



Glancing up or down: Mood management and selective social comparisons on social networking sites



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ABSTRACT

Social networking sites (SNS) provide opportunities for mood management through selective exposure. This study tested the prediction that negative mood fosters self-enhancing social comparisons to SNS profiles. Participants were induced into positive or negative moods and then browsed manipulated profiles on an experimental SNS. Profiles varied in a 2×2 within-subjects design along two dimensions, ratings of career success and attractiveness, allowing for upward comparisons (high ratings) and downward comparisons (low ratings). Selective exposure was measured in seconds spent viewing profiles. Negative mood led to less exposure to upward comparisons and more to downward comparisons than positive mood. The comparison dimension did not influence selective exposure. Thus, in a negative mood, SNS users prefer self-enhancing social comparisons to manage their mood.

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1. Introduction

The use of social networking sites (SNS) has skyrocketed in recent years, with Americans now devoting a monthly average of nearly 7 h to Facebook alone, the most of any web brand (Nielsen Wire, 2012). Over 40% of online adults use an SNS daily, outpaced only by the daily use of email (61%) and search engines (59%) (Madden & Zickuhr, 2011). A growing body of research has explored the appeal of SNSs, how they are used, and what their effects are (Wilson, Gosling, & Graham, 2012).

The present investigation aims to extend research on motivations for using SNSs by drawing on selective exposure methodology and mood management theory (Knobloch-Westerwick, 2006; Zillmann, 1988). Like other popular forms of media, individuals may select SNS content with the motivation to regulate mood. One specific mechanism for SNS mood management could be self-enhancing social comparisons (Haferkamp & Krämer, 2011; Wills, 1981). This study tests the proposition that when individuals are in an aversive mood, SNS browsing has a self-enhancement bias toward downward comparisons and away from upward comparisons. After reviewing relevant literature on SNS use, mood management, and social comparison, we present the results of an experiment in which participant browsing behavior on an

SNS-type website was unobtrusively recorded, following a mood induction.

1.1. Research on social networking sites

SNSs are platforms where individuals can create a personal profile and connect with other users. The format emerged in the early 2000s and quickly became a critical part of the web environment and a topic of interest for researchers in communication and related fields (boyd & Ellison, 2007). SNS research in the social sciences has focused on four general topics: motivations for use, the nature of self-presentation, consequences for interpersonal behavior, and privacy and disclosure (Wilson et al., 2012).

Across studies of motivation, researchers examined how the maintenance and development of social capital fosters SNS use (e.g., Ellison, Steinfield, & Lampe, 2007), as does the need to reduce loneliness and boredom (Lampe, Ellison, & Steinfield, 2008). However, studies examining needs possibly facilitated by social comparison, such as self-esteem or affect maintenance, are limited (Zywica & Danowski, 2008), although surveys show positive relationships between SNS use and self-esteem (Kim & Lee, 2011; Mehdizadeh, 2010; Valkenburg, Peter, & Schouten, 2006). Experiments found that viewing one's own profile boosts self-esteem, but did not examine viewing others' profiles (Gentile, Twenge, Freeman, & Campbell, 2012; Gonzales & Hancock, 2011). Likewise, there is little research to date regarding social comparison in the SNS setting (Haferkamp & Krämer, 2011) despite the potential for social comparison and mood management phenomena during SNS use.

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1.2. Mood management online

One important motive for the selection of media is mood management (Knobloch-Westerwick, 2006; Zillmann, 1988). Consumption of media, especially television, music, and film, is one of several prevalent behaviors used to regulate moods (Thayer, Newman, & McClain, 1994). Mood management theory stipulates that media exposure has the potential to repair or maintain affective states and that media messages are often chosen for this purpose. Yet this theory has seldom been tested with newer media like the Internet.

For web browsing, mood has been found to influence users' selective exposure to positively versus negatively valenced websites and to entertainment versus information websites (Knobloch & Zillmann, 2002; Knobloch-Westerwick & Alter, 2006), as well as users' speed of surfing (Mastro, Eastin, & Tamborini, 2002). Another study found that selective exposure to valenced online news was based on mood adjustment needs (Knobloch-Westerwick & Alter, 2006). One study demonstrated that mood management affects choice of video game difficulty settings (Reinecke et al., 2012). Clearly, with the development of new forms of web content, including social media, new opportunities have arisen for mood management. The rapid adoption and fervent use of social networking sites suggest that these services meet important and powerful psychological drives in their users, possibly including the hedonic motivation to enhance and maintain positive moods and repair negative moods (cf. Mauri, Cipresso, Balgera, Villamira, & Riva, 2011).

SNSs offer several means by which users might manage mood. For example, viewing one's own profile can boost positive affect (Toma, 2010) and self-esteem (Gonzales & Hancock, 2011). In addition to a positive portrayal of the self, SNSs can be relaxing entertainment (Smock, Ellison, Lampe, & Wohn, 2011) or can provide affect-enhancing feedback and social support (Kim & Lee, 2011; Valkenburg et al., 2006). However, much of the time on an SNS is focused not on the self, but spent viewing others' activities (Metzger, Wilson, Pure, & Zhao, 2012), suggesting that social comparison might be a key mechanism by which SNS use could enhance mood. Accordingly, initial evidence shows that downward social comparison on an SNS can increase positive affect (Haferkamp & Krämer, 2011). However, selective exposure to SNS social comparison targets for mood management purposes has not yet been examined.

