FIRED FOR WHAT YOU POST ONLINE?

A SELF-REGULATORY PERSPECTIVE ON INAPPROPRIATE ONLINE SELF-

PRESENTATION

by

NICOLE L. MUSCANELL

ROSANNA E. GUADAGNO, COMMITTEE CO-CHAIR
JAMES C. HAMILTON, COMMITTEE CO-CHAIR

WILLIAM HART
THOMAS B. WARD
SHUHUA ZHOU

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ABSTRACT

Social media offer the ability to communicate simultaneously to a diverse audience. This creates a risk of sharing inappropriate information that may lead to negative consequences. The present research examined whether failures in self-regulation can explain why some individuals share inappropriate information through social media. Study 1 demonstrated that trait self-control predicted disclosure of self-damaging information on social networking profiles. Individuals low in self-control were more likely to report having posted this type of information. Study 2 tested the effectiveness of an ego-depletion manipulation to be utilized in subsequent studies. In Study 3, individuals with depleted regulatory resources were more likely create mock social networking profiles containing potentially damaging information, regardless of their audience (no audience vs. a low risk audience vs. a high risk audience). Study 4 demonstrated that creating a profile to be seen by multiple audiences influenced performance on a subsequent self-regulatory task. Specifically, creating a profile for multiple social networking audiences led to more time spent creating the profile and worse performance on test questions, suggesting that presentation to multiple audiences may consume more regulatory resources. Finally, Study 5 examined whether being depleted (or not) affected how participants think about their social networking audience (i.e., do they narrowly focus on a small set of social networking friends when they are depleted?). Results reveal that this was not the case. Overall, findings indicate that failures in self-regulation may explain to some extent why individuals share inappropriate information via social media.

LIST OF ABBREVIATIONS AND SYMBOLS

α   Cronbach's index of internal consistency

b   Unstandardized regression coefficient

β   Standardized regression coefficient

df   Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data

F   Fisher's *F* ratio: A ration of two variances

LSD   Fisher's least significant difference

M   Mean: the sum of a set of measurements divided by the number of measurements in the set

N   Sample size

n   Sample size for group

p   Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value

se_b Standard error of the regression coefficient

SD   Standard deviation

t   Computed value of *t* test

<   Less than

=   Equal to

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INTRODUCTION

Don't say anything online that you wouldn't want plastered on a billboard with your face on it.

-Erin Bury, Sprouter community manager

The advent of social networking websites, such as Facebook (www.facebook.com), has accelerated the already rapid growth in the use of the Internet as a means of social interaction. With a reported 500 million users, Facebook is the most popular social networking site (Jain, S, 2010, October) and, in 2010, surpassed Google.com as the most visited website on the Internet (Mui & Whoriskey, 2010, December 31). It is not surprising that such sites have become extremely popular, as they give individuals an inexpensive and efficient way to form and maintain social relationships.

With the rapid growth in the popularity of social networking sites, there has also been an increase in media attention on individuals who have experienced a backlash resulting from their online behavior, including posting questionable photos and status updates. Negative consequences for posting questionable material on sites such as Facebook include being fired from one's job, being expelled from school, and criminal prosecution. For instance, a high school football player was expelled for posting sexually suggestive comments on Twitter (Talty, 2012, January 20). In Minnesota, a nursing student was expelled from his nursing program for posting derogatory language and for referencing alcohol use in his Facebook posts (Hanners, 2013, February 17). A woman was recently fired from her job as a physical therapist for a Facebook post calling her job a "joke" and her co-workers "fake" and "lazy" (Valinksy, 2013, February

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26). And, in Oregon, a young man was arrested after posting on Facebook that he was driving drunk and alluded to being involved in a hit-and-run (Clark, 2013, January 4). These are only a few of many examples of personally damaging self-disclosure on social networking sites within the last few years.

The purpose of the present investigation is to understand why people engage in potentially damaging self-disclosure and self-presentation on social networking websites. To address this question, we employed a self-regulation framework. We argue that some of these instances may be caused by momentary failures in self-regulation. Specifically, we hypothesized that potentially damaging self-disclosure result when the demands of tailoring posts (e.g., self-presentation) to an audience overwhelms available regulatory resources.

Self-Regulation and Self-Control

Self-regulation is a broad concept that refers to a person's ability to govern and alter his or her own emotional, cognitive, and behavioral responses (Baumeister, 1997). In other words, self-regulation can be thought of as a general executive function that allows individuals to engage in goal directed behavior. Self-control is similar in concept, but has been conceptualized as being encompassed within self-regulation (Baumeister, 2002; Hoffman, Schmeicherl, & Baddeley, 2012). Self-regulation is more generally involved with any goal directed behavior (involving both conscious and unconscious processes). Whereas self-control is a form of self-regulation, which involves more conscious and effortful attempts to inhibit impulses and/or resist temptations. Self-control is also often described as willpower. Thus, self-regulation can be thought of as the overarching executive function for guiding behavior, while self-control can be thought of as effortful exertion to complete shorter term goals that may contribute to a larger goal (i.e., studying for an exam instead of going out with friends may help a person earn a good

grade in the short term, but may also help him or her become a better student in the long term).

For the purpose of this line of research, we specifically examine self-regulation by focusing on

the self-control component.

Researchers agree that the ability to exert self-control is key to the basic behavioral

functioning of human beings (Baumeister, 2002; Carver & Scheier, 1998, 2000; Higgins, 1996).

For instance, humans are generally motivated to behave in ways that bring about positive

outcomes or rewards and also avoid things that bring negative outcomes. To do this on a daily

basis, people must consistently change, inhibit, or override habits and impulses in order to

achieve positive outcomes and avoid negative ones. We can refrain from being lazy and instead

put in long hours at work in order to get a raise or a promotion. We can resist temptation and

forego alcohol, chocolate, and fast food in order to shed a few pounds. We can try to think more

positively about a negative situation (such as losing a loved one), in order to feel better

emotionally. These examples all exemplify our unique ability as human beings to exert self-

control and engage in healthy self-regulation.

Self-Regulation as a Resource

Research has suggested that self-regulation is a process that draws from limited resources

(Baumeister, Bratslavsky, Muraven, & Tice, 1998; Muraven & Baumeister, 2000; Vohs &

Heatherton, 2000). There are individual differences in the ability to self-regulate with some

being better at it than others (Calkins & Howse, 2004). More generally, it is not the case that we

are always able to self-regulate at the most optimal level for twenty-four hours a day, seven days

a week. These energy or strength resource models suggest that self-regulation resources can be

temporarily depleted after using them consistently for a period of time. For instance, willingly

refraining from eating something delicious requires an individual to effortfully inhibit the

impulse to eat, which can be a difficult task. Once an individual has effortfully inhibited this impulse, there are temporarily fewer self-regulatory resources available for other challenges. At this point, an individual would have fewer regulatory resources and would be in an "ego-depleted" state, where s/he would be less able to exert self-control.

Currently, it is unknown exactly what resource is being depleted when an individual uses up his/her regulatory resources (Inzlicht & Schmeichel, 2012). For instance research has demonstrated that when regulatory resources are depleted, performance on a wide variety of cognitive, motivational, emotional, and even physical tasks is impaired. The standard paradigm for experimentally examining the effects of ego-deletion is by asking participants to complete two back-to-back tasks. That is, participants first complete a task that requires self-regulatory effort and then differences between those depleted and control participants' performance on a second subsequent effortful task is assessed. Much of the research using this paradigm has demonstrated very wide-reaching effects of ego depletion. For example, after engaging in an effortful task, individuals are less able to tolerate physical pain. When instructed to keep their arm submerged in ice cold water for as long as they can, ego-depleted participants are less able to do so (Vohs, et al., 2008). Muraven and Slessareva (2003) demonstrated a motivational component by showing that providing monetary incentives for engaging in self-control attenuates the ego-depletion effect. And, other research has shown that allowing participants to consume glucose can replenish one's regulatory resources, suggesting a physiological component to self-regulatory resources (Masicampo & Baumeister, 2008). These studies suggest that self-regulation resources may draw from a more general pool of resources which has the capability of affecting a wide variety of behaviors, however, because much of this research has not focused on the specific mechanisms of ego-depletion, little can be concluded about what

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exactly these resources are comprised of. Some have speculated that research should focus on motivation (to inhibit) and attention (to control and reward) to better understand the process by which ego-depletion affects immediate behaviors (Inzlicht & Schmeichel, 2012).

