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Accuracy in Facebook Self-Presentation: The Role of the “True Self”

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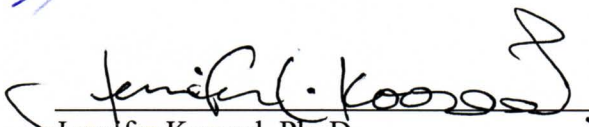
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Abstract

Facebook statuses of 56 profile owners were evaluated, assessing self-presentation accuracy of the actual, inner/true, and online selves. The true self encompasses traits we possess, but do not express, and may be more easily expressed online. Observers rated the extent they liked the owners and listed five traits describing them. Matches between observers' five traits and the owners' actual, inner, and online self traits were counted. Five additional raters, rated owners on the 15 actual, inner, and online self traits originally provided. Mean trait matches and ratings for each self-type were computed. People who more easily express themselves online were more accurately described by raters than were people who more easily express themselves offline. Perceivers least accurately determined inner traits; there was no evidence that inner traits were more accurately portrayed by onliners. Onliners were more liked than offliners, as were those who more accurately portrayed the online self.

Accuracy in Facebook Self-Presentation: The Role of the “True Self”

In recent years, human interaction has begun to occur both in person and online. The Internet allows a new realm of communication through the use of social media, email, chat rooms, messengers, and webcams. Social media, in particular, has skyrocketed in its popularity among people of all ages and is a major way in which people today interact and express themselves. This paper will review earlier literature about the advantages of communicating via the Internet, how our usage is influenced by personality, the ways we use online communication methods to express ourselves, and past research on the type of self we are presenting online. I will then introduce a new study in which I examined how accurately the self we think we present online is perceived by those who view our online profiles and will assess how such online self-presentation affects likability.

There is a distinction that should be made between the types of people one interacts with online. The nature of the internet allows communication between people who know each other offline as well as between people whose relationship was formed and continues entirely based on communications fostered on the Internet (Seidman, 2014). No longer are physical distances or similar time zones factors in interaction (McKenna & Bargh, 2000). Social networking sites present a different realm of study in which information shared is viewable by a greater number of people, friends and strangers alike (Seidman, 2014). McKenna and Bargh (2000) and Bargh, McKenna, and Fitzsimons (2002) note that the Internet is unique in two important ways: its anonymity, allowing one to feel free from social expectations and disapproval, and its lack of risks associated with face-to-face disclosures of negative facets of oneself. This is likely to make people more willing to take risks in communication, saying what they truly think and feel rather than what the other party suspects will be said or expressed. Social networking sites are especially unique in that they do not allow the same degree of anonymity; profile pictures, links,

and personal information are viewable to friends online. However, these sites offer users new control: time. Using the Internet allows individuals to control when and how they interact. Instant responses are not necessary, nor does the other party need to be online at the time of response. Thus, the pace of communication can be carefully calculated by each user to fit his or her preferred means of interaction, and responses can be carefully crafted and reviewed to individuals' levels of perfection (McKenna & Bargh, 2000).

Social scientists and those who research technology are increasing the research done on Facebook and other social networking sites at an impressively fast rate (see Blachnio, Przepiorka, & Rudnicka, 2013 and Wilson, Gosling, & Graham, 2012 for reviews). Factors that influence usage, such as personality traits and motivations, have recently been investigated rather extensively. One area of research examines the accuracy of the information presented on social networking sites (e.g., Back, Stopfer, Vazire, Gaddis, Schmukle, Egloff, & Gosling, 2010; Buffardi & Campbell, 2008; Marriott & Buchanan, 2014). The current study will examine the accuracy with which different aspects of the self are presented on Facebook, and whether or not they differ as a function of users' self-reported tendency to find self-expression more comfortable online.

Hughes, Rowe, Batey, and Lee (2012) define social networking sites as "virtual collections of user profiles which can be shared with others." Being online, these profiles can host information that is shared instantaneously with anyone else who has access to the Internet. There are several sites that people use with great frequency, but the most common is Facebook (EbizMBA.com). As of December 2014, there were 890 million daily active Facebook users (Facebook, 2015).

Self-expression on the Internet

Facebook is unique in that it allows social spheres, those of friends, family, employees, and teachers, to overlap (Wilson et al., 2012). Information regarding one's environment, personal thoughts, facial images, and social behavior are expressed in a profile and are conveyed to his or her online friends, and these factors have all been linked to one's personality. Thus, a profile is a collection of content that express the self, but whether the self is accurately portrayed or not is up for debate (Back et al., 2010).

The human needs for belonging and self-presentation are thought to be primary motivators for the use of Facebook (Nadkarni & Hofmann, 2012). Belonging needs can be satisfied by using social networking sites to communicate and learn about others, gain peer acceptance, develop relationships, and increase self-esteem. Profiles on the site allow one to present his or her self through photos, profile information, and wall posts, and this presentation of the self has been thought to be an accurate representation. The Internet has been found to be a way in which people can express themselves the way they want to be seen by others, allowing personality aspects to shine through that they normally do not express (Bargh et al., 2002; McKenna, Green, & Gleason, 2002; Seidman, 2013;). We now find ourselves able to use the Internet to strengthen and form relationships with others, or others' online personas.

Benefits and Consequences of Self-expression

In a relationship being formed online, there are fewer risks to disclosing. The other person does not have access to the same social circle, eliminating the risk of a secret being told to one's other friends. The reaction of the other person is usually not known when communicating online; this reduces the anxiety of sharing intimate information with others. The only feedback known to the discloser is that which the online respondent chooses to reply, and this is often censored with respect to one's sense of impression management (McKenna et al.,

2002; Forest & Wood, 2012). With these benefits, the Internet was speculated to be used differently based on personality and self-esteem (Forest & Wood, 2012; Wilson et al., 2012).

