assigned to and levels of extraversion on the participants' self-esteem. To assess this we conducted a 2(Social media feedback: Positive vs. Negative) x 2(Extraversion levels: High vs. Low) ANOVA to test whether the social media feedback condition(positive vs. negative) and extraversion levels(high vs. low) impacted levels of self-esteem. Results showed a non-significant main effect of the social media feedback condition on self-esteem [$F(1, 99) = 1.07, p = .303$]. Given these results, the social media feedback condition, positive ($M = 21, SD = 4.64$) and negative ($M = 22, SD = 5.37$), participants were randomly assigned to did not have an effect on self-esteem. There was a significant main effect of extraversion on self-esteem [$F(1,99) = 8.64, p = .004$], such that those who score high for extraversion ($M = 20.1, SD = 4.68$) would report lower general self-esteem than those who scored low for extraversion ($M = 23, SD = 5.01$). Lastly, there was no significant interaction of the social media feedback condition and extraversion on reported self-esteem, such that those high in extraversion in the negative social media feedback condition did not report higher levels of self-esteem than those low in extraversion in the same social media feedback condition [$F(1,99) = 0.36, p = .548$] (see Figure 1). A Pearson's correlation was calculated to examine the relationship between extraversion and self-esteem, the results suggest that when extraversion is higher, self-esteem decreases ($r = -0.39, p < .05$).

Next, we assessed our manipulation of the type of social media feedback participants were randomly assigned to and their levels of extraversion to see if participants were more likely

to use Instagram to maintain existing relationships (MER).. To assess this we conducted a 2(Social media feedback: Positive vs. Negative) x 2(Extraversion levels: High vs. Low) ANOVA to test whether the social media feedback condition(positive vs. negative) and extraversion levels(high vs. low) impacted levels of maintaining existing relationships (MER). Results showed a non-significant main effect of the social media feedback condition on maintaining existing relationships [$F(1,99) = 0.21, p = .646$]. Given these results, the social media feedback condition participants were randomly assigned to, positive ($M = 13.4, SD = 3.52$) or negative ($M = 13.7, SD = 3$), did not increase or decrease using Instagram to maintain existing relationships. There was a non-significant main effect of extraversion on MER [$F(1,99) = 2.70, p = .104$]. Therefore, levels of extraversion did not have an impact on the use of Instagram to maintain existing relationships, such that there will be no difference in the use of Instagram to maintain existing relationships for those high in extraversion ($M = 14.1, SD = 2.7$) compared to those low in extraversion ($M = 13, SD = 3.73$). Lastly, there was no significant interaction of the social media feedback condition and extraversion on the use of Instagram for maintaining existing relationships [$F(1,99) = 0.03, p = .857$].

We then assessed our manipulation of the type of social media feedback participants were randomly assigned to and levels of extraversion on the usage of Instagram to meet new people and socialize (MNPS). To assess this we conducted a 2(Social media feedback: Positive vs. Negative) x 2(Extraversion levels: High vs. Low) ANOVA to test whether the social media feedback condition(positive vs. negative) and extraversion levels(high vs. low) impacted levels of meeting new people and socializing (MNPS) on Instagram. Results showed a non-significant main effect of the social media feedback condition on meeting new people and socializing [$F(1,99) = 0.45, p = .503$]. Given these results, the social media feedback condition participants

were randomly assigned to, positive ($M = 11.3$, $SD = 3.72$) or negative ($M = 11.7$, $SD = 2.79$), did not increase or decrease using Instagram to meet new people and socialize. There was a non-significant main effect of extraversion on using Instagram to meet new people and socialize due to type 1 error [$F(1,99) = 3.45$, $p = .066$]. Therefore levels of extraversion did not have an impact on the use of Instagram to meet new people and socialize, such that there will be no difference in the use of Instagram to meet new people and socialize for those high in extraversion ($M = 12.1$, $SD = 3.28$) compared to those low in extraversion ($M = 10.9$, $SD = 3.18$). Lastly, there was no significant interaction of the social media feedback condition and extraversion on the use of Instagram for meeting new people and socializing [$F(1,99) = 5.97$, $p = .016$].

Finally, we assessed our manipulation of the type of social media feedback participants were randomly assigned to and levels of extraversion on the usage of Instagram to Make, Express, Present, or more Popular Oneself (MEPO). To assess this we conducted a 2(Social media feedback: Positive vs. Negative) x 2(Extraversion levels: High vs. Low) ANOVA to test whether the social media feedback condition(positive vs. negative) and extraversion levels(high vs. low) impacted levels of Instagram use to make, express, present, or more popular oneself (MEPO). Results showed a non-significant main effect of the social media feedback condition on make, express, present, or more popular oneself [$F(1,99) = 0.79$, $p = .376$]. Given these results, the social media feedback condition participants were randomly assigned to, positive ($M = 10.7$, $SD = 3.22$) or negative ($M = 10.1$, $SD = 3.07$), did not increase or decrease using Instagram to make, express, present, or more popular oneself. There was a non-significant main effect of extraversion on using Instagram to make, express, present, or more popular oneself [$F(1,99) = 1.6$, $p = .209$]. Therefore, levels of extraversion did not have an impact on the use of Instagram to make, express, present, or more popular oneself, such that there will be no difference in the use

of Instagram to make, express, present, or more popular oneself for those high in extraversion ($M = 10.79$, $SD = 3.32$) compared to those low in extraversion ($M = 9.99$, $SD = 2.93$). Lastly, there was no significant interaction of the social media feedback condition and extraversion on the use of Instagram to make, express, present, or more popular oneself [$F(1,99) = 2.23$, $p = .139$].

