When Using Facebook to Avoid Isolation Reduces Perceived Social Support

Eun-Ju Lee, PhD1 and Eugene Cho, MA2

Abstract

A survey (N=316) examined how other-directed Facebook use driven by fear of social isolation affects users’ perception of social support they possess. As predicted, those higher on fear of isolation were more likely to (a) closely monitor others’ activities for self-evaluation (i.e., social comparison) and (b) regulate their self-presentation to garner social approval (i.e., other-directed self-presentation), but less likely to (c) express their true inner feelings and thoughts (i.e., inner-directed self-presentation) on Facebook. Social comparison, in turn, lowered perceived social support among heavy Facebook users, whereas inner-directed self-presentation heightened it. Other-directed self-presentation had no significant effect on perceived social support. Results indicate that the desire to avoid social isolation may paradoxically diminish perceived social support by promoting social comparison, while suppressing the expression of true self on Facebook.

Keywords: Facebook, fear of isolation, inner-directedness, other-directedness, social comparison, social support

Introduction

Although Facebook, the world’s most popular social network service (SNS),1 has become the icon of social technology that connects the world, the extent to which people turn to this platform for interpersonal connections and garner desired outcomes varies, depending on personality traits, psychological dispositions, and their usage patterns.2–7 Among various changes facilitated by the ubiquitous connectivity, Turkle8 underscores the tendency to constantly reach out to others to validate one’s own feelings or decisions. Extending Riesman’s notion of other-directedness,9 she argues that as people continue to rely on others’ endorsement on social media for self-affirmation and only show carefully crafted versions of their selves to win social approval, they become increasingly hyper-other-directed.

Despite its intuitive appeal, the claim that the use of SNS uniformly cultivates other-directedness is overly simplistic, especially given the well-documented variances in SNS users’ motivations and usage patterns.10–12 Therefore, we conceptualized other-directedness as a specific Facebook usage pattern and investigated (a) how fear of social isolation13 predicts the extent to which people use Facebook in an other-directed manner and (b) how such usage, in turn, affects perceived social support. Defined as “perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners” (p. 18),14 social support entails both (a) emotional support, such as personal affection and care obtainable from intimate relationships, and (b) operational support, including practical aid needed to solve real-life problems.15,16 Considering that the primary function of SNS is social grooming, which facilitates accumulation of social capital through mutual acknowledgement, impression management, social monitoring, and relationship confirmation,17 and yet, not all SNS users experience such benefits,6,18,19 it demands scholarly attention when and why such differences emerge. Moreover, the findings that social support is significantly associated with subjective well-being, sense of community, and life satisfaction20–22 underscore the importance of perceived social support as a key outcome of SNS use.

What Prompts Other-Directed Facebook Use, with What Effects?

Although Turkle’s8 hyper-other-directedness goes beyond a specific personality trait, it shares the core attributes of self-monitoring tendency. Defined as the extent to which people regulate and control their self-presentation in social situations to give favorable impression,23 self-monitoring tendency is characterized by “concern for the appropriateness of social behavior, sensitivity to important cues, and self-regulation”
In line with (a) the sensitivity to social norms about appropriate behavior and (b) the willingness to adjust one’s self-presentation, we defined other-directed Facebook use in terms of message reception and message production.

First, social comparison refers to the tendency to compare one’s opinions and abilities with those of others for self-evaluation. Social comparison well predates SNSs, but the enhanced capacity to unobtrusively observe others within one’s friends network has prompted researchers to examine how it operates on SNSs. By constantly monitoring what their friends do, think, and talk about on Facebook, and how others respond to it, people can learn what types of behaviors meet others’ approval and disapproval.

Second, other-directedness may also manifest itself in message production. Other-directed self-presentation, a subdimension of self-monitoring tendency, encapsulates the “attempts to act in social situations by displaying what others would like or expect one to display (p. 333).” Other-directedness and inner-directedness represent opposite behavioral standards, such that other-directed individuals rely on expectations of peers for directions, whereas inner-directed individuals turn to their inner values and standards to determine their behaviors. Therefore, we conceptualized (a) other-directed self-presentation on Facebook as the extent to which users consciously regulate their expressive behaviors for social approval and (b) inner-directed self-presentation as the extent to which they reveal their true feelings and thoughts, not constrained by anticipated reactions of others.

