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Are sex differences in antisocial and prosocial Facebook use explained by narcissism and relational self-construal?

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ABSTRACT

Previous research has found that some people use Facebook for antisocial purposes, such as for "trolling" or attention-seeking. Conversely, others use Facebook in prosocial, relationship-enhancing ways, such as to increase belonging or to connect with friends. Few studies, however, have investigated differences between men and women in their antisocial and prosocial use of Facebook. The present study sought to address this research gap by examining whether these sex differences might be explained by narcissism and relational self-construal (i.e., the extent to which an individual defines their self in terms of close relationships). To this end, 573 participants living in the United States completed measures of narcissism, relational self-construal, and motives for using Facebook. Results revealed that men reported more antisocial motives for using Facebook than did women, which was explained by their greater narcissism. Conversely, women reported stronger prosocial motives for using Facebook, which was explained by their more relational self-construal. We discuss ways that these findings can contribute to the development of interventions to promote prosocial online behaviour.

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1. Introduction

Logging into Facebook, individuals are afforded a variety of opportunities in how they choose to interact with others. They can engage in attention-seeking or trolling, or reach out to their friends and feel a sense of connectedness and belonging. Do men and women differ in these uses of Facebook? While some researchers have assumed that men and women share the same motives for engaging with others on Facebook (Hargittai, 2007), others have called for further investigation into sex differences in motives for using social networks (Lin, Califf, & Featherman, 2013). To fill this research gap, the present study examined sex differences in the extent of endorsing two types of motives for using Facebook: antisocial motives, such as using Facebook to seek attention or to bully/troll others, and prosocial motives, such as using Facebook to increase belonging and to connect with others. This study sought to understand whether these sex differences could be explained by the extent to which men and women differ in narcissism and self-construal.

We predicted that men would be more strongly motivated to use Facebook for antisocial purposes, in part because their higher narcissism and the resulting greater focus on their self encourages antagonism towards others and the sort of self-aggrandizement that may alienate others (Emmons, 1987; Morf & Rhodewalt, 2001). In contrast, we proposed that women would be more strongly motivated to use Facebook for prosocial purposes, in part because their more relational self-construal — the extent that they define their identity through their social relationships (Cross, Bacon, & Morris, 2000) — and thus their focus on close others (Cross, Hardin, & Gercek-Swing, 2011) encourages their greater engagement in relationship-promoting behaviours (Mattingly, Oswald, & Clark, 2011). Importantly, these findings may contribute to the tailoring of interventions and policies which encourage prosocial online behaviours by promoting more relational ways of interacting while curbing antisocial behaviour. In the following sections, we discuss the ways that sex differences in antisocial and prosocial Facebook motives might be explained by sex differences in narcissism and self-construal, respectively.

1.1. Sex differences in antisocial Facebook use

We focused on two components of antisocial motives for using

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Facebook: attention-seeking and bullying/trolling. Attention-seeking was defined as online behaviour which serves an individual's egoistic concerns of self-presentation in relational contexts (Seidman, 2014). Importantly, attention-seeking on Facebook is construed as a negative gratification (Mäntymäki & Najmul Islam, 2016) as it may decrease perceived social cohesion (Hollenbaugh & Ferris, 2014). In addition, using Facebook for attention-seeking can be conceptualized as antisocial because it is perceived as annoying and the perpetrators as unlikeable (Choi, Panek, Nardis, & Toma, 2015), and has been linked with exhibitionism (Carpenter, 2012). Attention-seeking behaviour may be detrimental to our social circles because it can encourage negative social comparison between individuals, it increases the negative content of posted information, and because it can lead to exploitation without mutual benefits to social capital and social-grooming needs (Carpenter, 2012; Fox & Moreland, 2015; Garcia & Sikström, 2014; Paulhus & Williams, 2002). Previous research has found that men are more likely to use Facebook for self-promotion (Karl, Peluchette, & Schlaegel, 2010), especially to accentuate status and risk-taking tendencies (Tifferet & Vilnai-Yavetz, 1991).

Second, we investigated bullying/trolling, which refers to destructive, disruptive, or deceptive online behaviour that evokes negative emotional reactions in others and has no apparent purpose (Buckels, Trapnell, & Paulhus, 2014; Thacker & Griffiths, 2012). Importantly, trolling can be conceived as a type of cyberbullying (Willard, 2007). Men are more likely to engage in bullying on Facebook (Kokkinos, Baltzidis, & Xynogala, 2016), and trolling online in general (Sest & March 2017) relative to women. However, no research has yet examined *why* men might engage in these antisocial uses of Facebook. In the present study, we hypothesised that narcissism may be a trait that explains men's more antisocial motives for using Facebook relative to women.

