Research Article

Lower Self-Control Is Associated With More Standard, Reputation Management, and Maladaptive Facebook Use

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Abstract: Social media can help fulfill the need for belonging. Past work suggests that frequent or extreme Facebook use can engender costs to the self and relationships, such that self-control may be associated with Facebook use. Indeed, trait self-control was negatively associated with standard, reputation management, and maladaptive Facebook use (Study 1, N = 309), above extraversion, self-esteem, and perceptions of own attractiveness (Study 2, N = 527). Further, trait self-control was negatively associated with actual reputation management behavior online: people with lower (vs. higher) self-control were more likely to post written or image content of themselves vs. a book in a Facebook group (Study 2). Together, results suggest that higher self-control is associated with less Facebook use across the spectrum – standard use (e.g., posting, commenting, changing pictures), reputation management use (i.e., use to manage others' perceptions of oneself), and maladaptive use (i.e., feeling negative affect as a result of comparisons to others online or not receiving positive feedback to one's use).

Keywords: social media, Facebook, self-control, reputation management, maladaptive

Humans have a strong desire for social affiliation (Baumeister & Leary, 1995). This need to belong motivates individuals to behave in ways that evoke positive regard from and acceptance by others (Baumeister, 1982, 2005; Baumeister & Hutton, 1987; Ho et al., 2017). Social networking sites (SNS), such as Facebook, allow people an easy way to promote social interaction and garner acceptance (Bareket-Bojmel et al., 2016; Lee et al., 2014; Seidman, 2013; Syn & Oh, 2015; Utz et al., 2012). Indeed, one of the primary motivators for Facebook use is facilitating interpersonal belonging (Lee et al., 2016; Nadkarni & Hofmann, 2012; Schroeder & Cavanaugh, 2018). Facebook use varies in an extremity of social behavior – from frequent standard use (i.e., posting pictures, writing posts and comments) to use to manage one's reputation (i.e., posting pictures, writing posts and comments in order to make a good impression) to maladaptive use (i.e., wherein users engage in social comparisons and are negatively affected by perceived insufficient positive social evaluations to their posting; Smith et al., 2013). Low self-control appears to be a risk factor for frequent and psychologically problematic Facebook use (e.g., Facebook addiction; Cudo et al., 2020). Nonetheless, no prior empirical investigation has simultaneously examined whether low self-control is associated with Facebook engagement across the spectrum – standard use, use to manage one's reputation, and maladaptive use.

Facebook is one of the most widely used SNS (Facebook, 2019). People use Facebook for many reasons, including for pleasure and social interaction (Lee et al., 2016; Syn & Oh, 2015). Maintaining interpersonal relationships and bolstering social belonging is an essential function of Facebook (Lee et al., 2016; Pai & Arnott, 2013; Nadkarni & Hofmann, 2012; Schroeder & Cavanaugh, 2018). For example, Rousseau and colleagues (2019) report a reciprocal association over time between Facebook relationship maintenance behaviors (e.g., writing posts to wish social partners happy birthday or offering support when they post bad news) and closeness in adolescent friendships, illustrating that Facebook engagement increases closeness among social partners. Indeed, those with larger Facebook networks

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report greater online social support and even life satisfaction (Manago et al., 2012).

In general, one channel to bolster one's feelings of closeness and belongingness is through reputation management strategies (Baumeister, 1982). Specifically, the need to belong motivates an effort to maintain a positive image in the minds of others, and these efforts can vary in the extent to which they require investment in others and provide a real return on investment. For example, having compassionate goals in a relationship (i.e., focusing on supporting others out of concern for their well-being) predicted closeness, increased social support, and trust, whereas self-image goals (i.e., caring about others insofar as it provides oneself with some social benefit) attenuated those effects (Crocker & Canevello, 2008). Social media facilitates connecting to others via less costly efforts.

Facebook gives individuals an opportunity to create and maintain their public persona, for example, by only posting flattering pictures of themselves, actively crafting a Facebook page that shows off the best parts of their lives, or avoiding posting content that might break social norms (Seidman, 2013; Yau & Reich, 2019). Facebook indeed facilitates social connection by way of instantaneous social feedback from friend networks via easy reputation management in the form of control over the images shared and written posts made (Lee et al., 2014; Siibak, 2009).

