

Spring 4-30-2016

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Effects of self-photographs on viewer's mood, self-esteem and motivation

by

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Honours Thesis

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April 2016

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### Abstract

The present study examined how viewing certain self-photographs posted by individuals on social media sites affects self-esteem, mood, and motivation of persons who view these photos. There were 119 participants (aged 20-75), who were either subjected to self-photographs of attractive individuals, self-photographs of individuals engaging in pro-social behaviour, or no photographs (control group). Participants subsequently completed measures of mood, self-esteem, personality, motivation and narcissism. Individuals who were exposed to attractive self-photographs were hypothesized to have the lowest scores on measures of self-esteem, motivation, and mood, while individuals who were exposed to pro-social behaviour self-photographs were hypothesized to have the highest scores on measures of self-esteem, motivation and mood. While no overall main effects were found, pro-social photos were more predictive of increased motivational drive among those higher in extraversion and more predictive increased positive mood among those who higher in conscientiousness. Implications and future directions for research are discussed.

### Effects of self-photographs on viewer's mood, self-esteem and motivation

In today's society and world of social media, individuals are constantly posting photographs of themselves, also known as "selfies". A "selfie" is defined as a photograph that one has taken of oneself, typically captured with a smartphone or webcam and shared via social media (Oiu, Lu, Yang, Ou & Zhu, 2015). The word selfie has just recently come to light over the past decade, and was even named word of the year in 2013 by the Oxford English Dictionary (Qiu et al., 2015). The selfie is a phenomenon that has skyrocketed within the past couple years and has become a regular occurrence for multiple people throughout the world. Research shows that from 2004 to 2012 alone, the amount of selfies taken and posted to social media sites had increased by 17,000% (Barry et al., 2015). This dramatic increase is enough to make social psychologists question what exactly the implications are of this new found era of taking self-photographs and posting them online to social medias such as Instagram and Facebook for the world to view and have access to. The majority of the world has access to the Internet, which means virtually everyone and anyone has the ability to view selfies of other people at any point in time. Millions of individuals have Facebook and Instagram accounts, and as a result of that, are exposed to selfies essentially every time they log into their accounts. The potential for negative effects on an individual's emotional well-being, including mood, self-esteem, and motivation may exist, and in a society where we place emphasis on doing our best to take care of ourselves, it is important to figure out what these effects may entail.

The present study aimed to investigate the effects of viewing different types of selfie photos on individual's self-esteem, mood and motivation and how this might be moderated by individual difference factors.

*Psychology of Selfies*

Unfortunately, very little research has been done in the area of self-photographs, considering it is a fairly new phenomenon that has only recently come to researcher's attention within the past decade. Barry and colleagues conducted one reliable and relatively recent study in 2015, which looked at the effects that posting self-photographs had on the individual who was posting them to their social media accounts. The researchers involved in this study followed and examined participants' Instagram accounts, recording which percentage of their photos posted consisted of self-photographs (Barry et al., 2015). Participants completed the Rosenberg Self-Esteem scale and the Narcissism Measurement scale. Results showed that the individuals who posted more self-photographs compared to any other type of photograph on their Instagram accounts tended to have the lowest levels of self-esteem (Barry et al., 2015). These individuals also tended to score higher on the Hiding the Self-level of the Pathological Narcissism Inventory (Barry et al., 2015). This study indicated that individuals who post more self-photographs on social media are more likely to have a lower level of self-esteem in comparison with those who do not post self-photographs frequently, however, direction of causation is unclear. The individuals who are posting more self-photographs may have a lower self-esteem already, and as a result post more self-photographs. On the other hand, it may be the frequent posting of self-photographs that leads to a lower self-esteem. Further research to determine causation is needed in the area of posting self-photographs.

Previous research also indicates that there are personality and gender factors to consider when analyzing the effects of self-photographs. Sorokowski and colleagues recently conducted a study that looked at the associations between narcissism, gender and self-photographs (Sorokowski et al., 2015). The research found a strong association between narcissistic

personality types and the likelihood to post more selfies and this finding was significantly prevalent regarding male participants (Sorokowski et al., 2015). Narcissistic females compared with non-narcissistic females nearly had no difference in regards to the amount of self-photographs that were taken and posted to social media sites (Sorokowski et al., 2015). Also, it was found that participants who ranked high on a narcissistic personality scale were less likely to engage in social media networking to view other profiles, and more-so to just post about their own personal lives (Sorokowski et al., 2015).

These gender differences are important to recognize and be aware of when continuing research into the selfie affect phenomenon. The above results indicate that the posting side of the “selfie spectrum” can have a potential negative affect on an individual’s overall well-being, so it is important to now also look at the viewer’s side of the spectrum, as the present study aimed to do. It is also important to see how different types of selfies affect behaviour, in particular those involving pro-social behaviour.

#### *Pro-Social Behaviour and Motivation*

Research on engaging in and observing pro-social behaviour has also been shown to affect behaviour and well-being. Weinstein and Ryan (2010) did not look into the implications of self-photographs, but rather looked at the affects that pro-social behaviour has on the person committing the pro-social act, the person receiving the pro-social act, and any possible witnesses to the pro-social act (Weinstein & Ryan, 2010). This study included a dictator game in which participants were given “money” with the potential option of being able to donate it. Participants were divided into four groups: One group was the “no choice” group that didn’t view an act of pro-social behaviour, one was a “no choice” group that did view an act of pro-social behaviour, one was a choice group given a free will option to donate some of their money, and one group

was a choice group with a confederate who would “choose” to donate a large sum of money that everyone else in the group would be witness to (Weinstein & Ryan, 2010). Results showed that participants in the group without the confederate donated significantly less than the participants in the group with the confederate who chose to donate the majority of the money given (Weinstein & Ryan, 2010). Moreover, when participants filled out self-esteem measures, well-being measures, and basic psychological need measures, participants who donated more in the confederate group tended to rank much higher on the scales than those who donated less, and those who did not have a choice to donate money but watched the other groups donate money had higher rankings than the no-choice group that didn’t witness any pro-social acts (Weinstein & Ryan, 2010). These results support the notion that not only does pro-social behaviour make the person engaging in it feel better, as well motivate others to contribute to the pro-social behaviour, but this action also increases the well-being of any individual exposed to the pro-social behaviour. If individuals are exposed to self-photographs of people helping other people, it could possibly increase self-esteem levels and evoke feelings of inspiration and motivation.