Trait narcissism is a form of sub-clinical narcissism that varies within the general population (Foster, Campbell, & Twenge, 2003). Narcissists are self-focused and characterised primarily by their exploitativeness, need for leadership, grandiose self-perceptions, and self-entitlement (Ackerman et al., 2011). They show increased attention-seeking, egotistical biases, nonconformity, hostility, prejudice, and a lack of consideration and tolerance for others (Ackerman et al., 2011; Campbell, Foster, & Finkel, 2002; Campbell, Rudich, & Sedikides, 2002; Hodson, Hogg, & MacInnis, 2009; Miller & Campbell, 2008; Morf & Rhodewalt, 2001; Raskin & Terry, 1988). A recent meta-analysis of 350 studies found that men consistently score higher on measures of narcissism than women (Grijalva et al., 2014). Relatedly, the key characteristics of narcissism suggest that it is one facet of an agentic gender stereotype generally attributed to men (Grijalva et al., 2014). Indeed, whilst they rate themselves highly on agentic traits (e.g., intelligence, extraversion), narcissists tend to undervalue communal traits such as morality and agreeableness (Campbell, Rudich, et al., 2002). Additionally, narcissists tend to respond to negative feedback with derogation (Kernis & Sun, 1994), and their self-representations readily feature aggressive and sadistic elements (Raskin & Terry, 1988). We argue that these characteristics enable narcissists to use Facebook in antisocial ways to meet their self-promotion needs and to counter ego threats (Bushman & Baumeister, 1998).

Accordingly, when narcissists use Facebook, they tend to do so for self-promotion (DeWall, Buffardi, Bonser, & Campbell, 2011; Fox & Rooney, 2015; Ryan & Xenos, 2011) and to elicit attention from their circles (Bergman, Fearrington, Davenport, & Bergman, 2011). For example, narcissists are more likely to post self-promoting content (Buffardi & Campbell, 2008), including frequent Facebook status updates (Ong et al., 2011) and brag about their achievements in their updates (Marshall, Lefringhausen, & Ferenczi, 2015). Notably, narcissists receive less validation in the form of likes and comments the more they post on Facebook, suggesting that their self-promotion behaviours may be perceived as socially unpleasant (Choi et al., 2015). They also tend to seek more social support than they are willing to reciprocate, get angry when social contacts do not comment on their content, and retaliate against negative comments (Carpenter, 2012). Indeed, they are more likely to engage in Facebook bullying (Kokkinos et al., 2016).

In this vein, many of the traits that are descriptive of a narcissist are also descriptive of a bully, such as proneness to aggression and manipulativeness (Locke, 2009), low agreeableness (Bradlee & Emmons, 1992; Karl et al., 2010; Rhodewalt & Morf, 1995), and reactions such as derogation to negative feedback with the intent to re-establish power and self-esteem (Baldasare, Bauman, Goldman, & Robie, 2012; Kernis & Sun, 1994; Rafferty & Vander Ven, 2014; Twenge & Campbell, 2003). Narcissism is also linked with a drive for negative social influence and power, which is the result of selfish behaviour and self-serving interactions (Foulkes, Viding, McCrory, & Neumann, 2014). In turn, this motivation for negative social influence and power also undergirds trolling behaviour (Craker & March 2016), further highlighting how narcissists can meet their need for social influence and power (Ackerman et al., 2011) within a social media context by engaging in such behaviour. Narcissism (by virtue of the exploitative and self-entitled components) has already been linked with cyberbullying (Karl et al., 2010; Kokkinos et al., 2016). Thus, we hypothesised that narcissism would mediate men's use of Facebook for more antisocial purposes.

1.2. Sex differences in prosocial Facebook use

In the present study, prosocial motives for using Facebook were conceptualized as need for belonging and maintaining relationships through connecting and communicating. Prosocial behaviour can include empathic, warm, pro-relationship behaviour that promotes a sense of belongingness and connection between individuals (Dainton & Stafford, 1993; Fehr, Harasymchuk, & Sprecher, 2014). In terms of online prosocial behaviour, individuals may use Facebook to increase their sense of belonging to relevant social groups (Nadkarni & Hofmann, 2012). Women are more likely to use Facebook to maintain existing relationships relative to men (Joiner et al., 2012): they are more likely to use it to express emotional support (Joiner et al., 2014), engage in more prosocial interactions (Buffardi & Campbell, 2008), and to communicate (Junco, 2013; Muscanell & Guadagno, 2012). We hypothesised that sex differences in relational self-construal could explain why women may have stronger prosocial motives to use Facebook than men.