Beyond standard use and use for reputation management, some Facebook engagement can have maladaptive outcomes. Excessive use of Facebook can affect sleep routines, physical activity, and in-person social interactions which in turn can negatively affect well-being (Reinecke et al., 2021). Although supporting positive social affiliation is a common motivation for Facebook use, maladaptive Facebook use has been shown to negate these effects (e.g., Cudo et al., 2020). Facebook use may become maladaptive once individuals start engaging in social comparisons that make them feel worse about themselves or when they are negatively affected by a perceived lack of positive social evaluations in response to their posts (Smith et al., 2013). In the long term, excess Facebook use as a strategy to connect to and elicit social acceptance from others may also induce opposite effects (Farquhar, 2013; Wolfer, 2014). Specifically, online social partners may form negative opinions of those who frequently post on Facebook for reputation management or maladaptive use and refrain from engaging with their posts (Farquhar, 2013; Wolfer, 2014). Thus, frequent Facebook use may satisfy the goal to belong in the short term but may possibly undermine well-being and connection in the long run.

The key to balancing tradeoffs in using Facebook generally, to manage one's reputation, and in maladaptive ways may be self-control. Self-control is the ability to delay gratification to meet long-term goals or important standards and to regulate emotion, thoughts, expressions, and behavior in accord with long-term goals (Baumeister et al., 2007; Mischel & Underwood, 1974). Here the long-term goal is social connectedness; but if pursued in the short term via excessive or maladaptive Facebook use, that long-term goal can be undermined by the deleterious effects of such use on relationships and well-being. Additionally, here we focus on *trait* self-control.

Offline, high-trait self-control predicts stronger relationships with family and friends (Evans et al., 1997; Hofmann et al., 2014). Extending this line of research to the online world, some work has linked low self-control to excessive social media use, which can be maladaptive in the long run (Cudo et al., 2020; Du et al., 2018). Indeed, Cudo and colleagues (2020) demonstrate that high levels of impulsivity, a dimension of low self-control, are a predictor of Facebook addiction. Additionally, Cudo and colleagues (2021) report that low levels of various other aspects of self-control, such as the ability to suppress unwanted actions, focus on goals, and stay motivated all predict higher levels of Facebook intrusion, including loss of control over Facebook use and interpersonal conflicts as a result of Facebook use. In more extreme cases, individuals who fail to control social media usage exhibit more aggressive thoughts and behaviors offline (Hameed & Irfan, 2021). Although higher levels of individual differences akin to self-control (i.e., conscientiousness, self-regulation) predict less Facebook use (Błachnio & Przepiorka, 2016; Rouis et al., 2011), it is important to directly and simultaneously link self-control to Facebook use across the spectrum (i.e., typical use, reputation management, maladaptive use).

Individuals with low, vs. high, self-control may be especially likely to more frequently use, employ reputation management strategies on, and maladaptively use Facebook. Hence, the current work tests whether trait self-control is negatively associated with standard Facebook use, reputation management Facebook use, and maladaptive Facebook use (Studies 1 and 2). We also expect that people with lower self-control are more likely to engage in real reputation management behavior when posting in a Facebook group (Study 2).

Study 1

Study 1 examined the association between trait self-control and Facebook use across the spectrum – standard Facebook use, reputation management Facebook use, and maladaptive Facebook use. To this end, we created two scales that measure standard Facebook use and reputation management behaviors on Facebook. Data and code are available on the Open Science Framework (OSF) at https://osf.io/9cnxt/ (Maranges, 2023).

Method

Participants

G*power analyses indicated that to have 90% power to detect the effects of $r = -.17$, we would need 290 people (Faul et al., 2007). That effect size is based on the association between trait self-regulation and Facebook use in Rouis and colleagues (2011). In order to increase our power, we collected data from 307 adults representative of the United States population through Qualtrics Panel, a quality online survey service (M_{age} = 47, SD = 16.56; 52.8% women, 47.2% men; 243 White, 54 Hispanic or Latinx, 40 Black, 15 Asian, 6 American Indian or Alaska Native, 3 Native Hawaiian or Other Pacific Islander[1]).

Procedure and Materials

Participants completed an online survey on Facebook Use, Opinions, and Personality, which required that they be current Facebook users. The survey took less than an hour and participants were paid $8 USD. After providing consent, participants responded to measures of trait self-control, standard Facebook use, reputation management Facebook use, and maladaptive Facebook use. All procedures were approved by the Florida State University's Institutional Review Board.