Ideally, individuals are likely to keep their social networking profiles associated with other people that they know on at least some type of personal level. Barry & Wentzel conducted a pro-social behaviour study in 2006 that examined the relationship between friendships and pro-social behaviour motivation through social learning theory. The study emphasized how individuals learn how to behave through social learning – in other words, observing and imitating our peers, family and other various role models (Barry & Wentzel, 2006). Specifically, this study examined how within close friendships, if one friend continuously engages in pro-social behaviour, eventually that behaviour motivates the observing friend to behave in a similar manner (Barry & Wentzel, 2006). They found significant results, and nearly every time a friend

engaged in a pro-social behaviour, the second friend almost always followed suit by engaging in a pro-social behaviour of their own (Barry & Wentzel, 2006). This supports the idea that individuals who are exposed to pro-social behaviour photographs will be more motivated to engage in pro-social behaviour themselves, and as a result will have a higher mood and self-esteem. However, comparing themselves to others can also motivate people.

### *Social Comparison and Motivation*

A 2015 journal article by Suler examined how many people feel posting self-photographs is a way of allowing the world to see them in a light that they want to be seen in. This new attitude of the population has potential problems as people are viewing the lives of their peers through self-photographs and believing that they are living some glamorous lifestyle, which can lead to feelings of hostility or resentment (Suler, 2015). Due to filtering effects on sites such as Instagram, it is possible for an individual to edit a self-photograph to make it seem as though they are much more attractive than they actually are in person. These glamorous photos may cause the individuals viewing them to make upward comparisons, and in turn feel bad about themselves as they feel they will never be as good looking as a person who does not actually look as they appear in the photo. The article expresses that not everyone is all that they post to be, considering no one is going to post self-photographs of themselves when they are in a crisis; we only want our followers and Facebook friends to view us as our best selves (Suler, 2015). With the points made in this article in mind, it is important to think about how what individuals are viewing on social media may evoke feelings of jealousy, leading to decreased levels of self-esteem and mood when believing your social media peers are living a better life than you are.

Based on social comparison theory – the drive to gain accurate-self evaluations through comparison to others (Hui Hui & Chang, 2015) – it is reasonable to think that individuals who



are constantly subjected to perceptibly attractive individuals may start to compare themselves to those persons, causing a lowered self-esteem, mood and motivation. It is also reasonable to think that individuals who constantly see others participating in pro-social behaviour may realize they have the ability to act pro-socially themselves and be inspired to do the same, causing an increase in self-esteem. In recent studies, it has been found that exposure to a “superstar” can cause motivation to achieve or self-deflation (Lockwood & Kunda, 1999). It is possible that those exposed to a “superstar” or glamorous selfie with the idea that they cannot achieve this beauty will lead to self-deflation, whereas pro-social behaviour can be viewed as attainable, which may lead to self-motivation. This is what the following study aimed to address and explore.

With the information gathered from previous research regarding effects of self-photographs and effects of pro-social behaviour, it is important to further expand and explore the knowledge that has been gathered thus far. Previous research has indicated that posting self-photographs to social media has a negative effect on the self-esteem of the individual posting the photographs, and that gender as well as personality traits have an affect on social media behaviour in regards to posting self-photographs and activity on social media (Barry et al., 2015; Sorokowski et al., 2015). Other previous research has also shown that engaging in or watching pro-social action can enhance an individual’s mood and motivation, giving them feelings of hope and happiness (Weinstein & Ryan, 2010). If posting non pro-social self-photographs to social media sites is an indicator of poor self-esteem and narcissistic personality types for males, it is only natural to wonder what kind of effect these photos have on the people who are viewing them.

Since the previously mentioned study conducted by Barry et al. in 2015 only looked at the effect posting selfies had on the individual who posted them, this study was an expansion by looking at what effect self-photographs have on the people viewing them. The study conducted by Barry et al. also contained problems within its sample size: it mostly consisted of female participants (2015). As well, Sorokowski et al. found that males who posted a lot of self-photographs tended to have narcissistic personality traits (2015). These factors were an influence on the present study to use gender and personality types as a moderator. Also, the study by Barry et al. did not particularly specify what type of self-photographs individuals were posting that led to a decreased self-esteem, so it is important to differentiate between the two types of self-photographs, since the viewing of pro-social behaviour has previously indicated increases in motivation, self-esteem and feelings of happiness (Weinstein & Ryan, 2010).

The independent variable in this study included which type of photo, if any, the participants were given to view. The dependent variable in this study consisted of the scores each participant received on the five measurement scales they were given after viewing the photographs, or non-viewing of photographs in the instance of the control group.

It was hypothesized that those individuals who were subjected to attractive self-photographs would score lower on self-esteem measures, lower on mood measures, and lower on motivation in comparison with the control group. Secondly, it was hypothesized that participants who were subjected to self-photographs entailing acts of pro-social behaviour would score higher on measures of self-esteem, mood, and motivation in comparison with the control group. The moderating impact of personality and dispositions were also explored.

This study intended to simulate scrolling through an Instagram or Facebook newsfeed page, and implications of these results were intended to replicate the effects of viewing certain

self-photographs on these social media sites. If individuals who viewed attractive self-photographs scored high on measures of self-esteem, mood, and the motivation, and also scored high on the narcissism measurement scale it was viewed that the individual was not affected by the photographs due to the personality variable of narcissism.

