To share or not to share? The roles of false Facebook self, sex, and narcissism in re-posting self-image enhancing products

Ofir Turela,b,* and Oren Gil-Orc

aMihaylo College of Business and Economics, California State University, Fullerton, CA, USA;
bDepartment of Psychology, University of Southern California, Los Angeles, USA
cDepartment of Business Administration, College for Academic Studies, Rishon LeZiyyon, Israel

*Correspondence: Ofir Turel
Professor of Information Systems and Decision Sciences
California State University, Fullerton
800 N. State College Blvd., Fullerton, CA, USA
Tel.: +1 (657) 278-5613
Email: oturel@fullerton.edu

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Abstract

Drivers of sharing third-party advertisements (re-posting) for self-image enhancing products (e.g., a new iPhone) on social media are not fully understood. We posit that one key motivation to do so, is to build and maintain a false-self on social media that is more desirable and shelters the person from the vulnerable “true” self. That is, users who seek to build and maintain a false-self on social media will be more likely than others to re-post ads for self-image enhancing products. Extending this view through building on personality and evolutionary sex-differences
theories, we suggest that this relationship is not homogenous, and specifically that narcissism and sex moderate this association. The proposed three-way moderation model is tested with hierarchical regression techniques applied to data from 246 Facebook users. Findings show that users high in false Facebook-self are more likely than others to re-post self-image enhancing commercial information, that narcissism levels increase this sharing behavior, and that this moderated effect is especially pronounced in male users. These findings extend the theoretical understating of re-posting behaviors and of consequences of having a false-self on social media. They are also informative for companies trying to generate organic word-of-mouth for self-image enhancing products.

Keywords: Social media, false self, narcissism, sex differences, sharing, re-posting

1. Introduction

Re-posting content is a form of sharing that involves passing a post or an advertisement generated by others, to individuals or groups on one’s social network. It is a common feature of social media sites (Statista.com, 2016). Re-posting is important, because it passes information to other users, from what may be perceived as a credible source, and consequently can influence people’s perceptions (Kim, 2018; Su, Liu, & McLeod, 2019). As such, re-posting can drive a range of phenomena, including ad virality, which translates into increased brand awareness, name and sales (Akpinar & Berger, 2017; Alhabash, McAlister, Quilliam, Richards, & Lou, 2015), the propagation of fake news (Chua & Banerjee, 2018; Jang et al., 2018; Jang & Kim, 2018; Shin, Jian, Driscoll, & Bar, 2018; Vendemia, Bond, & DeAndrea, 2019), and self-image enhancement (Johnson & Ranzini, 2018). Nevertheless, much research has focused on posting/sharing behaviors of one’s own content, such as “selfies” and images of the self (Gnambs &
Here, we seek to extend this line of work and examine what makes people share (re-post) third party content (i.e., advertisements) related to self-image enhancing products (i.e., products that are largely perceived as prestigious and desirable, and can hence have the potential to enhance one’s image through affiliation; examples include a new model of iPhone and boutique wines). We examine this question in the context of Facebook, given the high prevalence rate of this social networking site among young-adults and its ability to afford re-posting self-image enhancing products (Gil-Or, Levi-Belz, & Turel, 2015).