Trait Self-Control

Participants responded to 36 items of the trait self-control scale (Tangney et al., 2004), such as "I am good at resisting temptation" and "I am self-indulgent at times" (reversed) on a scale from 1 = *not at all like me* to 5 = *very much like me*. We averaged across items (M = 3.46, SD = .59, α = .91).

Standard Facebook Use

We created a Facebook Use scale with six items from a larger pool of items on perceptions of and behaviors on Facebook.[2] We chose these items based on prior work establishing that people tend to engage with others on Facebook by writing, posting, liking, and commenting on friends' posts, changing profile pictures, and sharing on Facebook (Gerson et al., 2017; Lee et al., 2016; Syn & Oh, 2015): (1) "I update my profile picture more than once a month"; (2) "I post at least once a day on Facebook"; (3) "I like and comment on my friends' posts"; (4) "I share more on Facebook than I do in real life"; (5) "My Facebook reflects my personality well"; and (6) "I change my profile picture because I change how I am feeling." Participants responded to each item on a scale from 1 = *strongly disagree* to 7 = *strongly agree*. We averaged across items to create a composite score, which demonstrated adequate reliability (M = 3.02, SD = 1.44, α = .86).

We performed an exploratory factor analysis using oblique rotations (direct oblimin) with a minimum eigenvalue of 2 to test whether the items tapped into a single construct.[3] One Standard Facebook Use factor emerged that accounted for 59.68% of the variance with an eigenvalue of 12.71. We also assessed the elbow (i.e., leveling off) of the scree plot slope (see the Electronic Supplementary Material [ESM 1], Figure E1), which supports this conclusion. All variables loaded on this factor above .66.

Reputation Management Facebook Use

We also created a Reputation Management Facebook Use scale based on prior work indicating that people use Facebook to create and maintain positive and socially-acceptable persona (e.g., Bareket-Bojmel et al., 2016; Farquhar, 2013; Nadkarni & Hofmann, 2012; Syn & Oh, 2015) using five items from a larger battery of questions: (1) "I avoid posting about some topics for fear of breaking social norms," (2) "I worry that others judge me based on my Facebook page," (3) "I am afraid of social consequences from posting too much on Facebook," (4) "I only post and allow others to post flattering pictures of myself," and (5) "My Facebook page makes my life seem more exciting and fun that it actually is." Participants used a scale from 1 = *strongly disagree* to 7 = *strongly agree*. We averaged scores across items to create a composite, which demonstrated adequate reliability (M = 2.92, SD = 1.35; α = .77).

We performed an exploratory factor analysis using oblique rotations (direct oblimin) with a minimum eigenvalue of 2 to test whether the items tapped into a single construct. A single reputation management factor emerged that accounted for 52.64% of the variance with an eigenvalue of 9.09. All variables loaded on this factor above .55. We also assessed the elbow (i.e., leveling off) of the scree plot slope (see ESM 1, Figure E2), which supports this conclusion.

Maladaptive Facebook Use

Participants responded to the Maladaptive Facebook Usage scale (Smith et al., 2013), which measures the tendency to rely on online interactions to bolster self-esteem, engage in unhealthy social comparisons, and experience negative affect as a result of insufficient positive feedback. Participants responded to six items on a scale from 1 = *strongly*

[1] Participants could choose more than one race/ethnicity.

[2] The broader survey included additional questions about behaviors such as advertising relationships, investigating others, and using specific features (e.g., games, poking, hashtags); and perceptions about their own use as different than that of family members, a source of pride, and as tiring or energizing, but these were not the focus of the current investigation.

[3] The traditional minimum eigenvalue of 1 (Kaiser, 1960) has received criticism for being too low, such that we decided a priori not to consider explanatory factors with an eigenvalue below 2.

disagree to 7 = *strongly agree*: (1) "I tend to read the status updates of others to see if they are feeling the way I am," (2) "Reading the status updates of others tends to make me feel down on myself," (3) "When I update my status, I expect others to comment on it," (4) "When I update my status and no one comments on it, I tend to be disappointed," (5) "I sometimes write negative things about myself in my status updates to see if others will respond with negative comments about me," and (6) "When I update my status, it does not affect me if no one comments on it (reverse scored)."[4] Scores were averaged across items (M = 2.84, SD = 1.21, α = .71). Implementing this scale allowed us to test both the convergent validity of our new scales and our hypothesis about the association between self-control and maladaptive Facebook use.