The study sheds new light on how selfies relate to individual well-being, what types of selfies have the most positive or negative effects and whether these relationships are affected by gender and personality.

## Methods

### Participants

Participants included 119 individuals (53 female, 66 male) whose ages ranged from 20 years old to 75 years old ( $M = 36.6$ ,  $SD = 13.0$ ). Participants were recruited online through Amazon's Mechanical Turk, and were compensated with \$0.40 worth of Amazon credits for the participation. No exclusionary factors prevented anyone from participating.

### Materials

**10 Photographs.** The photographs in this study served as the independent variable. Participants were presented with either five attractive self-photographs of five individuals, or five photographs of individuals engaging in pro-social behaviour, or shown no photographs (control group). The individuals in the attractive photographs consisted of four females and one male, and were the same individuals shown in the pro-social behaviour self-photographs, whose ages ranged from 20 to 25 years old. Participants in either group simply viewed each photograph in subsequent order to later measure if the photographs had a significant impact on participants' mood, self-esteem and/or motivation.

***PANAS Scale.*** Participants' measures of mood were measured using the 20-item version of the PANAS scale, which has shown high levels of reliability ( $\alpha = .95$ ) (Appendix A) (Crawford & Henry, 2004). On this scale, participants rated whether various feelings and emotions applied to their current mood using a five point Likert scale, ranging from 1, being "very slightly or not at all", to 5, being "extremely applies to me". This scale includes various amounts of negative feelings such as "upset", and positive feelings such as "proud". Participants were scored based on the rating given to each emotion or feeling provided.

***Rosenberg Self-Esteem Scale.*** Participants' measures of self-esteem were examined using a 10-item version of the Rosenberg self-esteem scale (Appendix B), which has been found to have acceptable reliability ( $\alpha = .93$ ) (Robins, Hendin & Trzesniwski, 2001). Participants were given statements and then asked to rate whether they strongly agree, agree, disagree, or strongly disagree with the statements in regards to themselves. The statements included five positive statements, such as "I am able to do things as well as most other people", as well as five negative statements, such as "I certainly feel useless at times" to prevent participants from circling one consistent answer to each statement. Participants were scored based on how much they agreed or disagreed with each statement.

***The Big Five Personality Inventory.*** Participants' personality types were measured using the Big Five Personality Inventory (Appendix C), which has previously shown acceptable reliability for each of the five personality types (Hahn, Gottschling, & Spinath, 2012). Participants were given a 44-item version of the scale, in which a five point Likert scale was used. They were asked if they see themselves as someone who relates to a particular statement, and asked to rate whether they 1: strongly disagree, 2: disagree a little, 3: neither agree nor disagree, 4: agree a little, and 5: strongly agree with each statement. The scale included reverse

item statements to prevent participants from consistently picking the same answer. Statements included “I see myself as someone who is full of energy” and “I see myself as someone who can be moody”. Each numbered question fits into one of five of the big five personality types: extraversion, agreeableness, conscientiousness, neuroticism, and openness. Scoring was measured depending on how high each participant rated themselves on a particular statement.

***Motivational Drive.*** An individual’s drive to achieve their goal was measured through the drive subscale for the Behavioural Inhibition System/Behavioral Approach System (BIS/BAS) (Carver & White, 1994). The BIS/BAS scale includes a series of statements which participants rated how much the statement corresponds to them. The scale for each item ranges from 1 which represents “very true of me” to 4 which represents “very false of me”. The drive subscale from this measure utilized for this study includes 4 items including “I will go out of my way to get the things I want”, “when I want something I will usually go all-out to get it”, “when I go after something I will use a ‘no holds barred’ approach”, and “If I see a chance to get something I will move on it right away.” These items are slightly modified from the original items to refer to future intentions as opposed to general tendencies.

***Global Motivation Scale.*** Participants completed the Global Motivation Scale (Guay, Mageau, & Vallerand, 2003), to measure their different types of motivation (Appendix D). This scale consisted of 28 items, which used a seven point Likert scale in which participants could respond if a statement “does not respond accordingly”, represented by the number 1, to “corresponds completely”, represented by number 7. This scale included statements such as “in general, I do things for the pleasure of acquiring new knowledge”, and reverse-item statements, such as “In general, I do things because I would feel bad if I did not do them”. This scale has

previously shown strong reliability in measuring amotivation, three types of extrinsic motivation, and three types of intrinsic motivation.

*Narcissistic Personality Inventory.* Participants completed a 40-item version of the Narcissistic Personality Inventory (Appendix E), in which they were given two opposing statements, such as “A: I am a born leader” and “B: Leadership is a quality that takes a long time to develop”, and asked which statement they agree with more (Hasanvand, Javanmard, & Goodarzi, 2015). Scoring was denoted using a key in which participants were rewarded one point for each question answered that matches the key. The higher an individual scored, the more narcissistic they were viewed to be.

### **Procedure**

Participants were recruited online through Amazon’s Mechanical Turk where they were compensated with \$0.40 worth of Amazon credits. The study could be completed at any time of day and took no longer than twenty minutes for any participant to complete. Participants were provided with the letter of information, and then asked to give their informed consent. After informed consent was provided, participants were randomly assigned into one of three groups, and then asked their gender, age, and year of study. Participants in one group first viewed five photographs in subsequent order of attractive self-photographs, participants in another group viewed five pro-social behaviour photographs in a subsequent order, and participants in a third group viewed no photographs and were used as a control group. After viewing or non-viewing of photographs, all participants completed the surveys in the following order: the PANAS scale, followed by the Rosenberg self-esteem scale, the Big Five Personality Inventory, the Motivational Drive, Global Motivation scale (measuring extrinsic motivation, intrinsic motivation and amotivation), and finally the Narcissism Measurement scale. Upon completion of

the surveys, participants were thanked for their completion and given a debriefing of the true purpose of the study and why their contribution was important, as well as provided with a link to receive their \$0.40.