The extent to which people engage in other-directed message production and consumption on Facebook, however, is likely to vary across individuals. Both Riesman and Turkle suggested that “terror of loneliness” (p. 170) or “fears of isolation and abandonment” (p. 178) motivate people to turn to media for company. Similarly, spiral of silence theory also posits that the fear of isolation motivates people to “find out which opinions and modes of behavior are prevalent” (p. 144) and control their self-expression accordingly. If fear of isolation is a stable dispositional trait that shows across situations, those higher on fear of isolation, who are more attentive to the media reports of public opinion on current affairs, would also be more attuned to what is “in” among their Facebook friends. In fact, compared to remote, generalized others, those in one’s Facebook network may carry even greater weight in setting attitudinal and behavioral standards for those who fear social isolation.

**H1**: Those higher on fear of isolation are more likely to engage in social comparison on Facebook.

Similar reasoning may well apply to self-presentation. Although (a) the publicness of the interaction context and (b) the high likelihood of future interactions generally heighten Facebook users’ willingness to manage their impression, the extent of controlled self-presentation varied depending on individual characteristics, such as need for popularity. If those especially sensitive to what others think of them use “self-censorship as a form of impression management” (p. 311), those high on fear of isolation would be more other-directed when expressing themselves on Facebook, showing only desirable traits and popular opinions. Given the potential risks and costs associated with revealing one’s true self in social settings, such as public disapproval and increased vulnerability, those who dread social isolation may be less likely to broadcast their inner feelings and thoughts on Facebook.

**H2**: Those higher on fear of isolation are (a) more likely to perform other-directed self-presentation and (b) less likely to exhibit inner-directed self-presentation on Facebook.

Other-directed Facebook use to avoid isolation, however, may not enhance perceived social support. First, social comparison on SNSs tends to diminish users’ psychological well-being; that is, people who spent more time on Facebook were more likely to believe that others were happier and had better lives than themselves and those who observed physically attractive (vs. unattractive) profile photos reported less positive emotions and less satisfaction with their own body images. If social comparison induces the feelings of relative deprivation, it may also make people underestimate the amount of social capital they possess. Indeed, the frequency of content consumption on Facebook predicted lower levels of emotional support and increased loneliness, and those frequently engaging in social comparison on Facebook believed that they were less socially connected than others. Such negative effects of Facebook-based social comparison on self-perception may extend to perceived social support.

Likewise, other-directed self-presentation may also lessen perceived social support. Bargh et al. argued that it is crucial to disclose one’s true self (i.e., the traits or characteristics one possesses, but is not usually able to express) in establishing bonds of empathy and understanding. Indeed, those higher on loneliness and social anxiety reported faster development and greater intimacy of online relationships, but only when they expressed their true self online. If so, those who only display their “made-to-measure representations” on SNSs to impress others may find it more difficult to develop authentic relationships, whereas those who boldly share their inner thoughts on Facebook may manage to build stronger social connections. Supporting this conjecture, honest self-presentation on Facebook heightened social support, and subsequently, enhanced subjective well-being, and the tendency to disclose personal matters and fully reveal oneself on SNSs positively predicted perceived social support.

In assessing these possibilities, to establish that other-directed Facebook use alters perceived social support, not vice versa, we tested if the association between other-directed Facebook use and social support gets stronger as one’s Facebook use accumulates. If the relationships between other-directed Facebook use and social support are more pronounced among heavy than light Facebook users, such results would suggest that the observed changes in perceived social support result from particular patterns of Facebook use, not the other way around.

**H3**: Social comparison on Facebook negatively predicts perceived social support, especially among heavy Facebook users.

**H4**: (a) Other-directed self-presentation on Facebook negatively predicts perceived social support, whereas (b) inner-directed self-presentation on Facebook positively predicts perceived social support, especially among heavy Facebook users.
FACEBOOK AND SOCIAL SUPPORT

Table 1. Factor Analysis of Self-Presentation Items

<table>
<thead>
<tr>
<th>Inner-directed self-presentation</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>When I write Wall posts I am more concerned with “what’s in it for me” than what impression others might get of me after reading the post.</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>My Wall posts are consistent with my ideals and principles, rather than something expected to be popular among my friends.</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td>My Wall posts are usually an expression of my true inner feelings, attitudes, and beliefs.</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>I do not effortfully try to upload things on Facebook that others will like.</td>
<td>0.71</td>
<td></td>
</tr>
<tr>
<td>I tend to write my opinions on Facebook even though they may be radically different from those of others.</td>
<td>0.68</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other-directed self-presentation</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I often upload Wall posts or photos that show me having a good time in social situations (events or gatherings), even in reality I wasn’t particularly enjoying myself then.</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>Even for friends that I personally dislike, I try to leave friendly comments on their Facebook page.</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>I try to upload things that could impress or entertain people on Facebook.</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>The person I appear to be on Facebook does not always reflect my true self.</td>
<td>0.70</td>
<td></td>
</tr>
<tr>
<td>When I update my status, I try to upload contents that could help me foster a likable image.</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>3.02</td>
<td>2.96</td>
</tr>
<tr>
<td>Percentage of variance accounted for</td>
<td>30.23</td>
<td>29.60</td>
</tr>
</tbody>
</table>