One way to examine this behavior is through social networkers’ self-identity (Abrams & Hogg, 1988), which includes two components: personal identity and social identity (Tajfel & Turner, 1986). Personal identity captures the qualities, attitudes and skills of an individual, which distinguish him or her from others. Social identity includes the common characteristics of the individual and people in the groups he or she belongs to. Although the role of Facebook as a way to elevate one's social identity is crucial, the focus of this research is on personal identity. Since every human-being has a need for positive personal-identity, one has a motivation to make sure his or her reflection in the eyes of others is positive. Symbolic interaction theory (Blumer, 1962) suggests that humans’ identity is formed by interacting with others and figuring out how they see us. Even if this suggestion is extreme, there is no doubt that people tend to manage their impression, both consciously and unconsciously, to elevate their self-esteem. They do that by trying to influence other people’s perceptions of themselves, usually by managing the information exchanged in social interactions (Piwinger & Ebert, 2001). Consequently, self-presentation is one of two basic needs that drive Facebook users to use the network, and the most important one in supporting one’s identity (Nadkarni & Hofmann, 2012).
We further note that in order to better understand self-identity we can rely on Winnicott's theory of ego, which distinguished between the “true self” and the “false self” (Winnicott, 1965). These are two types of experiences, one is more spontaneous, authentic and real and the other is more defensive and protective. “True self”, as well as clear and explicit identity, tend to have positive consequences. People that present their “true self” and bring their authentic self to the online medium, tend to create meaningful and longer relationships with their online friends, which in many cases also translate into the offline world (McKenna, Green, & Gleason, 2002). However, there are also advantages to presenting false identities. In a process called “Identity play” a person can “play” with different identities that are different from his or her own identity (Turkle, 1995). This behavior can be considered positive if it is done from time to time and if it is flexible, meaning the person can freely change his or her behavior in different states.

Users on Facebook expose information about their identity in various ways. In contrast to anonymous social networks (such as: blogs, forums and others), it is uncommon for users on Facebook to present false surface information altogether (i.e., they mostly present true name, activities, and social demographic information). Rather, they keep their identity much more implicit and create signals that present their identity in a positive way (Zhao, Grasmuck, & Martin, 2008), in part through affiliating themselves with produces and others on the social network, and/or posting information (e.g., comments, pictures) that will strategically add to their public image.

Consequently, the Facebook-self, is a collection of the signals given by Facebook users to their Facebook community. These signals include all information such as: profile information, uploaded content (photos, songs and others), self-written content and third-party shared content. "Facebook self" following Winnicott's theory, might represent a “true self”; but in many cases it
represents a “false self” to a certain degree, which is far, at least to some extent, from one’s “true self”. This falseness is not necessarily intentional or even conscious, as it can well represent one's non-Facebook “false self”. The negative outcome of this phenomenon is that presenting a non-authentic self in Facebook consistently and inflexibly, might hurt one's well-being, since authenticity is correlated with both subjective well-being and psychological well-being (Wood, Linley, Maltby, Baliousis, & Joseph, 2008).

Consequently, through selective re-posting of what others may envy and/or expect, and what may enhance one’s desired image (Johnson & Ranzini, 2018), people can strategically portray themselves in a more positive light. Through this, they create a more protective, socially approved and less vulnerable image of themselves, compared to how they really are (Gil-Or et al., 2015). To maintain this enhanced self-image, people need to keep affiliating themselves with desired behaviors and products; and this can be done, among other ways, via the re-posting of self-image enhancing products. This is consistent with motivation theories (Atkinson, 1964; Bolles, 1967; Cofer & Appley, 1964; McClelland, 1987; Steel & König, 2006), according to which actions are motivated by goals and the ability of the actions to attain these goals. Here, the action is re-posting self-image enhancing ads, and the motivation is to maintain a false, accentuated self on social media. Therefore, we posit that (H1) the levels of falseness of one’s representation on Facebook will be positively associated with likelihood of re-posting advertisements for self-image enhancing products.

Extending this view, we further suggest that this association may depend on one’s level of narcissism. Narcissism is a relatively stable personality trait that captures excessive interest in the self and self-admiration (Freud, 1957). It is very commonly expressed on Facebook, through increased re-posting of self-image enhancing content (Buffardi & Campbell, 2008; Carpenter,
Indeed, people high in narcissism are likely to share “selfies” and other photos of themselves (Scott, Boyle, Czerniawska, & Courtney, 2018). This is because people high in narcissism constantly seek attention and admiration (Hawk, van den Eijnden, van Lissa, & ter Bogt, 2019). Consequently, it is reasonable to expect that narcissism increases the motivation to maintain a false, typically enhanced representation on Facebook. For example, a motivation to maintain a false Facebook self that is non-narcissistic (e.g., to protect the self from what may be perceived as weaknesses, such as shyness and low socioeconomic status) can be augmented when adding a narcissistic drive. That is, a strong narcissistic trait is synergetic to false Facebook self in motivating strategic sharing behavior; when narcissism is high, false Facebook-self will likely more often translate into strategic re-posting of self-image enhancing products. We thus expect that (H2) narcissism will moderate (enhance) the association between the level of falseness of one’s representation on Facebook and the likelihood of him or her re-posting on Facebook advertisements for self-image enhancing products.