In contrast to the self-focused orientation of narcissists, individuals with a relational self-construal build a positive sense of self by focusing on the well-being of close others and by cultivating successful relationships (Cross, Morris, & Gore, 2002). In Western, individualist cultures, women tend to construct a more relational self than men due to differences in socialization and the prevalence of gendered social norms (Cross et al., 2002; Marshall, 2010). For example, socializing emotional openness in girls relative to boys, or the sex division in caregiving occupations in adulthood, may encourage women to construct and maintain a self that is more aware of others' needs (Cross & Madson, 1997). Indeed, individuals with a more relational self-construal report increased self-confidence when thinking of close others (Gabriel, Renaud, & Tippin, 2007), rate the quality of their relationships more highly (Morry & Kito, 2009), and have more optimistic evaluations of how committed others are to the relationship (Cross & Morris, 2003). Accordingly, when pursuing goals, they take into account the needs, commitments, and desires of others (Gore, Cross, & Kanagawa,

2008). Because individuals with a more relational self-construal engage in more relationship-maintenance behaviours such as sacrificing self-interests, being accommodating, and providing support (Mattingly et al., 2011), we hypothesised that individuals with more relational self-construals would report more prosocial motives for using Facebook.

The present study is the first to investigate the association of relational self-construal with prosocial motives and behaviours online. In terms of its role in antisocial online interactions, relational self-construal is associated with decreased cyberbullying behaviours such as sending infected emails and threatening to release private photographs and information (Çetín, Eroğlu, Peker, Akbaba, & Pepsoy, 2012). Additionally, interdependent self-construal — which is closely linked with a relational self-construal — is associated with using Facebook for belonging (Chang, 2015). Thus, it is logical to surmise that individuals high in relational self-construal would make use of the relationship-promoting opportunities afforded by Facebook, such as engaging in frequent contact with close others to maintain their relationships (Sosik & Bazarova, 2014). Overall, frequent use of Facebook helps to satisfy individuals' relatedness needs (Sheldon, Abad, & Hinsch, 2011), which we posit is particularly important for those who construct their self in terms of their relationships.

1.3. Hypotheses

Hypothesis 1. Men will report greater narcissism than women and, in turn, report greater use of Facebook for antisocial purposes — attention-seeking and bullying/trolling.

Hypothesis 2. Women will report a more relational self-construal than men and, in turn, report greater use of Facebook for prosocial purposes — belonging and connecting.

2. Method

2.1. Participants

573 participants ($M_{age} = 30.79$, $SD = 9.17$) living in the United States completed the measures. Inspection of IP addresses and demographic information revealed two duplicates that were removed from the original sample of 575 participants. Participants indicated their sex (females: 59%). Participants also reported that they actively used Facebook for 107.78 min on average per day ($SD = 121.47$), and 6.46 days ($SD = 2.16$) per week. They reported an average of 304.44 Facebook friends ($SD = 329.44$). Participants reported the following ethnicities: White (77%), Hispanic (6%), African (5%), Mixed (5%), East Asian (2%), Southeast Asian (1%), South Asian (1%), Middle Eastern (1%), Caribbean (1%), and First Nations (1%). Most participants were employed full or part-time (65%), or a full or part-time student (20%). The majority of participants were recruited via Amazon MTurk (90%), and were paid $1.00; the rest were recruited online through web forums and received no payment.[1]

2.2. Materials and procedure

Participants completed demographic questions and the following measures through an online survey.

2.2.1. Narcissism

The 13-item short form of the Narcissistic Personality Inventory (NPI-13; Gentile et al., 2013) assesses three aspects of subclinical narcissism (grandiose exhibitionism, need for leadership, and sense of entitlement/exploitation), with higher scores representing greater narcissism. Participants make a forced choice between two statements; one choice represents higher narcissism and the other less (e.g., "I find it easy to manipulate people" versus "I don't like it when I find myself manipulating people"; $\alpha = 0.73$).