Methods

Participants

E-mail invitations were sent to the national panel of a survey company and only current Facebook users were allowed to participate (N = 316; 151 men; Age M = 39.28, SD = 11.30). For the highest degree earned, 207 respondents indicated college (65.5%), 40 high school (12.7%), 38 some college (12%), 22 postgraduate school (7%), 5 some postgraduate school (1.6%), and 4 others. Annual household income was also measured (1 = less than $10,000, 6 = more than $100,000 in increments of $20,000; M = 3.36, SD = 1.23). Along with demographic variables, (a) the number of Facebook friends (M = 89.30, SD = 126.64), which had significant associations with individuals’ subjective well-being and perceived social support,20 and (b) the frequency of face-to-face communication with their family and relatives (1 = never, 7 = all the time; M = 4.94, SD = 1.63), friends (M = 4.57, SD = 1.44), and co-workers/acquaintances (M = 4.59, SD = 1.48) were controlled in the analyses.36

Measures

Facebook use amount. The total amount of Facebook use was computed by multiplying (a) the number of months the respondents had been using Facebook (M = 30.82 months, SD = 15.50) and (b) the amount of time they spent on Facebook daily (M = 52.28 minutes, SD = 53.89). Because of the heavy-tailed distribution (skewness = 2.10), the score was log-transformed (skewness = -0.40).

Fear of isolation (FOI). Participants indicated their agreement with 12 statements, such as “I worry about what other people will think of me even when I know it doesn’t make any difference,” “I am afraid others will not approve of me,” and “Other people’s opinions of me do not bother me” (reverse-coded) (1 = strongly disagree, 5 = strongly agree).37,38

Other-directed versus inner-directed self-presentation. First, items from the other-directed self-presentation scale24,28 were modified to capture how other-conscious and approval-seeking people are when uploading posts and sharing content on Facebook (1 = strongly disagree, 5 = strongly agree). Second, inner-directed self-presentation, which refers to how honestly people disclose their inner feelings and thoughts on Facebook, was measured by modifying inner-directedness items37 and the reverse items from the self-monitoring scale.24,28 An exploratory factor analysis yielded two distinct factors (see Table 1).

Social comparison. Social comparison orientation measure39 was used after slight modifications to fit the context. Items include the following: “On Facebook, I often observe how well others are doing and compare it with my status,” “I often compare how I am doing socially (e.g., social skills, popularity) by watching others’ Facebook profiles,” and “I often visit other people’s Facebook pages to figure out what others in a similar situation would think or do” (1 = strongly disagree, 5 = strongly agree).

Perceived social support. Participants were asked if they had such friends who would provide support in various circumstances (1 = strongly disagree, 5 = strongly agree; see Table 2), including “I have friends whom I can really count on to care about me, regardless of what is happening to me,” “I have friends who accept me totally, including both my worst and best points,” for emotional support (x = 0.95, M = 3.61, SD = 0.76)40 and “There are friends whom I can turn to for advice about making very important decisions,” and “If I needed an emergency loan, I know friends whom I can turn to” for operational support (x = 0.88, M = 3.41, SD = 0.75)41. Emotional support and operational support were highly correlated (r = .85, p < 0.001) and an exploratory factor analysis yielded a single factor (eigenvalue = 7.57, % of variance accounted for = 68.83). Therefore, they were collapsed.
Table 2. Descriptive Statistics of and Intercorrelations Among Key Variables

|                  | 1      | 2          | 3          | 4          | 5          | x         | M    | SD  |
|------------------|--------|------------|------------|------------|------------|-----------|      |     |
| 1. Facebook use amount | 0.32***| 0.32***    | 0.32***    | 0.32***    | 0.19***    | 6.79      | 1.26 |     |
| 2. Social comparison | 0.68***| 0.68***    | 0.68***    | 0.68***    | 0.19***    | 2.68      | 0.79 |     |
| 3. Other-directed self-presentation | 0.30***| 0.30***    | 0.30***    | 0.30***    | 0.11***    | 2.76      | 0.76 |     |
| 4. Inner-directed self-presentation | 0.26***| 0.26***    | 0.26***    | 0.26***    | 0.36***    | 3.23      | 0.70 |     |
| 5. Fear of isolation | 0.23***| 0.23***    | 0.23***    | 0.23***    | 0.27***    | 3.02      | 0.49 |     |
| 6. Perceived social support | 0.23***| 0.23***    | 0.23***    | 0.23***    | 0.08       | 3.52      | 0.72 |     |