1.3. Social comparison

Individuals compare themselves to others in their environment (including mediated environments) for purposes of self-evaluation, self-improvement, and self-enhancement (Wood, 1989). One common form of comparison is downward comparison for purposes of self-enhancement (Wills, 1981). By selectively comparing one's self to others who are worse off, people are able to restore threatened self-esteem (Wills, 1981) and to restore positive affect (Gibbons & Gerrard, 1989). Self-enhancing comparisons may also take the form of upward comparisons, in which the individual identifies with or aspires to be like those who are better off (Lockwood & Kunda, 1997).

Prior research has found that social comparison to others depicted in online news media is selective (Knobloch-Westerwick & Hastall, 2006; Knobloch-Westerwick & Westerwick, 2011). In a study of selective exposure to social comparison targets in online news, young adults were more likely to select stories about same-age individuals (Knobloch-Westerwick & Hastall, 2006). Among young and middle-aged adults, both sexes read more about same-sex individuals. Furthermore, self-esteem and sex interacted to predict comparison direction, with high self-esteem women preferring downward comparisons via negative depictions and high

self-esteem men preferring upward comparisons via positive depictions (Knobloch-Westerwick & Hastall, 2006).

Another study (Knobloch-Westerwick & Westerwick, 2011) on social comparisons to online news depictions found that majority group members avoided reading positive in-group depictions while minority members preferred them. Minorities, who experienced greater identity salience, sought affiliation with their in-group as a means of self-enhancement, whereas majority group members sought self-enhancement and distinctiveness by avoiding positive depictions of in-group members (Knobloch-Westerwick & Westerwick, 2011). These studies demonstrate not only the selectivity that is at work in social comparison to mediated others, but also the influence that the need for self-enhancement places on selective exposure.

Furthermore, downward comparisons with mediated portrayals can facilitate mood management (Mares & Cantor, 1992) or bolster self-esteem (Knobloch-Westerwick & Hastall, 2010). Mares and Cantor (1992) tested mood management and social comparison as competing hypotheses for older viewers' preferred depictions of others in media, yet found that downward social comparison was a mechanism for improving mood. Likewise, a study of selective exposure to music by romantically satisfied or dissatisfied young adults indicated that romantically dissatisfied participants avoided upward comparisons (love-celebrating songs), preferring laments by a singer of the same sex (Knobloch & Zillmann, 2003).

The emergence of social media, featuring content created by and about other people in one's social network, offers rich opportunities for social comparison. Social comparison, even via media, is far more likely when targets are similar to the self, whether by age, sex, or other dimensions of identity (Festinger, 1954; Knobloch-Westerwick & Hastall, 2006, 2010; Suls, Gaes, & Gastorf, 1979; Zanna, Goethals, & Hills, 1975). As existing knowledge of friends' qualities and characteristics could facilitate the ease of making the desirable comparisons, social media are well situated for social comparison phenomena (Knobloch-Westerwick & Westerwick, 2011).

Yet, the implications of self-enhancing social comparison for mood management and the nature of mediated social comparisons outside of news contexts both have yet to be pursued by researchers, despite their promise. In one recent experiment using mock SNS profiles, participants who viewed profiles of less attractive or less successful people reported higher self-evaluations on those same dimensions, along with higher positive affect after viewing less attractive profiles (Haferkamp & Krämer, 2011). However, self-selected exposure to SNS profiles for purposes of social comparison was not tested.

Researchers have suggested that self-presentation practices contribute to idealized impressions of others and misperceptions of their well-being, especially online, threatening the individual's comparative well-being (Chou & Edge, 2012; Jordan et al., 2011). However, other evidence cautions that SNS self-presentations are more realistic than idealized (Back et al., 2010), and subject to constraints (Walther, Van Der Heide, Hamel, & Shulman, 2009). Furthermore, selectivity in comparisons should allow for self-enhancing social comparisons even if many self-portrayals by others are unrealistically positive. Indeed, in addition to a tendency to select comparison targets that are similar to the comparer, targets may be chosen based on particular attributes that allow for self-enhancement (Wood, 1989). For example, when given a range of comparison attributes, men and women tended to compare on dimensions that fit their gender role schemata (Knobloch-Westerwick & Alter, 2007). And, in a forced-exposure setting, although downward social comparisons regarding both career success and attractiveness had positive effects of self-perceptions, only attractiveness had a positive effect on mood (Haferkamp & Krämer, 2011).

The present investigation draws on a selective exposure research paradigm (Knobloch-Westerwick, 2015) in which selective exposure denotes any bias in exposure time allotted to the available messages, in this case time spent viewing SNS profiles, and is unobtrusively observed. Based on mood management theory and social comparison theory, along with prior related research on social comparisons to mediated depictions of others, the following hypotheses and research question regarding selective exposure to SNS profiles varying regarding career success and attractiveness are proposed and will be subject to empirical examination.

H1. Negative mood increases selective exposure to downward comparison targets.

H2. Negative mood decreases selective exposure to upward comparison targets.

RQ1. Are the effects proposed in H1 and H2 contingent on the dimension of social comparison (career success or attractiveness)?

2. Method

2.1. Overview

A false-feedback task induced participants ($N = 168$) into either a positive or negative mood. Then, in an ostensibly unrelated task, they browsed a website modeled after popular social networking sites. During their browsing, selective exposure to SNS profile pages was unobtrusively logged. Eight profiles with similar images and status updates were manipulated along two dimensions: peer ratings of career success and physical attractiveness. The use of same-sex names was the only variation between male and female participants, allowing for greater similarity of comparison targets; all other stimuli characteristics remained constant. After 2 min of browsing the SNS, participants completed a short questionnaire.