2.2.2. Relational self-construal

The Relational Self-Construal Scale (Cross et al., 2000) is an 11-item scale (1 = Strongly Disagree, 7 = Strongly Agree) which measures the tendency to define the self in terms of relationships with close others (e.g., "My close relationships are an important reflection of who I am"; $\alpha = 0.90$).

2.2.3. Uses of Facebook scale

Items were adapted from several sources (e.g., Hughes, Rowe, Batey, & Lee, 2012; Seidman, 2013) to measure prosocial and antisocial uses of Facebook.[2] The use of Facebook to connect with others and to provide social support (five items; e.g., "I use Facebook "like" and "comment" functions to show support for others") and to belong (eight items; e.g., "I use Facebook to feel included") were highly correlated ($r = 0.50$, $p = 0.001$), and therefore collapsed into a single scale to measure prosocial motives ($\alpha = 0.91$). Seven items ($\alpha = 0.91$) measured the use of Facebook for antisocial purposes such as attention-seeking (e.g., "I use Facebook to show off") and trolling (e.g., "I use Facebook to be mean to people").[3] The items were rated on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree). The prosocial and antisocial items are listed in the Appendix.

3. Results

Descriptive statistics and Pearson's correlations are reported in Table 1. In line with our hypotheses, men reported greater narcissism ($M = 4.47$, $SD = 3.10$) relative to women ($M = 3.67$, $SD = 2.69$), $t(426.61) = 3.11$, $p = 0.002$, $d = 0.28$. Additionally, women reported a stronger relational self ($M = 53.71$, $SD = 12.06$) compared to men ($M = 51.53$, $SD = 11.78$), $t(538) = -2.08$, $p = 0.038$, $d = 0.18$.

We then conducted hierarchical regressions to investigate the association of relational self-construal and narcissism with the two motives for using Facebook (see Table 2). Sex (females = 1, males = −1) was entered in the first step, along with three control variables: age, average daily time spent on Facebook (in minutes), and number of Facebook friends. Narcissism and relational self-construal were entered in the second step. Men reported using Facebook significantly more for antisocial motives, whilst women

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[1] Analyses based on a part of this dataset have been reported elsewhere (Marshall et al., 2015).

[2] These items were drawn from a larger pool of 87 items that measured a broad range of motives for using Facebook as part of a larger research project. Principal axis factoring (PAF) with oblique rotation (direct oblimin) revealed 13 factors with eigenvalues above 1 that together accounted for 66.05% of the total variance in the model. These factors reflected the following motives for using Facebook: closeness, belonging, antisocial, surveillance of an ex-partner, Facebook groups, expressing negative affect, procrastination, obtaining new information, career promotion, games, mating, entertainment, and self-disclosure/sharing positive emotion. The current study focused only on the factors reflecting prosocial and antisocial behaviour; the remaining factors were not germane to the present hypotheses, and therefore will not be mentioned further.

[3] We argue that attention-seeking and showing off on Facebook, a socially aversive behaviour, is distinct from sharing good news and positive affect with Facebook friends. Indeed, our factor analysis revealed that the factor reflecting antisocial motives (which included attention-seeking) was distinct from the factor reflecting self-disclosure and sharing positive emotion.

Table 1
Means, standard deviations, and Pearson correlations. Correlations for females are reported above the diagonal.

	1	2	3	4	5	6
1. Time on Facebook		.04	.04	−.01	.22**	.24**
2. Facebook friends	.05		.04	.17**	−.02	.16**
3. Relational self	.07	-.02		−.16**	.15*	−.04
4. Narcissism	.14*	.04	.01		−.04	.31**
5. FB Prosocial motives	.24**	.09	.37**	.20**		.24**
6. FB Antisocial Motives	.25**	.10	−.03	.42**	.47**	
Mean (females)	121.16	303.59	53.71	3.67	59.01	12.30
SD (females)	120.35	316.68	12.06	2.69	14.28	7.31
Mean (males)	88.28	308.18	51.53	4.47	49.80	15.33
SD (males)	121.07	348.87	11.78	3.10	16.86	9.77
t-values (female-male comparisons)	−3.04*	.16	−2.08*	3.11*	−6.44**	3.86**

Note: $^{**}p < .001$, $^*p < .05$.

Table 2
Associations of relational self-construal with using Facebook for prosocial and antisocial motives.