For the purposes of this research, we assume that as much of the research suggests, self-regulatory resources have the ability to affect a variety of behaviors (e.g., cognitive vs. physical). More so, the key component in demonstrating that individuals may be in an ego-depleted state is their willingness and ability to exert self-control after effortfully using their regulatory resources.

Self-Regulation Failure and Self-Damaging Behavior

Because self-regulation utilizes limited resources, there are instances when individuals can experience self-regulation failures, or instances where they cannot self-regulate properly – this can lead to undesirable behaviors. According to Baumeister (1997), one primary explanatory factor for self-destructive and irrational behavior is a breakdown in self-regulation. A number of studies demonstrate that the ability to properly self-regulate predicts positive psychological adjustment (Baumeister, Heatherton, & Tice, 1994; Duckworth & Seligman, 2005; Mischel, Shoda, & Peake, 1988; Tangney, Baumeister, & Boone, 2004). However, when self-regulation fails (or individuals are ego-depleted), this can lead to self-damaging behaviors including violence, procrastination, substance abuse, improper goal setting, and medical noncompliance (Baumeister & Heatherton, 1996; Baumeister et al., 1994). Relevant to the current research, self-regulation has also been experimentally linked to risky behavior (Freeman & Muraven, 2010). Across two studies, participants who had diminished or depleted self-regulation resources were found to make more risky decisions on a choice dilemma task (Study 1) and also to take more risks on a behavior measure, the balloon analogue risk task (Study 2).

In sum, the literature indicates that individuals who engage in self-damaging, risky

behaviors usually do not do so intentionally. Rather, when self-regulatory resources have been depleted, individuals may simply be more likely to engage in behaviors that are self-defeating because they do not have the resources to effectively exert self-control.

Self-Regulation and Self-Presentation

Effective self-presentation requires self-regulatory resources (Vohs, Baumeister, & Ciarocco, 2005). Thus, effective online self-presentation should also require regulatory resources. That is, individuals may share potentially damaging information (e.g., posting inflammatory information about one's boss or job, or posting unflattering photographs) when they lack the resources to self-regulate appropriately. In more general terms, self-regulation failures may lead to less successful self-presentation strategies, which is an important factor underlying the use of social networking sites such as Facebook. This importance can be illustrated by the large focus on the self-presentational aspects of social networking in the literature (Buffardi & Campbell, 2008; Kramer & Winter, 2008; Manago, Graham, Greenfield, & Salimkhan, 2008; Magnuson & Dundes, 2008; Tong, Van Der Heide, Langwell, & Walther, 2008). For instance, research has examined narcissistic self-presentation styles on Facebook (Buffardi & Campbell, 2008), personality variables including extraversion, self-efficacy, and self-esteem as they influence self-presentation on social networking sites (Kramer & Winter, 2008), gender differences in social networking self-presentation (Manago et al., 2008; Magnuson & Dundes, 2008), and self-presentation via friend accumulation on Facebook (Tong et al., 2008), just to name a few examples. This research focus on self-presentation is unsurprising given that social networking sites are essentially an online platform in which individuals can frequently engage in self-presentation to a diverse audience, all with the click of a button.

Several experiments have demonstrated that acts of self-presentation in face-to-face

scenarios require self-regulatory resources (e.g., Vohs, Baumeister, & Ciarocco, 2005). Across eight different experiments, Vohs et al. demonstrated that effortful or active forms of self-presentation (for example presenting oneself in a way that was uncharacteristic) consumed more self-regulatory resources as compared to engaging in less effortful forms of self-presentation (i.e., acting as one is accustomed to in front of others). Additionally, when participant's self-regulatory resources were depleted, they were then less able to effectively present themselves to others. For instance, depleted individuals were more likely to appear as egotistical or to over disclose intimate information about themselves in interactions with others. Thus, it appears that self-regulatory resources do affect whether individuals are able to engage in successful forms of self-presentation. We hypothesized that this link between self-regulation and self-presentation to would extend to online self-presentation, especially on social networking sites, in which one of the main goals is to create favorable impressions upon others. Specifically, we predicted that depleted individuals would be more likely to disclose potentially self-damaging information compared to those who were not depleted.

What About Anonymity and Perceived Audience Online?

There's a famous saying: "On the Internet, no one knows you're a dog" – Peter Steiner. (The New Yorker, 1993). Visual anonymity has been proposed as one of several factors that can lead to questionable online behavior (McKenna & Bargh, 2000). Specifically, the Internet affords its users a level of anonymity they might not otherwise have in face-to-face interactions and this can lead to a deindividuated state (a state of lowered self-awareness), and to undesirable online behaviors (Mendels, 1999). However, it is our contention that the anonymity that the Internet offers is not a particularly good explanation for engagement in risky behaviors on social networking sites like Facebook. First, social networking sites remove the visual anonymity

component (most people have at least one if not multiple photos of themselves and personal contact information available on their profile). Second, while steps can be taken to limit the amount of information being disclosed, Facebook is a very public place where many people can often view each others' virtual actions and information.

Furthermore, as previously discussed, Facebook is a place where many individuals actively engage in self-presentation (Buffardi & Campbell, 2008; Kramer & Winter, 2008; Manago, Graham, Greenfield, & Salimkhan, 2008; Magnuson & Dundes, 2008; Tong, Van Der Heide, Langwell, & Walther, 2008). Thus, it is most likely the case that individuals do not seek out and use Facebook as a means of being anonymous. Generally speaking, it would make little sense for individuals to share potentially self-damaging material on Facebook, especially if the goal is to create a favorable impression upon many other people. This brings up a relevant and important question: If individuals use their social networking profiles to create favorable impressions upon an audience, is it the case then that they are incorrectly perceiving or failing to perceive their audiences when they disclose potentially damaging information? Additionally, with constant changes in Facebook's extensive privacy settings, do individuals make concerted attempts at controlling who can see their information?

Some research partially addresses these questions and has examined Facebook user's information disclosure and privacy concerns. Several studies have found that many Facebook users indeed have concerns about the privacy of material they post (Acquisti & Gross, 2007; Christofides, Muise, & Desmarais, 2009; Debatin, Lovejoy, Horn, & Hughes, 2009). It appears that most users hold at least a general concern for who is accessing their information on Facebook. However, these concerns do not always translate into actions taken to protect their privacy.

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For instance, one study found that while most Facebook users have privacy concerns, they still tend to reveal large amounts of potentially damaging personal information (Acquisti & Gross, 2007). Additionally, these researchers also found that individuals who have a high level of privacy concerns, including concerns about who is accessing their profile, are still very likely to join and become regular users of Facebook as opposed to not joining at all. Among these users, most reported that their privacy concerns were assuaged by being able to control how much information they disclose to others. However, many of these users held misconceptions about how to use privacy settings and about their audiences on Facebook. That is, participants in this study misperceived who their audience was and as well as the general size of their audience – often reporting that they believed their profile to be less visible and their audience to be much smaller than it actually was based on their privacy settings. These findings suggest that operational errors in usage (i.e., not knowing how to appropriately set privacy settings) may partially explain inappropriate self-disclosure and failed self-presentation attempts.