### **Design**

This is a between-subjects experiment with participants randomly assigned to one of the three conditions. The independent variable is the type of photograph (if any) participants viewed and had three levels: control group (no photographs were viewed), pro-social photographs and attractive self-photographs. The dependent variables were levels of mood (measured by the PANAS scale), levels of self-esteem (measured by the Rosenberg self-esteem scale), and levels of motivation (measured by the global motivation scale). There were also a few potential moderator variables, including personality traits, gender and narcissism, which was measured by the Big Five Personality Inventory and the Narcissistic Personality Inventory.

### **Results**

Reliability analyses were conducted for the following scales: the PANAS Scale – negative affect ( $\alpha = .95$ ), positive affect ( $\alpha = .95$ ), the Rosenberg self-esteem scale ( $\alpha = .93$ ), the Big Five Personality Inventory – extraversion ( $\alpha = .91$ ), agreeableness ( $\alpha = .82$ ), conscientiousness ( $\alpha = .88$ ), neuroticism ( $\alpha = .90$ ), and openness ( $\alpha = .84$ ), the Global Motivation Scale – extrinsic motivation ( $\alpha = .77$ ), intrinsic motivation ( $\alpha = .95$ ), the Motivational Drive Scale ( $\alpha = .91$ ), and the Narcissistic Personality Inventory ( $\alpha = .91$ ).

There were no main effects to support either of the hypotheses that A) individuals who viewed attractive self-photographs would score lower on measures of self-esteem, mood, and motivation in comparison with a control group, and B) individuals who viewed pro-social behaviour photographs would score higher on measures of self-esteem, mood, and motivation in

comparison with a control group. While the initial main effects did not reach significance, some interaction effects became prevalent when taking personality type into consideration, specifically extraverted and conscientious individuals. The findings are described below.

One-way between-subjects ANOVAs were conducted to examine if participants who viewed pro-social behaviour photographs had higher levels of self-esteem, motivation and mood in comparison with those who were in the control group, as well as to examine if participants who viewed the attractive self-photographs had lower levels of self-esteem, motivation and mood in comparison with the control group. Two-way between subjects ANOVAs were conducted to test the interaction of gender and photograph type on mood, motivation and self-esteem.

The main effect of photograph type on positive mood was not significant,  $F(2, 116) = .060, p = .942$ , and the main effect of photograph type on negative mood was not significant,  $F(2, 116) = .954, p = .388$ , meaning that photograph type, whether pro-social or attractive did not have an overall influence on general mood of participants (see Figures 1 and 2). The main effect of photograph type on self-esteem also did not reach significance,  $F(2, 116) = .802, p = .451$ , and the main effect of photograph type on motivation also did not reach significance,  $F(2, 116) = .370, p = .691$ , indicating that both pro-social and attractive photographs do not have an overall influence on viewer's self-esteem or motivation. These results mean that the original hypotheses that pro-social behaviour photographs would increase viewer's mood, self-esteem and motivation, and that attractive self-photographs would decrease viewer's mood, self-esteem and motivation, were not supported. Main effects were not influenced by gender at all, perhaps due to the fact that there was only one male individual within the viewed photographs.