2.2. Participants

Participants were recruited from courses at a university in the Midwestern United States. Course instructors posted online recruitment announcements, and 174 participants attended a lab session in return for extra credit. Six cases were incomplete or invalid due to technical error or failure to browse the study site. These were omitted, leaving 168 complete and valid cases. The mean age was 21.64 ($SD = 3.69$), and the sample was 63.7% female, 67.9% White, 14.3% Asian, 12.5% Black, 2.4% Hispanic/Latino, and 3.0% other or refused.

2.3. Procedure

Following a mood induction disguised as a facial expression recognition study, participants were asked to complete a different study in which they browsed “a prototype of a social networking site” for university alumni. At private workstations, participants logged into the session with a code provided previously (thereby indicating their mood assignment), and entered their age and sex before beginning the browsing task.

Participants were told the experimenters were interested in their “impressions of the site profiles and the people who created their profiles,” and were instructed to “examine it, browse through it, and read whatever you find interesting.” They were asked to avoid distractions during the session and to browse the profiles as they “normally would” on an SNS, but that “scheduled time does not allow reading all profiles.”

The selective exposure session then loaded, as the prototype site loaded and participants were allowed to freely browse the site. The site was programmed with Microsoft Silverlight and unobtrusively recorded browsing behavior by logging each hyperlink click. After 2 min elapsed, a short questionnaire loaded, soliciting media use and basic demographic information. A subset of participants was also administered short pencil-and-paper questionnaires for a manipulation check of the stimuli. Participants were then debriefed and awarded credit.

2.4. Mood induction

Mood was induced through a false-feedback protocol commonly used in mood management research (Biswas, Riffe, & Zillmann, 1994; Knobloch & Zillmann, 2002; Knobloch-Westerwick & Alter, 2006; Reinecke et al., 2012; Zillmann, Hezel, & Medoff, 1980), which was programmed in Authorware by the second author. Participants were asked to perform a “facial expression recognition task” in which 20 images of ambiguous facial expressions were categorized by discrete emotions. Bogus feedback was used to induce a negative or positive mood: Participants were told they performed exceptionally well or exceptionally poorly. Participants in both conditions saw their progress monitored by a vertical meter that seemed to track their real-time cumulative accuracy score. Scores between 0% and 25% accuracy were labeled “Terrible,” 25–50% as “Poor,” 50–75% as “Good,” and 75–100% as “Excellent.” In the positive mood induction ($n = 81$), participants achieved 85% accuracy, but in the negative mood induction ($n = 87$), they only reached 15%. Random assignment was achieved by drawing a condition code for each participant.

2.5. Stimuli

Participants were presented with a mockup of a social networking site labeled *SocialLink*, which featured an overview page and eight individual profiles. The overview page presented previews of all eight profiles, including names, profile images, and ratings for career success, attractiveness, number of friends, and length of site membership (see Fig. 1). The positions of the profile previews were randomized across participants. Each profile had its own individual page with a series of status updates and a large “Back to Overview Page” button that provided navigation back to the overview and other profiles (see Fig. 2).

Monochromatic abstract images in eight distinct hues appeared as profile images for each profile. A random name generator was used to select eight female and eight male names. A set of ratings for each profile featured the person’s “Career Success,” using bright green dollar signs to represent a 5-point scale, and “Hotness Rating,” using bright red hearts to represent a 5-point scale. Each profile was manipulated to score either one half of a dollar sign or four-and-a-half dollar signs (low versus high career success) and one half of a heart or four-and-a-half hearts (low versus high attractiveness). These manipulations were crossed in a 2×2 design (career success \times attractiveness). Ratings also reported “No. of Friends ($M = 234.88$, $SD = 2.85$)” and “Member Since” (ranging from “Feb 2010” to “Nov 2011”).

Profile images, names, and ratings appeared on both the overview page and on individual profiles. Individual profile pages also included a series of five “Recent Updates.” Each of these status updates was 30 words long and was followed by a timestamp specifying when the update was posted (ranging from “posted today” to “posted six days ago”). Each set of “Recent Updates” also alluded to a number of hidden “older posts,” ranging from 71 to 79.

Status updates were designed to resemble common SNS updates about personal reflections or activities. Care was taken to ensure that they were written to be (a) relatively mundane,