Similarly, Christofides, Muise, and Desmarais (2009) also found that individuals have concerns about their privacy and information disclosure. However, they found that individuals' concerns about controlling access to their personal information were not related to how much information they actually disclose on Facebook. Additionally, participants reported being more likely to disclose larger amounts of personal information on Facebook than they were likely to disclose in general.

Finally, other research has found that despite having privacy concerns on Facebook, users have lax privacy settings because of a self-serving bias that the author's call a *third person* effect (Debatin, et al., 2009). That is, users perceive privacy threats on Facebook as being more likely to happen to other people than to themselves – at least until they actually experience a privacy

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threat directly (e.g., somebody hacks their account). Importantly, even when individuals experience a privacy threat, they are likely to continue using Facebook, though they may change their privacy settings to restrict viewership at that point.

Overall, the evidence suggests that Facebook users have concerns about who is viewing the information they disclose on the website. It is apparent by this evidence that people are generally aware that they are not anonymous on Facebook, although they may have misconceptions about their general audience (Acquisti & Gross, 2007). Yet, it does not appear that many individuals are actually taking effective measures to control the amount or type of information they are disclosing or who can see this information (Debatin & Lovejoy, 2009; Govani & Pashley, 2005). This may explain why individuals post potentially self-damaging information on social networking sites. It may be that users do not fully understand who can see their information because they do not set privacy levels appropriately or they have not directly experienced a privacy threat. What remains unanswered is whether individuals disclose potentially damaging information when they do understand the composition of their audience and, if so, why they do so.

The Present Research

The present research focuses on this question and attempts to demonstrate through five studies, that failures in self-regulation can explain why individuals may engage in fairly public, potentially damaging self-disclosure on social networking websites. In one study, we examined the relationship between trait self-control and self-reported disclosure of potentially damaging information on Facebook. A second study tested the effectiveness of ego-depletion manipulations to employ for Studies 3 and 5. In Studies 3 and 4, we examined self-disclosure to a known audience. Study 3 examined how differences in the ability to self-regulate affected

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information individuals chose to present (i.e., more vs. less potentially damaging disclosure) to a specific audience (no audience vs. low risk audience vs. high risk audience) on Facebook. It was expected that individuals with depleted self-regulatory resources would generate Facebook profiles that included potentially damaging self-disclosure as compared to those with undepleted self-regulatory resources. Study 4 examined whether or not presenting oneself in a demanding scenario (to multiple audiences) consumed more regulatory resources as compared to presenting oneself on Facebook in a less demanding scenario (to a single audience). It was expected that the scenario involving self-presentation to multiple audiences would be more depleting and participants would have more difficulty on a subsequent self-regulatory task. Finally, Study 5 attempted to demonstrate a potential mechanism explaining the relationship between self-regulation and self-presentation on Facebook. Specifically, Study 5 examined whether a failure in self-regulation affects who individuals pay attention to in their Facebook audience? It was expected that when asked to spontaneously recall their Facebook friends, depleted individuals would demonstrate narrowed attention, such that they would recall a smaller subset of their Facebook friends compared with individuals with undepleted resources, who would be able to recall multiple audiences.

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STUDY 1

Research has recently demonstrated that trait self-control is indeed related to individuals'

engagement in many of the activities that occur on Facebook (e.g., posting status updates,

messages, photos, etc.) (Muscanell, Guadagno, & Gitter, unpublished manuscript, 2011).

Specifically, individuals with higher levels of self-control reported engaging less frequently in

general Facebook behaviors (e.g., sending friend requests, posting status updates, sharing photos,

etc.). Following up on this, we conducted a study to establish that a relationship exists between

individuals' self-reported trait level of self-control and past engagement in potentially self-

damaging disclosure on Facebook. As noted previously, the ability to exert self-control is the

hallmark example of being able to self-regulate properly. If trait self-control is related to

participant's reported disclosure of potentially damaging information, then this should provide an

initial link between self-regulation and potentially damaging self-presentation on social

networking sites.

It was expected that individuals' trait level of self-control would predict disclosure of

potentially damaging information on Facebook, such that individuals lower in self-control would

be more likely to report ever having disclosed potentially damaging information on Facebook as

compared to those with higher levels of self-control. Secondly, it was expected that trait self-

control would predict the frequency of potentially damaging self-disclosure on Facebook, with

individuals lower in self-control disclosing potentially damaging information more often than

those higher in self-control.

STUDY 1 METHODOLOGY

Participants

Data for this study were collected across two time points. During the first time point we recruited 200 undergraduate students (38 men, 162 women), most of whom were Caucasian (82%), with a mean age of 19 ($SD = 1.12$). At time two, returning participants were 91 undergraduate students (19 men, 72 women), most of whom were Caucasian (84.6%), with a mean age of 19 ($SD = 1.34$). Thus, we had a 45.6% response rate at time 2. Participants completed this study for partial fulfillment of a course requirement.

Procedure

Participants completed the study measures in two online surveys from a location of their choice. They were informed that the purpose of the study was to learn more about general use of online social networking sites. At time 1, participants completed a survey containing the trait-self control scale (Tangney, Baumeister, & Boone, 2004). This was embedded within a survey including other personality and individual difference measures that served as fillers. Several weeks later, participants were invited to complete a second online survey assessing their disclosure of potentially self-damaging information on Facebook. Potentially self-damaging disclosure was operationally defined as any disclosure of information on Facebook that has the potential to lead to actual negative consequences (such as being fired, expelled, or arrested) beyond the mere disapproval of others.

Finally, other items relating to general Facebook use, Facebook friends, Facebook privacy settings, and Facebook information disclosure were included.

Measures

     Trait Self-Control Scale (Tangney, Baumeister, & Boone, 2004). The TSCS is a 10-item scale that measures the extent to which individuals typically exert self-control (i.e., "I am good at resisting temptations", where 1 = *not at all,* and 5 = *very much*). See Appendix A.

     General Facebook use (Muscanell & Guadagno, 2012). Participants completed items assessing information on participants' general use of Facebook, including daily usage and the general composition of their Facebook friends (to what extent participant's Facebook friends consisted of good friends, relatives, acquaintances, people they have never met, co-workers, employers, teachers/instructors, and so on).

     Privacy Concerns. Participants were asked to report their level of concern with who has access to their information, concern over specific types of information that might be seen, and overall satisfaction with the privacy settings available on Facebook.

     Privacy Settings (Acquisti & Gross, 2007). Participants were asked to indicate what their current level of privacy settings are (Choices are as follows: *Everyone, Friends of Friends, Friends and Networks, Friends Only, Customized* – presented from the lowest amount of privacy to highest). Additionally, participants were asked whether or not they had ever changed their privacy settings and, if so, why. Finally, participants answered questions about how visible and searchable they believe their profile to be. Example items include ("*How many people can search for your profile?"*, with the following answer choices: *a few hundred, a few thousand, tens of thousands, hundreds of thousands, millions*).

     Information Disclosure. Participants were asked to indicate what specific types of information they have made available on their profile page (including: gender, political affiliation, birthday, religion, relationship status, photographs, education and work information,

favorite quotations, favorite movies, books, music, games, TV shows, Facebook groups, activities and interests, and contact info (including hometown, current town, email, address, phone number, instant message screen name, websites).

Interpersonal Privacy Management (Stutzman & Kramer-Duffield, 2010). Participant's completed questions that assessed the extent to which they have attempted to control their own information disclosure via managing others' Facebook disclosure. Example items include ("*Have you asked someone to make private a Facebook photo containing your image?*", "H*ave you untagged yourself from a Facebook photo?*", "*Have you deleted a wall post someone else left on your wall?*").