Convergent Validity

First, we tested to what extent our measures were correlated with each other and the maladaptive Facebook use scale (Table 1). As expected, scores on the Facebook use scale and on the reputation management scale were moderately-strongly correlated with each other, as well as with scores on the maladaptive Facebook use scale. This suggests that our scales reflect related but separable patterns of engagement on Facebook and that more normal and reputation-managing Facebook use is associated with more well-being-undermining efforts to obtain social regard online. See ESM 1 for factor analyses that suggest the standard Facebook use and reputation management scales do not track a singular construct.

Results and Discussion

We tested whether trait self-control was associated with standard, reputation management, and maladaptive behaviors on Facebook. See Table 1 for correlations. As predicted, self-control was negatively related to each of these, such that people with lower trait self-control reported more standard Facebook use, reputation management Facebook use, and maladaptive Facebook use compared to people with higher trait self-control. In fact, as use became more extreme, the relation with trait self-control became stronger.

We corroborated these results with regression analyses controlling for age and gender. Trait self-control was negatively associated with standard Facebook use, β = −.13, b = −.32, SE = .14, t(303) = −2.35, p = .020, 95% CI [−.590, −.052], even while controlling for the effects of age, β = −.27, b = −.02, SE = .005, t(303) = −4.87, p < .001, 95% CI [−.033, −.014], and gender, β = .03, b = .10, SE = .16, t(303) = .605, p = .546, 95% CI [−.215, .406]. Also, trait self-control was negatively associated with reputation management, β = −.17, b = −.39, SE = .13, t(303) = −2.98, p = .003, 95% CI [−.639, −.131], even while controlling for the effects of age, β = −.18, b = −.01, SE = .005, t(303) = −3.15, p = .002, 95% CI [−.023, −.005], and gender, β = .11, b = .29, SE = .15, t(303) = 1.92, p = .056, 95% CI [−.007, .579]. Finally, trait self-control was negatively associated with maladaptive Facebook use, β = −.22, b = −.46, SE = .11, t(303) = −4.20, p < .001, 95% CI [−.679, −.246], even while controlling for the effects of age, β = −.30, b = −.02, SE = .004, t(303) = −5.50, p < .001, 95% CI [−.029, −.014], and gender, β = .05, b = .13, SE = .13, t(303) = 1.01, p = .314, 95% CI [−.122, .379]. This supports the idea that individual differences in self-control partially account for differences in the use of Facebook, including managing one's reputation in maladaptive ways. However, Study 1 was limited by reliance on self-report, and results might be due in part to other important predictors of online behavior (e.g., extraversion).

Table 1. Correlations among trait self-control, standard Facebook use, reputation management Facebook use, and maladaptive Facebook use (Study 1)

	1	2	3	4
1. Trait self-control	–			
2. Standard Facebook use	**−.18****	–		
3. Reputation Facebook use	**−.20*****	**.57*****	–	
4. Maladaptive Facebook use	**−.28*****	**.63*****	**.62*****	–

Note. N = 307. Significant correlations bolded. **p < .01; ***p < .001.

Study 2

Study 2 improved upon the design of Study 1 by (a) including real behavior and (b) controlling for other individual differences linked with online behavior, including self-esteem (Niemz et al., 2005), extraversion (Blackwell et al., 2017; Correa et al., 2010), and self-reported attractiveness (De Vries & Kühne, 2015).

Method

Participants

Again, we obtained sufficient power (> 90%) to detect the effects of r = −.17. Five hundred thirty American current Facebook users completed a study called Facebook Use and Personality via Amazon's Mechanical Turk (N = 530; M_{age} = 34.04, SD = 10.52; 50.6% women, 49.4% men; 419 White, 64 Hispanic or Latinx, 48 Black, 47 Asian, 12 American Indian or Alaska Native, 2 Native Hawaiian

[4] Due to a coding error, only the first six items were included (missing: "I update my Facebook status multiple times per day").

or Other Pacific Islander). The survey took less than a half hour and participants were paid $3.50 USD for their participation.

Procedure and Materials

As in Study 1, participants responded to the trait self-control (M = 3.47, SD = .67, α = .94), standard Facebook use (M = 3.92, SD = 1.27, α = .79), reputation management Facebook use (M = 3.75, SD = 1.40, α = .79), and maladaptive Facebook use (M = 3.42, SD = 1.13, α = .74) scales.[5] New to Study 2, participants were given the opportunity to demonstrate real Facebook post preferences and behavior.