The effect of narcissism on self-enhancing behaviors, such as “selfie” posting is not heterogeneous. It can differ between the sexes and is typically stronger for men (Arpaci, Yalcin, Baloglu, & Kesici, 2018). This may be rooted in evolutionary theory (Barkow, Cosmides, & Tooby, 1995), according to which the sexes can differ, on average, in their sharing (and presumably also re-posting) motivations; these include more social status and professional standing enhancement for men, and affinity and social group building for women (English, 2016). Similarly, the need to cater to constant self-promoting narcissistic drives can be stressful (Hawk et al., 2019). The sexes respond differently to stressors; men, on average, tend to see stressors more often as challenges and women, more often as threats (Lighthall, Mather, &
Gorlick, 2009; Lighthall et al., 2012). As such, men may be more likely than women to engage in approach behaviors to cater to their online narcissistic needs. Taken together, we suggest that (H3) sex can further moderate the effect of narcissism proposed in H2, such that it is stronger for men.

The resultant 3-way moderation model is depicted in Figure 1. This model enhances the understanding of sharing behaviors on social media (1) from sharing “selfies” to re-posting third-party content, (2) to include the growing in importance, yet largely overlooked individual differences in false Facebook-self, and (3) from relatively isolated examinations of predictors (Facebook-self, narcissism and sex) to an integrated view through the lens of self-identity, personality, motivation and evolutionary theories.

Figure 1: Research Model

2. Method

2.1. Sample

Sample characteristics are given in Appendix A.
2.2. Procedure

A-priori needed sample for anticipated effect size of 0.15, power level of 0.95, probability level of 0.01, and 11 predictors was calculated to be 228. We therefore invited 280 graduate students via a class announcement to participate in this study and complete an online survey. We sampled students because they heavily use social media and specifically Facebook (Cheung, Chiu, & Lee, 2011; Hew, 2011). Hence, they were expected to have ad exposure on Facebook. Out of the invitees, 246 Facebook users gave an informed consent to participate in this study and subsequently provided complete responses. No compensation was provided and there were no missing data. The procedure was approved by the university’s Institutional Review Board.

2.3. Measures

Description of measures, sources and pre-testing procedures is provided in Appendix B.

2.4. Statistical Analyses

The hierarchical regression facilities of SPSS 25 were employed for model testing. The first block included four control variables, the second added the direct effects of the three predictors, the third added the three two-way interaction terms, and the fourth block added the three-way interaction term. The model was tested twice, with likelihoods of re-posting self-image enhancing and neutral product ads as outcomes, respectively. In these analyses, bootstrapping with 200 re-samples and 95% bias-corrected confidence intervals (CI) was employed, in order to avoid distributional assumptions and afford coefficient comparisons (Cheung & Lau, 2008; Mooney & Duval, 1993). Three-way interaction analyses were performed following procedures in Dawson and Richter (2006).
3. Results

Regression model results are given in Table 1. In the model predicting likelihood of re-posting self-image enhancing ads, the first block demonstrates that age and Facebook use facets (controls) do not significantly increase this likelihood. The second block suggests that after accounting for the abovementioned controls, false Facebook-self significantly increases this likelihood. It therefore lends support to H1. The third block shows that narcissism and sex independently moderate the association between false Facebook-self and the likelihood of re-posting ads of self-image enhancing products. This association is stronger for people high in narcissism, lending support to H2, and for males (coded as 0). The fourth block showed that the three-way interaction significantly predicts this likelihood.