Self-Damaging Disclosure on Facebook. We generated a measure of self-reported risky Facebook behavior. Participants reported their engagement in posting the following types of risky content: use of alcohol and illegal drugs, sexual material, politically charged material (e.g., politics, religion, race), negative/inflammatory posts about work, co-workers, employers, other affiliated professional groups, violent/aggressive posts, posts containing profanity, posts alluding to illegal behaviors (e.g., vandalism, burglary/theft, trespassing). Example questions included ("*Have you ever posted any negative comments or status updates about your job/boss/superior?*", "*Have you ever posted info/photos on Facebook that disproved a claimed illness?*", etc.). Each question assessed whether or not the participant had posted this type of information (yes or no) and also how often on a scale ranging from 1 to 7 (where 1 = never or not very often, 7 = very often). Additionally, we asked participants to rate how risky they perceived these behaviors to be (where 1 = *not very risky*, and 7 = *extremely risky*). Finally, we assessed whether or not participants' engagement in any of these behaviors actually led to real life negative consequences.

STUDY 1 RESULTS

We had a surprisingly high rate of attrition (less than half of our participants returned for the second survey), which might have biased our sample. We conducted a one-way analysis of variance comparing completers vs. non-completers to determine if trait self-control had any affect on attrition. We found a significant effect of retention, $F(1, 198) = 14.21$, $p < .001$, $\eta^{2} = .07$, such that individuals who returned for the second survey had significantly higher self-control as compared to those who dropped out ($M = 3.21$ vs. $M = 2.80$).

With these attrition concerns in mind, we conducted our proposed analyses to determine whether or not self-control would be a predictor of self-reported disclosure of potentially damaging information on Facebook. We conducted a series of logistical regression analyses with trait self-control as the predictor and the categorical reports of potentially damaging disclosure as the DV (have you posted this type of information?, yes or no). See Table 1 for a condensed version of the logistical regression results. Overall, we found that self-control predicted several of the categorical outcome measures, such that individuals lower in trait self-control were more likely to report having previously posted material portraying alcohol consumption, $\beta = -3.39$, $se_b = 1.24$, Wald (1, df) = 7.44, $p = .006$, inflammatory/negative comments about work, co-workers, or professional affiliations, $\beta = -3.13$, $se_b = 1.14$, Wald (1, df) = 7.68, $p = .04$, and posts containing profanity, $\beta = -3.36$, $se_b = 1.66$, Wald (1, df) = 4.07, $p = .04$.

Several other measures of potentially damaging disclosure were related to self-control but were not statistically significant. These results trended in the predicted direction such that individuals lower in trait self-control were more likely to report having previously posted

material that was sexual, β = -2.06, se_b = 1.16, Wald (1, df) = 3.15, p = .07, posts that were

sexual but not involving the self, β = -1.66, se_b = .89, Wald (1, df) = 4.41, p = .06, and posts

involving engagement in illegal behaviors, β = -4.14, se_b = 2.18, Wald (1, df) = 3.59, p = .06.

We also conducted a series of linear regression analyses with trait self-control as a

predictor of the frequency of potentially damaging disclosure on Facebook (how often have you

posted this type of information on a scale of 1 = not at all to 7 = very often). However, self-

control did not significantly predict any of these continuous measures. Finally, we conducted a

series of linear regression analyses with trait self-control as a predictor of time spent on

Facebook (daily usage), and measures assessing information disclosure, privacy concerns and

settings, audience composition, and interpersonal privacy management. None of these tests

yielded significant effects.

STUDY 1 DISCUSSION

Overall, we found evidence indicating that self-regulation plays a role in the type of information people post on Facebook. Consistent with our expectations, we found that self-control predicted whether or not individuals had previously disclosed potentially damaging information that could lead to tangible consequences. Individuals lower in trait self-control were more likely to report having disclosed several types of potentially damaging information such as inflammatory comments about work. Surprisingly, trait self-control did not predict the frequency of these types of posts. Nor did it predict other variables that may be related to individual's self-presentation and disclosure on Facebook (privacy and audience concerns). However, upon further reflection, this actually makes some sense. That is, disclosure of potentially damaging information on Facebook is likely not a common, or routine type of behavior that individuals engage in on an everyday basis, such that they would report doing so very often on our measure. Furthermore, self-regulation failures may explain why individuals engage in these less than desirable styles of self-presentation on Facebook, given that individuals are utilizing Facebook during these states of low self-control. It may be the case that instances of inappropriate self-disclosure are occasional blunders, experienced in a temporary moment of self-regulation failure when individuals happen to be using Facebook, as opposed to being the standard of how people behave on Facebook. In further support of this notion, self-control did not predict amount of time spent using Facebook. That is, these results do no suggest that low self-regulatory resources cause individuals to use Facebook more, leading to increased chance of inappropriate disclosure.

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Thus, we suggest that self-control predicts whether participants have ever disclosed potentially damaging information, but not necessarily how often they do because it is unlikely that this is something that individuals do very frequently.

Finally, less than half of our participants returned to complete the second survey, and importantly those who did return had higher levels of trait self-control. This may explain in part why we did not find links between self-control and factors that in theory may be related to what people choose to present on Facebook (i.e., privacy and audience concerns). Given that we were left with a sample that was demonstrably higher in self-control, we may not have had enough variability in this measure to detect many differences in some of our dependent variables. For this reason, we explored our main research question using experimental paradigms in order to achieve more controlled and direct comparisons with our variables of interest.

STUDY 2

We conducted a second study to test the effectiveness of ego-depletion manipulations that could be utilized within the subsequently proposed research. Specifically, failures in self-regulation can be produced experimentally by employing an ego-depletion manipulation. Ego depletion manipulations create a temporary state in which individuals' self-regulatory resources are diminished and as a result they demonstrate less self-control (Muraven & Baumeister, 2000).

The ego can be depleted in multiple ways (Baumeister, 2002). Previous manipulations include resisting temptation and delaying gratification, esteem threats (e.g., being socially rejected), emotion regulation, thought suppression, autobiographical narratives (writing about past regulatory successes or failures), and making a long series of choices or decisions. In this pilot study, we tested two ego-depletion manipulations in order to assess their general effectiveness. These manipulations allowed us to compare individuals with undiminished regulatory resources to individuals with diminished amounts of resources (or higher vs. lower levels of self-control) on their performance on a standardized test.

STUDY 2 METHODOLOGY

Participants

A total of 66 undergraduate students (18 men, 48 women), most of whom were Caucasian (68%) completed this study for partial fulfillment of a course requirement. Participants' mean age was 19 ($SD = 4.68$).

Procedure

Upon arriving to the lab, participants were told that we were interested in examining how concentration affects problem solving. They were informed that we would examine this through two unrelated tasks. Each participant was randomly assigned to one of two conditions: ego-depletion vs. control (no depletion). Those in the ego-depletion condition were then randomly assigned to one of two types of ego-depletion manipulations, the e-task manipulation (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Freeman & Muraven, 2010; Wheeler, Brinol, & Hermann, 2007) or attention control video manipulation (Gailliot et al., 2007; Gilbert, Krull, & Pelham, 1988; Smeichel, Vohs, & Baumeister, 2003).

In the e-task ego-depletion manipulation, participants were asked to engage in a concentration task that required them to cross out all instances of the letter -e- on a page of meaningless text (a page of text from a graduate level statistics book) for 5 minutes. By repeatedly crossing all instances of this letter, this allowed participants to form a simple behavioral habit. Immediately following, participants in the ego-depletion condition were asked to cross out all instances of the letter -e-, except for those that appear next to another vowel, or one letter away from another vowel (also for 5 minutes). This second part of the task required

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participants in the depletion condition to follow complex rules that override their previously learned habit. Participants in the control condition were simply asked to engage in a task that was pretty much the same as the first task—they continued to cross out all instances of the letter -e- on a new page of meaningless text, but were not required to break their formerly learned habit.