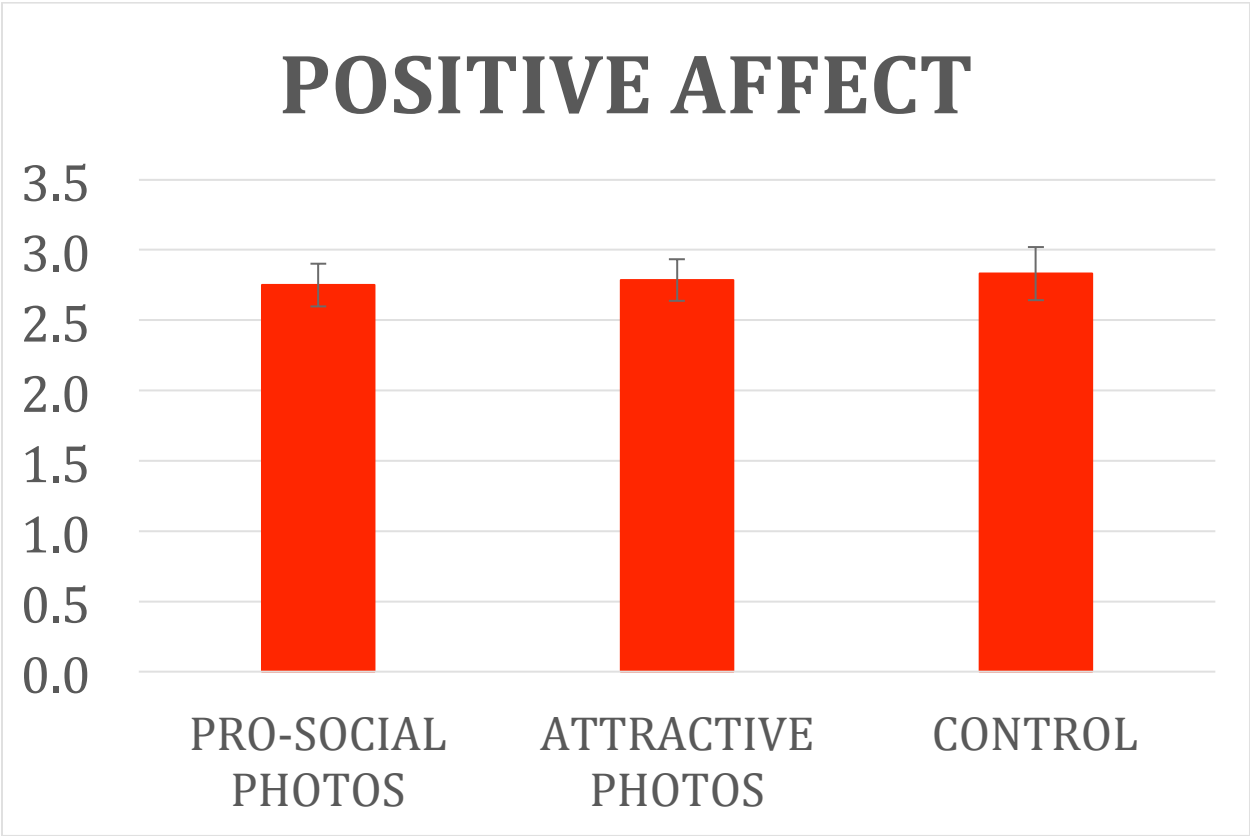
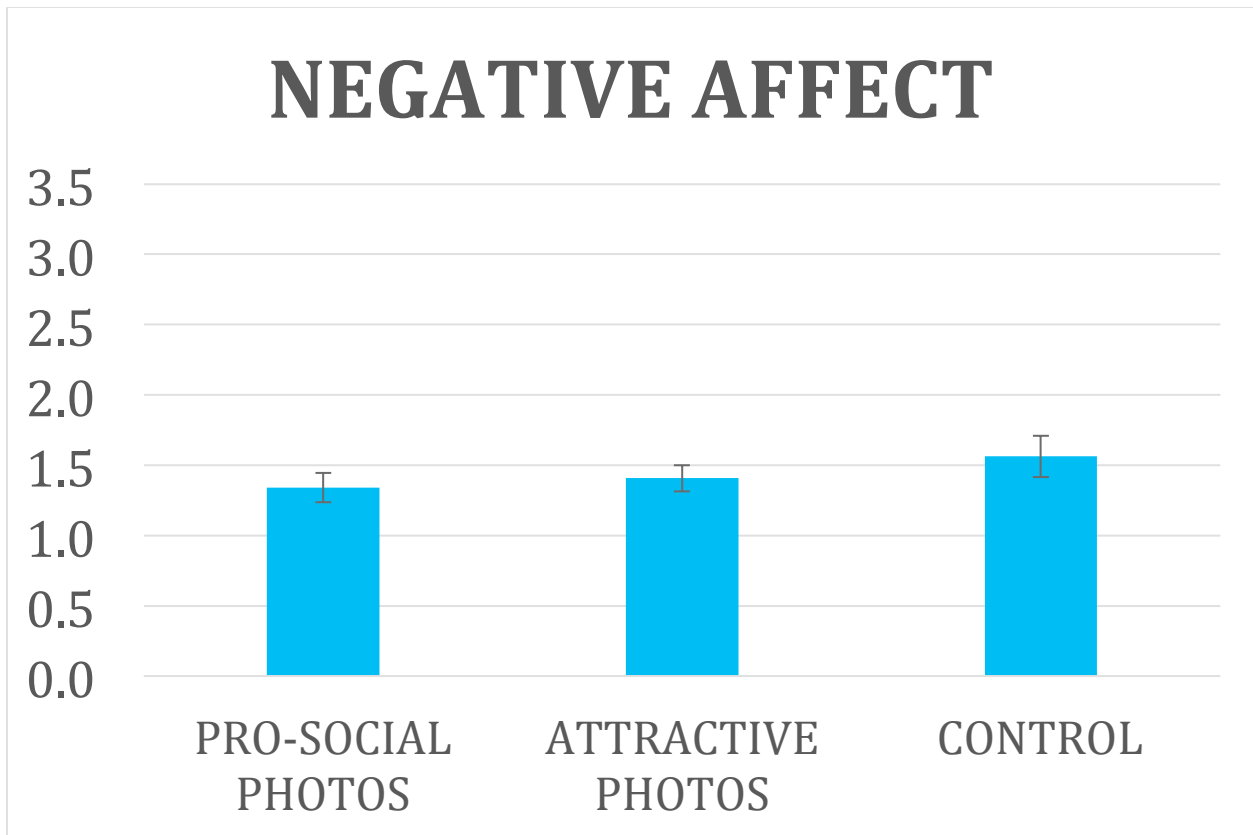


Figure 1. Positive Affect after viewing either pro-social photos, attractive photos or no photos (control).



*Figure 2.* Negative Affect after viewing either pro-social photos, attractive photos or no photos (control).

Regression analyses were conducted to explore interaction effects for the five personality traits, self-esteem and narcissism. Although no main effects were found, there were interaction effects found in regards to personality type. Pro-social behaviour photographs were found to be more predictive of motivational drive amongst individuals who scored higher in extraversion in comparison with a control group  $\beta = .75$ ,  $t(76) = 2.02$ ,  $p < .05$ , however when compared to the attractive self-photographs significance was not reached,  $\beta = .53$ ,  $t(84) = 1.48$ ,  $p = .14$ . This means that extraverted individuals are more likely to be motivated by pro-social behaviour photographs in comparison with a control group, but not in comparison with individuals who viewed attractive self-photographs. However, pro-social behaviour photographs compared to attractive self-photographs appeared to be reaching significance, so perhaps with a bigger sample size there may be the potential for significance to be reached.

Pro-social photographs were also shown to be more predictive of a positive mood for individuals who scored high in conscientiousness in comparison with a control group, interaction  $\beta = 1.16$ ,  $t(76) = 3.36$ ,  $p < .001$ , as well as in comparison with individuals who viewed attractive self-photographs, interaction  $\beta = 1.33$ ,  $t(84) = 3.69$ ,  $p < .001$ . Thus, pro-social photographs appear to provide a particular mood boost to more conscientious individuals.

Finally, if an individual scores higher in conscientiousness, seeing an attractive self-photograph is more likely to decrease their self-esteem in comparison with a control group, interaction  $\beta = -.83$ ,  $t(75) = -3.36$ ,  $p < .001$ . All other findings failed to reach significance.