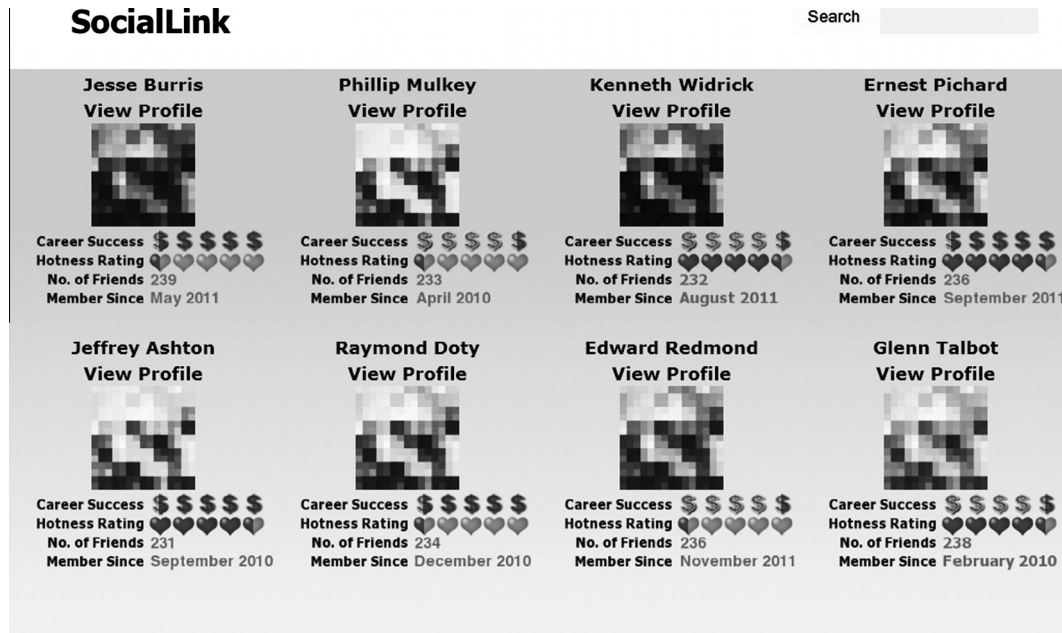


Fig. 1. Sample stimulus cover page, featuring male profiles.



Fig. 2. Sample stimulus profile page, featuring low career success and high attractiveness manipulation.

(b) free of references to career success, academic success, physical appearance, romantic relationships, or social comparisons, and (c) consistent in content and tone across each set of five updates. To test these assumptions about similarity and the everyday nature of these updates, a posttest manipulation check was conducted with a subset of the study sample ($n = 46$), yielding no differences between each profile's set of status updates in terms of interest, $F(7,38) = 1.02$, $p = .43$, or in perceived career success, physical attractiveness, or social attractiveness, $ps > .30$. Pairwise comparisons with Sidak correction revealed no differences between any pair of profiles on these dimensions (*n.s.*). Therefore, except for the manipulated career success and attractiveness ratings, the profile content was similar across all profiles.

2.6. Measures

2.6.1. Selective exposure

Browsing was measured in seconds by the software, unobtrusively recording each page view. Participants spent an average of 40.40 s ($SD = 21.13$) on the overview page. Participants in the negative mood condition allotted slightly more time to the overview page, but this difference was not significant, $F(1,166) = 3.62$, $p = .06$. To account for this difference, time on the overview page was included as a covariate. An average of only 5.02 ($SD = 1.68$) of the eight profiles were viewed, suggesting the browsing time limit ensured selectivity, and the average profile was viewed for 10.39 s ($SD = 2.64$).

Participants could view any of eight SNS profiles, which were manipulated on two dimensions, resulting in four manipulation types with two profiles for each type. Profiles carried either a half-star or four-and-a-half star rating for “Career Success” and for “Hotness Rating.” Selective exposure to profiles with half-star “Career Success” ratings was categorized as *downward comparison on career success*, and exposure to profiles with half-star “Hotness Rating” ratings was considered *downward comparison on attractiveness*. Similarly, selective exposure to four-and-a-half star “Career Success” success profiles was *upward comparison on career success* and to four-and-a-half star “Hotness Rating” profiles was *upward comparison on attractiveness*.

2.6.2. Controls

To account for preexisting variation in Internet and SNS use and familiarity, participants were asked to report how much time they spent each day with “social networking sites like Facebook, MySpace, LinkedIn, Twitter, or Google +” and with “the Internet,” using 7-point scales (0 = none at all, 1 = less than 30 min, 2 = 30–60 min, 3 = 1–2 h, 4 = 2–3 h, 5 = 3–4 h, 6 = more than 4 h). These values for daily time spent with the Internet ($M = 4.58$, $SD = 1.22$) and SNSs ($M = 3.31$, $SD = 1.70$), along with age and overview page browsing time, were included as statistical controls.

3. Results

Mixed-model ANCOVAs tested the hypotheses that mood impacts selective exposure to upward and downward comparison targets and the research question regarding comparison dimensions. There was a significant between-subjects effect of mood condition on downward social comparisons, $F(1,160) = 4.69$, $p = .032$, $\eta_p^2 = .03$, $M_{\text{negative}} = 36.51$, $SE = 1.38$, versus $M_{\text{positive}} = 32.15$, $SE = 1.43$. Likewise, mood also affected upward social comparisons in the predicted direction, $F(1,160) = 4.29$, $p = .040$, $\eta_p^2 = .03$, $M_{\text{negative}} = 46.85$, $SE = 1.37$, versus $M_{\text{positive}} = 50.98$, $SE = 1.42$ (see Fig. 3). The comparison dimensions (career success versus attractiveness) did not moderate either effect, $ps > .90$. Post hoc analyses also revealed that more time was generally allotted to upward than downward social comparisons, $p < .001$.

4. Discussion

This experiment compared the selective exposure behavior of participants in positive and negative moods when presented with

social networking site profiles that allowed for upward and downward social comparisons on two dimensions. Overall, when browsing a social networking site, participants spent more time with profiles rated highly on career success or attractiveness. However, their mood affected this pattern: In a negative mood, SNS users allotted significantly more time to downward comparisons, supporting H1, and less time to upward comparisons, supporting H2. Participants appeared motivated to repair their affective states through selective exposure to downward comparisons that could restore their mood and through selective avoidance of upward comparisons that could lead to further self-deflation and mood damage.