Probing this three-way interaction (see Figure 2) revealed that males low in narcissism (line 4) have a higher tendency of re-posting ads of self-image enhancing products compared to females, regardless of females’ level of narcissism or false Facebook-self (lines 1 and 3). The slopes of lines 1, 3 and 4, did not significantly differ ($p<0.881-0.992$). However, the slope for men high in narcissism (line 2) was significantly steeper compared all other slopes ($p<0.002-0.003$). This suggests that when men, but not women, present higher incongruity between their true- and Facebook- selves, and they are high in narcissism, they are more likely than others to re-post self-image enhancing ads; this lends support to H3.

Lastly, the rightmost column of the table demonstrates that the proposed predictors are less efficacious in explaining the likelihood of re-posting neutral, non-self-promoting ads. The only significant predictors were false Facebook self and its interaction with sex. It implies that men with high false Facebook-self are more likely than others to re-post ads, even if they pertain to
products that are not self-image enhancing. This may represent activity for the sake of attention seeking and signaling that a person is still active.

Table 1: Regression Models *, **

<table>
<thead>
<tr>
<th>Predictor</th>
<th>DV= Likelihood of re-posting self-image enhancing ads</th>
<th>DV= Likelihood of re-posting neutral ads</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Block 1 (controls)</td>
<td>Block 2 (main effects)</td>
</tr>
<tr>
<td>Age</td>
<td>0.007 (0.557)</td>
<td>-0.004 (0.746)</td>
</tr>
<tr>
<td></td>
<td>[-0.019;0.038]</td>
<td>[-0.029;0.023]</td>
</tr>
<tr>
<td>Facebook “Friends”</td>
<td>0.057 (0.085)</td>
<td>0.050 (0.124)</td>
</tr>
<tr>
<td></td>
<td>[-0.004;0.120]</td>
<td>[-0.018;0.109]</td>
</tr>
<tr>
<td>Facebook Use Frequency</td>
<td>0.071 (0.144)</td>
<td>0.042 (0.353)</td>
</tr>
<tr>
<td></td>
<td>[-0.019;0.183]</td>
<td>[-0.048;0.145]</td>
</tr>
<tr>
<td>Facebook Daily Use Time</td>
<td>0.029 (0.672)</td>
<td>0.034 (0.552)</td>
</tr>
<tr>
<td></td>
<td>[-0.099;0.165]</td>
<td>[-0.089;0.157]</td>
</tr>
<tr>
<td>False Facebook Self</td>
<td>0.209 (0.005)</td>
<td>0.355 (0.005)</td>
</tr>
<tr>
<td></td>
<td>[0.068;0.331]</td>
<td>[0.109;0.559]</td>
</tr>
<tr>
<td>Narcissism</td>
<td>0.053 (0.463)</td>
<td>0.056 (0.637)</td>
</tr>
<tr>
<td></td>
<td>[-0.098;0.191]</td>
<td>[-0.164;0.265]</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.213 (0.114)</td>
<td>-0.227 (0.085)</td>
</tr>
<tr>
<td></td>
<td>[-0.473;0.030]</td>
<td>[-0.497;0.033]</td>
</tr>
<tr>
<td>False-Self x Narcissism</td>
<td>0.145 (0.040)</td>
<td>0.264 (0.010)</td>
</tr>
<tr>
<td></td>
<td>[0.031;0.310]</td>
<td>[0.074;0.449]</td>
</tr>
<tr>
<td>False-Self x Sex</td>
<td>-0.281 (0.035)</td>
<td>-0.277 (0.030)</td>
</tr>
<tr>
<td></td>
<td>[-0.520;0.044]</td>
<td>[-0.489;0.040]</td>
</tr>
<tr>
<td>Sex x Narcissism</td>
<td>-0.023 (0.856)</td>
<td>0.007 (0.970)</td>
</tr>
<tr>
<td></td>
<td>[-0.314;0.246]</td>
<td>[-0.248;0.229]</td>
</tr>
<tr>
<td>False-Self x Narcissim x</td>
<td>-0.245 (0.030)</td>
<td>-0.072 (0.378)</td>
</tr>
<tr>
<td>Sex</td>
<td>[-0.485;0.008]</td>
<td>[-0.485;0.008]</td>
</tr>
<tr>
<td>R²</td>
<td>0.034</td>
<td>0.095</td>
</tr>
<tr>
<td>p-Value ΔR²</td>
<td>-0.001</td>
<td>0.009</td>
</tr>
</tbody>
</table>