### **Discussion**

In today's world, people are constantly bombarded with images of others and this is particularly prevalent on social media. The present study examined the effect of being exposed to either attractive or pro-social photos on motivation, self-esteem and mood and how this is

moderated by personality factors. It was found that there were no overall differences, but that the effects were moderated by extraversion and conscientiousness such that, pro-social photos appeared to confer greater motivational (in the case of extraversion) and affective (in the case of conscientiousness) benefits than attractive photos or seeing no photos.

It could be concluded that in general, the types of photographs that individuals view on social media do not have a significant effect on self-esteem, mood, or motivation. In regards to the pro-social behaviour photographs, referring back to Barry and Wentzel's 2006 study, it is possible that the pro-social behaviour photographs did not have a main effect because the individuals in the photographs were strangers to the participants engaging in the study, when findings have shown that pro-social behaviour is most influential when it is someone you know. All individuals in the photographs were under the age of 25 years old, which may not be as influential on older participants. As well, it is possible that the context of the pro-social behaviour photographs may have been misinterpreted, as it might not have been clear that a pro-social behaviour was occurring within the photograph.

In regards to the attractive self-photographs, the results were not consistent with previous research, which may be due to the problem of unclear causation in Barry et al's 2015 study. If individuals post more self-photographs because they have lowered self-esteem, then it is less likely that individuals who view self-photographs will have a lowered self-esteem because it is not the photograph itself that is causing the main effects. As well, it is also problematic that there was only one male featured in the photographs, when previous research has shown that there are gender differences in regards to self-esteem and the posting of self-photographs (Sorokowski et al, 2015).

Interaction effects showed that those who score higher on extraversion are more likely to be motivated by pro-social behaviour photographs. Previous research in regards to personality type and motivation has shown that there is a strong link between extraverted individuals and motivational drive to engage in volunteer work (Carlo et al., 2005). This interaction effect mildly supports the original hypothesis that pro-social behaviour photographs increase levels of motivation, but it may only hold true for those who are extraverted. This effect could have occurred because those who are extraverted are already motivated to engage in pro-social behaviour, and those traits were increased when viewing other individuals engaging in acts of pro-social behaviour.

Conscientious individuals appear to have the most interaction effects within this study. Individuals who scored high on conscientiousness were more likely to have an increased mood when viewing pro-social behaviour photographs. This could be due to the fact that conscientious people tend to want to do what is right in the world and be responsible reliable individuals, and seeing other individuals engaging in behaviour that makes the world a better place could evoke feelings of happiness. Previous research has demonstrated that in general, individuals who are high in conscientiousness tend to have a better overall well-being (Miller, Griffin, & Hart, 1999). This is consistent with the interaction effects shown in this study. Perhaps individuals who rank high in conscientiousness have increased mood when viewing pro-social behaviours because they feel that there is rightness in the world, and it makes them happier.

On the other hand, individuals who ranked high in conscientiousness supported the hypothesis that viewing attractive self-photographs would decrease an individuals' self-esteem. This could be because they compare themselves to these individuals and feel that the attractiveness levels are unfair, and therefore it decreases their self-esteem more so than other

personality types, as they are more likely to want to see fairness in the world. However, such conclusions are speculative and further research would be required to better uncover the underlying influences.

### **Limitations, Implications and Future Directions**

While the findings in this study are noteworthy, there were limitations that may have affected the results. For example, a larger sample would have increased statistical power and perhaps uncovered more statistical differences that may genuinely exist in the general population. Also, there were only five photograph types that individuals viewed in each of the photograph conditions, which do not accurately simulate the vast number of photographs that individuals' view on social media websites. Having more photographs, more gender variation within the photographs, and more time would have been beneficial to the quality of the study. Finally, this study was conducted online rather than in a lab so we cannot know as well how closely participants paid attention to the photographs they saw or how seriously they took the study.

The present study sheds important light on how photographs typically seen on social media can affect individuals. The findings of research such as this can help create better awareness of who may be more affected by such photos. The present study can also stimulate further research. Ways to expand on this study would include finding a larger sample of participants, as well as a larger number of photographs for participants to view, including more male and female subjects in the photographs with a larger age range. It would also be beneficial if this study had been longitudinal, as it would be a more accurate representation of the long-term effects of prolonged use of social media. It would be preferred to monitor individuals' uses of their own social media accounts and what they are viewing on those social media accounts, as it would be more accurate regarding what individuals see on social media, versus subjecting

participants to photographs of strangers. It may also be more ideal to focus on one particular effect in different participants. For example, instead of getting all participants to fill out all scales, divide them into sub-groups or run different studies so that the participants don't have to spend so much time filling out the scales. Cutting the amount of scales one participant has to fill out may increase the validity of the study, as the risk of participants getting bored and filling out random answers for each scale may decrease.

In conclusion, though main effects were not found to support the hypotheses of the effects of self-photographs on mood, self-esteem and motivation, the interaction effects give reason to believe there may be more to look into in terms of what the effects of social media are on individuals' who are consistently subjected to certain material. As social media websites such as Facebook and Instagram continue to gain more users, it is important to look into what effects these websites have on those who use them. This study differs from previous research as it looks at the way different types of photographs affect those who view them, which is something that happens every time an individual logs into a social media account – they are immediately subjected to view a vast variety of photographs from their peers, friends, and even strangers. If more research continues to be conducted on the effects of social media, it may help society as a whole recognize what kind of behaviours to avoid on social media, as well as what kind of behaviours to try to engage in when posting items online. If significant findings occur in a similar study to the one mentioned above, it may allow individuals to be more self-aware and less influenced by others when using social media websites.

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## Appendix A

## The PANAS Scale

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way right now, that is, at the present moment. Use the following scale to record your answers.