Posting Behavior on Facebook

Participants were given the option to make a post on our Facebook page (i.e., a social networking research group page). They were told that the group was a community Facebook Group associated with the study and that other participants would be able to see and respond to their posts. We did not specify the number of other participants. They had three options, the first two of which were designed to give participants the opportunity to actively manage their reputations and build social connections, via both written (option A) and image (option B) content. The third choice allowed for a more neutral behavior, sharing about one's favorite book, but is matched in terms of allowing for expression in writing or image form (option C):

(A) Post about yourself

This is all about other people seeing what you post and responding to what you posted. Using words to gather a community around oneself is an important human experience in the modern age. You get to post something, anything, about yourself and ask a related specific or general question for feedback. If you post something positive, others can congratulate and honor you. If you post something negative, others can empathize and console you.

(B) Post an amazing picture of yourself

This is all about posting photos of yourself. Being able to express yourself is an important human experience in the modern age. You get to post any photo of yourself and are welcome to edit it so it most reflects what you want to share. (Here's one of our favorite free editing tools, you can just select edit a photo: – https://www.picmonkey.com/ – or use your own editing tools). Other people in the group can see the best version of you.

(C) Post about your favorite book

This is all about your favorite book. Reading about other people, places, things, information, stories, etc. is an important human experience in the modern age. Post the name of your favorite book. You can post in words a description of your favorite book (a few sentences are fine) or you can post a picture of your favorite book. This allows you to share about yourself and something other people might enjoy.

Control Measures

Participants responded to the Rosenberg Self-Esteem scale (on a scale from 1 to 4, M = 3.06, SD = .65, α = .92; Rosenberg, 1979), extraversion measure from the Ten-Item Personality Inventory (on a scale from 1 to 7, M = 3.82, SD = 1.72, α = .76; Gosling et al., 2003), and two self-perceived attractiveness items that were standardized and averaged (α = .86; "I would say I'm more attractive than ____% of people", M = 50.28, SD = 22.34, and "How would you rate yourself on a scale from 1 to 7, with 1 = *not at all attractive* to 7 = *extremely attractive?*", M = 4.78, SD = 1.21).

Results

First, we examined correlations among self-control and self-reports of standard Facebook use, reputation management use, and maladaptive behaviors on Facebook (see Table 2 for correlations). Replicating Study 1, self-control was negatively related to all three types of Facebook use, with increasingly strong associations from standard to reputation management to maladaptive Facebook use. We corroborated these findings with regression analyses controlling for extraversion, self-esteem, attractiveness, gender, and age. Self-control was significantly associated with standard Facebook use, β = −.16, b = −.30, SE = .10, t(518) = −2.90, p = .004, 95% CI [−.505, −.097], even when controlling for other predictors of online behavior, gender, and age (see Table 3 for entire regression model output). Self-control was also negatively associated with reputation management, β = −.20, b = −.42, SE = .11, t(518) = −3.84, p < .001, 95% CI [−.639, −.206], and maladaptive Facebook use, β = −.23, b = −.39, SE = .09, t(518) = −4.48, p < . 001, 95% CI [−.562, −.219], when taking into account all control variables. See Tables 4 and 5 for regression analysis output, respectively.

Next, we tested the hypothesis that trait self-control will be associated with actual reputation management and belonging-bolstering behaviors on Facebook. Specifically,

[5] We replicated the factor structure of both scales from Study 1 via confirmatory factor analyses as well as the high correlations among the Facebook use scales (Table 2).

Table 2. Correlations among trait self-control, standard Facebook use, reputation management Facebook use, maladaptive Facebook use, extraversion, self-esteem, attractiveness, gender, and age in Study 2

	1	2	3	4	5	6	7	8	9
1. Trait self-control	–								
2. Standard Facebook use	**−.09***	–							
3. Reputation management use	**−.28*** **	**.22*** **	–						
4. Maladaptive usage	**−.33*** **	**.44*** **	**.53*** **	–					
5. Extraversion	**.17*** **	**.21*** **	−.04	.07	–				
6. Self-esteem	**.60*** **	.06	**−.22*** **	**−.24*** **	**.40*** **	–			
7. Attractiveness	**.21*** **	**.09***	.06	.05	**.29*** **	**.39*** **	–		
8. Gender (men = 1, women = 2)	−.05	.08†	**.17*** **	**.09***	−.03	−.04	−.05	–	
9. Age	**.27*** **	−.02	**−.14** **	**−.21*** **	**.11** **	**.20*** **	.03	.06	–

Note. N = 530. Significant correlations bolded. †$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.