With regard to RQ1, no differences related to comparison dimension (career success or attractiveness) emerged among the patterns of selective exposure. Although a previous study of SNS social comparison found differential effects of career success and attractiveness in a forced-exposure design (Haferkamp & Krämer, 2011), we find no difference in selective exposure patterns from our operationalizations of profile indicators of these dimensions.

These findings suggest that SNSs can be used for purposes of mood management, and that social comparison is a mechanism through which individuals seek to repair their affect. It is notable that upward comparisons were preferred overall. This pattern is consistent with findings on comparison choice in the social comparison literature, especially when potential comparison targets are similar to the individual (Gruder, 1977; Wood, 1989). In this case, the targets were presented as alumni of the student participants’ university. Festinger’s (1954) hypothesized “unidirectional drive upward” for social comparisons of ability would explain why depictions of successful and attractive alumni would be appealing to students soon to join their ranks. Likewise, this shared affiliation with the comparison targets explains why those upward comparisons to similar others could become threatening to mood repair, and were relatively avoided by participants in negative moods.

One strength of this study is the demonstration of an effect using only using simple yet clear cues: peer ratings of career success (either .5 or 4.5 dollar signs) and attractiveness (either .5 or 4.5 hearts). These kinds of cues, especially to the extent that other SNS users besides the profile owner create them, can be powerful signals for impression formation (Walther et al., 2009). However, the use of abstract profile photographs and mundane status updates may have limited the strength of negative or positive perceptions and therefore restricted the ability to engage in comparisons that were ultimately gratifying and self-enhancing. Haferkamp and Krämer (2011) found post-exposure effects by employing profile images and biographical details to convey career success and attractiveness; it is not clear if peer ratings would have had the same effects. While the use of an SNS-like stimulus that participants freely browsed is a method high on ecological validity, future studies could enhance this validity by including richer stimuli manipulations. Research designs could also improve upon this validity and create the conditions for testing the extent of mood repair by including stronger manipulations in the stimuli. Not only could photographs and biographies be included as in previous research, but also valenced statements that convey the desired characteristics of profile owners.

Future research should also examine other relevant dimensions of SNS comparisons and the conditions under which comparisons are likely occur on different dimensions. For example, specific dimensions of social comparisons may govern selective exposure on SNSs among those faced with currently salient life strains (Knobloch-Westerwick, Hastall, & Rossman, 2009) or self-affirmation needs (Steele, 1988; Toma, 2010). An additional limitation is the present use of fictitious persons in the stimuli. Because SNS users are generally well acquainted with most members of their

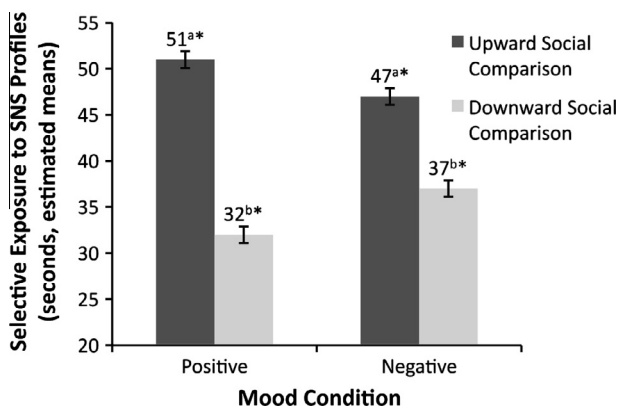


Fig. 3. Selective exposure to upward and downward social comparisons as a function of mood. Note. Differing lower-case letters indicate significant within-subjects differences in selective exposure, $p < .001$. Asterisks indicate significant between-subjects differences in selective exposure, $*p < .05$. Age, daily Internet use, daily SNS use, and time spent on overview page served as control covariates.

online social network, they are likely to draw from existing knowledge in order to make effective social comparison choices. Thus, the present study and its use of minimal cues for novel targets may understate the case for selectivity in social comparison. Research should seek to document how existing social networks and knowledge of peers is used to facilitate self-enhancing social comparison outside of the laboratory.

With regard to the prevalence of mood management via SNS social comparisons, there are certainly some real-world restrictions on the ability to engage in downward comparisons, and biases in impression formation that might hinder social comparison or lead to boomerang effects. It has been suggested that selective self-presentation, especially online (Walther, 2007), might bias estimates of others' well-being (Jordan et al., 2011), which could limit opportunities for self-enhancing social comparisons. Social networking sites augment the opportunities for self-presentation and subsequent misperception (Chou & Edge, 2012). This would present a limitation on the ability to successfully engage in downward social comparison if other SNS users are selectively presenting themselves as more attractive and successful than they really are. On the other hand, the present results show that individuals can engage in self-enhancing selective exposure to SNS content, which may offset misperceptions of others due to their selective self-presentation.

5. Conclusion

This study extends prior evidence on the selective use of mediated depictions of others for self-enhancing social comparisons. It also complements the finding that self-enhancing social comparisons on SNSs can improve mood (Haferkamp & Krämer, 2011), by showing that those in negative moods shift their preferences, engaging in less selective exposure to portrayals of upward comparison targets and more exposure to downward comparisons. Accordingly, the widespread use of SNSs may offer even more to the user than social capital (e.g., Ellison et al., 2007) and self-disclosure (e.g., Christofides, Muise, & Desmarais, 2009). It also offers an abundant array of social comparison opportunities for a variety of mood management and mood adjustment needs (Knobloch-Westerwick, 2006; Knobloch-Westerwick & Alter, 2006). The present study has begun to extend research into SNS use from its predominant foci on managing relationships and selective self-presentation to managing mood and selective comparisons with others. As it stands, social networking sites offer a setting in which users can tailor their social environment quite effectively to meet their personal affective needs.

