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Narcissism and Attachment Anxiety Predicting the Impact of Hiding Instagram "Likes" In Canada

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NARCISSISM AND ATTACHMENT ANXIETY PREDICTING THE IMPACT OF HIDING
INSTAGRAM "LIKES" IN CANADA

by

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Abstract

The social networking site, Instagram, made the decision to hide publicly viewable "likes" from users in Canada in the Spring of 2019. The current study was designed to examine whether levels of trait narcissism and peer attachment anxiety in adolescence predict satisfaction with the decision to hide publicly viewable likes on Instagram and authenticity in Instagram use since the implementation of this decision. Participants (21.7% male, 78.3% female, $M = 1.78$, $SD = .41$) first completed The Narcissistic Personality Inventory for Children, then The Peers Attachment Scale, followed by scales I created to measure satisfaction with, authenticity of, and use of Instagram. Satisfaction was defined as viewing the decision to remove publicly viewable likes positively, and authenticity was viewed as the likelihood of posting content without the specific aim of gaining "likes". Trait narcissism and peer attachment anxiety were not found to be significant predictors of satisfaction or authenticity. Gender was found to be a significant predictor of satisfaction with the Instagram decision, with females reporting more satisfaction than males. Frequency of Instagram use was found to be a significant predictor of authenticity, with higher reported use positively correlated with reporting greater authenticity. Further, even though the average participant did not use Instagram with less frequency since the decision by Instagram was implemented, participants, overall, tended to report low satisfaction with the decision to hide likes on Instagram and that it did not increase their authenticity of Instagram use.

Keywords: narcissism, attachment security, peer attachment, validation

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Finally, I must express my very profound gratitude to my family; my mother, Jacqueline; my father, Rick; and my brother, Thomas; as well as my friends and peers for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of researching and writing this thesis. This accomplishment would not have been possible without their support. Thank you.

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Introduction

The social networking site, Instagram, is an outlet for self-expression, presentation, and impression management. Instagram use is focused more on self-presentation and promotion rather than on building and maintaining relationships (Dumas, Maxwell-Smith, Davis, & Giulietti, 2017). Thus, it comes as no surprise that young people on Instagram are particularly focused on receiving validation and attention in the form of "likes." (Dumas et al., 2017). Research has found that viewing a post on Instagram that has a high number of likes is associated with increased activation of brain regions, such as the nucleus accumbens, which are essential to reward-related processing (Sherman, Hernandez, Greenfield, & Dapretto, 2018). Wilcox and Stephen (2012) also found that people with large social networks found social media use, specifically self-presentation, to enhance self-esteem, demonstrating that aspects of social media use can be psychologically rewarding.

Instagram may be a particularly popular social networking site among individuals who display narcissistic personality traits. Trait narcissism is viewed as a continuous trait dimension and is considered to be a part of "normal psychology" (Miller & Campbell, 2010). This conceptualization differs from the DSM-V classification of narcissistic personality disorder which is a more pronounced and enduring expression of narcissistic behaviours, and not considered to be a part of "normal psychology" (Miller & Campbell, 2010). According to research, individuals with more narcissistic personality traits face a dilemma in that they are likely to desire relationships not as a source of intimacy, but rather as a way to enhance a sense of self via admiration (Sedikides, Campbell, Reeder, Elliot, & Gregg, in press). The dilemma here is that these individuals rely mainly on the approbation from others, yet pursuing these relationships becomes difficult, given that others tend to find relationships with these individuals to be one-sided and taxing (Campbell & Campbell, 2009). Instagram may provide these individuals with an

appropriate outlet to address this dilemma. They are able to receive the approbation they require, through interaction on the app in the form of likes and comments, without having to invest much into building and maintaining their relationships, which again, is a central issue for people who display higher levels of trait narcissism.

Little research to date has demonstrated that social media use serves a psychological function for people with a narcissistic personality. However, research done by Nash, Johansson and Yogeeswaran (2019) suggests that approval via likes on Instagram helped to alleviate distress experienced by people who display higher levels of narcissism, due to experimentally-manipulated social exclusion. Further, Dumas et al. (2017) demonstrated that individuals with narcissistic personality traits were significantly more likely to engage in behaviours in an attempt to gain Instagram likes, even when the behaviours were behaviours were deceptive (e.g., digitally modifying their physical features in posts).