* Cells report unstandardized coefficients, p-values for two-tailed tests in parentheses, and bias corrected 95% confidence intervals in squared parentheses.

** Significant values (at least p<0.05) are bolded and italicized.
Studies have shown that incongruity between true-self and actual representation on social media is common; people tend to portray themselves through selective re-posting more positively and socially compliant than they truly are, to varying degrees (Gil-Or et al., 2015).

The current study sought to examine how this phenomenon motivates people to share third-party ads for self-image enhancing products (e.g., a new Google product) on social media. To do so, we further noted based on personality and evolutionary sex-based theories that the possible influence of false Facebook-self on the motivation to share self-image enhancing ads can be attenuated by trait narcissism and sex. Consequently, we proposed and tested a three-way interaction model, according to which narcissistic men are more likely than others to build and protect high false Facebook-self through re-posting ads for self-image enhancing products, with
which they presumably want to be affiliated. These assertions were supported with data from 246 Facebook users. The findings provide important theoretical and practical insights.

First, the literature on false representation on social media, and especially on the state of false Facebook-self has been limited, and focused primarily on antecedents of the false-self. These include, for example, non-secure attachment styles, self-esteem, authenticity (Gil-Or et al., 2015), and coherent identity (Michikyan, Dennis, & Subrahmanyam, 2015). This literature also focused on how enhanced self-images influence self-esteem (Gonzales & Hancock, 2011). The consequences of this false representation remained largely unknown. Here, we show that having a high gap between the true and portrayed self on Facebook can result in unique online behaviors, in form of willingness to re-post self-promoting third-party ads with others. Thus, this study extends existing works by shifting focus from antecedents to self-referenced outcomes of false representation on Facebook. This extension in line with theories of the false-self (Winnicott, 1965), according to which people are motivated put effort into building and maintaining desired false representation; and extends it to the realm of social media. Future research can further build on the body of work on the false-self and motivation theories to further examine why and when people re-post, and perhaps more broadly, share content online.

Second, prior studies have focused on selfie and other self-images posting as impression building behaviors (Arpacı et al., 2018; Manch & McBean, 2018). Here, we extend this view and show that self-image enhancement can also motivate different behaviors, namely re-posting ads for products with which the person wants to affiliate him or herself ("status brands", see O’cass & Frost, 2002). Thus, we extend the range of commonly examined self-enhancing behaviors from self-focused content (e.g., selfies) to third-party content. Such content, through affiliation, can portray the person more positively (Eastman, Goldsmith, & Flynn, 1999). We show that
people leverage such status brands for signaling high status (Eastman et al., 1999), and obtaining social benefits in form of maintained or enhanced false representation on Facebook. It is interesting to consider that social media makes such affiliations easy; people do not need to actually own the brands. They can affiliate themselves with such brands via simple ad re-posting. Future research should further build on these notions and examine possible differences between ad re-posting and owning the products, in terms of their efficacy to maintain and build desired representation on social media.