Although negative mood was associated with a strengthened preference for downward social comparisons, it is noteworthy that upward social comparisons were generally preferred across both moods. This attraction to successful and attractive others has implications for the ability to engage in self-enhancing social comparisons and for affective outcomes. An overarching attraction to upward comparisons may be harmful to mood and self-perception, in keeping with previous claims about the effects of SNS on individual well-being (Chou & Edge, 2012; Jordan et al., 2011). Or, perhaps close social affiliation with SNS connections allows for additional self-enhancement strategies via upward comparisons (cf. Lockwood & Kunda, 1997). Future studies should examine these suggestions. Additionally, selective exposure to upward versus downward social comparison targets on SNS may also be influenced by individual differences in social comparison orientation (Gibbons & Buunk, 1999), self-esteem (Gibbons & Gerrard, 1989), or other attributes such as social media literacy.

The present findings also indicate that other-generated and system-generated cues (Walther et al., 2009) such as the aggregate ratings employed here have the ability to guide selective exposure

on SNS and to facilitate self-enhancing social comparisons, even in the absence of vivid cues such as profile photographs and strongly valenced content. It is apparent that future research can draw even closer connections between mood management theory, social comparison theory, and the literature on computer-mediated cues by examining which kinds of comparison dimensions and relevant cues are more or less effective in facilitating self-enhancing exposure to social media content. Additionally, future study designs should strive to measure the cognitive processes of social comparison in addition to the observation of comparison-driven selective exposure behavior. However, capturing social comparison processing poses many methodological challenges of its own (Wood, 1996).

Finally, the results have important implications for mood management theory. In keeping with Mares and Cantor's earlier findings (1992), we find that social comparison to mediated depictions of others can be motivated by and facilitate mood management needs. However, the inclusive of social comparison as a route to the regulation of affect may require a rethinking and reformulation of mood management theory and its classic tenets (Zillmann, 1988). Social comparison is a departure, in that negative depictions of others can induce positive feelings (Wills, 1981), which requires reconciliation with the assumptions of mood management theory regarding message valence and semantic affinity. The present study also helps to guide mood management theory into the social media era, where a diversified and user-driven media landscape allows for new possibilities in how communication might be used to manage moods.

The extensive time spent by many people on social networking sites such as Facebook, coupled with the carefully managed self-presentations prevalent on these sites, has raised concerns that social comparison with a personal network full of profiles crafted to be deceptively positive could harm individual well-being (Chou & Edge, 2012; Jordan et al., 2011). However, these apprehensions have failed to account for the potential for social comparisons to be self-enhancing (Haferkamp & Krämer, 2011; Wills, 1981) and for the role of motivated selective exposure in this process. The data presented here demonstrate that those in need of a boost to their well-being (i.e., those in a negative affective state) will gravitate away from positive depictions of others and instead spend more time viewing downward social comparisons targets. This selective exposure to the more self-enhancing content on SNSs can alleviate a negative mood (Haferkamp & Krämer, 2011) and is thus likely sought out for that reason. Indeed, part of the great appeal of social networking sites would appear to be their capacity for engaging in selective social comparisons that can be used to manage moods.

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References

- Back, M. D., Stopfer, J. M., Varize, S., Gaddis, S., Schmukle, S. C., Egloff, B., et al. (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological Science*, 21(3), 372–374. <http://dx.doi.org/10.1177/0956797609360756>.
- Biswas, R., Riffe, D., & Zillmann, D. (1994). Mood influence on the appeal of bad news. *Journalism Quarterly*, 71(3), 689–696. <http://dx.doi.org/10.1177/107769909407100319>.
- boyd, d. m., & Ellison, N. B. (2007). Social networking sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210–230. <http://dx.doi.org/10.1111/j.1083-6101.2007.00393.x>.
- Chou, H.-T. G., & Edge, N. (2012). "They are happier and having better lives than I am": The impact of using Facebook on perceptions of others' lives. *Cyberpsychology, Behavior, and Social Networking*, 15(2), 117–121. <http://dx.doi.org/10.1089/cyber.2011.0324>.