Discussion

In our study, we first hypothesized that participants who are in the positive social media feedback condition will show higher levels of self esteem and will be more likely to engage in gratification use of Instagram compared to participants in the negative social media feedback condition who will score lower for self esteem and less likely to engage in gratification use. Secondly, we hypothesized that higher extraverted people will score higher for gratification use to make friends compared to participants with lower levels of extraversion regardless of social media feedback conditions. Lastly, we hypothesized that participants who are in the positive social media feedback condition will show higher levels of self esteem and will be more likely to engage in gratification use of Instagram compared to participants in the negative social media feedback condition who will score lower for self esteem and less likely to engage in gratification use, and this effect will be dictated by levels of extraversion scored on the TIPI scale.

The results of our study did not support any of our hypotheses but showed a significant main effect of extraversion on self-esteem, such that individuals who scored higher in extraversion would report lower self-esteem than those who were lower in extraversion. Therefore, our results failed to support past researchers such as Amichai-Hamburger and Vinitzky (2010) since they found that extraverted individuals are more likely to use social media to make or maintain current relationships, where our study found a non-significant main effect of extraversion on all scales measuring gratification use for Instagram. Although our results did not

support our hypotheses, there is an extensive amount of literature suggesting the impact of personality traits on gratification use for social media networks (Kircaburun et al., 2018). Given our only significant main effect for extraversion on self-esteem, it is possible this occurred due to the individuals' social life both online and in person. A higher extraverted individual might report lower self-esteem than a low extraverted individual when placed in the negative feedback group, since the extraverted individual is more social and revolves around groups and organizations. As previously mentioned, there was no main effect of extraversion on social media usage although there has been extensive research done suggesting that extraverted individuals have a more outgoing and sociable platform compared to introverted individuals (Horzum, 2016).

In our study there was a significant main effect of extraversion on self-esteem meaning that those who score high for extraversion would report lower general self-esteem than those who scored low for extraversion. Our correlation results suggest that self-esteem decreases with higher extraversion. Our findings contradict previous research by Burrow and Rainone (2017), where they found that the amount of likes and followers received corresponds with one's self-esteem when receiving feedback on Facebook. When building our design we took their findings into account to format our manipulation, and rather than using Facebook as our social network we decided to use Instagram because of its relevance to undergraduate students. This allowed us to have a similar format to Burrow and Rainone (2017), where participants were given randomized hypothetical social media feedback such as average number of likes being high or low.

Limitations

In our study we aimed to measure Instagram gratification use and self-esteem by using self-report measures. Mixed methods might help future studies in getting a better understanding of the variables being studied regarding Instagram gratification use. An example of a mixed method is to show participants a fake screenshot of comments and likes received on one of their pictures, randomly giving them either a positive or negative screenshot. Secondly, connecting with Instagram directly to collect data regarding Instagram usage rather than using a scale could offer beneficial findings. By using a scale to measure Instagram usage, it is difficult to scale every component that Instagram can be used for such as religious platforms, to influence others, etc. Additionally, research on social norms should be incorporated into future studies due to increased pressure by social groups and organizations on an individual, since our study primarily focused on age and gender. Increased pressure can influence what an individual posts and with additional research on social norms, research designs can be created to include these factors. Lastly, only demographic data regarding age and gender were collected from participants. Therefore, future studies should examine demographic features such as ethnicity, culture, religion, political ideology, etc. This allows future researchers to examine relationships between demographics and social media gratification use.

Future Research

In our study we aimed to examine the relationship between social media feedback on self-esteem and gratification use with extraversion as a moderator. Although our results did not support our hypothesis, it is important to note that there are more social networks other than Instagram. Since social networks offer different platforms, an individual might present themselves in another way and receive different social media feedback. As stated by Kircaburun et al. (2018) it is important to examine other demographic features of individuals. Important

demographic features might include but are not limited to race, ethnicity, socioeconomic status, and education. These features would be important to assess in order to determine whether other factors in social media use are involved such as, spreading information on important topics, connecting with family in other countries, staying up to date on current events, etc. By examining other demographic features of individuals, researchers might be able to find new relationships for the individuals' preferences for social media use. Additionally, future researchers should connect with social media networks directly to collect data on how active the individuals' might be. In doing this the data might show more significant results such as the amount of time social networks are being used, what the user's preferences are when displaying ads, the amount of interaction with others, etc.

Conclusion

Although our results did not support our hypotheses, it gave us an insight as to what future research in social media feedback can include. Our data showed that higher extraverted individuals reported lower levels of self-esteem than low extraverted individuals, and it is important for future researchers to take this into account when examining other factors such as social norms. Social norms, such as our attitudes towards topics, opinions, and behaviors create pressure on individuals's social media use and presentation of themselves. It should be noted that extraverted individuals have a higher sensitivity to social feedback considering their social life revolves around being socially active. Given this, it is important for future researchers to examine all factors mentioned above in order to increase our understanding of the relationships between social media, self-esteem, and personality to improve the psychological wellbeing of social media users.

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Tables & Figures

Figure 1

Effects of Social Media Feedback and Extraversion on Self Esteem