The True Self

Some individuals more easily express a certain type of the self online: the true self (Seidman, 2014). Psychologists have debated a variety of theories about the self since the very beginning of the field. Carl Jung (1953) thought we had a public self and inner self, and the real personality was found in the unconscious inner self. An ideal, ought, and actual self were conceptualized by Higgins (1987). The ideal and ought selves differ from the actual in that they are possible forms of one's self, while the actual is how one currently sees oneself. To express models of the self that differ from the actual self though, is challenging for many. This revealing of the true self was thought by Rogers (1951) to be of the utmost importance in therapy, as he helped clients to discover their true selves. In his view, the true self was an existing model of the self, rather than a potential or futuristic goal for the self, but it was not present and expressed. The true self contains traits the individual possesses but does not express to others (Bargh et al., 2002), and it can be crucial to uncover and expose these traits.

Expressing one's true self helps meet two basic human needs: belonging and self-presentation (Seidman, 2014). We want others to perceive us as we perceive ourselves, and expressing the true self allows others to validate those qualities, making them authentic to us as well. This is self-verification (Swann, 1983). If one is most likely to make true self disclosures over the internet and to validate his or her self-concept in this way, then it is likely that people who more easily express themselves via the Internet are likely to form their closest relationships with other Internet users (Bargh et al., 2002). Expression, thus, allows growth in defining personal identity. Choosing what to share gives a sense of worth and independence. Disclosing

personal information to others allows self-verification, which commits one to the traits he or she possesses and allows him or her to express them more openly to peers. And, what he or she chooses not to express is then viewed as information that makes the person unique and special, adding to self-worth and feelings of uniqueness (Derlega & Chaikin, 1977). With so many motivations, the ways in which true self expression is facilitated over the Internet and by whom vary greatly with individuals in terms of personality, goals, and authenticity.

The True Self Online

It is then possible that the true self is more likely expressed online than offline. Bargh, and colleagues (2002) conducted an experiment in which participants listed words they thought they possessed and expressed, and traits they thought they possessed but did not express (true self traits). Then they interacted in a chat room or face-to-face with a stranger. The true self was more cognitively accessible following online than face-to-face interactions (Bargh et al., 2002). However, another study found that this was not the case with friend pairs interacting online (McKenna, Buffardi, & Seidman, 2005).

We see then that the true self is more cognitively accessible following online interactions. McKenna et al. (2002) expanded this theory, examining the likability of those expressing themselves online. Those who interacted in a chat room showed more liking toward one another than did those who interacted face-to-face. Liking may increase when meeting over the Internet in comparison to face-to-face, as users are better able to present their true selves in this manner (Bargh et al., 2002). This is surely an influence in forming online relationships.

McKenna et al. (2002) front-lined research on online expression by allowing the expression of the true self to be a measurable, trait-like construct. Information shared during self-disclosure contains those parts of the self called the "Real Me." For some, this is most easily

expressed online, called “onliners,” offline, “called offliners,” or with no preference, whom the researchers called “tweeners.” Four questions addressing whether one feels more comfortable disclosing to others known online or offline are used to measure where one most easily located the “Real Me.” McKenna et al. (2002) found that those able to express the true self online were more likely to form intimate relationships with others they met online. The expression of the true self is not limited merely to people one knows exclusively online either, as showing one’s hidden personality aspects via the Internet to offline friends can strengthen those relationships (McKenna et al., 2005).

Early research on the expression of the true self online focused on Internet services that are currently somewhat dated: email, instant messengers, chat rooms, and the like. Though the means of Internet communication are swaying, people still differ in the degree to which they express the true self online. More current research on online communication examines the use of social media sites, like Facebook, as they soar in popularity. Those high in neuroticism (Tosun & Lajunen, 2009; Seidman, 2013) and psychoticism (Tosun & Lajunen, 2009) are more likely to express the true self on Facebook. In addition, Seidman (2014) found that onliners use Facebook more frequently for communication, disclosure, and emotional expression.

Tosun and Lajunen (2009) predicted that certain people would be more comfortable expressing themselves online. Neurotics would be drawn to social media for its ability to reduce their anxiety. Psychotics would be drawn to the vast social connections they could form to supplement their lack of connections in the real social world. All these people would feel more ease opening up in online settings, and may find such interaction very fulfilling. But, those high in neuroticism used the Internet less frequently, despite its benefits to them. Thus, the positive correlation between those more comfortable expressing themselves online and their levels of

neuroticism and psychoticism were not surprising. Similarly, those high in psychoticism were likely to use the Internet to fulfill their needs not met through face-to-face communication in order to present their true selves (Tosun & Lajunen, 2009).

Self-esteem is thought to contribute to Facebook use and self expression as well. Forest and Wood (2012) found that those with low self-esteem saw Facebook as a safer method of expression than did those with high self-esteem. This suggests that people with low self-esteem might try to make others like them online rather than offline. However, it was found that those with low self-esteem often projected a less likable persona on Facebook. Users with low self-esteem expressed less happiness, excitement, and gratitude in their status updates, and they were liked less by those who read those updates. Thus, though the benefits of expression and disclosure via Facebook are recognized more by people who could use the service to foster their much-needed relationships, these same people are typically less-liked on Facebook and do not differ from people with high self-esteem in terms of how advantageous the site is to their social lives (Forest & Wood, 2012).

It is thus suggested that those comfortable with expressing the true self online are likely to post more self-disclosing information and to post more frequently, hoping to gain others' acceptance. Thus, Facebook posts are often used to gain attention, but often that acceptance sought is not found (Seidman, 2014).