- Christofides, E., Muise, A., & Desmarais, S. (2009). Information disclosure and control on Facebook: Are they two sides of the same coin or two different processes? *Cyberpsychology and Behavior*, 12(3), 341–345. <http://dx.doi.org/10.1089/cpb.2008.0226>.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends”: Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143–1168. <http://dx.doi.org/10.1111/j.1083-6101.2007.00367.x>.
- Festinger, L. (1954). A theory of social comparison process. *Human Relations*, 7(2), 117–140. <http://dx.doi.org/10.1177/001872675400700202>.
- Gentile, B., Twenge, J. M., Freeman, E. C., & Campbell, W. K. (2012). The effect of social networking websites on positive self-views: An experimental investigation. *Computers in Human Behavior*, 28(5), 1929–1933. <http://dx.doi.org/10.1016/j.chb.2012.05.012>.
- Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: Development of a scale of social comparison orientation. *Journal of Personality and Social Psychology*, 76(1), 129–142. <http://dx.doi.org/10.1037/0022-3514.76.1.129>.
- Gibbons, F. X., & Gerrard, M. (1989). Effects of upward and downward comparison on mood states. *Journal of Social and Clinical Psychology*, 8(1), 14–31. <http://dx.doi.org/10.1521/jscp.1989.8.1.14>.
- Gonzales, A. L., & Hancock, J. T. (2011). Mirror, mirror on my Facebook wall: Effects of exposure to Facebook on self-esteem. *Cyberpsychology, Behavior, and Social Networking*, 14(1–2), 79–83. <http://dx.doi.org/10.1089/cyber.2009.0411>.
- Gruder, C. L. (1977). Choice of comparison persons in evaluating oneself. In J. M. Suls & R. L. Miller (Eds.), *Social comparison processes: Theoretical and empirical perspectives* (pp. 259–278). Washington, DC: Hemisphere.
- Haferkamp, N., & Krämer, N. C. (2011). Social comparison 2.0: Examining the effects of online profiles on social-networking sites. *Cyberpsychology, Behavior, and Social Networking*, 14(5), 309–314. <http://dx.doi.org/10.1089/cyber.2010.0120>.
- Jordan, A. H., Monin, B., Dweck, C. S., Lovett, B. J., John, O. P., & Gross, J. J. (2011). Misery has more company than people think: Underestimating the prevalence of others’ negative emotions. *Personality and Social Psychology Bulletin*, 37(1), 120–135. <http://dx.doi.org/10.1177/0146167210390822>.
- Kim, J., & Lee, J.-E. R. (2011). The Facebook paths to happiness: Effects of the number of Facebook friends and self-presentation on subjective well-being. *Cyberpsychology, Behavior, and Social Networking*, 14(6), 359–364. <http://dx.doi.org/10.1089/cyber.2010.0374>.
- Knobloch, S., & Zillmann, D. (2002). Mood management via the digital jukebox. *Journal of Communication*, 52(2), 351–366. <http://dx.doi.org/10.1111/j.1460-2466.2002.tb02549.x>.
- Knobloch, S., & Zillmann, D. (2003). Appeal of love themes in popular music. *Psychological Reports*, 93(3), 653–658. <http://dx.doi.org/10.2466/pr0.2003.93.3.653>.
- Knobloch-Westerwick, S. (2006). Mood management: Theory, evidence, and advancements. In J. Bryant & P. Vorderer (Eds.), *The psychology of entertainment* (pp. 239–254). Mahwah, NJ: Erlbaum.
- Knobloch-Westerwick, S. (2015). *Choice and preference in media use: Advances in selective exposure theory and research*. New York, NY: Routledge.
- Knobloch-Westerwick, S., & Alter, S. (2006). Mood adjustment to social situations through mass media use: How men ruminate and women dissipate angry moods. *Human Communication Research*, 32(1), 58–73. <http://dx.doi.org/10.1111/j.1468-2958.2006.00003.x>.
- Knobloch-Westerwick, S., & Alter, S. (2007). The gender news use divide: Americans’ sex-typed selective exposure to online news topics. *Journal of Communication*, 57(4), 739–758. <http://dx.doi.org/10.1111/j.1460-2466.2007.00366.x>.
- Knobloch-Westerwick, S., & Hastall, M. R. (2006). Social comparisons with news personae: Selective exposure to news portrayals of same-sex and same-age characters. *Communication Research*, 33(4), 262–284. <http://dx.doi.org/10.1177/0093650206289152>.
- Knobloch-Westerwick, S., & Hastall, M. R. (2010). Please your self: Social identity effects on selective exposure to news about in- and out-groups. *Journal of Communication*, 60(3), 515–535. <http://dx.doi.org/10.1111/j.1460-2466.2010.01495.x>.
- Knobloch-Westerwick, S., Hastall, M. R., & Rossman, M. (2009). Coping or escaping? Effects of life dissatisfaction on selective exposure. *Communication Research*, 36(2), 207–228. <http://dx.doi.org/10.1177/0093650208330252>.
- Knobloch-Westerwick, S., & Westerwick, A. (2011). Social comparisons at your fingertips: The importance of ingroup/outgroup status. In *WebSci ’11: Proceedings of the 3rd international ACM/ICA web science conference*, article 6. <http://dx.doi.org/10.1145/2527031.2527036>.
- Lampe, C., Ellison, N. B., & Steinfield, C. (2008). Changes in use and perception of Facebook. In *CSCW ’08: Proceedings of the 2008 ACM conference on computer supported cooperative work* (pp. 721–730). <http://dx.doi.org/10.1145/1460563.1460675>.
- Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology*, 73(1), 91–103. <http://dx.doi.org/10.1037/0022-3514.73.1.91>.
- Madden, M., & Zickuhr, K. (2011). 65% of online adults use social networking sites. Pew Internet and American Life Project <<http://www.pewinternet.org/Reports/2011/Social-Networking-Sites.aspx>> Retrieved 10.07.13.
- Mares, M. L., & Cantor, J. (1992). Elderly viewers’ responses to televised portrayals of old age: Empathy and mood management versus social comparison. *Communication Research*, 19(4), 459–478. <http://dx.doi.org/10.1177/009365092019004004>.