Model	Prosocial Motives		Antisocial Motives	
	β	p	β	p
STEP 1				
Age	.06	.176	−.18	.001
Sex	.27	.001	−.20	.001
Time on FB	.23	.001	.19	.001
FB friends	.11	.014	.12	.008
R^2	.16	.001	.13	.001
STEP 2				
Relational self	.21	.001	−.04	.302
Narcissism	.07	.116	.28	.001
ΔR^2	.05	.001	.08	.001

reported using Facebook significantly more for prosocial motives. Additionally, narcissism was linked with greater use of Facebook for antisocial motives. Endorsing a relational self was linked with greater use of Facebook for prosocial motives.

To test the indirect effects of sex on using Facebook for prosocial and antisocial motives via narcissism and relational self-construal, we ran bootstrap tests of multiple mediation using Hayes' (2013) PROCESS SPSS script. We entered age, time spent on Facebook daily, and number of Facebook friends as covariates, and narcissism and relational self-construal as simultaneous mediators. Examination of the 95% bias-corrected confidence intervals (CI) from 1000 bootstrap samples revealed support for the hypothesised pathways.[4] The associations of sex with antisocial motives ($B = −.29$, $SE = 0.13$ [CI: −.55, −.05]) were significantly mediated by narcissism. Furthermore, the indirect effects of sex with prosocial motives ($B = 0.38$, $SE = 0.19$ [CI: .09, .84]) were significantly mediated by relational self-construal.

4. Discussion

The present results suggest that men's more antisocial use of Facebook is explained in part by their greater narcissism, whereas women's more prosocial use of Facebook is explained partly by their more relational self-construal. First, confirming previous findings (Carpenter, 2012; Grijalva et al., 2014; Junco, 2013; Karl et al., 2010), men reported greater narcissism, and they were more likely to use Facebook for antisocial purposes. What is novel about the present results is that we showed that narcissism partly

mediated men's greater use of Facebook for antisocial purposes. In terms of men's greater narcissism, one explanation may be that as the result of gender stereotyping, agentic characteristics such as competitiveness, assertiveness, need for achievement, and dominance tend to be encouraged in the socialization of men, and punished in women. Note that the reverse holds for communal characteristics such as a relational self-construal (Grijalva et al., 2014). Thus, narcissism can be perceived as a constellation of exaggerated agentic traits (Grijalva et al., 2014). Relatedly, our results parallel previous findings on distinctions between agentic and communal ways of using Facebook (Horton, Reid, Barber, Miracle, & Green, 2014), and in particular, the link between narcissism and agentic Facebook use.

In turn, the link between narcissism and stronger antisocial motives for using Facebook may be situated within the general tendency of narcissists to hold extremely positive self-views that are reliant on external social feedback (Rhodewalt & Morf, 1995) as well as their hostile and exploitative behaviour (Ackerman et al., 2011; Hodson et al., 2009; Raskin & Terry, 1988). These findings may represent a narcissist's egoistic-orientation when pursuing relational closeness (Park, Troisi, & Maner, 2010) through seeking attention (Seidman, 2014), exaggerating personal importance (Blachnio, Przepiorka, & Rudnicka, 2016), and cultivating a Facebook profile that attracts views and admiration (Davenport, Bergman, Bergman, & Fearrington, 2014), but which is ultimately not concerned with prosocial outcomes. Cyberbullying/trolling may be another strategy for gaining attention (Carpenter, 2012) and thus exerting negative social power and influence (Craker & March 2016) for narcissists. Indeed, our findings provide support for the association of narcissism with self-promotion and cyberbullying (Carpenter, 2012; DeWall et al., 2011; Fox & Rooney, 2015; Karl et al., 2010; Kokkinos et al., 2016; Marshall et al., 2015).

Our findings also suggested that women are less likely to use Facebook to bully and troll others. In this vein, we found that women were also more likely to use Facebook to connect for prosocial purposes. These results are consistent with other findings that underscore women's prosocial motives for using Facebook relative to men: women report having more Facebook friends (Pempek Yermolayeva, & Calvert, 2009), they are more likely to use Facebook for communication (Karl et al., 2010), and to engage in online family activities (McAndrew & Jeong, 2012). Importantly, we found that women's more relational self-construal partly explained why they have more prosocial motives for using Facebook — they strongly emphasize connectedness with others (Cross et al., 2002), whether online or offline. In addition, women's use of Facebook to self-disclose and express positive affect was mediated by their increased relational self-construal, further supporting the use of self-disclosure as a tactic to increase relational intimacy (Park et al., 2010). These findings reflect the tendency of individuals with a

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[4] Unstandardized coefficients are reported for indirect effects, in line with guidelines for reporting unstandardized values in macro testing indirect effects (Hayes, 2009).

more relational self-construal to affirm their sense of self by maintaining harmonious and positive close relationships (Cross, Gore, & Morris, 2003).