Table 3. Regressing standard Facebook use onto trait self-control, extraversion, self-esteem, attractiveness, gender, and age (Study 2)

		Unstandardized coefficients				95% CI for *B*	
Predictor	β	*B*	*SE*	*t*	*p*	Lower	Upper
Trait self-control	**−.16**	**−0.30**	**0.10**	**−2.90**	**.004**	**−0.505**	**−0.097**
Extraversion	**.20**	**0.15**	**0.04**	**4.19**	**< .001**	**0.078**	**0.214**
Self-esteem	.06	0.17	0.17	0.999	.318	−0.113	0.346
Attractiveness	.05	0.06	0.06	0.966	.334	−0.063	0.186
Gender	.08	0.20	0.12	1.85	.065	−0.013	0.413
Age	−.01	0.00	0.00	−0.324	.746	−0.012	0.009

Note. N = 530. df = 524. Significant predictors bolded.

we expected that people with lower (vs. higher) trait self-control would choose to post about themselves or post a picture of themselves rather than a neutral behavior (i.e., sharing about one's favorite book) on Facebook. Three hundred ninety-one participants (n = 391, 74%) opted to participate in the Facebook activity. We conducted a binomial logistic regression analysis with trait self-control as the predictor and reputation management post vs. neutral post choice as the dichotomous outcome variable. Overall, 51.7% of people chose a reputation management post (30.3% social character management [option A], 21.6% image management [option B]), whereas 48.3% chose a neutral post [option C].

As expected, trait self-control was negatively associated with the likelihood of people's choosing to reputation manage via belonging-bolstering sharing or managing a visual image of one's self relative to posting about their favorite book, b = −.33, SE = .16, Wald(390) = 4.31, p = .040, odds ratio = 0.72, 95% CI [.528, .982]. That is, as trait self-control increased by one scale unit, people were 28% less likely to make a reputation managing Facebook post vs. a post that was neutral. When controlling for age, gender, extraversion, self-esteem, and attractiveness, the association with trait self-control became marginal, b = −.34, SE = 0.20, Wald (385) = 2.92, p = .087, odds ratio = 0.71, 95% CI [0.477, 1.052], though it remained the strongest predictor of the likelihood to choose a reputation managing post online (see Table 6 for full output).

General Discussion

Humans have an intrinsic need to belong (Baumeister, 2005; Baumeister & Leary, 1995). Social networking sites (SNS), including Facebook, provide a relatively easy (e.g., compared to investing much time and emotional energy into close others; Crocker & Canevello, 2008) way by which to connect to others and garner positive regard (Lee et al., 2014; Syn & Oh, 2015). Excessive use of Facebook, however, can conflict with long-term goals, including the operative goal of social belonging (Farquhar, 2013; Wolfer, 2014) as well as of health (Du et al., 2018) and psychological well-being (Reinecke et al., 2021; Wright et al., 2018). Accordingly, self-control – the ability to delay gratification to meet long-term goals or important standards and to regulate emotions, thoughts, or their expressions, and behaviors in accord with long-term goals (Baumeister et al., 2007; Mischel & Underwood, 1974) – may be associated with frequency and extremity of Facebook use. In the current work, we tested whether trait self-control was

Table 4. Regressing reputation management Facebook use onto trait self-control, extraversion, self-esteem, attractiveness, gender, and age (Study 2)

		Unstandardized coefficients				95% CI for *B*	
Predictor	β	*B*	*SE*	*t*	*p*	Lower	Upper
Trait self-control	**−.20**	**−0.42**	**0.11**	**−3.84**	**< .001**	**−0.639**	**−0.206**
Extraversion	.02	0.01	0.04	0.353	.724	−0.060	0.086
Self-esteem	**−.15**	**−0.32**	**0.12**	**−2.60**	**.010**	**−0.564**	**−0.078**
Attractiveness	**.16**	**0.24**	**0.07**	**3.61**	**< .001**	**0.111**	**0.375**
Gender	**.17**	**0.47**	**0.12**	**4.12**	**< .001**	**0.248**	**0.699**
Age	−.07	−0.01	0.01	−1.64	.102	−0.020	0.002

Note. N = 530. df = 524. Significant predictors bolded.