- Mastro, D. E., Eastin, M. S., & Tamborini, R. (2002). Internet search behaviors and mood alterations: A selective exposure approach. *Media Psychology*, 4(2), 157–172. http://dx.doi.org/10.1207/S153278XMEP0402_03.
- Mauri, M., Cipresso, P., Balgera, A., Villamira, M., & Riva, G. (2011). Why is Facebook so successful? Psychophysiological measures describe a core flow state while using Facebook. *Cyberpsychology, Behavior, and Social Networking*, 14(12), 723–731. <http://dx.doi.org/10.1089/cyber.2010.0377>.
- Mehdzadeh, S. (2010). Self-presentation 2.0: Narcissism and self-esteem on Facebook. *Cyberpsychology, Behavior, and Social Networking*, 13(4), 357–364. <http://dx.doi.org/10.1089/cyber.2009.0257>.
- Metzger, M. J., Wilson, C., Pure, R. A., & Zhao, B. Y. (2012). Invisible interactions: What latent social interaction can tell us about social relationships in social networking sites. In F. Communeo (Ed.), *Networked sociability and individualism: Technology for personal and professional relationships* (pp. 79–102). Hershey, PA: IGI Global.
- Nielsen Wire. (2012). May 2012: Top U.S. web brands and news websites <http://blog.nielsen.com/nielsenwire/online_mobile/may-2012-top-u-s-web-brands-and-news-websites/> Retrieved 10.07.13.
- Reinecke, L., Tamborini, R., Grizzard, M., Lewis, R., Eden, A., & Bowman, N. D. (2012). Characterizing mood management as need satisfaction: The effects of intrinsic needs on selective exposure and mood repair. *Journal of Communication*, 62(3), 437–453. <http://dx.doi.org/10.1111/j.1460-2466.2012.01649.x>.
- Smock, A. D., Ellison, N. B., Lampe, C., & Wohn, D. Y. (2011). Facebook as a toolkit: A uses and gratification approach to unbundling feature use. *Computers in Human Behavior*, 27(6), 2322–2329. <http://dx.doi.org/10.1016/j.chb.2011.07.011>.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology. Social psychological studies of the self: Perspectives and programs* (Vol. 21, pp. 261–302). San Diego, CA: Academic Press. [http://dx.doi.org/10.1016/S0065-2601\(08\)60229-4](http://dx.doi.org/10.1016/S0065-2601(08)60229-4).
- Suls, J., Gaes, G., & Gastorf, J. W. (1979). Evaluating a sex-related ability: Comparison with same-, opposite-, and combined-sex norms. *Journal of Research in Personality*, 13(3), 294–304. [http://dx.doi.org/10.1016/0092-6566\(79\)90020-5](http://dx.doi.org/10.1016/0092-6566(79)90020-5).
- Thayer, R. E., Newman, J. R., & McClain, T. M. (1994). Self-regulation of mood: Strategies for changing a bad mood, raising energy, and reducing tensions. *Journal of Personality and Social Psychology*, 67(5), 910–925. <http://dx.doi.org/10.1037/0022-3514.67.5.910>.
- Toma, C. L. (2010). Affirming the self through online profiles: Beneficial effects of social networking sites. In *CHI ’10: Proceedings of the 28th international conference on human factors in computing systems* (pp. 1749–1752). <http://dx.doi.org/10.1145/1753326.1753388>.
- Valkenburg, P. M., Peter, J., & Schouten, A. P. (2006). Friend networking sites and their relationship to adolescents’ well-being and social self-esteem. *Cyberpsychology and Behavior*, 9(5), 584–590. <http://dx.doi.org/10.1089/cpb.2006.9.584>.
- Walther, J. B. (2007). Selective self-presentation in computer-mediated communication: Hyperpersonal dimensions of technology, language, and cognition. *Computers in Human Behavior*, 23(5), 2538–2557. <http://dx.doi.org/10.1016/j.chb.2006.05.002>.
- Walther, J. B., Van Der Heide, B., Hamel, L., & Shulman, H. (2009). Self-generated versus other-generated statements and impressions in computer-mediated communication: A test of warranting theory using Facebook. *Communication Research*, 36(2), 229–253. <http://dx.doi.org/10.1177/0093650208330251>.
- Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, 90(2), 245–271. <http://dx.doi.org/10.1037/0033-2909.90.2.245>.
- Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). A review of Facebook research in the social sciences. *Perspectives on Psychological Science*, 7(3), 203–220. <http://dx.doi.org/10.1177/1745691612442904>.
- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin*, 106(2), 231–248. <http://dx.doi.org/10.1037/0033-2909.106.2.231>.
- Wood, J. V. (1996). What is social comparison and how should we study it? *Personality and Social Psychology Bulletin*, 22(5), 520–537. <http://dx.doi.org/10.1177/0146167296225009>.
- Zanna, M. P., Goethals, G. P., & Hills, J. F. (1975). Evaluating a sex-related ability: Social comparison with similar others and standard setters. *Journal of Experimental Social Psychology*, 11(1), 86–93. [http://dx.doi.org/10.1016/S0022-1031\(75\)80013-8](http://dx.doi.org/10.1016/S0022-1031(75)80013-8).
- Zillmann, D. (1988). Mood management through communication choices. *American Behavioral Scientist*, 31(3), 327–340. <http://dx.doi.org/10.1177/000276488031003005>.
- Zillmann, D., Hezel, R. T., & Medoff, N. J. (1980). The effect of affective states on selective exposure to televised entertainment fare. *Journal of Applied Social Psychology*, 10(4), 323–339. <http://dx.doi.org/10.1111/j.1559-1816.1980.tb00713.x>.
- Zywica, J., & Danowski, J. (2008). The faces of Facebookers: Investigating social enhancement and social compensation hypotheses; predicting Facebook and offline popularity from sociability and self-esteem, and mapping the meanings of popularity with semantic networks. *Journal of Computer-Mediated Communication*, 14(1), 1–34. <http://dx.doi.org/10.1111/j.1083-6101.2008.01429.x>.