Participants who were assigned to the attention control video manipulation were asked to engage in a concentration task in which they watched a 6-minute video of a woman being interviewed (no sound available). At the bottom of the screen, a series of words flashed across the screen– words irrelevant to the interview. Participants in the ego-depletion condition were instructed to specifically direct their attention away from the words and focus only on the woman. This task requires self-regulation resources in that participants must manage their attention and redirect it back to the interview if they become distracted by the words. Participants in the control condition were <u>not</u> given any instructions about where to direct their attention.

After completing the relevant manipulation task, we informed participants that we would like them to partake in a second unrelated study examining problem solving, which would require them to complete a series of standardized test questions (adopted from Clark, Eno, and Guadagno, 2011). Previous research has shown that ego-depletion manipulations typically lead to impaired performance on variety cognitive tasks, including ones that involve problem solving and logical reasoning (Baumeister et al., 1998; Freeman & Muraven, 2010; Smeichel, Vohs, & Baumeister, 2003). Each participant completed both reading comprehension and analytical problems (10 verbal problems, and 10 quantitative problems). All participants were thoroughly

debriefed. It was predicted that those in the two ego-depletion conditions would have more difficulty in solving the standardized test questions correctly.

STUDY 2 RESULTS

A two-way analysis of variance was conducted, including depletion condition (ego depletion vs. control) and task (e-task vs. attention control video) as independent variables and performance on the test questions as the dependent variable (number correct out of 20 problems). Overall, there was a significant main effect of depletion condition, $F(3, 62) = 18.47$, $p < .001$, $\eta^2 = .23$. Specifically, individuals in the depletion conditions answered fewer problems correctly as compared to individuals in the control conditions ($M = 7.65$, $SD = 2.79$ vs. $M = 10.85$, $SD = 2.87$). There was no effect of depletion task type on test performance, nor was there a significant interaction effect between condition and task type. See Figure 1.

STUDY 2 DISCUSSION

Overall, results demonstrated that both of our ego-depletion manipulations were effective in producing differences in self-regulatory resources. It also demonstrated that the GRE task is sensitive to the ego depletion effects. Specifically, in both tasks, depleted individuals performed worse on the test questions (answering fewer questions correctly) as compared with individuals who were not depleted. This suggested that either manipulation would be effective to employ within our proposed research.

Next, a series of studies were conducted to demonstrate that momentary failures in self-regulation explains the propensity for individuals to engage in a style of self-presentation that is more risky, and potentially self-damaging on Facebook.

STUDY 3

Study 3 examined whether or not differences in the ability to self-regulate would predict how individuals choose to present themselves (i.e., more vs. less potentially damaging disclosure) to a specific audience (no audience vs. low risk vs. high risk) on Facebook. We predicted that individuals with depleted self-regulatory resources would generate Facebook profiles that included more potentially damaging self-disclosure compared to those with undepleted resources. Specifically, we predicted that depleted individuals would be more likely to disclose potentially damaging information in a Facebook profile that was to be presented to a specific audience (regardless of whether or not the audience was low or high risk) compared to control participants. We predicted that depleted individuals would not have the self-regulatory resources to tune their self-presentational style to their specific audience. Additionally, we predicted that depletion would also affect time spent creating the profile and amount of disclosure. That is, depleted participants would spend less time and disclose less information because of their diminished resources. Finally, we predicted that control participants (not depleted) would be more affected by their audience and would disclose less potentially damaging information to a high risk vs. a low risk audience.

STUDY 3 METHODOLOGY

Design

       This study used a 2(depletion: ego depleted vs. control) X 3(audience: no audience vs. low risk vs. high risk) between subjects factorial design. The low risk audience was operationalized as similar others, who would be less likely to find the participant's Facebook profile inappropriate and who could not adversely affect the participants (other university undergraduates). The high risk audience was operationalized as one consisting of others who would be more likely to find their Facebook posts inappropriate and who could potentially adversely affect the participants (university professors). Participants were randomly assigned to condition upon arriving to the lab.

Participants

       Participants were 177 undergraduate psychology students (75 men, 102 women; M_{age} = 19, SD = 1.23; 81% Caucasian) who were recruited from the subject pool for the study. Participants received credit towards a course requirement.

Procedure

       Participants were told that the purpose of the study was to examine how people create and also evaluate social networking profiles. Participants were led to believe that the researchers were working in collaboration with Facebook's data scientists to learn more about how individuals create profiles and how other people evaluate profile information. The experimenter informed participants that they would be asked to create a profile in our software system (which was simply our data collection software, RiddleMeThis; Loewald, 2011) so that they would not

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have to log in to and/or change anything on their real Facebook profile. Participants were also given information about who would ostensibly see this profile. Those in the low risk audience condition were told that because Facebook is a place where peers and similar others often go to interact with each other, we were particularly interested in how similar individuals, in this case undergraduates at the university, evaluate each other's Facebook profiles. Alternatively, those in the high risk audience condition were told that, because Facebook is increasingly becoming an environment that professors are more frequently using it as a means of getting their students more involved in class activities, we were interested in how professors at the university actually evaluate student's profile pages. Those in the no audience condition were told that we were interested in testing a new program for creating a Facebook profile and that we needed their help creating a profile to make sure there were no kinks in the system, but that nobody would be evaluating the content of their profile. The experimenter informed participants that once they were finished creating the profile, Facebook's data scientists would quickly put together their profile in standard form and the link to this profile would be immediately shared [with other undergraduates here at UA via a student listserv / other professors here at UA via a faculty listserv / or nobody] based on condition.

At this point, after introducing the purpose and brief instructions, we asked participants if they would first be willing to help test out an unrelated task for an upcoming study. Participants completed the ego-depletion manipulation (the e-task validated in Study 2). After completing the ego-depletion manipulation, participants created their Facebook profile. Participants were presented with a number of standard Facebook profile sections including work and education background, likes and interests, activities, favorite movies, music, books, etc. We also informed participants that Facebook was interested in testing out several new profile sections. These new

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sections that they could fill out included several risky categories that we believe exemplified potentially damaging self-disclosure (favorite bars, favorite alcoholic beverages, favorite swear words, celebrities they would like to have sex with, the craziest thing they have ever done, and also an open-ended disclosure section – where participants could include any information they wanted). We included the categories relating to alcohol use, profanity, and celebrities they would have sex with based on real life examples in which individuals have faced negative consequences for posting about alcohol use and profanity (Hanners, 2013, February 17), and sexually suggestive content on Facebook (Talty, 2012, January 20). The latter categories (craziest thing they have ever done and the open disclosure sections) were included to examine more spontaneous forms of self-disclosure that could be potentially self-damaging.

There were a total of 20 profile sections, 5 of which were specifically riskier topics that could elicit potentially damaging self-disclosure. For each section of the profile, participants indicated whether or not they wanted to fill out or add any information in that particular section and if they indicated they would like to include that section, they were presented with an open-ended box where they specified what specific textual information they would like to add. Towards the end of the study, we asked participants to fill out a short questionnaire, which included a manipulation check. Specifically, we asked them to report who their audience was and also to rate their general level of suspicion. All participants were thoroughly debriefed and dismissed.