Third, prior research has shown that narcissism (Scott et al., 2018) and sex (Arpaci et al., 2018) predict differences in self-image enhancing behaviors, by relying on personality and evolutionary theories. Here, we integrate this perspective with the idea of false Facebook self. Our findings show that false Facebook-self effects on self-image enhancement through ad re-posting are stronger for men high in narcissism than for others. These findings not only set boundary conditions for the effects of the false Facebook-self on ad re-posting behaviors, but also integrates the disparate research streams on narcissism and sex effects on social media behaviors (Arpaci et al., 2018; Buffardi & Campbell, 2008; Carpenter, 2012; Gnambs & Appel, 2018; Manch & McBean, 2018; McCain & Campbell, 2018; Ong et al., 2011; Ryan & Xenos, 2011; Scott et al., 2018) with research on false Facebook-self effects (Gil-Or et al., 2015); and more broadly with research on the concept of false-self (Winnicott, 1965). Future research can further build on this integrated perspective and examine a broader set of factors, such as self-esteem and social media addiction (Andreassen, Pallesen, & Griffiths, 2017), as boundary conditions for the false Facebook-self effects.

From a practical standpoint, the findings suggest important implications for social networking sites and marketers. Specifically, they imply that they should assess narcissism and

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false-self representation, for example through analyzing user posts (Preoțiuc-Pietro, Volkova, Lampos, Bachrach, & Aletras, 2015), and target males high in narcissism with ads for products that can enhance one’s self-image. Alternatively, given a limited marketing budget for such products, stronger emphasis can be put on female users because males are more likely to share ads for such products, and create organic, rather than paid-for virality. The efficacy of such approaches, though, merits further research.

Several limitations of this study are noteworthy. First, we used a limited set of products in our re-post measures. Future research can extend our findings to other products, and also focus on gender-specific self-image enhancing brands (e.g., high-end purse brands for women and high-end perfumes for men), as opposed to the more gender-neutral products we used here. Moreover, these products differ along many dimensions (i.e., not just self-image enhancing potential; e.g., based on price). Hence, it would be interesting to examine how our model predicts re-posting of the same product at different price points. In addition, it would be interesting to integrate socially oriented personality such as extraversion into our model. Second, our findings pertain to likelihood of re-posting and do not capture actual re-posting behaviors. Not all intended or expected behaviors translate into actual behavior (Ajzen, 2001). Thus, future research can extend our findings to actual re-posting behavior. Third, this study focused on Facebook users who were students. Nevertheless, different social networks can have different audiences, behaviors, content, and expectations (Panek, Nardis, & Konrath, 2013); and different populations may behave differently. Thus, future research can extend our findings beyond Facebook and student samples. Fourth, we captured general narcissism that is not social media specific. Nevertheless, social media narcissism can focus on falling in love with fictional ideas about oneself, and not with the “true” self (Aviram & Amichai-Hamburger, 2005; Fox &
Rooney, 2015). Future research may explore such distinctions. Lastly, our model stops at intended re-posting and does not examine the efficacy of such re-posts to alter people’s perceptions of the re-posting individual. This is an important extension for future research.

5. Conclusions

In sum, this study indicates that (1) incongruity between the true-self and the way one presents himself or herself on Facebook is associated with increased likelihood of re-posting ads of self-image enhancing products, (2) this association is further strengthened for people high in narcissism, and (3) the narcissism effect is especially pronounced in males. They also show that men with strong false Facebook self are more likely than others to re-post any type of ads in order to maintain and enhance their false image on Facebook. These findings can inform marketers, system developers, users and therapists, who may take the abovementioned combination of factors into account when developing systems, social media use plans, marketing plans, and/or treatment plans. This integrative view of factors that can influence ad re-posting on social media is unique and informative. We hence call for future research to further examine this topic.

References


Appendix A: Sample

The sample included 246 Facebook users (102 males; 87.9% response rate) who were graduate students at the time of the survey. Sample properties by sex and as a whole are given in Table A1. It shows that in the sample, women were slightly younger, had more Facebook friends, and lower false Facebook self, compared to men. Men reported slightly, but not significantly higher likelihood of re-posting self-image enhancing products. No differences between the sexes in Facebook use frequency, daily use time, narcissism and likelihood of re-posting neutral products (i.e., with low self-image enhancement potential) were observed.