*p < 0.05, **p < 0.01, ***p < 0.001

Results

To examine (a) if those higher on fear of isolation are more likely to engage in social comparison (H1) and other-directed self-presentation on Facebook (H2a), but less likely to perform inner-directed self-presentation (H2b), and (b) if such Facebook use alters perceived social support, especially among heavy Facebook users (H3, H4a-b), a moderated mediation analysis was performed using PROCESS macro (Model 14). First, fear of isolation (IV) served as a predictor of social comparison, other-directed self-presentation, and inner-directed self-presentation on Facebook (mediators), with demographic variables, face-to-face communication, and the number of Facebook friends as control variables. Second, perceived social support (DV) was regressed on the three mediators, with the amount of Facebook use as a moderator of the relationship between the mediators and the DV, as well as on the IV and control variables to assess the direct effect of IV (see Table 3).

As predicted, the higher the fear of isolation, the more likely the respondents were to monitor their friends’ activities for self-evaluation (H1), regulate their self-presentation to project a favorable self-image (H2a), and withhold their true self (H2b).

Next, social comparison negatively predicted perceived social support, but only for heavy (M+1SD) Facebook users (see Fig. 1). No corresponding effect was found with light (M−1SD) and moderate (M) Facebook users. Likewise, inner-directed self-presentation positively predicted social support, but only for those with moderate (M) or high (M+1SD) levels of Facebook use (see Fig. 2). Therefore, both H3 and H4b were supported. By contrast, other-directed

Table 3. Moderated Mediation Analyses: Effects of Fear of Isolation on Perceived Social Support via Other-Directed Facebook Use

<table>
<thead>
<tr>
<th></th>
<th>Social comparison</th>
<th>Other-directed self-presentation</th>
<th>Inner-directed self-presentation</th>
<th>Perceived social support</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SE</td>
<td>p</td>
<td>b</td>
</tr>
<tr>
<td>Demographic variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.04</td>
<td>0.08</td>
<td>0.63</td>
<td>0.06</td>
</tr>
<tr>
<td>Age</td>
<td>0.01</td>
<td>0.003</td>
<td>0.10</td>
<td>0.01</td>
</tr>
<tr>
<td>Education</td>
<td>0.05</td>
<td>0.04</td>
<td>0.27</td>
<td>0.03</td>
</tr>
<tr>
<td>Income</td>
<td>−0.06</td>
<td>0.04</td>
<td>0.11</td>
<td>−0.03</td>
</tr>
<tr>
<td>Face-to-face communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With family</td>
<td>0.03</td>
<td>0.03</td>
<td>0.25</td>
<td>−0.01</td>
</tr>
<tr>
<td>With friends</td>
<td>0.12</td>
<td>0.03</td>
<td>&lt;0.001</td>
<td>0.11</td>
</tr>
<tr>
<td>With acquaintances</td>
<td>0.05</td>
<td>0.03</td>
<td>0.08</td>
<td>0.09</td>
</tr>
<tr>
<td>Number of Facebook friends</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>0.38</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Fear of isolation</td>
<td>0.50</td>
<td>0.08</td>
<td>&lt;0.001</td>
<td>0.37</td>
</tr>
<tr>
<td>Facebook use</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Facebook use amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social comparison (SC)</td>
<td>−0.07</td>
<td>0.06</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>Other-directed self-presentation</td>
<td>−0.05</td>
<td>0.07</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>Inner-directed self-presentation</td>
<td>0.18</td>
<td>0.06</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>Interaction terms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC x FB use</td>
<td>−0.11</td>
<td>0.05</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Other-directed x FB use</td>
<td>0.04</td>
<td>0.06</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>Inner-directed X FB use</td>
<td>0.10</td>
<td>0.04</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.19***</td>
<td>0.19***</td>
<td>0.11***</td>
<td>0.36***</td>
</tr>
</tbody>
</table>

Gender (0 = male, 1 = female), Education (1 = less than high school, 2 = high school, 3 = some college, 4 = college, 5 = some postgraduate school, 6 = postgraduate school), Income (1 = less than $10,000/year, 6 = more than $100,000/year in increments of $20,000); Facebook use variables are mean centered.