Table 5. Regressing maladaptive Facebook use onto trait self-control, extraversion, self-esteem, attractiveness, gender, and age (Study 2)

		Unstandardized coefficients				95% CI for *B*	
Predictor	β	*B*	*SE*	*t*	*p*	Lower	Upper
Trait self-control	**−.23**	**−0.39**	**0.09**	**−4.48**	**< .001**	**−0.562**	**−0.219**
Extraversion	**.16**	**0.10**	**0.03**	**3.51**	**< .001**	**0.045**	**0.16**
Self-esteem	**−.18**	**−0.31**	**0.10**	**−3.18**	**.002**	**−0.504**	**−0.119**
Attractiveness	**.12**	**0.15**	**0.05**	**2.82**	**.005**	**0.046**	**0.255**
Gender	**.09**	**0.21**	**0.09**	**2.25**	**.025**	**0.026**	**0.384**
Age	**−.14**	**−0.02**	**0.01**	**−3.29**	**.001**	**−0.024**	**−0.006**

Note. N = 530. df = 524. Significant predictors bolded.

Table 6. Logistic regression with trait self-control, extraversion, self-esteem, attractiveness, gender, and age predicting reputation management Facebook posting behavior (Study 2)

						95% CI for odds ratio	
Predictor	*B*	*SE*	Wald	*p*	Odds ratio	Lower	Upper
Trait self-control	−0.34	0.20	2.92	.087	0.709	0.477	1.052
Extraversion	0.10	0.07	2.41	.120	1.108	0.973	1.261
Self-esteem	−0.07	0.23	0.10	.747	0.930	0.599	1.444
Attractiveness	0.12	0.13	0.83	.364	1.122	0.875	1.440
Gender	0.07	0.21	0.11	.737	1.071	0.716	1.603
Age	0.00	0.01	0.08	.777	0.997	0.978	1.017

Note. N = 391. df = 385.

associated with standard, reputation management, and maladaptive Facebook use.

We found that people with lower, vs. higher, trait self-control reported engaging in more standard, reputation management, and maladaptive Facebook use across Studies 1 and 2, and this held above and beyond the contributions of extraversion, self-esteem, and perceptions of one's own attractiveness (Study 2). Put another way, individuals with lower self-control were more likely to frequently socially engage with other Facebook users through liking, sharing, and commenting (standard use). They were also more likely to report managing the way they are perceived by others on Facebook, for example, by making their life seem more fun and exciting online than they think it is, only allowing flattering pictures of themselves to be posted, and being careful not to break social norms (reputation management). Finally, individuals with lower self-control were also more likely to report negative affect as a result of engaging in social comparisons and receiving insufficient positive social evaluations from others on Facebook (maladaptive use). Furthermore, low self-control individuals were more likely than those high in self-control to demonstrate actual reputation management behavior via both written and image content on Facebook (Study 2). Specifically, people with lower self-control were more likely to (a) share curated written information about themselves to get social feedback

or (b) post an edited, flattering picture of themselves rather than (c) share about their favorite book.

Implications

The findings of the current work reveal that self-control is associated with engagement on Facebook across a spectrum of use. Importantly, associations with self-control were stronger as the type of Facebook use became more extreme – that is, low self-control was most strongly associated with maladaptive use, followed by reputation management use, with the smallest association with standard use. The implication of this is that self-control may be increasingly necessary to inhibit costly engagement on Facebook, namely, the tendency to use Facebook to manage other people's perceptions of oneself by controlling the content one shares and, especially, the tendency to rely on others to bolster one's self-esteem and positive affect through positive feedback online. Both of these sorts of engagement can be costly in terms of losing engagement from others (Farquhar, 2013; Wolfer, 2014), straining social relationships (Cudo et al., 2020), and decreasing one's psychological well-being (Reinecke et al., 2021; Smith et al., 2013). In this way, self-control is associated with more healthy online engagement.