Table A1: Sample Characteristics*, **

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>All</th>
<th>p-value of difference between sexes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age [years]</strong></td>
<td>31.70 (5.11)</td>
<td>29.25 (5.26)</td>
<td>30.27 (5.32)</td>
<td><strong>0.000</strong></td>
</tr>
<tr>
<td><strong>Facebook “Friends”</strong></td>
<td>5.10 (2.31)</td>
<td>5.68 (2.15)</td>
<td>5.44 (2.24)</td>
<td><strong>0.044</strong></td>
</tr>
<tr>
<td><strong>Facebook Use Frequency</strong></td>
<td>4.19 (1.53)</td>
<td>4.47 (1.28)</td>
<td>4.35 (1.39)</td>
<td>0.112</td>
</tr>
<tr>
<td>[1=“&lt;1/week”; 2=“several times/week”; 3=“once a day”; 4=“2-3 times/day”; 5=“4-5 times/day”; 6=“≥6 times/day”]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facebook Daily Use Time</strong></td>
<td>2.71 (1.37)</td>
<td>2.99 (1.38)</td>
<td>2.87 (1.38)</td>
<td>0.117</td>
</tr>
<tr>
<td>[1=“&lt;10 min”; 2=“10-30 min”; 3=“31-60 min”; 4=“1-2 hours”; 5=“2-3 hours”; 6=“≥3 hours”]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>False Facebook Self</strong></td>
<td>2.82 (0.74)</td>
<td>2.56 (0.63)</td>
<td>2.67 (0.69)</td>
<td><strong>0.004</strong></td>
</tr>
<tr>
<td>[1=“very untrue”; 2=“untrue”; 3=“in between true and untrue”; 4=“true”; 5=“very true”]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Narcissism [1-5 scale]</strong></td>
<td>2.97 (0.54)</td>
<td>2.95 (0.52)</td>
<td>2.96 (0.53)</td>
<td>0.732</td>
</tr>
<tr>
<td><strong>Likelihood of re-posting ads of self-image enhancing products:</strong></td>
<td>1.98 (1.26)</td>
<td>1.72 (1.07)</td>
<td>1.83 (1.16)</td>
<td>0.075</td>
</tr>
<tr>
<td>a new iPhone, a new Google Home device, and a boutique wine [1=very unlikely, 7=very likely]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Likelihood of re-posting ads of neutral products:</strong></td>
<td>1.31 (0.87)</td>
<td>1.25 (0.76)</td>
<td>1.28 (0.81)</td>
<td>0.557</td>
</tr>
<tr>
<td>A dentist, a new toilet paper, and a countertop water dispenser [1=very unlikely, 7=very likely]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Standard deviations are reported in parentheses after the mean values
** Bolded and italicized p-values represent significance of at least p<0.05
Appendix B: Measures

The survey captured four control variables: (1) chronological age, which was self-reported using a numerical response question, and (2) three facets of Facebook use, namely number of “friends”, use frequency (times/day), and time (hours/day), captured with items from Ellison, Steinfield, and Lampe (2007). These were included to account for possible covariates that relate to the personal (age) and Facebook use (frequency, time, contacts) domains. We also captured likelihood of re-posting ads related to neutral products (i.e., with low self-image enhancement potential) as a means to post-hoc validate that our theory is relevant primarily to self-image enhancing products. The re-posting likelihood scales were adapted from common behavior likelihood scales (Belk, 1975). Survey items, sources and reliabilities for the model’s constructs are presented in Table B1.