STUDY 3 RESULTS

Only the 174 participants who did not report suspicion and who successfully answered

the audience manipulation check were included in the final analyses.[1] The dependent variable

was assessed in several different ways. First, we examined the effects of depletion and audience

on participants' inclusion of potentially risky profile sections. Secondly, we examined the type

of information that participants indicated they would include in the various profile sections. We

measured the amount of time spent creating the profile, and also, the overall amount of

information provided to determine what effects the experimental manipulations had on

persistence and effort in the profile creation task. Finally, we examined the actual content of the

risky sections of the profile to ensure that individuals were actually disclosing information

consistent with the sections they elected to include in their profiles.

Risky profile sections completed. We conducted a two-way (depletion: ego depleted vs.

control) X (audience: no audience vs. low risk vs. high risk) ANOVA examining the number of

risky sections that participants included in their profiles (See Table 2 for means by condition).

There was a main effect for depletion condition, $F(1, 168) = 139.81$, $p < .001$, $\eta^2 = .45$.

Specifically, individuals who were depleted included more risky sections than control

participants ($M = 1.96$, $SD = 1.19$ vs. $M = .37$, $SD = .54$). The interaction effect of depletion and

audience condition was nonsignificant. We also calculated the proportion of risk to total profile

sections completed and conducted the same analysis using the proportion as the dependent

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[1] Three participants were excluded from the final analyses because they knew the experiment
hypotheses.

variable. Again, there was a main effect for depletion condition, $F(1, 168) = 146.61$, $p < .001$, $\eta^2 = .47$. Depleted participants had a higher proportion of risky to total profile sections than control participants ($M = .16$, $SD = .08$ vs. $M = .03$, $SD = .05$). Surprisingly, there was no main effect of audience condition on risky sections completed or risky to total sections completed, nor was there an interaction effect.

Total profile sections completed. Given the above findings, we wanted to determine whether or not depleted individuals would also be more likely to complete the profile sections overall. We conducted the same analyses using number of total sections completed as the dependent variable (See Table 2 for means by condition). There was a main effect of depletion condition, $F(1, 168) = 18.99$, $p < .001$, $\eta^2 = .10$. Depleted participants completed more sections than control participants ($M = 11.67$, $SD = 4.06$ vs. $M = 9.45$, $SD = 3.55$). There was also a main effect of audience condition, $F(1, 168) = 13.24$, $p < .001$, $\eta^2 = .14$. A Fisher's LSD post hoc test demonstrated that individuals with a low risk audience completed more profile sections compared to those with no audience ($M = 11.27$, $SD = 3.51$ vs. $M = 8.49$, $SD = 3.47$), $p < .001$. Additionally, those with a high risk audience completed more profile sections compared to those with no audience ($M = 11.53$, $SD = 4.13$ vs. $M = 8.49$, $SD = 3.47$), $p < .001$. High and low risk audiences did not differ, and there was no interaction effect of depletion and audience condition.

These results suggest that depleted participants were disclosing more overall (risky and standard profile information). Thus, we more closely examined the effort that individuals put into creating their Facebook profiles. We conducted several ANOVAs using the amount of time spent on risk sections, time spent on the whole profile (and the proportion or risky to total

sections), word count in the risky sections, total word count (and the word count proportion of risky to total sections) as the main dependent variables.

We expected that examination of these factors would be a good assessment of persistence and how much effort individuals put into the task.

Time on risky sections. We conducted the same analysis using total time spent on the risky profile sections as the dependent variable (See Table 2 for means by condition). There was a main effect for audience condition on the amount of time participants spent on the risk sections, $F(1, 168) = 10.07$, $p < .001$, $\eta^2 = .11$. A Fisher's LSD post hoc test indicated that participants with a high risk audience spent more time (in seconds) on the risk sections as compared to both those with a low risk audience ($M = 96.70$, $SD = 72.23$ vs. $M = 63.70$, $SD = 46.96$), $p = .001$ Additionally, those with a high risk audience spent more time on the risk sections compared to those with no audience ($M = 96.70$, $SD = 72.23$ vs. $M = 52.55$, $SD = 38.04$), $p < .001$. The difference between those with a low risk audience and no audience was also significant, $p < .001$. There was no interaction effect of depletion and audience condition.

Total time on profile. We conducted the same analysis using total time spent on the profile as the dependent variable (See Table 2 for means by condition). There was a main effect of audience condition, $F(1, 168) = 5.91$, $p = .003$, $\eta^2 = .06$. A Fisher's LSD post hoc test indicated that participants with a high risk audience spent more time (in seconds) on the risk sections as compared those with no audience ($M = 596.12$, $SD = 29174$ vs. $M = 426.97$, $SD = 226.97$), $p = .002$. Additionally, those with a low risk audience spent more total time creating their profile than those with no audience ($M = 568.14$, $SD = 316.73$ vs. $M = 426.97$, $SD = 226.97$), $p = .007$. High and low risk audiences did not differ. Surprisingly, there was no main effect of depletion condition and there was no significant interaction.

Similar to the proportion of risk to total profile sections completed, we also calculated the proportion of time spent on risk sections to total time spent on the profile. Consistent with the previous results, we only found a main effect for audience condition, $F(1, 168) = 9.19, p < .001$, $\eta^2 = .10$. A Fisher's LSD post hoc test indicated that participants with a high risk audience had a higher proportion of risk to total time as compared those with a low risk audience ($M = .17, SD = .10$ vs. $M = .11, SD = .05$), $p < .001$. Additionally those with a high risk audience spent a higher proportion of risky to total time compared to those with no audience ($M = .17, SD = .10$ vs. $M = .12, SD = .06$), $p = .002$.

Risky sections word count. We conducted the same analysis using word count for the risky sections as the dependent variable (See Table 2 for means by condition). There was a main effect for depletion condition, $F(1, 168) = 10.38, p = .002, \eta^2 = .06$. Depleted participants had a higher word count for the risk sections than the control participants ($M = 10.62, SD = 25.69$ vs. $M = 1.95, SD = 4.44$). There was no main effect for audience condition, nor was there an interaction effect.

Total word count. We conducted the same analysis using total profile word count as the dependent variable (See Table 2 for means by condition). There was a main effect for depletion condition, $F(1, 168) = 8.90, p = .003, \eta^2 = .05$. Depleted participants had a higher total word count than the control participants ($M = 90.77, SD = 87.98$ vs. $M = 60.64, SD = 53.66$). There was also a main effect of audience condition, $F(1, 168) = 7.49, p = .001, \eta^2 = .08$. A Fisher's LSD post hoc test indicated that participants with high risk audiences had higher word counts compared to those with no audience ($M = 88.34, SD = 75.54$ vs. $M = 45.56, SD = 48.13$), $p < .001$. Additionally, those with a low risk audience had higher word counts compared to those with no audience ($M = 87.90, SD = 75.54$ vs. $M = 45.46, SD = 48.13$), $p < .001$. High and low

risk audiences did not differ, and there was no significant interaction effect of depletion and audience.

Content of risky profile sections. We examined the actual content of participant's profiles to ensure that they were putting risk relevant information into the risky profile sections. All participants who completed risky profile sections filled out information that was relevant to the topic. For instance, participants who completed the favorite swear words section did include actual examples of profanity. We were not able to do an extensive content analysis to determine whether there were substantial differences in the risky content provided by depleted vs. control participants because we found that the depleted participants were largely the ones completing these sections, yet overall this was still quite a small proportion of participants, and only a handful of the control participants provided information in these sections (See Table 3 for counts of participants who completed risky sections by condition). Thus, there was little variation in content to examine between the conditions.

STUDY 3 DISCUSSION

Overall, results demonstrated some support for the influence of self-regulation on self-presentation via social media. We found overwhelmingly, that the ego-depleted participants were more likely to complete risky profile sections that would be seen by both high risk and low risk audiences relative to control participants. Importantly, we demonstrated this with proportion data, thus ruling out the notion that participants disclosed riskier information simply because of their propinquity to disclose more through their profile. This suggests that failures in self-regulation may lead individuals to disclose potentially self-damaging information via social media.