***p < 0.001.
self-presentation had no significant association with perceived social support, failing to support $H4_a$.

Last, the indirect effect of fear of isolation on perceived social support through other-directed Facebook use was examined in its entirety (see Fig. 3). Fear of isolation had a negative indirect effect via social comparison on perceived social support; among heavy Facebook users ($M+1SD$), $\beta = -0.07$, 95 percent biased-corrected 10,000 bootstrap CI [$-0.1535$ to $-0.0074$]. However, fear of isolation had no significant indirect effect, for moderate ($M$), $\beta = -0.02$, 95 percent CI [$-0.0633$ to $-0.0146$] or light ($M-1SD$) Facebook users, $\beta = 0.02$, 95 percent CI [$-0.0341$ to $0.1082$]. Through inner-directed self-presentation, fear of isolation negatively influenced perceived social support for moderate ($M$), $\beta = -0.03$ to 95 percent CI [$-0.0869$ to $-0.0009$], but not for light ($M-1SD$) Facebook users, $\beta = -0.01$, 95 percent CI [$-0.0392$ to $0.0099$]. Again, other-directed self-presentation did not mediate the effects of fear of isolation on perceived social support, regardless of Facebook use amount.

**Discussion**

Consistent with the warning that our contemporaries "drawn to connections that seem low risk and always at hand" could land in "troubling patterns of connection and disconnection" (p. 178), those fearful of social isolation were more prone to constantly monitor others for social comparison and suppress their true self to appear likeable, but such behaviors ironically weakened their sense of social connection as they spent more time on Facebook. These findings highlight two things. First, the expression of "real me," not constrained by external standards defined by others, is indeed crucial in making interpersonal connections and boost a sense of belonging. Second, users' psychological dispositions not only affect how intensely they use SNSs, but also shape how they use SNSs and gain social capital differentially.
In conceptualizing other-directed Facebook use, we differentiated between message production and message consumption. Just as posting personal information (vs. lurking) heightened a sense of belonging and meaningful existence, self-presentation enhanced perceived social support, whereas social comparison attenuated it. However, not all content productions were equally conducive to elevating perceived social support; two individuals who update their status equally frequently may nonetheless experience different outcomes, depending on how inner-directed their self-expression is. Therefore, to better understand the social implications of Facebook use, it seems crucial to supplement the feature-centered approach to Facebook use (“Facebook as a toolkit”) with a user-centered one that underscores users’ personal goals and intentions behind seemingly identical behaviors.

As predicted, the negative association between social comparison and perceived social support dissipated among light Facebook users. Likewise, the effect of inner-directed self-presentation on perceived social support emerged only among heavy Facebook users. Although reverse causality cannot be completely ruled out, these findings suggest that it is the particular patterns of Facebook use that altered users’ self-assessed social capital; if those feeling deprived of social support were more likely to engage in social comparison and suppress their true self on Facebook, such associations would have shown regardless of the Facebook use amount. Still, future research should confirm this conclusion with longitudinal data.

Some limitations merit note. First, use of self-reports might have invited a social desirability bias, especially for inner-directed self-presentation. By identifying behavioral (e.g., Liking, sharing) and content-based (e.g., humor, current affairs) correlates of other-directed Facebook use, researchers should cross-validate these findings with objectively measurable data. Second, we conceptualized inner- and other-directed self-presentation as separate dimensions. Although the factor analysis justified such treatment and only inner-directed self-presentation affected perceived social support, their relationship needs further conceptual explanation and empirical validation. Due to the overlap between offline and online networks and the presence of heterogeneous audiences, self-presentation on SNSs may not be as malleable as once thought, which restricts variance in general. Third, we focused solely on Facebook, but today’s media users are not only constantly connected but also use multiple media concurrently. Because the degrees and the ways in which people exhibit other-directedness may vary across social media platforms, replications with other SNSs are in order. Last, message production and reception, as part of the ongoing communication process, do not operate independently. To portray a more comprehensive picture, future research should investigate how they influence each other and how various technological affordances of SNSs shape their reciprocal interplay.

The now classic “Internet Paradox” study showed that Internet use led to a decline in social involvement and increases in loneliness and depression, even though participants mostly used the internet for communication. Analogously, those higher on fear of social isolation looked to others for behavioral guidance and regulated their self-expression to win others’ favor on Facebook, and yet, felt more deprived of social resources. Considering the wide range of physical and psychological benefits associated with social support, such as happiness, life satisfaction, better coping ability, and lower rates of disease, the potential risks of other-directed Facebook use via a weakened sense of social support deserve our attention.

Note

a. Based on Hayes, 10,000 bootstrap sampling was used to reduce sampling variation. The confidence interval that does not contain zero indicates a statistically significant effect. For easier interpretation of the effect size, completely standardized indirect effect (β) is reported (p. 99).

Author Disclosure Statement

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