In other words, one way by which low self-control may put social relationships and emotional well-being at risk is via unhealthy and excessive use of social media. In particular, our results indicate that low self-control was associated with maladaptive Facebook use, which entails obsessing over others' status updates and feedback on one's own pictures and posts and subsequently experiencing negative affect (Smith et al., 2013). Low self-control online is associated with aggression offline (Hameed & Irfan, 2021), and patterns of maladaptive behaviors online are associated with increased psychopathology (Smith et al., 2013; Wright et al., 2018). Accordingly, these findings provide insight for intervening on problematic online behaviors that are associated with poor relationships, personality disorders, mood disorders, and anxiety (e.g., Labrague, 2014; Maglunog & Dy, 2019; Rosen et al., 2013; Tandoc et al., 2015). For example, prior work demonstrates that practicing self-control in one domain, such as in spending and financial decisions or in exercising regularly, can not only lead to improvements in that one domain but in others as well (Oaten & Cheng, 2006, 2007). This can range from the management of substance use and abuse disorders and emotion regulation to healthy eating, the handling of household chores, and study habits (Oaten & Cheng, 2006, 2007). Thus, by practicing self-control on or offline, people with lower self-control may be able to shore up the self-regulatory resources to avoid engaging in maladaptive Facebook use.

Limitations and Future Directions

Notwithstanding the confidence that strong sample sizes and inclusion of control variables provide, several limitations qualify conclusions from this work. First, participants' attributes limit the generalizability of results. Participants were recruited from the United States, were largely White, and the average age of participants was over 30 years. However, the majority of social media users live outside the US and range from 18 to 29 years of age (Pew Research Center, 2017). In addition to extending this research outside of the US and focusing on young adults, it is important that future work focuses on more ethnically and racially diverse individuals given that social media use may be particularly helpful or harmful for people from marginalized groups (Carlson et al., 2017; Marlowe, 2020; Montgomery, 2018). Additionally, participants were recruited via Qualtrics Panel and MTurk, such that they may differ from the general population in terms of technological engagement and motivation for research engagement (i.e., wanting to earn money through research). Verifying the characteristics of these participants can also be difficult. Thus, future research should aim to replicate and extend the current work with in-person participants that may vary more in technological engagement and motivation to participate.

Second, the neutral condition in Study 2 included participants posting about their favorite book, which may be used as a way to manage one's reputation. Moreover, there may be an association between trait self-control and reading performance (Duckworth et al., 2019; Mulcahy-Dunn et al., 2018). That is, one alternative explanation is that people high in self-control more often chose to make the neutral post because on average they have a stronger desire or tendency to read as compared to people lower in self-control. Future work should replicate these associations with a neutral condition that makes it more difficult to reputation manage and cannot be linked to self-control.

Finally, the current work focused on Facebook but not other popular SNS. Facebook offers an environment in which people can use pictures and/or words to reputation manage and by which to compare themselves to others, but other online platforms feature one or the other more prominently. Hence, future work may benefit by examining contextual factors that shape the link between self-control and reputation management and maladaptive behaviors online. For example, photography-based SNS such as Instagram may facilitate instant gratification of the need to belong via image enhancement to manage one's reputation, due to the ease with which individuals can manipulate their images. Furthermore, prior work suggests that the strength of relationships influences self-presentational behavior: motivation to actively manage one's reputation decreases as familiarity and closeness with social partners increases

(Carron et al., 2004; Leary et al., 1994). Accordingly, future research may examine how self-control interacts with the quality of relationships with social media friends to predict self-presentation online.

Conclusion

Across two studies, with self-report and real behavior, the current work demonstrates that people with lower self-control more frequently use Facebook, in the usual way (e.g., updating photos, writing posts, commenting), in ways that manage their reputations, and in maladaptive ways. Moreover, the negative association between self-control and Facebook use was larger for reputation management than for standard use and maladaptive use than for reputation management. This suggests that the more extreme the Facebook use, the more frequently people lower in self-control engage in those behaviors compared to people higher in self-control. The implication is that self-control is associated with a range of social engagement strategies on Facebook, especially those that may not fulfill the need to belong.

Electronic Supplementary Material

The electronic supplementary material is available with the online version of the article at https://doi.org/10.1027/1614-0001/a000397

ESM 1. Figures E1–E4: Scree plots, Studies 1 and 2. Tables E1 and E2: Alternative factor loadings, Study 1. Table E3: Combined factor analysis, Studies 1 and 2.

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Conflict of Interest
The authors have no conflict of interest.

Open Data
Data and code are available on the Open Science Framework (OSF) at https://osf.io/9cnxt/ (Maranges, 2023).

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