1 = very slightly or not at all

2 = a little

3 = moderately

4 = quite a bit

5 = extremely

\_\_\_ interested

\_\_\_ distressed

\_\_\_ excited

\_\_\_ upset

\_\_\_ strong

\_\_\_ guilty

\_\_\_ scared

\_\_\_ hostile

\_\_\_ enthusiastic

\_\_\_ proud

\_\_\_ irritable

\_\_\_ alert

\_\_\_ ashamed

\_\_\_ inspired

\_\_\_ nervous

\_\_\_ determined

\_\_\_ attentive

\_\_\_ jittery

\_\_\_ active

\_\_\_ afraid

## Appendix B

## Rosenberg Self-Esteem Scale

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

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

## Appendix C

## The Big Five Personality Inventory

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1 = Disagree strongly

2 = Disagree a little

3 = Neither agree nor disagree

4 = Agree a little

5 = Agree Strongly

I see Myself as Someone Who...

- |  |   |
|--|---|
| ___ 1. Is talkative                            | ___ 23. Tends to be lazy                              |
| ___ 2. Tends to find fault with others         | ___ 24. Is emotionally stable, not easily upset       |
| ___ 3. Does a thorough job                     | ___ 25. Is inventive                                  |
| ___ 4. Is depressed, blue                      | ___ 26. Has an assertive personality                  |
| ___ 5. Is original, comes up with new ideas    | ___ 27. Can be cold and aloof                         |
| ___ 6. Is reserved                             | ___ 28. Perseveres until the task is finished         |
| ___ 7. Is helpful and unselfish with others    | ___ 29. Can be moody                                  |
| ___ 8. Can be somewhat careless                | ___ 30. Values artistic, aesthetic experiences        |
| ___ 9. Is relaxed, handles stress well         | ___ 31. Is sometimes shy, inhibited                   |
| ___ 10. Is curious about many different things | ___ 32. Is considerate and kind to almost everyone    |
| ___ 11. Is full of energy                      | ___ 33. Does things efficiently                       |
| ___ 12. Starts quarrels with others            | ___ 34. Remains calm in tense situations              |
| ___ 13. Is a reliable worker                   | ___ 35. Prefers work that is routine                  |
| ___ 14. Can be tense                           | ___ 36. Is outgoing, sociable                         |
| ___ 15. Is ingenious, a deep thinker           | ___ 37. Is sometimes rude to others                   |
| ___ 16. Generates a lot of enthusiasm          | ___ 38. Makes plans and follows through with them     |
| ___ 17. Has a forgiving nature                 | ___ 39. Gets nervous easily                           |
| ___ 18. Tends to be disorganized               | ___ 40. Likes to reflect, play with ideas             |
| ___ 19. Worries a lot                          | ___ 41. Has few artistic interests                    |
| ___ 20. Has an active imagination              | ___ 42. Likes to cooperate with others                |
| ___ 21. Tends to be quiet                      | ___ 43. Is easily distracted                          |
| ___ 22. Is generally trusting                  | ___ 44. Is sophisticated in art, music, or literature |

**Scoring:**

BFI scale scoring ("R" denotes reverse-scored items):

Extraversion: 1, 6R, 11, 16, 21R, 26, 31R, 36

Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42

Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R

Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39

Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

## Appendix D

## Motivation Scale

Indicate to what extent each of the following statements corresponds generally to the reasons why you do different things.

	Does not correspond accordingly		Corresponds moderately				Corresponds completely	
	1	2	3	4	5	6	7	
<b>IN GENERAL, I DO THINGS . . .</b>								
1. ... in order to feel pleasant emotions.	1	2	3	4	5	6	7	
2. ... because I do not want to disappoint certain people.	1	2	3	4	5	6	7	
3. ... in order to help myself become the person I aim to be.	1	2	3	4	5	6	7	
4. ... because I like making interesting discoveries.	1	2	3	4	5	6	7	
5. ... because I would beat myself up for not doing them.	1	2	3	4	5	6	7	
6. ... because of the pleasure I feel as I become more and more skilled.	1	2	3	4	5	6	7	
7. ... although I do not see the benefit in what I am doing.	1	2	3	4	5	6	7	
8. ... because of the sense of well-being I feel while I am doing them.	1	2	3	4	5	6	7	
9. ... because I want to be viewed more positively by certain people.	1	2	3	4	5	6	7	
10. ... because I chose them as means to attain my objectives.	1	2	3	4	5	6	7	
11. ... for the pleasure of acquiring new knowledge.	1	2	3	4	5	6	7	
12. ... because otherwise I would feel guilty for not doing them.	1	2	3	4	5	6	7	
13. ... for the pleasure I feel mastering what I am doing.	1	2	3	4	5	6	7	
14. ... although it does not make a difference whether I do them or not.	1	2	3	4	5	6	7	
15. ... for the pleasant sensations I feel while I am doing them.	1	2	3	4	5	6	7	
16. ... in order to show others what I am capable of.	1	2	3	4	5	6	7	
17. ... because I chose them in order to attain what I desire.	1	2	3	4	5	6	7	
18. ... for the pleasure of learning new, interesting things.	1	2	3	4	5	6	7	
19. ... because I force myself to do them.	1	2	3	4	5	6	7	
20. ... because of the satisfaction I feel in trying to excel in what I do.	1	2	3	4	5	6	7	

21. ... even though I do not have a good reason for doing them.	1	2	3	4	5	6	7
22. ... for the enjoyable feelings I experience.	1	2	3	4	5	6	7
23. ... in order to attain prestige.	1	2	3	4	5	6	7
24. ... because I choose to invest myself in what is important to me.	1	2	3	4	5	6	7
25. ... for the pleasure of learning different interesting facts.	1	2	3	4	5	6	7
26. ... because I would feel bad if I do not do them.	1	2	3	4	5	6	7
27. ... because of the pleasure I feel outdoing myself.	1	2	3	4	5	6	7
28. ... even though I believe they are not worth the trouble.	1	2	3	4	5	6	7