While Facebook seems like an avenue to help people with low self-esteem, the results of research by Forest and Wood (2012) and Seidman (2014) do not show great promise for the way people with low self-esteem are currently using Facebook. It seems that these are the people who can most easily see the benefits of being able to express themselves in a safer way, yet they use the site to further express their negativity. In an effort to discourage such behavior, their friends

online do not show a great deal of support for these disclosures, and this likely discourages the discloser. Such discouragement may only make the person feel lonelier and unaccepted, deepening his low sense of self-esteem (Seidman, 2014). However, a paradox exists: those who are low in self-disclosure are not liked as much as those who are moderately high in self-disclosure when rated by those with whom they interact in experiments. Self-disclosure breeds feelings of intimacy and trust, and it makes the recipient more likable (Cozby, 1972). This relation between self-disclosure and liking is well-supported in the literature. A meta-analysis found this link across multiple students (Collins & Miller, 1994). Although, this research also shows that disclosing too much too soon can have a negative effect on liking; thus context and timing are crucial. Whether the disclosure can be attributed to genuine sharing or situational need moderates liking as well, in that people who are more selective in to whom they disclose are typically liked more. Feeling like one is especially chosen makes him like the discloser more. Thus, it is possible that self-disclosures made via widely available Facebook updates may have a weaker effect on liking than traditional self-disclosure, since they are by nature, non-exclusive. On the other hand, disclosures can have a negative impact on liking when the recipient feels too obligated to respond with matching intimacy and is not comfortable doing so. This particular risk is minimized on Facebook due to the less personal one-on-one nature of the disclosure (Collins & Miller, 1994).

In terms of Big Five Factors, Marriott and Buchanan (2014) discovered people high in extraversion, agreeableness, and conscientiousness more readily communicated offline. Further, high levels of neuroticism and high scores on the Shyness Scale predicted an individual likely to prefer online communication. But, shyness mediated the effects of neuroticism and extraversion on the way one chooses to express his or her true self. Thus, one high in neuroticism may

actually prefer offline relationships if he or she is shy, and one high in extraversion may actually prefer online relationships if he or she is shy (Marriott & Buchanan, 2014). With this, we beg to question how accurately the true self is expressed and perceived by online Facebook friends.

Is the True Self Expressed More Online?

Some past studies have shed light on this question. In one experiment, participants listed their actual and true self traits and interacted with a stranger either online or face-to-face (Bargh et al., 2002, Experiment 3). Immediately following the interaction, participants were asked to list qualities they felt described the individual they had just met. The researchers counted the number of matches between each participant's previously listed actual and true self traits and the list of traits generated by their interaction partner to describe them. The results showed that those who interacted online had more such matches for true self traits than those who interacted face-to-face, while there was no difference between communication venues in the number of actual self trait matches.

Is the Self Accurately Expressed on Facebook?

Social media grants the opportunity to present the self accurately or inaccurately; complete control is in the hands of the profile owner. Back et al. (2010) presented the Idealized Virtual-Identity Hypothesis: users do not show their actual characteristics in their profiles, opting instead to express their ideal selves. The competing hypothesis is the Extended Real-life Hypothesis: the real personality is projected from one's online profile. Back and colleagues (2010) sought to determine which of these hypotheses had the most merit. Social network users from the United States and Germany gave self-reports and four reports of personality from close friends based on their profiles. Other observers viewed the profiles, and rated their impressions of the users on the same personality traits. The ideal-self reports did not correlate to the reports

collected from observers, but reports of the actual self and the observers' reports correlated (Back et al., 2010). Similarly, Marriot and Buchanan found that personality assessments by raters who knew participants online and raters who knew them offline did not differ. It has also been found that profile owners who scored high in narcissism were generally thought to be narcissistic by those who viewed their profiles (Buffardi & Campbell, 2008). Together, these results suggest that people present themselves similarly on and offline.

One important question is whether or not those who feel they can express the true self online ("onliners") are presenting a more accurate version of themselves on Facebook. The only research to examine this was the study by Marriott and Buchanan (2014), described earlier. Participants rated themselves and nominated observers, who were their offline or online friends, to rate them on the Big 5 personality traits. Participants completed the "Real Me" scale (McKenna et al., 2002) and were classified into Onliners, Offliners, and Tweeners. Onliners were the group who more easily expressed themselves online, and offliners were people who were more able to express themselves in-person. Tweeners were those people who did not show a significantly strong preference for either online or offline expression. Results showed that online observers were no more likely to accurately perceive the personality of those who located the true self online than those whose true self was located offline. It should be noted, however, that the offline observers often had also met the participants offline on at least one occasion and thus may have been using offline knowledge of the user's personality in forming their impression. In addition, only accuracy in personality perception (Big 5) was examined, not the true self.

The Present Study

The goal of the present study was to specifically examine the extent to which true self traits, as compared to actual self traits, are expressed via Facebook for those locating the true self online rather than offline, rather than only examining the Big 5 traits. Back et al. (2010) suggest that Facebook profiles are fairly accurate, but little is known about the true self and its expression on Facebook. Online interactions seemed to foster the expression of true self traits; research has not gotten a good sense of what is expressed in a Facebook profile (Bargh et al., 2002, Study 3). But, are people who most easily express themselves online accurately portraying themselves on Facebook? Past research by Marriott and Buchanan (2014) examining self-presentation on Facebook focused on the Big 5 in terms of both an actual and idealized self. Personality was not more accurately expressed in a Facebook profile for participants who were high or low in true self expression. Their research, however, focused only on the Big 5 traits. Other research by Bargh et al. (2002) has focused on traits comprising the true self. However, given the large amount of time that many people spend online, there could be a separate online persona that people seek to project. This might not necessarily be the actual, true, or ideal self. Thus, I examined whether or not there is an “online self” that could be expressed more on Facebook.

It was predicted (1) that people who most easily express their true selves online, as measured by the McKenna et al., (2002) “Real Me” questionnaire, will have a greater number of matches between the qualities they claim describe their “actual self” and the qualities that are attributed to them by observers who read their status updates.

Those who express the self most readily online had lower self-esteem than those who express it more easily offline. Past research shows, low self-esteem typically results in negative disclosures, making a bad impression on others (Forest & Wood, 2012). No research suggests,

however, that onliners tend to be more negative, just more disclosing online. Greater disclosure has been shown to increase liking between people. Thus, I predicted (2) that onliners would be better-liked by viewers than participants who express their true selves most easily offline, due to their increased self-disclosure.

Onliners should more easily disclose online, making them appear more likable and intimate. The type of disclosure should influence how liked the owner is as well. It was predicted further (3) that liking would increase with the degree of positive emotions expressed online and the degree that personally revealing information was disclosed.

Method

The study progressed in four waves. The first collected Facebook statuses from participants and measured the owners on several personality traits, including the extent to which they expressed the true self online (the “Real Me” scale). The second part used those statuses and assessed how accurately the owners’ personalities were expressed and how well-liked they were by observers. Part three assessed how well the owners’ self-reported traits corresponded to traits attributed to them by participants who read their statuses. And, the fourth wave examined the extent to which the statuses expressed emotions and how types of words were used by coding the content of the status updates.

Profile Owners

Participants. Owners (n=342) were recruited via Amazon.com’s Mechanical Turk, on which each completed a questionnaire for a payment of one dollar. Of these, 109 were deemed unusable based on the answers to the quality control questions, which specified to participants the correct response to choose in order to prove his or her attention in the survey. An additional

31 were deleted from analysis because participants failed to provide their latest Facebook status updates. This left 202 usable participants.

Materials and procedure. Owners completed several measures, described below, via an online survey.

Selves questionnaire. Participants were asked to list five attributes that they felt were part of their actual selves, five attributes of their inner selves, and five attributes that they typically express online, a procedure used by Bargh et al. (2002). Specifically, they were asked “to list the attributes of the type of person you think you are, both the attributes that you are successful in displaying to others and those that you feel you possess but aren’t able to show to others.” They free-listed five traits they expressed and five they felt they possessed but did not typically express to others. For this study, we also created a similar measure of the “online self” asking participants to “List the 5 main personality traits you think you are expressing online on Facebook and/or Twitter.” They again free-listed five traits for this question.

Real Me. Next, participants answered several questions about their relationships with people they had met online. They then were asked the same questions in regards to people they initially met offline but with whom they now interact online. These two questions sets were modified versions of the “Real Me” questionnaires used in past research by McKenna, and colleagues (2005). The participant’s answers to “Do you think you reveal more about yourself to people you know from the Internet than to 'real-life' (non-Internet) friends?,” “Are there things that your Internet friends know about you that your 'real life' (non-Internet) friends do not?,” “To what extent do you feel you express different parts or facets of yourself on the Internet (in emails, instant messaging, Facebook messages or instant messages, on Twitter, chatrooms, etc.) that you do not express in your offline life?,” and “To what extent would your family and non-

Internet friends be surprised about you if they were to read your email, Facebook exchanges, Twitter updates, or Internet chats?” were standardized and averaged to generate a measure of which method was used to express the true self.

Social Media

A series of questions then addressed the participant’s use of Facebook and Twitter. They noted how long they had been using both sites, their frequency of use, and functions of use. Further, participants provided their ten most recent Facebook statuses.

Other Measures

A list of personality traits was presented, and participants were instructed to rate the extent to which they possessed each trait. These traits were measures of the Big Five Personality Traits (Saucier, 1994). Additionally, self-esteem was measured, using the Rosenberg self-esteem inventory (Rosenberg, 1965). Other measures of personality not relevant to the present analysis were assessed, and participants were asked basic demographic questions.

Selection of owners. Using their scores on the “Real Me” questions, each participant’s preferred method of expression, online or offline, was calculated. Twenty-eight were onliners and twenty-nine were offliners. The rest were “tweeners”, not falling into either the onliner or offliner category (McKenna et al., 2002). One offliner was eliminated in the interest of even grouping. The Facebook updates of the 28 onliners and 28 offliners were shown to participants in the second part of the study.

The group of 56 onliners and offliners were 47.3% female and 52.7% male. One participant declined to give his or her gender. Ages ranged from 18 to 62 with a mean of 31.63 years. Onliners, however, were found to be significantly older than offliners and tweeners, with a mean age of 34.21 years. Mean offliner age was 28.79 years. In the sample, 80.7% were white,

and US residents comprised 87.5%. Twenty owners were employed full-time, 13 were employed part-time, 7 were unemployed, 15 were students, and one did not answer. In terms of education, 53.6% of the owners had at least an Associate's degree or higher, and 32.2% had some college or trade/technical/vocational training. Nearly 70% of participants did not have children, but 82.5% lived with relatives, parents, roommates, or significant others. Of the owners, 63.1% were either married or in a committed relationship. Onliners were more likely to be in a committed relationship, married, or widowed/divorced than were offliners [$t(64) = -3.277, p < 0.05$]. Onliners had higher self-esteem than offliners [$t = 3.466, M_D(0.24277) = 0.84142, p < 0.05$]. Significant differences were not found in terms of demographics with respect to one's Real Me score. See Table 1 for descriptive statistics.

Personality Expression Accuracy and Liking

Two methods were used to determine the accuracy with which the owners presented their actual, inner, and online self traits. First, a sample of observers read the status updates of four profile owners and free-listed five traits they felt described the profile owner. Second, a group of five raters read the status updates of all owners and rated the extent to which they felt each owner possessed the 15 traits s/he had listed in the selves questionnaire.

Free-Listing Traits. Observers ($n=241$) were recruited via email from a pool of undergraduate students at a liberal arts college and selected other individuals. Using SurveyMonkey.com, each observer was randomly assigned to evaluate two sets of onliner statuses and two sets of offliner statuses. Thus, 56 of the original profile owners were included in this phase of the study. Each set of status updates was evaluated by between 5 and 17 observers. Observers noted how much they liked each profile owner from the status updates, how well they thought they got a sense of the owner's personality, and how personally revealing the profile

owner seemed, all using a scale of “1 = Not at all” to “7 = Extremely.” Observers then free-listed five traits to describe the owner. The number of matches between the observers’ five traits and each set of actual, inner, and online self traits the owner provided were counted by the researcher.

Ratings of self-reported traits. Five additional independent raters read the updates of all 56 owners, rating them on the extent to which each of the 15 actual, inner, and online self traits they had listed in the original survey were expressed. Means of the trait ratings were computed. Next, the means of the five actual, five inner, and five online trait ratings were computed as well, creating a composite score for each self-type.

Emotional Expression Coding and Word Use

A coding system was created to quantitatively code Facebook statuses from the original 202 owners from the first phase of the study. Of those, 193 participants presented completely usable statuses for coding purposes. Two undergraduate psychology students coded all owners independently. Each owner’s statuses were then coded on positive and negative affect. Further, the degree to which the owner was personally revealing was rated by asking to what extent the rater felt she could feel what this person was really like, and coded for “TMI,” which was defined as statuses providing highly personal information not to be shared with the public. Thus, the data for all participants was coded, not just the 56 onliners and offliners used for the second part of the study. The two independent observers’ ratings of the emotions expressed by the original profile owners were compared for inter-rater reliability correlations. Shown in Table 2, analyses confirmed inter-rater reliability, determined by calculating intraclass correlation coefficients for each rated trait, to be high.

I also employed Linguistic Inquiry and Word Count (LIWC) software (Pennebaker, Booth, & Francis, 2007). This program counted the number of times different word categories appeared in the status sets and computed the percentage of words across each owner's updates that fell into each category. Words dealing with negative and positive affect, emotions, family, work, and other subjects were all tallied by the LIWC software, which then computes the percentage of total words in each category. This offered further quantitative measures of emotional expression, topics, and language usage in the original participants' statuses.

Results

Accuracy in Self Expression

Matches with observer-reported traits. To test the hypothesis that people who most easily express their true selves online will have a greater number of matches between the qualities they self-report and those the profile observers report for them, and the hypothesis that the "actual self" will be most heavily matched to the observer-reported traits, a 2-Way mixed model ANOVA was conducted. The between-subjects independent variable was the owner's location of the Real Me (online or offline) and the within-subjects independent variable was the self-aspect (actual, inner, or online). The dependent variable was the number of matches between the rater-listed traits for that profile owner and the owner's self-reported traits. There was a main effect for Real Me: consistent with my hypothesis, the observers were more accurate overall in rating the personalities (i.e., ratings matched the self-reported personality traits) when the profile owner being rated was an onliner ($M = 1.626, SD = 0.079$) than an offliner, ($M = 1.358, SD = 0.081$), $F(1,53) = 5.623, p < 0.05$. Further, I found a significant main effect for self-type, $F(2,53) = 10.316, p < .05$. Post hoc tests revealed that both the actual ($M = 1.551, SD = 0.093$) and the online selves ($M = 1.719, SD = 0.081$) were more accurately portrayed to observers than was the

inner self ($M = 1.207$, $SD = 0.087$). This is consistent with past research which suggests that the inner self is less presented to others. I predicted an interaction between self-type and one's Real Me classification, with onliners having a greater number of inner self matches as compared to offliners. Contrary to my hypothesis, there was no significant interaction between one's Real Me location and the self type most easily matched by observers.

Agreement with owner-reported traits. In order to test the same hypothesis using the data from the five raters who determined the extent to which they thought the profile owner was accurately expressing the traits he or she had listed in the original survey via that owner's statuses, another 2-way mixed model ANOVA was conducted. Once again, the independent variables were the Real Me location and the self type. In this analysis, the dependent variable was the average rating of the five traits in each self category. These results were consistent with the results for match-counting reported above. There was a main effect of the owner's "Real Me" location, meaning that raters were more accurate with all self types for onliners ($M = 3.067$, $SD = 0.529$) than offliners ($M = 2.721$, $SD = 0.514$), $F(1,52) = 13.283$, $p < 0.05$. There also was a main effect of self-type $F(2,104) = 28.660$, $p = <.001$), with post hoc testing showing that raters rated owners more highly on their self-reported actual ($M = 3.033$, $SD = .076$) and online ($M = 3.156$, $SD = 0.060$) than inner traits ($M = 2.493$, $SD = 0.078$). Once again, no interaction was found between "Real Me" location and self type, $F(2,104) = 0.083$, $p = 0.920$.

Likability and Expressiveness

To test further for differences in how onliners and offliners express themselves, I conducted independent t-tests with Real Me category (onliner or offliner) as the independent variable and the ratings of how personally revealing profiles were and how liked the profile owners were as the dependent variables. As predicted, onliners ($M = 4.68$, $SD = 0.851$) were

perceived as more personally revealing than offliners ($M = 4.4.11$, $SD = 0.771$), $t(53) = -2.609$, $p < .05$). Onliners ($M = 3.948$, $SD = 0.741$) were also more liked by observers than were offliners ($M = 3.540$, $SD = 0.724$), $t(53) = -2.065$, $p < .05$.

I predicted in a third hypothesis that liking would be affected by the type of information presented in statuses, and that onliners would be liked more than offliners if they were more personally revealing in their expressions. To determine how onliners' self-expression in statuses and the degree to which a status was personally revealing affected how liked that owner was, a 2-Way ANOVA was conducted, having independent variables in the profile's Real Me score and Personally Revealing rating. The dependent variable was the profile's likability score. The "personally revealing" ratings of owners that the five raters provided were averaged for each profile. They were then classified as "low" (0-4) or "high" (5-9). There was no interaction ($F(1,26) = 0.829$, *ns.*), but "low" revealing profiles ($M = 3.303$, $SD = 0.706$) were typically liked less than "high" profiles ($M = 4.293$, $SD = 0.595$), $F(1,26) = 9.406$, $p < .05$.

Mediators

Liking was positively correlated with the accuracy in presenting the online self, but was uncorrelated with accurate presentation of the inner or actual self. This relationship was found for both the number of matches between self-reported and observer-listed traits and for the mean ratings of profile owners on their self-generated traits. See Table 3 for correlation coefficients.

I suspected that this relationship was heightened by the degree of positive emotion that was expressed, so several multiple regression analyses were performed using the steps outlined by Baron and Kenny (1986) to determine whether the relationship between the degree of online self expression accuracy and liking was mediated by the extent to which positive emotions were expressed in the status updates. In Step 1, the average rating (made by the five raters) of the

owner's five inner self traits was the predictor variable and the degree of liking was the dependent variable. Finding a relationship between those variables ($B = 0.444$, $SE = 0.213$, $t = 2.090$, $p = 0.041$), I used the accuracy of self expression again as the independent variable and set the degree of positive emotion expressed (the potential mediator) as the dependent variable, which revealed that accurate expression of the online self was related to the expression of positive emotions ($B = 1.204$, $SE = 0.476$, $t = 2.530$, $p = 0.014$). Since a correlation existed between these variables as well, I conducted a third regression in which both the predictor (online self-expression accuracy) and mediator (positive emotional expression) were entered as independent variables with liking as the dependent variable. When entered together, the relationship between online self-expression accuracy and liking became non-significant ($B = 0.210$, $SE = 0.205$, $p = 0.308$) and expression of positive emotion significantly predicted liking. ($B = 0.194$, $SE = 0.056$, $p = 0.001$). This pattern of results shows that the relationship between online self-presentation accuracy and liking was fully mediated by the degree of positive emotions expressed. I then conducted a Sobel test to determine the strength of mediation to be significant ($z = 2.0428$, $p = 0.041$). This implies that liking for those who accurately portrayed their online self was increased due to the increased positive emotion they expressed in their status updates. Repeating these procedures for the other measure of accuracy, the number of matches between the owners' self-reported traits and traits listed by observers did not show significant mediation.

A multiple regression analysis predicting liking from positive and negative emotional expression ratings revealed that positive emotion was significantly and positively related to liking. The data collected from the two raters who read each status and rated each profile owner on measures such as the degrees of positive and negative emotion expressed were used in the

regression. To test how the expression of emotion influenced how liked an owner was, a regression analysis was conducted with the ratings of positive and negative emotion as predicting variables and how liked the owner was as the dependent variable. Overall, expression of positive emotions in statuses increased raters' levels of liking for profile owners, $t = 3.253$, $B = 0.506$, $SE = 0.082$, $p < .05$. In Step 3 of the regression, negative emotion did not have a significant relationship to liking ($B = 0.068$, $SE = 0.081$, $p = 0.404$). Thus, it seems that the degree of positive emotion expressed predicts liking ($B = 0.267$, $SE = 0.082$, $p = 0.002$). However, with a negative correlation of $r = -0.53$, both positive and negative emotions were correlated to each other, suggesting multicollinearity. One can conclude then that both contribute to liking for the same reason, though the positive emotion is the bigger driver of it.

Correlations to LIWC Variables

Correlations between the five raters' degree of liking of the profile owners correlated significantly with certain percentages of word types in LIWC categories (See Table 4), suggesting that types of words in expressions influence how liked the speaker will be. Surprisingly, the emotional content of the posts did not predict liking, but rather, aspects of the grammar did. In particular, the more that the updates included complex language, including adverbs, conjunctions, prepositions and cognitive mechanism words (words having to do with causation, discrepancy, inclusion or exclusion, inhibition, insight, and tentativeness or certainty), the more liked they were.

Discussion

Different aspects of the self (actual self, true self, and online self) are presented on Facebook with varying levels of accuracy. This study investigated how these expressions

differed as a function of users' self-reported tendency to find self-expression more comfortable online. It was predicted that the inner self would be hardest to present, and therefore less accurately perceived, than the actual and online selves, as has been shown in past research (Bargh et al., 2002). The inner self is that which is rarely, if ever, shown to others, so it was not expected to shine through in one's Facebook statuses. It was not surprising then, that the inner self was significantly less accurately portrayed than the actual or online self. Support was not found for onliners and offliners differing in their abilities to express this inner self online: onliners were no better being able to present it than were offliners. Onliners and offliners did not differ in their ability to express the inner self. This further exemplifies the strong hidden aspect of the inner self. This finding was validated further in that all online self accuracy measures (match-counting and ratings of the 15 original traits provided) showed no difference between onliners' and offliners' inner self expressions. Additionally, onliners were, overall, portrayed with more accuracy online. Onliners believe themselves better able to express the self online, and they actually do so. McKenna et al. (2002) did find people formed closer relationships with people they met online. Marriot and Buchanan (2014), however, found onliners were no more accurately perceived than offliners when expressing Big 5 personality traits, and my results contradict their findings. It is possible that the variance is due to the traits assessed and their breadth due to the participants in the present study being able to free-list their own traits. That allowance may have made their self-reported traits more accurate and less generic. However, the lack of interaction between the type of self presented and one's Real Me location might be due to Facebook's lack of privacy in comparison to other online communication means that are private or anonymous. Onliners were better able to express themselves on Facebook, but perhaps these traits that they are able to express are not really hidden ones.

The hypothesis that onliners would have a greater number of matches between their self-rated personalities and the traits the observers used to describe them was supported. In all self types in the present study, onliners had more matches between owner and observer or rater than did offliners, and this was true of matching traits from observers and the trait ratings from raters. Consistent with past research and our expectations, the inner self was the least accurately portrayed online, as these are traits that the profile owners specifically stated they do not express in most situations. This suggests that we are able to once again hide the traits we feel we do not typically express when presenting our selves online as well as offline. It was thought, though, that onliners and offliners would differ significantly in which self they expressed most online. Unexpectedly, there was no significant difference between how easily the inner self was expressed between onliners and offliners. There was no interaction between self-type and Real Me location. Though onliners were found to actually have slightly lower self-esteem in our study, I did not predict them to be perceived online as negatively as people in past research with low self-esteem have been reported. As thought, greater accuracy was found in perceiving those who identify their Real Me online. These people might feel more comfortable expressing themselves online, and that comfort allows them to do so with more authenticity.

The third hypothesis addressed liking. It was predicted also that onliners would be more liked by observers than offliners, despite onliners having lower self-esteem, because onliners were thought to reveal more online, and self-disclosure is known to increase likability (Cozby, 1972). This hypothesis was supported, as, in fact, onliners were more liked by the observers. This contradicts Forest and Wood (2012), who noted that low self-esteem typically found in onliners led to negative disclosure and decreased liking. This increase in liking could be due to the fact that onliners were also rated to be more personally revealing. Those with the highest

scores in personally revealing also were rated with the highest scores in liking. Thus, it may not be the method of self-expression that determines liking but, rather, the ease with which one reveals his self in that realm. Given that onliners were also said to be less extraverted and conscientious than the offliners according to Marriot and Buchanan (2014), one might suspect they are better able to present themselves in a favorable light, thus increasing how much observers like them.

In addition, liking increased with online self-presentation accuracy. Owners who received the most matches to the traits they free-listed to describe their online selves were the most liked. Mediating this, the degree each profile was seen to express positive emotion and the tally of positive emotion words influenced how liked the owner was. Here again, one might gather that accurate self expression online is related to liking regardless of one's identification of the Real Me onliner or offliner. If the self presented online is the self the person thinks he is expressing, he will be more liked. This effect is partly driven by the tendency to present more positive emotion when able to present one's intended self. Using the observers' liking in regressions furthered this finding, but since the people rating liking were the same people who were listing the traits for this particular measure of accuracy, there may be some bias. Thus, the five raters' matches to participants' free-listed traits is purer measure, and their liking was also mediated by positive emotional expressions.

In addition, liking was influenced by how the use of language in one's profile was received by the observer. Owners who expressed themselves using complex language, like adverbs and conjunctions, were more likable. This implies that people who appear smarter are liked more; we like people we perceive to be smart. Collins and Miller (1994) found context to moderate liking. Maybe smarter people are better disclosers, taking into account context and

appropriateness of disclosing. Further, these “smart people” who were also judged as accurate presenters of the self were the most liked. Perhaps this shows evidence for our preference for people who we believe to be authentically intelligent. Further testing of this idea would be needed to draw conclusions.

Using mostly observers from Pennsylvania, many of whom were undergraduates, could have influenced results given that different groups of people may be more likely to perceive others in different ways and like different traits. Further, the only social media medium studied was Facebook, but many others exist and are growing in popularity today. These sites differ from Facebook and provide other methods of self presentation that may alter how one is perceived online. Additionally, observers and raters only read status updates, while a complete Facebook profile provides more information that may aid in one’s expressions of the online self. New research could investigate the effect of viewing a complete Facebook profile.

The results of this study expand the body of social media research, and broaden it in terms of using the online self as a construct, while not focusing on personality traits exclusively. In a world driven by technology, online communication will continue to become common in everyday life. It is important and vital that one is able to accurately present his true self online if this is a way to find self-verification and acceptance. The findings in this study could contribute to the use of social media in helping people to meet and form relationships with others in an online, risk-free setting, which may lessen their anxiety. However, if the self is not accurately portrayed online, the quality of the relationship is sure to be affected. Simple changes in one’s expressions online in terms of word use, self-disclosure, and the type of emotion expressed could have a profound influence on how much one is liked by another person online. A technology-driven world allows the fostering of productive relationships between consumers and businesses,

potential romantic partners, friends, voters and politicians, and perhaps even doctors and patients. It will become more and more crucial for the presentation of the self to be one that is received accurately and positively.

Future social scientists may want to examine how much we trust one's portrayal of the self on Facebook and other social media sites. Further, the degree to which we would use one's online self-presentation to form opinions about leaders, doctors, politicians, and future friends could be evaluated in order to determine if accurate self-presentation online is necessary. Mental health professionals may wish to examine the ways in which social networking sites can help one find acceptance, and they can use these results to instruct and guide clients in their online relationships.

References

- Back, M. D., Stopfer, J. M., Vazire, S., Gaddis, S., Schmukle, S. C., Egloff, B., & Gosling, S. D. (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological Science*, 21(3), 372-374. doi:10.1177/0956797609360756
- Bargh, J. A., McKenna, K. Y. A., & Fitzsimons, G. (2002). Can you see the real me? Activation and expression of the 'true self' on the Internet. *Journal of Social Issues*, 58, 33-48. doi: 10.1111/1540-4560.00247
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Błachnio, A., Przepiórka, A., & Rudnicka, P. (2013). Psychological determinants of using Facebook: A research review. *International Journal of Human-Computer Interaction*, 29, 775-787. doi: 10.1080/10447318.2013.780868
- Buffardi, L. E., & Campbell, W. (2008). Narcissism and social networking web sites. *Personality and Social Psychology Bulletin*, 34(10), 1303-1314. doi:10.1177/0146167208320061
- Collins, N. L., & Miller, L. C., (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, 116(3), 457-475
- Cozby, P. C. (1972). Self-disclosure, Reciprocity and Liking. *Sociometry*, 35(1), 151-160.
- Derlega, V. L., & Chaikin, A. L. (1977). Privacy and self-disclosure in social relationships. *Journal of Social Issues*, 33(3), 102-15.
- EbizMBA.com. Top 15 most popular social networking sites June 2014.
<http://www.ebizmba.com/articles/social-networking-websites>. Retrieved 6/16/14.
- Facebook (2015). Company Info. <http://newsroom.fb.com/company-info/>. Retrieved 3/9/15.

Forest, A. L., & Wood, J. V. (2012). When social networking is not working: Individuals with low self-esteem recognize but do not reap the benefits of self-disclosure on Facebook.

Psychological Science, 23, 295-302.

Higgins, E. T. (1987). Self-discrepancy theory. *Psychological Review*, 94, 1120-1134.

Jung, C. G. (1953). *Two essays in analytical psychology* (trans. R. F. Hull). New York: Pantheon.

Marriott, T. C., & Buchanan, T. (2014). The true self online: Personality correlates of preference for self-expression online, and observer ratings of personality online and offline.

Computers In Human Behavior, 32171-177. doi:10.1016/j.chb.2013.11.014

McKenna, K. A., & Bargh, J. A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology. *Personality And Social Psychology Review*, 4(1),

57-75. doi:10.1207/S15327957PSPR0401_6

McKenna, K. Y. A., Buffardi, L. E. & Seidman, G. (2005). Self presentation to friends and strangers online. In K.H. Renner, A. Schutz, & F.Machilek (Eds). *Internet and personality*. Göttingen, Germany: Hogrefe & Huber Publishers.

McKenna, K. Y. A., Green A. S., & Gleason, M. E. J. (2002). Relationship formation on the Internet: what's the big attraction? *Journal of Social Issues*, 58 (1), 9-13. doi:

10.1111/1540-4560.00246

Nadkarni, A., & Hofmann, S. G. (2012). Why do people use Facebook?. *Personality And*

Individual Differences, 52(3), 243-249. doi:10.1016/j.paid.2011.11.007

Pennebaker, J.W., Booth, R.J., & Francis, M.E. (2007). *Linguistic Inquiry and Word Count:*

LIWC [Computer software]. Austin, TX: LIWC.net

Rogers, C. (1951). *Client-centered therapy: Its current practice, implication, and theory*. Trans-Atlantic Publications, p. 136.

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

Saucier, G. (1994). Mini-Markers: A brief version of Goldberg's unipolar Big-Five markers. *Journal of Personality Assessment*, 63, 506-516.

Seidman, G. (2013). Self presentation and belonging on Facebook: How personality influences social media use and motivations. *Personality and Individual Differences*, 54, 402-407.

Seidman, G. (2014). Expressing the 'true self' on Facebook. *Computers in Human Behavior*, 31, 367-372.

Swann, W. B. Jr., (1983). Self-verification: Bringing social reality into harmony with the self. In J. Suls & A. G. Greenwald (Eds.). *Social psychological perspectives on the self* (Vol. 2, pp. 33-66). Hillsdale, NJ: Erlbaum.

Tosun, L. P., & Lajunen, T. (2009). Why do young adults develop a passion for Internet activities?: The associations among personality, revealing "true self" on the Internet and passion for the Internet. *Cyberpsychology and Behavior*, 12(4), 401-406.

Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). A review of Facebook research in the social sciences. *Perspectives on Psychological Science*, 7, 203-220.

Table 1
Comparison of Onliners and Offliners

	Expression	Mean	Significance level
Facebook Status Word Count	Onliners	17.118	0.067
	Offliners	22.255	
Self Esteem	Onliners	3.466**	0.001
	Offliners	4.307**	
Gender	Onliners	1.520	0.901
	Offliners	1.540	
Weekly Hours on Facebook	Onliners	5.402	0.158
	Offliners	6.216	

Note. ** Difference is significant at the 0.05 level.

Only self-esteem differed significantly between those who express themselves most easily online and those who express themselves most easily offline. Those who express themselves offline have slightly higher self-esteem.

Table 2

Inter-rater Reliability (ICCs) for Qualities Coded from Status Updates

Trait	ICC
Personally Revealing	0.754
Too Much Information	0.758
Negative Emotion	0.881
Positive Emotion	0.883

Table 3

Correlations of Liking and Accuracy in Self-type Presentations

	Expression	Correlation with liking	Significance level
Observers' Trait Matches	Actual Self	-0.028	0.839
	Inner Self	0.004	0.976
	Online Self	0.590**	0.000
Five Raters' Trait Matches	Actual Self	0.140	0.307
	Inner Self	-0.187	0.176
	Online Self	0.276**	0.041

Note. **Correlation is significant at the 0.05 level

Table 4

Correlations of Liking Ratings with LIWC Word Counts

LIWC Category	Liking Correlation	Significance Level
Prepositions	0.699**	0.000
Conjunctions	0.490**	0.000
Cognitive Mechanisms	0.243	0.071
Adverbs	0.511**	0.000

Note. ** Correlation is significant at the 0.05 level.