4.1. Limitations and further research

This research can provide a springboard for investigating the links between sex, personality, and prosocial and antisocial behaviour online, and we encourage future research to replicate these findings, and address four limitations to highlight additional factors which may contribute to this model. First, the correlational design cannot establish causal links between variables. Longitudinal and experimental approaches, such as priming a relational self-construal (Ferenczi, Marshall, & Bejanyan, 2015; Trafimow, Triandis, & Goto, 1991) could gauge whether it boosts prosocial motives and decreases antisocial motives for using Facebook, not only in women but also in men. Second, the sample consisted of participants from the US who were mostly White. Narcissism is more prevalent in individualistic societies such as the US, which value the development of a distinct and unique self (Foster et al., 2003). Future research should sample low-individualistic populations to examine whether the links found here can be replicated elsewhere. In addition, because participants' self-reported motives may be prone to response bias, future research should obtain more objective ratings of prosocial and antisocial indices of Facebook use, e.g., by coding participants' Facebook profiles (Buffardi & Campbell, 2008).

Finally, it should be noted that the correlation between prosocial and antisocial motives were of a medium effect size. This suggests that prosocial and antisocial motives are unlikely to be mutually exclusive; indeed, individuals may use Facebook for both prosocial and antisocial purposes. Indeed, our findings further support the duality of Facebook use (Mäntymäki & Najmul Islam, 2016). Future research should further examine underlying factors in the situations in which individuals choose to behave prosocially, and the situations in which they choose to behave antisocially, including the roles of psychopathy and empathy (Sest & March 2017), and the drive for negative social influence (Craker & March 2016) in antisocial online behaviour. Despite the limitations of the present research, it contributes to an emerging understanding of sex differences in how individuals choose to use online social networking sites. Importantly, our findings reflect the duality of Facebook use for both prosocial and antisocial motives.

4.2. Conclusion

Overall, men were more motivated to use Facebook antisocially, whilst women were more likely to use it prosocially. These sex differences are a further reflection of the pervasiveness of socialised agentic and communal gender stereotypes in the behaviours of men and women, respectively, even on social networking sites (Cross et al., 2002; Grijalva et al., 2014; Wood & Eagly, 2002). In terms of the practical implications of our findings, recent research indicates that the low empathy of narcissists is not reflective of their inability to empathize, suggesting that interventions which encourage narcissists to empathize (Hepper, Hart, & Sedikides, 2014) may also be effective in reducing their antisocial motives for using Facebook. Coupled with findings that 'anyone' can become a troll in the right context, such as previous exposure to trolling behaviour in an online discussion (Cheng, Bernstein, Danescu-Niculescu-Mizil, & Leskovec, 2017), our findings can help shape interventions which emphasize relational self-construal, thus decreasing the destructiveness of trolling behaviour. Furthermore, promoting a more relational self-construal may encourage motives to use Facebook in socially constructive and harmonious ways

which nonetheless meet fundamental needs for belonging and enable the maintenance of relationships. This research therefore contributes to the crucial conversation of understanding why individuals have antisocial motives for using Facebook, and how to decrease the detrimental aspects of online interactions. Combined with understanding why others interact with others in prosocial ways online, Facebook can become a safer place for all of its users.

Appendix

Uses of Facebook Scale

Antisocial

- I use Facebook to show off
- I use Facebook to make people feel jealous
- I use Facebook to display my wealth
- I use Facebook to be mean to people
- I use Facebook to post sexy pictures of myself
- I use Facebook to make myself seem mysterious
- I use Facebook to badmouth people.

Prosocial

- I use Facebook to communicate with people I do not often see
- I use Facebook to reconnect with people I've lost contact with
- I use Facebook to keep in touch with people
- I use Facebook to see what other people are up to
- I use Facebook "like" and "comment" functions to show support for others
- I use Facebook to feel included
- I use Facebook to feel closer to others
- I use Facebook to make others feel closer to me
- I use Facebook because it makes me feel like I fit in
- I use Facebook to obtain "likes" and comments from others
- I use Facebook to express the way I'd ideally like to be.
- I use Facebook to feel loved.
- I used Facebook because it makes me connected to others.

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