The degree to which adolescents feel anxious, and not secure, in their attachment to their peers could also be related to their Instagram use, as they might seek more external or social validation from sources such as "likes" than those who feel secure in their attachment. According to Bowlby's (1988) Attachment Theory, sensitive and reliable early caregiving by parental figures promotes a secure attachment orientation in children's development, characterized by a positive working model of the self as loveable, and the notion that others are emotionally available and dependable. In contrast, children who grow up with highly unreliable, rejecting or intrusive caregivers are more likely to adopt an insecure attachment orientation characterized by negative working models of self and other, with the belief that they themselves are unlovable or unworthy and that others are undependable and untrustworthy (Bowlby, 1988). This insecure attachment can be expressed as either a pervasive anxiety about abandonment or rejection, a chronic avoidance of intimacy, or a combination of both (Bowlby, 1988). Due to these negative

working models, individuals with an anxious attachment orientation, specifically, have a limited ability to draw on internal resources for reassurance or validation, and therefore are compelled to find it from others (Mallinckrodt, Larson, Wei & Zakalik, 2005). Bowlby's theory suggests that while attachment can change over the course of the life span as well as with age-related changes, these negative working models build a foundation that can influence how these individuals relate to others (Bowlby, 1988). Findings also support the idea that even though the contribution of attachment figures to individual differences in quality of adolescent attachment is modest, it is consistent over time, indicating stability in these attachment processes (Buist, Reitz, & Deković, (2008). Therefore, the presence of attachment anxiety in early childhood creates a negative internal working model that can influence relationships with others, such as peers. This concept is supported by Lopez (2001) who reported that attachment anxiety is associated with strong expressed needs for social approval. This was not, however, found with attachment avoidance, which is consistent with the understanding that these individuals tend to avoid, and not rely on, intimacy from others . Given these findings, the current study was designed to focus on the role attachment anxiety plays in the context of peer relationships rather than attachment avoidance.

One of the ways in which adolescents today interact with their peers and seek social approval is through the use of social media platforms such as Instagram, that provide feedback in the form of "likes" (Dumas et al., 2017). In the last year however, as a test, Instagram began hiding the publicly viewable "likes" count on people's posts in seven countries including: Canada, Brazil, Italy, New Zealand, Ireland, Australia, and Japan. Although users can still see their own total "likes" on their posts, they can no longer see the like count associated with other people's posts, and others can no longer see their like count. Instagram CEO Adam Mosseri explained this format change as an attempt to "depressurize Instagram [and] give people more space to focus on connecting with people that they love, and things that inspire them" (Sanchez,

2019). One of the motivating factors in the push to "depressurize" Instagram, was to address the issue of a polarized digital dystopia which emerges as users post more and more radical content with the aim of gaining likes (Sanchez). The concept behind this change can be supported by the findings of a 2017 study done by the Royal Society for Public Health in the U.K., which found Instagram to be the social media platform most detrimental to young people's mental health and wellbeing, with frequency of use correlating positively with anxiety, depression, loneliness and negative body image. A spokesperson from Instagram also told TIME Magazine that they were testing out this change because they wanted users to focus on the photos and videos they share, and not on the likes they receive (Fitzgerald, 2019).

So, what happens when "likes" are hidden? Who will welcome this change and who will resist it? While this change might be positive for some people, there may be people for whom this change is not positive, and the purpose in the current study was to identify individuals in the population for whom this change is not so desirable. Instagram originally tested this format change in seven countries and recently introduced this feature in the United States in the Fall of 2019. To my knowledge, however, studies have yet to investigate the effect on users of hiding "likes" on Instagram. Research that examines Instagram users' experience with this change, including its perceived effect on their lives, as well as individual difference variables that predict the extent to which users find the change positive or negative is needed.