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### **SCORING KEYS**

#### **GMS-28**

<b># 4, 11, 18, 25</b>	<b>Intrinsic motivation - to know</b>
<b># 6, 13, 20, 27</b>	<b>Intrinsic motivation - toward accomplishment</b>
<b># 1, 8, 15, 22</b>	<b>Intrinsic motivation - to experience stimulation</b>
<b># 3, 10, 17, 24</b>	<b>Extrinsic motivation - identified</b>
<b># 5, 12, 19, 26</b>	<b>Extrinsic motivation - introjected</b>
<b># 2, 9, 16, 23</b>	<b>Extrinsic motivation - external regulation</b>
<b># 7, 14, 21, 28</b>	<b>Amotivation</b>





- B. I think I am a special person. 9. \_\_\_\_\_
10. A. I am not sure if I would make a good leader.  
B. I see myself as a good leader. 10. \_\_\_\_\_
11. A. I am assertive.  
B. I wish I were more assertive. 11. \_\_\_\_\_
12. A. I like to have authority over other people.  
B. I don't mind following orders. 12. \_\_\_\_\_
13. A. I find it easy to manipulate people.  
B. I don't like it when I find myself manipulating people. 13. \_\_\_\_\_
14. A. I insist upon getting the respect that is due me.  
B. I usually get the respect that I deserve. 14. \_\_\_\_\_
15. A. I don't particularly like to show off my body.  
B. I like to show off my body. 15. \_\_\_\_\_
16. A. I can read people like a book.  
B. People are sometimes hard to understand. 16. \_\_\_\_\_
17. A. If I feel competent I am willing to take responsibility for making decisions.  
B. I like to take responsibility for making decisions. 17. \_\_\_\_\_
18. A. I just want to be reasonably happy.  
B. I want to amount to something in the eyes of the world. 18. \_\_\_\_\_
19. A. My body is nothing special.  
B. I like to look at my body. 19. \_\_\_\_\_
20. A. I try not to be a show off.  
B. I will usually show off if I get the chance. 20. \_\_\_\_\_
21. A. I always know what I am doing.  
B. Sometimes I am not sure of what I am doing. 21. \_\_\_\_\_
22. A. I sometimes depend on people to get things done.  
B. I rarely depend on anyone else to get things done. 22. \_\_\_\_\_
23. A. Sometimes I tell good stories.  
B. Everybody likes to hear my stories. 23. \_\_\_\_\_
24. A. I expect a great deal from other people.  
B. I like to do things for other people. 24. \_\_\_\_\_

25. A. I will never be satisfied until I get all that I deserve.  
B. I take my satisfactions as they come. 25. \_\_\_\_\_
26. A. Compliments embarrass me.  
B. I like to be complimented. 26. \_\_\_\_\_
27. A. I have a strong will to power.  
B. Power for its own sake doesn't interest me. 27. \_\_\_\_\_
28. A. I don't care about new fads and fashions.  
B. I like to start new fads and fashions. 28. \_\_\_\_\_
29. A. I like to look at myself in the mirror.  
B. I am not particularly interested in looking at myself in the mirror. 29. \_\_\_\_\_
30. A. I really like to be the center of attention.  
B. It makes me uncomfortable to be the center of attention. 30. \_\_\_\_\_
31. A. I can live my life in any way I want to.  
B. People can't always live their lives in terms of what they want. 31. \_\_\_\_\_
32. A. Being an authority doesn't mean that much to me.  
B. People always seem to recognize my authority. 32. \_\_\_\_\_
33. A. I would prefer to be a leader.  
B. It makes little difference to me whether I am a leader or not. 33. \_\_\_\_\_
34. A. I am going to be a great person.  
B. I hope I am going to be successful. 34. \_\_\_\_\_
35. A. People sometimes believe what I tell them.  
B. I can make anybody believe anything I want them to. 35. \_\_\_\_\_
36. A. I am a born leader.  
B. Leadership is a quality that takes a long time to develop. 36. \_\_\_\_\_
37. A. I wish somebody would someday write my biography.  
B. I don't like people to pry into my life for any reason. 37. \_\_\_\_\_
38. A. I get upset when people don't notice how I look when I go out in public.  
B. I don't mind blending into the crowd when I go out in public. 38. \_\_\_\_\_
39. A. I am more capable than other people.  
B. There is a lot that I can learn from other people. 39. \_\_\_\_\_

40. A. I am much like everybody else.  
B. I am an extraordinary person.

40. \_\_\_\_\_

## SCORING KEY:

Assign one point for each response that matches the key:

- 1, 2 and 3: A  
4, 5: B  
6: A  
7: B  
8: A  
9, 10: B  
11, 12, 13, 14: A  
15: B  
16: A  
17, 18, 19, 20: B  
21: A  
22, 23: B  
24, 25: A  
26: B  
27: A  
28: B  
29, 30, 31: A  
32: B  
33, 34: A  
35: B  
36, 37, 38, 39: A  
40: B

The average score for the general population is 15.3. The average score for celebrities is 17.8. Pinsky says he scored 16.

Young says it is important to consider which traits are dominant. For example, an overall score that reflects more points on vanity, entitlement, exhibitionism and exploitiveness is more cause for concern than someone who scores high on authority, self-sufficiency and superiority, he says.

The seven component traits by question:

- Authority: 1, 8, 10, 11, 12, 32, 33, 36
- Self-sufficiency: 17, 21, 22, 31, 34, 39
- Superiority: 4, 9, 26, 37, 40
- Exhibitionism: 2, 3, 7, 20, 28, 30, 38
- Exploitativeness: 6, 13, 16, 23, 35
- Vanity: 15, 19, 29
- Entitlement: 5, 14, 18, 24, 25, 27