The self-image enhancing and neutral products were selected based on a focus group of 10 graduate students, which was asked to provide common realistic products that they have seen on Facebook, and which they perceive to be either self-image enhancing or neutral. The final list represents the consensus of the group for the best (and realistic, common) self-image enhancing and neutral products from the portfolio of products they routinely see ads for on Facebook. These items were pilot tested with another sample of 30 graduate students and were deemed to be reliable (both $\alpha>0.75$); they also differed on self-image enhancing potential (Means of 3.75 and 1.28, respectively, on the question “to what extent do you consider these products to be self-image enhancing?” $p<0.001$). In the current study, we randomized item order to minimize order-effects. All multi-item measures were sufficiently reliable. They were hence aggregated via averaging; and transformed to z-scores for equal scaling, generating interaction terms, and reducing multicolinearity (Iacobucci, Schneider, Popovich, & Bakamitsos, 2017).
Table B1: Measures and Sources

<table>
<thead>
<tr>
<th>Scale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>What is your biological sex [0=Male; 1=Female]</td>
</tr>
<tr>
<td>False Facebook Self (Gil-Or et al., 2015) [1=“very untrue”; 5=“very true”; α=0.821]</td>
<td>1. There is a gap between my self-presentation on Facebook and my day-to-day self-presentation 2. People that know me on Facebook will be surprised how I am in real life 3. (R) My activities and responses on Facebook are similar to those in real life 4. Sometimes I figure out I respond differently to people on Facebook than in real life 5. A large number of my Facebook friends are not my friends in real life 6. (R) I say what I think in Facebook even if it is different from the opinions of others 7. I cannot express my opinions to others on Facebook 8. I act one way on Facebook, but want to act a different way 9. I don’t let people see the real me on Facebook 10. My thoughts are not important to others on Facebook 11. I hide the real me on Facebook by looking like others 12. (R) I act on Facebook in ways that express who I really am 13. I hide my true feelings on Facebook if I think they will upset others 14. I tend to say one thing on Facebook even when I think another 15. (R) I can talk openly to others on Facebook about my feelings 16. I stay quiet on Facebook when I don’t agree with other people 17. I don’t like to look different from other people on Facebook 18. If people on Facebook knew what I was really like on the inside, they would not like me 19. Other Facebook users’ feelings are more important than mine 20. I spend a lot of time thinking about how other people on Facebook see me 21. What I openly say on Facebook is different from what I think deep inside (*) Items 3,6,12 and 15 were reverse-coded.</td>
</tr>
<tr>
<td>Narcissism [NPI-16] (Ames, Rose, &amp; Anderson, 2006) [1-5 comparative rating scale; α=0.804]</td>
<td>1. I really like to be the center of attention…..It makes me uncomfortable to be the center of attention 2. I am no better or no worse than most people…..I think I am a special person 3. Everybody likes to hear my stories…..Sometimes I tell good stories 4. I usually get the respect that I deserve…..I insist upon getting the respect that is due me 5. I don’t mind following orders…..I like having authority over people 6. I am going to be a great person…..I hope I am going to be successful 7. People sometimes believe what I tell them…..I can make anybody believe anything I want them to 8. I expect a great deal from other people…..I like to do things for other people 9. I like to be the center of attention…..I prefer to blend in with the crowd 10. I am much like everybody else…..I am an extraordinary person 11. I always know what I am doing…..Sometimes I am not sure of what I am doing 12. I don’t like it when I find myself manipulating people…..I find it easy to manipulate people 13. Being an authority doesn’t mean that much to me…..People always seem to recognize my authority 14. I know that I am good because everybody keeps telling me so…..When people compliment me I sometimes get embarrassed 15. I try not to be a show off…..I am apt to show off if I get the chance 16. I am more capable than other people…..There is a lot that I can learn from other people</td>
</tr>
<tr>
<td>Likelihood of re-posting ads for self-image enhancing products [α=0.747]</td>
<td>Below is a list of products for which you received a Facebook ad. How likely is it that you will share this ad with your Facebook friends? [1=Very unlikely; 7=Very likely] 1. A new model of iPhone 2. A new model of Google Home 3. A boutique wine</td>
</tr>
</tbody>
</table>

References- Appendix B:
