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**DOES SELF LOVE LEAD TO SPYING ON EX-PARTNERS ON FACEBOOK?
- THE EXAMINATION OF EGO FACTORS IN FACEBOOK STALKING -**

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Thesis submitted to the
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at
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for the degree of

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in
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ABSTRACT

This study aims to identify predictable personality traits that can influence one's likelihood to stalk an ex-partner on Facebook. Particularly, the study focuses on the traits related with self-concept, given that motivations of using social network sites (SNS) are highly associated with self-concept. This includes self-esteem, two types of narcissism (grandiose and vulnerable narcissism), and self-efficacy. Furthermore, in order to better assess the predictability of these factors, this study considers other control variables while assessing predictability of personality traits, such as Facebook usage, length of the relationship, and time since the break-up, drawing from both social psychology and SNS literature. The results of a self-administered, web-based survey showed that self-esteem, grandiose narcissism, and self-efficacy were all traits that can predict Facebook stalking of an ex-partner. More specifically, self-esteem was negatively associated with one's likelihood to stalk an ex-partner on Facebook, while grandiose narcissism and self-efficacy were positively associated with it. The addition of several control variables also increased the predictability of Facebook stalking.

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Introduction

Facebook has become the dominant social networking site (SNS), due to its wide reach and the multiple communication functions it provides. Its function to make individuals' lives visible to others, however, introduces unwanted types of visibility. For example, a recent survey on Facebook usage showed that 83% of Facebook users regularly monitor their ex-partner's Facebook profile and 74% of them had checked the profile of their ex's new romantic partner (Alexander, 2012). Another survey showed that 18% of Facebook users attempted to publically harass their ex-partner on Facebook (Lyndon, A., Bonds-Raacke, J., & Cratty, D. 2011). By looking at photos, wall posts, status updates, and videos of their ex-partner or mutual friends on Facebook, one could gather a significant amount of information about his or her ex-partner. While people examine their ex-partners' social media profiles to seek a better understanding about the end of their relationship, such surveillance behaviors are often severe enough to cause a personal fear, as online stalking increases the likelihood of engaging in offline stalking (Lyndon et al., 2011). Such behaviors also significantly delay breakup recovery and increase emotional distress over the break-up (Marshall, 2012).

As such, obsessively monitoring and harassing another person on Facebook -commonly referred to "Facebook stalking" - becomes one of the forefront concerns among Facebook users, and there are abundant warnings of Facebook stalking after a romantic relationship termination (Lyndon et al., 2011). While increasing attention has been paid to Facebook stalking among users, less is known about personality traits that might explain how people engage in Facebook stalking after terminating a romantic relationship.

This study, therefore, aims to identify predictable personality traits that will explain why someone is more or less likely to stalk an ex-partner on Facebook. This study particularly

focuses on the traits related with self-concept, given that motivations of using social network sites (SNS) are highly associated with self-concept (Mehdizadeh, 2010). This includes self-esteem, two types of narcissism, and self-efficacy. Furthermore, in order to better assess the predictability of these factors, other control variables are considered in this investigation, drawing from both social psychology and SNS literature. The findings from the proposed study will expand our understanding of personality traits and their predictability to explain Facebook surveillance of former romantic partners.

Expanding upon current research about Facebook stalking can benefit SNS users by making them more aware of the impact that social media has on someone following a break up. Many Facebook users may not realize how accessible their information is to ex-partners and that this may be promoting stalking behaviors. Facebook has been making changes to its privacy policy over the years that makes privacy protection easier and can help protect individuals from such stalking behaviors. For example in 2014, Facebook launched a tool called Privacy Basics that easily shows users who can view their posts and also frequently reminds users about who can see their profile and posts while giving you easy options to change the settings at the same time (Kovach, 2014). The results from the study should influence the way users are utilizing privacy settings on Facebook, and also the policies and settings that Facebook makes available to its users.

Theoretical Background and Hypothesis Development

Facebook Use and Stalking

Six out of every ten American adults use social networking sites regularly (Smith and Duggan, 2013). Social networking sites are defined as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (Boyd 2007). Particularly, Facebook as a social network was the 4th most visited website in 2010 (Bowe, 2010), attracting over 800 million users (Elphinston & Noller, 2011; Marshall et al., 2012). As Facebook is the dominant SNS used by 57% of all American adults and 73% of all those ages 12-17 (Smith, 2014), this study primarily investigates behaviors on Facebook.

While a number of studies have attempted to document Facebook being used as a way to meet partners or to develop/maintain romantic relationships, less is known about personality traits and their effect on behaviors during the stages of relationship termination or a “break-up.” When individuals seek a better understanding about the end of their relationship, wish for information about their former partners’ behaviors or potential new romantic interests, there is good reason for them to examine their friends and ex-partners’ social media communication to reassure them. Past research showed that most surveillance behaviors occurred in a passive manner but a small number of cases were reported as being severe or harassing in nature (Lyndon, 2011). Furthermore, individuals demonstrating severe online behaviors were more likely to transition from cyber harassment and stalking to offline behaviors (Spitzberg &

Hoobler, 2002). Thus, it is worthwhile to examine personality traits that may influence surveillance behaviors on SNS.

Personality Traits Influencing Facebook Stalking

Self-esteem

Self-esteem is “the sense of personal worth and competence that a person associates with his or her self-concept” (Corsini 1984, p. 289). Self-esteem is an attitude about the self and is related to personal beliefs about skills, abilities, social relationships, and future outcomes (Heatherton, 2003). Those who have high self-esteem are presumed to be psychologically happy and healthy (Branden, 1994; Taylor & Brown, 1988), whereas those with low self-esteem are believed to be psychologically distressed and perhaps even depressed (Tennen & Affleck, 1993). Individuals with high self-esteem feel good about themselves, so they are able to cope effectively with challenges and negative feedback, and they live in a social world in which they believe that people value and respect them (Heatherton 2003). On the other hand, people with low self-esteem see the world through a more negative filter, and their general dislike for themselves affects everything around them and evidence shows a link between self-esteem and depression, shyness, loneliness, and alienation (Heatherton, 2003).

Kramer (2008) stated that all humans have a vital need to maintain or raise their self-esteem. Therefore it can be expected that individuals will work toward achieving a positive self-image both online and offline. It is also likely that people with low self-esteem will be more eager to engage in online activities that may raise their self-esteem (Mehdizadeh, 2010). Tice

(1993) states that people with lower self-esteem will behave in a way to make up for what they lack.

Based on previous research about self-esteem, it is suggested that self-esteem is a potential predicting factor for Facebook stalking. For example, Darvell et al. (2011) demonstrated that people with low self-esteem are more suspicious of their current partner, thereby more likely monitoring their partner's activities during their relationships. Research also suggests that people with low self-esteem (vs. high self-esteem) are more likely to involve in obsessive relational intrusion after the termination of romantic relationships because they worry that they will be unable to find a new mate (Perilloux and Buss, 2008). Furthermore, Mehdizadeh (2010) found that individuals who rate lower on the Rosenberg Self-esteem Scale were correlated with a greater amount of time spent on Facebook per session, and greater number of Facebook logins per day. Thus, it is hypothesized that low self-esteem would lead to more surveillance of former romantic partners on Facebook.

Hypothesis 1: Individuals with low self-esteem will be more likely to engage in stalking behaviors of their ex-partners on Facebook.

Two Types of Narcissism

Another important factor related with self-concept is narcissism. Narcissism is one of the key factors that explain the proliferation of SNS, because SNS are useful and convenient platforms for their self-promoting for those who display inflated self-concept (Bergman et al., 2011). Previous SNS studies have approached the concept of narcissism as a one-dimensional concept (Bergman et al., 2011; DeWall et al., 2011; Mehdizadeh, 2010). Recent developments in

narcissism research, however, suggest there are two subtypes of narcissism that each display unique characteristics (Wink ,1991). The two subsets are grandiose narcissism and vulnerable narcissism.

First, grandiose narcissism is primarily associated with immediate expressions of exhibitionism and self-importance (Wink, 1991). People who display the traits of grandiose narcissism reflect ideals, which are referred to as grand, often showing aggression and domination within their actions (Miller et al., 2011). On the other hand, vulnerable narcissists constantly take notice of criticism and potential failures (Miller et al., 2011). People with vulnerable narcissistic tendencies display traits of defensiveness and insecurity. Individuals who are characterized by vulnerable narcissism have low self-esteem and therefore derive feelings of self-worth from external validation rather than through internal confidence (Schwartz, 2010). These traits differ from grandiose narcissism, which exhibits high self-esteem and traits related to extraversion, self-assurance, aggression and dominance (Wink, 1991; Miller et al., 2011). In this regard, Besser and Priel (2010) demonstrated that vulnerable narcissists (vs. grandiose narcissistic people) tend to display higher stress levels when they experience threats involving a romantic partner's rejection.

Given the distinctive nature of the two types of narcissism, it is expected that two forms may lead to different behaviors regarding Facebook stalking. It is predicted that vulnerable narcissists (vs. grandiose narcissists) would be more likely to stalk an ex-partner on Facebook because people high in vulnerable narcissism would be more vigilant and sensitive about ex-partner's behaviors after a break-up. On the other hand, people high in grandiose narcissism tend to be overconfident in their self and interpersonal abilities (Campbell et al. 2004), so that they are resistant to doubts about their partner's perceptions of their relationship (Foster & Campbell,

2005). These findings, taken as a whole, suggest that people with grandiose narcissism would be less vigilant and sensitive about ex-partner's behaviors. Therefore, we propose:

Hypothesis 2: Individuals that demonstrate tendencies of grandiose narcissism will be less likely to engage in stalking behaviors of their ex-partners on Facebook.

Hypothesis 3: Individuals that demonstrate tendencies of vulnerable narcissism will be more likely to engage in stalking behaviors of their ex-partners on Facebook.

Self-efficacy

Self-efficacy is referred to as “beliefs in one’s capability to organize and execute the course of action required to produce given attainments” (Bandura, 1997, p.3). In this context self-efficacy will apply to one’s belief that they have the ability to achieve the goal of reconciling their terminated relationship. One of the determinants of this reaction is the degree to which the individual perceives that the reward follows from, or is contingent upon, his own behaviors or attributes versus the degree to which he feels the event is controlled by forces outside of himself and may occur independently of his own actions (Gallagher, 1985). This means that people believe that their actions are responsible for the future outcome of the situation. When an individual believes an event is contingent upon his own behavior or his relatively permanent characteristics, he is said to possess “internal control” (Rotter 1966). Those who believe that the situation is determined based on luck, fate, or chance believe they possess “external control” (Rotter 1966). Externals, in contrast to internals, are relatively anxious, aggressive, dogmatic, and less trustful and more suspicious of others, lacking in self-confidence and insight, having

low needs for social approval, and have a greater tendency to use sensitizing modes of defenses. Internals have been found to be more flexible in cognitive process, more likely to gain from critical situations, less anxious, more responsible, and more likely to be nurturing (Lefcourt, 1966).

Research supports that such beliefs strongly motivate persistence of unwanted pursuit of relationships. For example, Cupach et al. (2011) showed that self-efficacy is a predictor of persistence of reconciliation attempts in romantic relationships. Merton (1946) described the belief in luck as a defensive behavior that is used as an attempt to serve the psychological functioning of enabling people to preserve their self-esteem in the face of failure. On the contrary, individuals with high self-efficacy will believe the task of reconciling the relationship is obtainable, and not depend on luck. It was argued that, regardless of actual skills a person may possess, an individual with high self-efficacy believes that he or she has sufficient power and skills to reconcile a terminated relationships, which results in obsessive relational intrusion (e.g., stalking a former partner).

This behavior can be rationalized using the relational goal pursuit theory (hereafter RGP). RGP theory states that relationships can be conceptualized as goals (i.e., desired end states people wish to obtain) (Cupach et al.,2011). Therefore, individuals who persistently attempt to reconcile a terminated relationship exaggerate the importance of a relationship goal because they believe it is the only way to achieve the goal of happiness. In line with research documenting links between greater self-efficacy and unwanted relationship pursuit, individuals with greater beliefs in their competence in romantic relationships would report a greater likeability of stalking former partners on Facebook compared to those with fewer beliefs in their abilities to reconcile a terminated relationship. Therefore, this study hypothesizes:

Hypothesis 4: Individuals that demonstrate high self-efficacy will be more likely to engage in stalking behaviors of their ex-partner on Facebook.

Control Variables

In addition to aforementioned factors, the current study includes factors that have been identified as significant predictors from previous studies as covariates in the current study. These include break-up/relationship characteristics and Facebook usage.

Relationship Characteristics- Relationship Length & Time since Break-Up

Characteristics about the break-up/relationship can influence how an individual will react after the relationship has ended (Perilloux and Buss, 2008). Specifically, duration of the relationship and the lengths of time since break-up (Cupach et al., 2011; Perilloux and Buss, 2008) are found to be important factors influencing the results of the proposed study. College students make up a significant amount of Facebook users, however they often bounce from one relationship to the next. Those who frequently terminate relationships, and have short durations in the majority of their relationship may not have the same motivations to stalk their ex-partners on Facebook as someone who is often in a long-term committed relationship. Duration of the relationship and the length of time since the break-up are factors that are considered as control variables in this study.

Facebook Usage.

Several studies suggest that increased Facebook use could lead to increased surveillance of a partner's profile (Darvell et al., 2011; Muise et al., 2009). Markus (1994) suggests that there are "good" uses and "bad" uses of technology. "Good" uses are those that result in positive outcomes, whereas "bad" uses are those that result in negative outcomes. Facebook stalking an ex-partner could yield positive results for an individual, which may provide validation for participating in stalking behaviors on Facebook. Individuals who are heavy Facebook users may have more temptation as well as opportunities to monitor their ex-partners Facebook profile. As it is predicted that users who stalk their ex-partner on Facebook will be heavy Facebook users, this study considers Facebook usage as another important control variable.

Method

Procedure and Participants

A self-administered, web-based survey was distributed to five undergraduate courses at West Virginia University where students were given extra credit as an incentive for participation in the research. An IRB approval was obtained from the university to conduct the study. The research sample consisted of Facebook users who had a romantic relationship that ended in the past.

Sample

A total of 209 students participated in the study in exchange for extra course credit. Females comprised 57.4% of the sample and the average age of the sample was 19.9 years (SD=.05). The ethnicity report for the study showed that 87.6% of respondents were white, 2.9%

were Hispanic/Latino, 6.2% were African American/Black, 1.4% Asian/Pacific Islander, and 1.6% chose other.

Measures

Self-esteem was measured with the ten-item Rosenberg Self-Esteem Scale (1965). Items were measured using a seven-point Likert scale (e.g., “On the whole, I am satisfied with myself.”), where the points were labeled “1” = “strongly disagree,” to “7” = “strongly agree.” Grandiose narcissism was measured using 16 items adopted from Ames (2006). For these questions, participants were asked to choose the option, out of two possible selections, that best describes their feelings about themselves. (e.g., A). I really like to be the center of attention; B). It makes me uncomfortable to be the center of attention). One option from each question was consistent with grandiose narcissism. The answers that were consistent with grandiose narcissism were then tallied to compile a sum score for the measure. Vulnerable narcissism was measured using ten items adopted from Hendin & Cheek (1997). Items were measured using a seven-point Likert scale (e.g., “My feelings are easily hurt by ridicule or the slighting remarks of others.”), where the points were labeled “1” = “strongly disagree,” to “7” = “strongly agree.” Self-efficacy was measured using eight items from Cupach et al., 2011. (e.g., “after the break-up...I still feel capable of getting back into a relationship with this person,” “after the break-up...I was confident I could get my ex-partner to reconcile with me”). Items were measured using a seven-point Likert scale, where the points are labeled “1” = “strongly disagree,” to “7” = “strongly agree.”

As for Facebook stalking behaviors, three items were adapted and modified from previous measures of unwanted relational pursuit behaviors (e.g., “How often have you looked at

his/her Facebook page after breaking up?") (Cupach & Spitzberg, 2011). For these questions respondents chose between seven options ranging from "1" = "Never", to "7" = "Every time I visit Facebook."

Regarding control variables, information about time since break-up and relationship length was collected. Facebook usage was also measured with Bowman et al.'s social media diet (2012). This scale measures one's frequency, amount, and duration of Facebook media use, creating a summed composite measure. Finally, demographic information about participants, including gender, age, and ethnicity, was obtained.

Results

Before the main analysis was conducted, multicollinearity analysis was conducted to confirm whether each construct was orthogonal from each other. Since multicollinearity exists when a tolerance is less than .10 and variance inflation factor (VIF) is greater than 5 (O'Brien 2007), there is no multicollinearity for any of the constructs explored in this study. Table 1 reports multicollinearity test results.

Table 1
Multicollinearity Analysis

<i>Measure</i>	<i>Tolerance</i>	<i>VIF</i>
Self-Esteem	.99	1.01
Grandiose Narcissism	1.0	1.0
Self-Efficacy	.99	1.01

Prior to testing the hypotheses, descriptive statistics were run to examine the personality traits dispersion among the college student participants. Table 2 displays the descriptive statistics

of each measure along with the reliability coefficients. Since vulnerable narcissism showed low reliability ($\alpha = .66$) and validity, it was excluded from the analysis.

Table 2
Means, standard deviation, and scale reliability of variables

<i>Measure</i>	<i>M</i>	<i>SD</i>	<i>Reliability</i>
Self-Esteem	5.50	.79	.84
Grandiose Narcissism	5.43	3.11	.70
Vulnerable Narcissism	3.91	.76	.66
Self-Efficacy	4.09	1.07	.70
Facebook Diet	9.08	2.69	.70
Facebook Stalking	1.51	0.66	.63

To test the hypotheses, a step-wise regression was conducted. This analytical method also clarifies whether there was additional variance between the constructs. Facebook stalking was the dependent variable for the analysis while Facebook use, relationship length, and time since break-up remained constant. In step-one, $r^2 = .063$. Once self-esteem, grandiose narcissism, and self-efficacy were added in step-two, $r^2 = .205$, accounting for a $\Delta r^2 = .142$. Thus, adding control variables increases the predictability of Facebook stalking.

As displayed in Table 3, self-esteem was a significant predictor of the likelihood to engage in Facebook stalking of an ex-partner ($\beta = -.231, p < .01$). Further, as seen in Table 4, self-esteem also has a negative correlation with Facebook stalking ($r = -.199, p < .01$). Therefore, Hypothesis 1 is supported.

Table 3
Multiple Regression Step-Wise Method Analysis

<i>Variables</i>	<i>Step 1</i>	<i>Step 2</i>
	β	β
Facebook Diet	.123	.118
Relationship Length	.180**	.150*
Time Since Breakup	.140*	.173**
Self Esteem		-.231**
Grandiose Narcissism		.179**
Self Efficacy		.245**
	$R^2 = .063$	$\Delta R^2 = .142$
	$F(3,205) = 4.567,$	$F(6,202) = 8.665,$
	$p < .01$	$p < .001$

Note: Beta-weights marked with “*” are significant at the $p < .05$ or greater.
Beta-weights marked with “**” are significant at the $p < .01$ or greater.

As for grandiose narcissism, it also appeared to be a significant predictor of the likelihood to engage in Facebook stalking of an ex-partner ($\beta = .179, p < .01$). However, grandiose narcissism had a positive correlation with the dependent variable thereby contradicting hypothesis 2 ($r = .217, p < .01$).

Finally, self-efficacy appeared to be a significant predictor ($\beta = .245, p < .01$) and showed a positive correlation with the dependent variable ($r = .217, p < .01$). Therefore, hypothesis 4 was supported.

Regarding the control variables, relationship length and time since the breakup had significant influences on the dependent variable ($\beta = .150, p < .05$; $\beta = .173, p < .01$), while Facebook use did not have an influence ($\beta = .118, p = .07$).

Table 4
Correlations of Variables

Variables	1	2	3	4	5
1. Self-Esteem	-				
2. Grandiose Narcissism	.115	-			
3. Self-Efficacy	-.007	.092	-		
4. Facebook Diet	-.006	.087	-.042	-	
5. Facebook Stalking	-.199**	.217**	.242**	.134	-

Discussion

The purpose of this study was to identify personality traits associated with self-concept that could predict the likelihood of stalking an ex-partner on Facebook. The results of the study indicated that self-esteem, grandiose narcissism, and self-efficacy are predictable factors for stalking an ex-partner on Facebook. The results of this study were also influenced by control variables, such as the duration of a relationship and time since the break-up.

More specifically, Hypothesis 1 predicted that individuals with low self-esteem would be more likely to stalk their ex-partners on Facebook. Previous research had indicated that

Facebook users who experienced uncertainty about the end of their relationship or jealousy throughout the relationship were more likely to stalk their ex-partners on Facebook (Tong, 2013). Marshall (2013) established a link between relationship uncertainty and jealousy with low self-esteem. As such, this study found that self-esteem was a significant predictor of Facebook stalking. As individuals' self-esteem decreased the more Facebook stalking increased which was consistent with the predicted hypothesis. A decrease in self-esteem often occurs after a break-up due to relationship uncertainty, jealousy, so that individuals with low self-esteem are more eager to engage in online activities that may raise their self-esteem (Mehdizadeh, 2010). Individuals with low self-esteem could be engaging in stalking of an ex-partners Facebook page in an attempt to alleviate doubts they had at the end of the relationship by searching for answers to why their relationship has ended since people with low self-esteem behave in a way to make up for what the lack (Tice, 1993).

Hypotheses 2 and 3 dealt with the two constructs of narcissism, grandiose narcissism and vulnerable narcissism. Grandiose Narcissism was found to be a significant predictor of Facebook stalking of an ex-partner. However, grandiose narcissism negatively affected the dependent variable instead of positively, which contradicted hypothesis 2. The unexpected finding can be explained by the fact that individuals with high grandiose narcissism tried to gain self-worth from external validation (Miller et al., 2011; Wink, 1991). Thus, they would tend to reassure the reasons for the end of relationships by monitoring their ex-partners behaviors, or to attempt to reconcile the broken relationships by consistently contacting their ex-partners. Research also showed that individuals with high grandiose narcissism scores are highly invested in promoting their self-perceived superiority and are hypervigilant in their efforts to detect and diffuse potential threats to their grandiose self-perceptions (Morf & Rhodewalt, 2001). For example,

grandiose narcissistic individuals enjoy direct competition against others (Morf, Weir, & Davidov, 2000) and often respond with self-protective behaviors, such as derogation or devaluation, when threatened by comparison with a better performing other (e.g., Morf & Rhodewalt, 1993) or by negative feedback (e.g., Kernis & Sun, 1994). Therefore individuals with grandiose narcissistic tendencies could be looking for information on their ex-partners Facebook page that would validate why their ex-partner is not good enough for them in order to protect their self-image. Furthermore they could be searching for validation that they are better than their ex's new partner by searching for flaws about that person that would ultimately make them feel superior.

While it was expected that those who stalk their ex-partner on Facebook would identify more with vulnerable narcissism than grandiose narcissism, the results were not consistent with this prediction. Hypothesis 3, which stated that individuals that demonstrate tendencies of vulnerable narcissism would be more likely to stalk their ex-partners on Facebook, was not supported by the results due to the low reliability and validity of the measurement to assess one's vulnerable narcissism. This result implies that vulnerable narcissism (Hendin & Cheek, 1997) should be revisited to further validate its constructive validity.

Hypothesis 4 predicted that individuals that demonstrated high self-efficacy in their ability to reconcile their relationship would be more likely to stalk their ex-partner on Facebook. The results supported that self-efficacy was a significant predictor of Facebook stalking of an ex-partner. The RGP theory explained that relationships can be viewed as goals and self-efficacy relates to this in the fact that individuals with high self-efficacy believe that the goal of reconciling the relationship is obtainable through their actions (Cupach, et al., 2011). Individuals with high self-efficacy believe that it is within their reach to reconcile their relationship with

their ex-partner, thus Facebook stalking could be a means of obtaining information that will help them reach their goal. The RGP theory suggests that relationships can be viewed as goals, and when a relational goal is prevented pursuers experience strong negative reactions and become obsessed with the relationship (Cupach, 2001). When an individual's obsessive thoughts transition into obsessive behaviors, an individual is then displaying stalking behaviors (Meloy, 1998).

One of the important implications of the current study is that findings from the study could provide a link between online and offline stalking behaviors that has not previously been established. Stalking is a serious crime involving acts of pursuit of an individual over time that is threatening and potentially dangerous (Meloy, 1998). Clinical trials found that 30-50% of stalkers in clinical/forensic samples had personality disorders related to narcissism (Mullen et al., 1999). This is because individuals with narcissistic personality disorders demonstrated a grandiose self-importance and was preoccupied with fantasies of power, brilliance, beauty and ideal love (Meloy, 2007). In a similar vein, this study found that grandiose narcissism is also positively related with Facebook stalking. This result implies that offline stalkers and Facebook stalkers both have grandiose narcissistic tendencies.

Limitations of Study

Although this study advances SNS and romantic relationship literature by offering theoretical contributions, some limitations should be considered when interpreting the results. This study analyzes self-reported behaviors but does not account for the actual behaviors of Facebook users. Therefore, it serves as a starting point to better understand potential explanations for certain behaviors on Facebook, but further analysis should be made to understand Facebook users' actual behaviors. For example, a content analysis of actual Facebook

usage can be conducted to better understand individual's intentions vs. behavior when it comes to stalking an ex-partner on Facebook.

Second, the generalization of the study is limited by the use of collegiate subjects who use Facebook. Therefore, future studies with a larger sample, containing a balanced mix of all age groups, with participants who do use various forms of SNS, and is drawn from random sampling will be needed to make the results generalizable.

Third, the vulnerable narcissism scale used for the study was found to be unreliable. In the future the study should consider including a reliable vulnerable narcissism scale in order to better analyze and compare the results of the two types of narcissism.

Finally, the dependent variable for the study showed low reliability ($\alpha=0.63$) and a low mean value ($m=1.51$). In the future a more reliable scale featuring more items should be used to measure Facebook stalking in order to have more comprehensive results regarding the study.

Directions for Future Research

To enhance the contributions of this study, future research should examine additional factors that may be predictors of Facebook stalking. For example the Big Five measure would be incorporated in order to create a more comprehensive overview of personality traits that can influence an individual's likelihood to participate in Facebook stalking. The Big Five personality traits are the most basic dimensions that shape the structure of human personality and underlie the regularities in people's thinking, feeling, and behavior (Löckenhoff & Costa, 2007). Previous studies have shown that narcissism and neuroticism of Big Five are positively correlated together, therefore it is possible that neuroticism could also be a significant predictor of Facebook stalking which is why the Big five traits should be measured for future research (Ben-Yoseph, 2001).

Additionally more control variables should be considered in the analysis, such as who initiated the break-up, to extend the literature on the topic and further understand motivations behind Facebook stalking. Furthermore, additional personality disorders found in offline stalkers should be examined to see if they are also present in Facebook stalkers. Meloy (1998) established that antisocial, borderline, and historic personality disorders were present in the majority of offline stalking offenders in addition to narcissistic personality disorders. Further research should be done to examine if other personality disorders associated with offline stalking are also traits present for Facebook stalking.

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Appendix

Measures

Self-esteem (Rosenburg, 1965)

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

Grandiose Narcissism (Ames, 2006; Raskin & Terry, 1988).

1. Choose one statement that best describes you.
 - I really like to be the center of attention.
 - It makes me uncomfortable to be the center of attention.
2. Choose one statement that best describes you.
 - I am no better or no worse than most people.
 - I think I am a special person.
3. Choose one statement that best describes you.
 - Everybody likes to hear my stories.
 - Sometimes I tell good stories.
4. Choose one statement that best describes you.
 - I usually get the respect that I deserve.

- I insist upon getting the respect that is due me.
5. Choose one statement that best describes you.
- I don't mind following orders.
 - I like having authority over people.
6. Choose one statement that best describes you.
- I am going to be a great person.
 - I hope I am going to be successful.
7. Choose one statement that best describes you.
- People sometimes believe what I tell them.
 - I can make anybody believe anything I want them to.
8. Choose one statement that best describes you.
- I expect a great deal from other people.
 - I like to do things for other people.
9. Choose one statement that best describes you.
- I like to be the center of attention.
 - I prefer to blend in with the crowd.
10. Choose one statement that best describes you.
- I am much like everybody else.
 - I am an extraordinary person.
11. Choose one statement that best describes you.
- I always know what I am doing.
 - Sometimes I am not sure of what I am doing.
12. Choose one statement that best describes you.
- I don't like it when I find myself manipulating people.
 - I find it easy to manipulate people.
13. Choose one statement that best describes you.
- Being an authority doesn't mean that much to me.
 - People always seem to recognize my authority.
14. Choose one statement that best describes you.

- I know that I am good because everybody keeps telling me so.
- When people compliment me I sometimes get embarrassed.

15. Choose one statement that best describes you.

- I try not to be a show off.
- I am apt to show off if I get the chance.

16. Choose one statement that best describes you.

- I am more capable than other people.
- There is a lot that I can learn from other people.

17. Choose one statement that best describes you.

- I don't particularly like to show off my body.
- I like to show off my body.

18. Choose one statement that best describes you.

- My body is nothing special.
- I like to look at my body.

19. Choose one statement that best describes you.

- Compliments embarrass me.
- I like to be complimented.

20. Choose one statement that best describes you.

- I don't care about new fads and fashions.
- I like to start new fads and fashions.

21. Choose one statement that best describes you.

- I like to look at myself in the mirror.
- I am not particularly interested in looking at myself in the mirror.

22. Choose one statement that best describes you.

- I get upset when people don't notice how I look when I go out in public.
- I don't mind blending into the crowd when I go out in public.

Vulnerable Narcissism (Hendin & Cheek, 1997)

1. I can become entirely absorbed in thinking about my personal affairs, my health, my cares or my relations to others.

2. My feelings are easily hurt by ridicule or the slighting remarks of others.

3. When I enter a room I often become self-conscious and feel that the eyes of others are upon me.
4. I dislike sharing the credit of an achievement with others.
5. I feel that I have enough on my hands without worrying about other people's troubles.
6. I feel that I am temperamentally different from most people.
7. I often interpret the remarks of others in a personal way.
8. I easily become wrapped up in my own interests and forget the existence of others.
9. I dislike being with a group unless I know that I am appreciated by at least one of those present.
10. I am secretly "put out" or annoyed when other people come to me with their troubles, asking me for my time and sympathy.

Self-efficacy (Cupach et al., 2011)

1. I believed that persistence in trying to reestablish the relationship with my ex-partner would pay off.
2. I was doubtful that my partner would ever get back together with me.
3. I believed I was capable of convincing my partner to get back together.
4. I was confident I could get my ex-partner to reconcile with me.
5. I knew it was unlikely my ex-partner would get back together with me.
6. I felt I would be able to reestablish the relationship I wanted with my ex-partner.
7. I still feel capable of getting back into a relationship with this person.
8. I was unsure that I could persuade my ex-partner to reconcile our relationship.