The objective of the current study was to investigate whether the expression of narcissistic personality traits and or attachment anxiety is associated with how people perceive the decision to hide likes on Instagram. Specifically, sought to investigate four hypotheses: First, adolescents with higher levels of trait narcissism and attachment anxiety will report less satisfaction with Instagram's decision to remove likes from the platform (H1) and also report that this change has affected them less positively (H2) than adolescents with lower levels of trait

narcissism and attachment anxiety. Further, they will also report that they rely more now on other forms of validation and attention-seeking on Instagram (comments, making their posts "Insta worthy") (H3). Finally, even though they will perceive the removal of Instagram likes more negatively, they will experience a smaller self-reported reduction in Instagram use post like-removal than adolescents who are less narcissistic and who are more anxiously attached (H4). The hope is that these findings can be generalized to other individualistic Western cultures, and will have implications in understanding how changes, such as removing forms of social validation, will affect certain members of the population.

Method

Participants

In all, 123 participants participated in this study. The data from 17 participants were removed from the dataset because those participants did not fill out the validation questions correctly. This, the data from only 106 participants, were used in this study. Participants were Grade 9 through Grade 12 high school students (aged 14-17 years old; $M_{age} = 3.61$, $SD = 1.28$) who attended either Brantford Collegiate Institute & Vocational School or McKinnon Park Secondary School from the Grand Erie District School Board.

More females than males participated in this study (21.7% male; 78.3% female). Participants were recruited by verbal invitations given by research assistants in students' homeroom classrooms. Eligibility criteria included that participants must have been adolescents who possessed an Instagram account and who were able to write and read in English fluently.

Measures

Narcissism

The Narcissistic Personality Inventory for Children (Barry, Frick & Killian, 2003) was used as the first predictor variable. It is an inventory yielding scores on six items, the mean of

which determined the score of non-clinical narcissism. Participants indicated, on a five- point

Likert-type scale ranging from Disagree Strongly to Agree Strongly, the extent to which they

agreed or disagreed with each item (e.g., "I want to control other people"; "I really like to be the

center of attention"). A higher score indicated higher narcissism ($\alpha = .799$).

Attachment to Peers

The Peers Attachment Scale was used as the second predictor variable (Fraley, Waller &

Brennan, 2000). It is a 36-item measure of adult attachment style which measures individuals on

two subscales of attachment: Avoidance and Anxiety. The modified scale used in the current

study consists of 10 items and the mean score of these items was calculated to determine a score

of attachment anxiety in one's peer relationships. Participants indicated, on a seven-point Likert

type scale ranging from Disagree Strongly to Agree Strongly, the extent to which they agreed or

disagreed with each item. The goal was to assess general relationship attachment anxiety and

avoidance in adolescents and young adults. To not burden participants with redundant questions

and because the wording of some items was not appropriate for non-romantic relationships, only

10 items that were appropriate were administered (e.g., I feel comfortable sharing my private

thoughts and feelings with my friends; I worry a lot about my relationship with my friends). A

higher score indicated greater peer attachment anxiety ($\alpha = .903$).

Reactions to Instagram Likes Removal.

Questions about satisfaction and current feelings about removal of likes were developed

for the purpose of this study. The goal of these questions was to determine how people felt about

the removal of Instagram likes and the affect this removal has had. These questions were broken

down into three scales: authenticity, satisfaction, and use. These items are shown in Appendix 1.

Authenticity. The mean of two items was calculated to provide a single measure of authenticity. Participants indicated, on five-point Likert type scales, ranging from Agree Strongly to Disagree Strongly, the extent to which they agreed or disagreed with each item. The goal of these questions was to determine how authentic people felt they were on Instagram since the removal of Instagram likes. A lower score indicated greater authenticity ($r = .58$, p < .01).

Satisfaction. Two items were averaged into a single measure of satisfaction. Participants indicated, on a seven-point Likert type scale ranging from Disagree Strongly to Agree Strongly, the extent to which they agreed or disagreed with each item. The goal of these questions was to determine how satisfied people felt they were on Instagram since the removal of Instagram likes. A higher score indicated greater satisfaction ($r = .61$, $p < .01$).

Use. Three items were averaged into a single measure of Instagram use. Participants indicated, on a five-point Likert type scale ranging from Agree Strongly to Disagree Strongly, the extent to which they agreed or disagreed with each item. The goal of these questions was to determine how people's use of Instagram has changed since the removal of likes. A lower score indicated a greater reduction in use ($\alpha = .733$).

Demographics

Finally, participants also answered a number of demographic questions including questions about gender, age, time spent on social media, number of followers, number of likes received in the past 3 months, number of posts in the past 3 months, and felt pressure.

Procedure

In December 2019, research assistants visited classrooms at two public high schools in the Grand Erie District School Board to invite students to take part in a study. Participants who brought back parental consent forms completed the surveys online outside of class time.

Participants were given a link to the study via email or text, depending on the stated preference on their parental consent forms. The first page of the survey presented participants with a letter of information which outlined details of the study and expectations of participants. Participants were then asked to give youth assent to continue to participate. The survey consisted of the measures described above as well as items not related to the current study. It took participants approximately 30-45 minutes to complete. Following completion of the study, participants were given a debriefing form which provided greater detail with respect to the nature of the study. Finally, participants were compensated upon completion of the survey with a code to a $10 e-gift card. The website Tango was used to administer the gift cards. Using Tango, participants could input the code and choose, from 40 stores, which store they wished to receive the gift card from.

Results

Analyses was conducted using the statistical program, SPSS Version 26. Table 1 shows all the inter-correlations among the main and control variables.

Two multiple linear regression analyses were conducted with *authenticity with respect to posting on Instagram* and *satisfaction with the decision to hide likes on Instagram* as the dependent variables. Narcissism and attachment security were included as independent variables and the following covariates: gender, age, number of Instagram posts, followers, and likes.

The first regression was significant, $F (9,74) = 3.04$, $p < .05$, $R^2 = .27$. Inconsistent with the hypotheses, level of trait narcissism ($\beta = - .13$, $t (74) = -1.23$, $p > .05$) and peer attachment anxiety ($\beta = - .15$, $t (74) = -1.23$, $p > .05$) were not significant predictors of authenticity. However, use ($\beta = .32$ $t (74) = 3.09$, $p < .01$), number of followers ($\beta = .55$ $t (74) = 2.91$, $p < .05$),

and number of likes ($\beta = -.70$ t (74) = -3.65, $p < .01$) were significant predictors of authenticity. Complete results from the second regression analysis are presented in Table.

The second regression was also significant, F (9,74) = 5.14, $p < .05$, $R^2 = .39$. Of the predictors investigated, gender was a significant predictor of satisfaction ($\beta = .40$, t (74) = 3.61, $p < .01$) with females reporting more satisfaction than males. Level of trait narcissism ($\beta = -.09$, t (74) = -.96, $p > .05$), peer attachment anxiety ($\beta = -.14$, t (74) = -1.32, $p > .05$), and use ($\beta = .01$, t (74) = -.07, $p > .05$) were not, however, significant predictors of satisfaction. Complete results from the regression analysis are also presented in Table 2.

Table 1: *Correlations for Main and Control Variables*

Measure					Correlations						
	1	2	3	4	5	6	7	8	9	10	11
1. Attachment Anxiety	-										
2. Satisfaction	-.07	-									
3. Authenticity	-.35	-.15	-								
4. Use	-.15	-.02	**.34****	-							
5. Narcissism	.02	-.08	-.08	.66	-						
6. Age	.15	.14	.05	.05	-.01	-					
7. Gender	.16	**.43****	.00	-.08	-.12	-.18	-				
8. Time	**.20***	-.07	-.08	**-.20***	.06	.04	-.11	-			
9. Followers	.07	**.24***	-.07	-.06	**.31****	**.28****	-.12	.13	-		
10. Posts	.05	.09	-.09	-.10	-.01	.06	-.11	.05	.06	-	
11. Likes	.06	**.36****	-.17	-.03	**.20***	**.30****	-.01	.16	**.80****	.15	-

Note. $*p < .05$; $**p < .01$

Table 2: *Results of Regression Analyses Predicting Impact of Hiding Likes on Instagram*

	Authenticity		Satisfaction	
	B	*SE*	*B*	*SE*
Narcissism	-.13	.12	-.09	.16
Attachment Anxiety	-.15	.08	-.14	.11
Use	.32**	.11	-.01	.15
Age	.01	.09	.14	.12
Gender	.15	.29	.40**	.39
Followers	.55**	.00	.06	.00
Posts	-.01	.12	.10	.16
Likes	-.70**	.00	.32	.00
Time	.13	.07	-.16	.09

Note. *$p < .05$ **$p < .01$

Discussion

The results of this study did not support the hypotheses. Adolescents with higher levels of trait narcissism and attachment anxiety did not report less satisfaction with Instagram's decision to remove likes from the platform and did not report that this change has affected them less positively than adolescents with lower levels of trait narcissism and attachment anxiety.

Overall the regression analysis for authenticity was significant, indicating that approximately 27% of the variance in authenticity scores can be accounted for by the predictor variables. Using Instagram was a significant predictor of authenticity, with higher levels of self-reported use associated with higher levels of authenticity. However, the average participant indicated that their use has not decreased since the removal of likes, and also reported low levels of authenticity. This suggests that even though typical adolescents may not be using Instagram any less than they did before the removal of publicly viewable likes, they did not feel they were more authentic in their use of Instagram now compared to before. Level of trait narcissism and peer attachment anxiety did not significantly predict authenticity in the use of Instagram since the removal of likes. Perhaps, the reason we did not find people to report being inauthentic on Instagram is not related to factors such as attachment anxiety or trait narcissism, but rather was a result of a failure to clearly define authenticity. Prefacing the authenticity questions with a better definition or example of what was considered authentic versus inauthentic may have been beneficial in ensuring that participants were using the same working definition when they responded to the questions as I was when I created the measure. If participants had to guess or infer what was meant by authentic, that could have left room for individual differences in interpretation. Further, in terms of improving the measure itself, future researchers could look at including the frequency of engaging in deceptive like seeking behaviours, with those engaging more frequently in those behaviours demonstrating more inauthenticity in their use. Future

researchers should be clear in their definition of authenticity and might wish to investigate the factors that are related to authenticity in Instagram use.

Overall, the regression analysis for satisfaction was significant with approximately 39% of the variance in satisfaction scores accounted for by the predictor variables. However, level of trait narcissism and peer attachment anxiety did not significantly predict satisfaction with the decision to hide likes on Instagram. Perhaps given that the implementation of the decision was designed to increase authenticity, and the results show that on average participants disagreed with being more authentic in their use of Instagram, the factors that would indirectly contribute to satisfaction with the decision are factors that would directly contribute to authenticity. Meaning that before users can be satisfied with this decision, perhaps they must be have begun to make the transition to using Instagram more authentically. Gender was a significant predictor of satisfaction, with females reporting more satisfaction than males. However, typical participants indicated that they were only slightly satisfied with the decision to hide likes on Instagram. Given that there is a strong positive correlation between likes and satisfaction, this suggests that perhaps the decision to hide likes has resulted in the perception of a reduction in receiving likes now compared to before, making users less satisfied with the decision to hide the likes.

The current study was not able to support the hypothesis that adolescents with higher levels of trait narcissism and attachment anxiety would also report that they rely more now on other forms of validation and attention-seeking on Instagram (comments, making their posts "Insta-worthy"). Therefore, future research should be designed to investigate if adolescents with higher levels of trait narcissism and attachment anxiety will also report that they rely more now on other forms of validation and attention-seeking on Instagram, and if so, what these forms of validation might be.

Finally, it was hypothesized that even though adolescents with higher levels of trait narcissism and attachment anxiety would perceive the removal of Instagram likes more negatively, that they will experience a smaller self-reported reduction in Instagram use post like-removal than those with lower narcissism and greater anxious attachment. Typical adolescents reported they were only slightly satisfied with the decision and also indicated that they were not using Instagram less now compared to before the implementation of the decision. Therefore, even though the average participant reported they were only slightly satisfied, indicating only a slight positive perception with the decision, they also did not experience a smaller self-reported reduction in Instagram use post like-removal.

The current study was conducted one year after the likes were hidden on Instagram for Canadian users. Therefore, a limitation of the study is that the results reflect feelings and perceptions one year after, rather than immediately following, the decision. People are not very accurate at reflecting on past feelings. Asking participants to report their feelings in the present moment likely provides the most accurate reflection of their actual feelings. The current study provides a sense of the more long term effects of this decision, rather than the immediate short term effects. However, given that data were not collected immediately following the decision to remove the visibility of likes, there is nothing to compare or correlate the current data to, to determine how this has changed over the course of the year. Internet memes depicting the dissatisfaction felt by users towards the removal of Instagram likes became salient on social networking sites when the decision was initially implemented. An Internet meme is an idea (e.g., a word or phrase, hashtag, picture, or video), typically rooted in popular culture, that is widely popularized and distributed on the internet (APA Dictionary of Psychology, 2020). However, as users adjusted to the new format, the expressed dissatisfaction from users seems to have dissipated, as these memes are no longer seen circulating on social media platforms. It is likely

that attitudes and perceptions would be much more negative initially if these data were collected immediately after the decision was implemented, as normal use was disrupted and users were adjusting to the new format.

Despite finding little support for the, hypotheses advanced, the results of this study indicate that perhaps the removal of likes is not having the effect of depressurizing and increasing authenticity that Instagram officials had hoped for. Instagram officials indicated that the decision to remove publicly viewable likes on Instagram was motivated by the hope that it would increase authenticity among users' Instagram use. However, this does not appear to be the case, based on my data. The findings of the current study demonstrate that typical participants indicated that despite reporting that they have not used Instagram less since the removal of likes, they did not feel that they used Instagram more authentically now compared to before. This demonstrates that the hiding of likes may not have increased authenticity, even when use was controlled for. These results are important to consider because in the Fall of 2019, Instagram expanded to hiding publicly viewable likes for users in the United States. Just like the United States, Canada is an individualistic western culture, and therefore, findings from the current study may shed some light on what outcomes can be expected from Instagram users in the United States in the year following this decision.

The majority of participants in the study also reported that they were only slightly satisfied with this decision to hide likes. This is not surprising given that participants did not report an increase in authenticity in Instagram use.

Another limitation is that participants were asked to reflect back on and compare to a time before Instagram likes were hidden. Given that people are not very accurate with this form of recall, it would have been beneficial to distribute a survey assessing current use and feelings before the likes had been removed in order to more accurately compare how these feelings and

use have changed. The implication of this is that, if Instagram continues to hide likes globally, future research could benefit from this limitation in the present research and collect these initial data before the likes are removed, or as soon as possible, in other countries to be able to more-accurately determine how the attitudes and perceptions change following such a removal.

Even though the present study did not find trait narcissism and attachment anxiety to be significant predictors of satisfaction with the decision to hide likes, or of the level of authenticity in using Instagram since the implementation of the decision, the findings do demonstrate that the typical adolescent in our study does not appear overly satisfied with this decision and the implementation of the decision did not increase authenticity. Future researchers should investigate factors affecting authenticity in Instagram use, for example how much pressure one feels to get likes on Instagram.

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Appendix 1

Satisfaction Scale:

Recently, Instagram in Canada has removed the ability of others to see the total number of "likes" a post has received. Please select the option that best represents your feelings toward this change (1 Strongly disagree – 7 Strongly Agree):

- I'm happy with the decision to remove "likes" on Instagram.

- I feel that removing "likes" has made a positive change in people's behaviour on

  Instagram.

Authenticity Scale:

Please select the option that best represents your current feelings about the removal of Instagram likes in Canada (1 Strongly Agree – 5 Strongly Disagree):

- I feel less pressure to make my posts "Insta-worthy" now compared to before

- I can be more authentic in what I post now compared to before

Use Scale:

Please select the option that best represents your current feelings about the removal of Instagram likes in Canada (1 Strongly Agree – 5 Strongly Disagree):

- I use Instagram less often now compared to before

- I post photos on Instagram less often now compared to before

- I "like" other people's photos less often now compared to before

Curriculum Vitae

Name: Madeleine Visca

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                                               Huron Entrance Scholarship (2016)

                                               Speaker at the Healthy Behaviours in an
                                               Online World (HBOW) conference (April 1st
                                               2019 at Huron University College)

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