We also found that individuals with an audience were more likely to put effort into creating their profiles (as measured by time spent completing profile sections and word counts), which makes sense as there would be no point in effortfully creating a Facebook profile that nobody would evaluate. However, there were some surprising aspects to our findings. First, depleted individuals put in more effort (higher word counts) than their control counterparts, which is contradictory to other research demonstrating that depletion generally reduces effort and persistence on a task. It is worth noting that while depleted participants seemed to put more effort into disclosing information, they did not actually spend more time in doing so. Thus, one possible consequence of depleted regulatory resources may be that individuals disclose more information with less thought. We further discuss potential alternative explanations for these findings within the general discussion section.

Specifically, we discuss the possible roles of arousal, professors as the high risk audience, and also the general nature of creating a Facebook profile in a laboratory setting.

Finally, inconsistent with our expectations, control participants did not seem to be as cognizant of their audience as we thought. Control participants did not differ in the amount of information or type of information they disclosed based on audience condition. Yet, as predicted, the depleted participants were relatively unaffected by their audience. One possible explanation is that the control participants may have deemed the disclosure of potentially damaging information as being too risky for both a low and high risk audience, and as such they were less likely to complete many of the risk sections across the audience conditions. These findings would still support the notion that the control participants who had more self-control, were less likely to present risky information to others and that they were indeed cognizant of their audience.

To address some of these issues and more closely examine the potential role that audience plays in self-presentation, we attempted to examine these processes in a reversed fashion in Study 4. That is, we asked participants to create a Facebook profile first (either for a single audience vs. multiple audiences) and then subsequently measured their performance on a self-regulatory task. By flipping the design, we were able to determine if participants would choose to create their profile differently up front (before consuming regulatory resources) and then directly assessing the depleting effects of creating a profile for multiple audiences vs. a single audience.

STUDY 4

In Study 4 we adapted a paradigm used by Vohs et al. (2005) to provide further evidence of the role of self-regulation in self-presentation on Facebook. We examined whether or not presenting oneself in a more demanding situation (i.e., to multiple audiences simultaneously) consumed more regulatory resources compared to presenting oneself in a less demanding situation on Facebook (i.e., to a single audience). We predicted that the former participants would have more difficulty on a subsequent self-regulatory task (performance on standardized test questions), because presenting oneself simultaneously to multiple audiences on Facebook would require more effort and would therefore be more ego depleting. More specifically, it was hypothesized that participants with multiple (high and low risk) audiences would put more effort into creating their profiles, consuming more regulatory resources. This would then lead to less effort on the standardized test and ultimately poor performance as compared to participants with one audience.

STUDY 4 METHODOLOGY

Design

This study used a single factor with 3 levels (audience: single high risk audience vs. single low risk audience vs. multiple audiences – low and high risk) design. High and low risk audiences were operationalized the same as in Study 3 (professors vs. other students). In the multiple audience condition, participants were told their audience included both professors and other students. Participants were randomly assigned to condition upon arriving to the lab.

Participants

Participants were 114 undergraduate psychology students (51 men, 63 women; $M_{age} = 19$, $SD = 1.44$; 85.5% Caucasian) who were recruited from the subject pool for the study. Participants received credit towards a course requirement.

Procedure

Participants were given the same general cover story as in Study 3, with the exception that those in the newly added multiple audience condition were told that Facebook is a place where peers and similar others often go to interact with each other, but has increasingly become an environment that professors are more frequently using as a means of getting their students more involved in class activities and for these reasons, we are interested both in how similar individuals, in this case undergraduates at their university, evaluate each other's pages, and also how professors at their university evaluate student's profile pages. Thus, we told these participants that their profile would be shared with both undergraduate students and professors at the University.

Once participants received instructions, they decided what to include on their Facebook profile using the same method as in Study 3. Afterwards, the experimenter asked participants if they would be willing to help us test out measures that we planned to use in an upcoming, unrelated study. The experimenter explained that we needed to test out some math and verbal test questions to be used in a future study on problem solving. The task consisted of the 20 standardized test questions utilized in Study 2. We assessed actual performance and also time spent on the test questions. Finally, participants were asked to fill out a short questionnaire, including an audience manipulation check and ratings of their general level of suspicion. All participants were thoroughly debriefed then dismissed.

STUDY 4 RESULTS

Only the 110 participants who did not report suspicion and who successfully answered the audience manipulation check were included in the final analyses.[2] We sought to determine if audience affected disclosure of potentially self-damaging information and also whether audience affected depletion. We assessed this in several different ways. First, we examined the effect of audience type on participant's completion of the profile. Similar to Study 3, we calculated the number of risky sections completed, total sections completed, time spent on risk and total sections, and word counts. Second, we examined the effect of the audience condition on performance on the standardized test questions. We assessed this by examining the number of problems solved correctly and also the amount of time spent on the tests questions to more directly assess effort put into this task.

Profile Sections. We conducted a one-way (audience: single audience, high risk vs. single audience, low risk vs. multiple audience, high and low risk) ANOVA on participant's self-presentation via the creation of a Facebook profile. See Table 4 for means by condition for all of the profile measures. First we conducted an ANOVA examining the effect of audience condition on the number of risky sections completed. There was no significant effect of audience on number of risky sections completed. Next, we utilized total profile sections completed as the dependent variable. Again, this was not significant.

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[2] Two participants were excluded for incorrectly identifying their audience. Two participants were excluded for suspicion about the cover story.

These results suggested that participants were completing the same amount of profile sections regardless of whether a single vs. multiple audiences would be viewing their profile.

We then conducted several analyses to examine participants' effort on the profile creation task. We conducted an ANOVA with time spent on the profile and there was a significant main effect for audience condition, $F(2, 107) = 7.84$, $p = .001$, $\eta^2 = .13$. A Fisher's LSD post hoc test indicated that participants with multiple audiences spent more time (in seconds) creating their Facebook profiles as compared to those with a single low risk audience (M = 618.19, $SD = 327.22$ vs. M = 427.13, $SD = 232.94$), $p = .002$. Additionally, those with multiple audiences spent more time as compared to those with a single high risk audience (M = 618.19, $SD = 327.22$ vs. M = 396.93, $SD = 203.61$), $p < .001$. The single high risk and low risk conditions did not differ. Similarly, we conducted the same analysis using word count as the dependent variable. Surprisingly, there was no significant effect of audience on either risk section word count or total word count.

Performance on test questions. We conducted a one-way (audience: single audience, high risk vs. single audience, low risk vs. multiple audience, high and low risk) ANOVA using total number of problems correct as the dependent variable (See Table 5 for means condition). There was a main effect of audience condition on number of correctly solved problems, $F(2, 107) = 17.82$, $p < .001$, $\eta^2 = .25$. A Fisher's LSD post hoc test indicated that participants with multiple audiences solved fewer test questions correctly compared to participants with a single low risk audience (M = 5.54, $SD = 2.68$ vs. M = 9.27, $SD = 3.82$), $p < .001$. Additionally, participants with multiple audiences solved fewer problems correctly compared to those with a single high risk audience (M = 5.54, $SD = 2.68$ vs. 9.86, $SD = 3.52$), $p < .001$. There was no difference between the single high and single low risk conditions.

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We also conducted an ANOVA utilizing time spent on the test questions as the dependent variable (See Table 5). There was a main effect for audience condition, $F(2, 107) = 4.17, p = .02,$ $\eta^2 = .07$. A Fisher's LSD post hoc test indicated that participants with multiple audiences spent less time (in seconds) on the test questions compared to those with a single low risk audience (M = 583.92, SD = 174.34 vs. M = 720.04, SD = 172.96), p = .006. Additionally, those with multiple audiences spent less time on the test questions compare to those with a single high risk audience (M = 583.92, SD = 174.34 vs. M = 682.54, SD = 264.15), p = .04. Single high risk and single low risk audiences did not differ. Overall, results suggested that participants with multiple audiences spent more time creating their profile (but did not necessarily disclose more information). These individuals also spent less time on the test questions and performed worse than those with a single audience. Thus, we performed meditation analyses to determine whether or not effort put into the profile and/or effort on the GRE mediated the relationship between audience condition and performance (test questions solved correctly).

Mediation analyses. We conducted mediation analyses to determine whether the effort put into creating a Facebook profile and/or effort put into the test questions could explain the effect of audience on overall test performance. In the first mediation analysis, we utilized the PROCESS method (Hayes, 2012). We contrast coded the audience condition such that we compared the multiple audience condition to both of the single audience conditions. In the analysis, audience was the independent variable, number of correct test questions was the dependent variable, and time spent on the Facebook profile was the mediator. The analysis revealed that time spent on the profile did not mediate the effect of audience on test performance. Next, we tested the same model but instead using time spent on the test questions as the mediator. Again, no mediation effect was found.

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We then re-coded the audience condition because two of the conditions involved a high risk audience (the multiple audience and the single high risk condition). Thus, we believed it would be worth comparing those two conditions specifically to the single low risk audience. In this analysis, audience was the independent variable, number of correct test questions was the dependent variable, and time spent on the Facebook profile was the mediator. The analysis revealed no mediation effect. However, we tested the same model using time spent on the test questions as the mediator and found that it did mediate the effect of audience on test performance. PROCESS estimated the 95% CI for the indirect effects of audience via time spent on test questions on test performance using 5000 bootstrapped samples. The 95% CI was -0.85, -0.01. As zero does not fall within these intervals, we concluded that the effect of audience on test performance was mediated by time spent on the test questions. Specifically, individuals with a high risk audience, spent less time on the test questions than those with a low risk audience, and this led to worse performance on the test (fewer problems solved correctly).

STUDY 4 DISCUSSION

Overall, the results revealed some support for the notion that self-regulatory resources are needed to engage in self-presentation via social media. These results suggest that individuals with multiple Facebook audiences performed worse on a subsequent task that required self-control compared to individuals with a single Facebook audience. Participants with multiple Facebook audiences (professors and students) spent more time creating their profile and also performed worse on test questions. This suggests that self-presentation on Facebook may require and/or consume regulatory resources.

While these results are somewhat consistent with our expectations, some of our findings were surprising. First, we did not find an effect of audience on potentially self-damaging disclosure or even overall disclosure. Participants disclosed similar amounts of risky (and non-risky) information regardless of whether their audience included high risk, low risk, or both. This is unexpected as we assumed participants with multiple audiences would put more effort into creating their profiles and this should be seen in both time and amount of disclosure. We only found this was true for the profile time. It may be the case that when individuals have multiple audiences in mind (particularly conflicting audiences – low and high risk) – they may take more time to simply think about their audience and/or the information they want to disclose. This would explain why we found differences in time spent, but not in actual disclosure.

Also, because we found that participants with multiple audiences performed worse on the test questions, and spent less time on the test questions, we expected that the latter two factors would mediate the effect of audience on performance. However, the only evidence of mediation

we found was for individuals with any high risk audience-- both in the multiple audience and single high risk audience conditions. These individuals spent less time on the test questions and consequently performed worse. We did not find this was true for time spent creating the profile. A possible explanation is that having any sort of risky audience in mind may not have led to immediate differences in time spent on the profile (compared to having a low risk audience in mind), but to the extent that participants continued to ponder (or feel threatened) by their audience afterwards, this may have carried over into the test questions. A future study would need to more directly examine the extent to which individuals continue to think about their respective Facebook audiences after they have shared information to determine whether this can lead to a more delayed process of depletion. We further discuss limitations and alternative explanations in the general discussion section.

The results from Studies 3 and 4 both demonstrate experimentally that self-regulation and the ability to exert self-control may be involved with the way individuals present themselves to others via Facebook. What is less clear from these studies is the specific role that audience plays in this process. The results of Study 3 suggested that both depleted and control participants may not have been obviously affected by audience (although it may be the case that control participants were quite aware of their audience and deemed any risky disclosure to be inappropriate in general). In Study 4, individuals were more depleted when they had multiple Facebook audiences in mind and also when they had a risky audience as compared to a low risk one. We conducted a fifth study, to more closely examine ego-depletion effects on the types of audiences that naturally come to mind for Facebook users.

STUDY 5

In Study 5, we attempted to examine a mechanism relating self-regulation failures and the increased likelihood of posting potentially self-damaging information on Facebook. We examined whether or not differences in self-regulatory resources would lead to differences in attentional focus on one's Facebook audience. Specifically, our research question was: does depletion cause individuals to narrowly focus on their Facebook audience? To answer this question, we manipulated participant's self-regulatory resources (depleted vs. not depleted), primed them with an audience type, and then asked them to think of and list as many of their Facebook friends as they could within 2 minutes. We included an audience prime to allow us to determine whether or not depletion would lead individuals to solely list friends consistent with the primed audience (no risk vs. low risk vs. high risk) or to list multiple audiences (including ones that fall outside the primed category). We sought to examine whether depletion caused individuals to narrowly think about their Facebook audience. Specifically, we explored whether participants listed fewer friends, fewer audience types, and whether they would be less likely to list authority figures (individuals who would be a riskier audience because of their authority). If depletion leads to narrowed attention on one's Facebook audience, this may explain why depleted individuals are more likely to disclose potentially damaging information – they may not think about the diversity of their audience.

STUDY 5 METHODOLOGY

Design

This study used a 2(depletion: ego depleted vs. control) X 3(audience prime: no audience vs. low risk vs. high risk) design. High and low risk audiences were operationalized the same as in Studies 3 and 4 (professors and other students). Participants were randomly assigned to condition upon arrival to the lab.

Participants

Participants were 174 undergraduate psychology students (82 men, 92 women; M_{age} = 18, SD = 1.72; 85.5% Caucasian) who were recruited from the subject pool for the study. Only Facebook users were recruited. This was not a problem as prior research indicates that nearly all college students are Facebook users (Guadagno, Muscanell, & Pollio, 2013; Muscanell & Guadagno, 2012). Participants received credit towards a course requirement.

Procedure

Participants were told that the purpose of the study was to learn more about friendship networks on social networking sites such as Facebook. We used a cover story similar to Studies 3 and 4, however, participants were not asked to create a Facebook profile. Rather, the cover story helped to prime a specific audience. Participants in the low risk audience prime condition were told that Facebook is an environment where many people of similar backgrounds and interests go to interact with each other. As an example, they were told that many undergraduate students at the university, especially those who are similar to each other, tend to use, connect, and become Facebook friends and that we are specifically interested in learning more about

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people's Facebook friendships. Participants in the high risk audience prime condition were told that Facebook is increasingly becoming an environment where many people of different backgrounds and interests go to interact with each other. As an example, they were told that professors are more frequently using Facebook as a means of getting their students more involved in class activities. Because of this, we told participants that we were specifically interested in learning more about people's Facebook friendships. Participants in the no audience condition were simply told that we were interested in learning more about Facebook friendships.

At this point, after receiving the general background information and instructions, the experimenter asked participants if they would first be willing to help the experimenter test out a task for an upcoming unrelated study -- the ego-depletion task from the previous studies. After completing the ego depletion task, the experimenter asked participants to list as many of their Facebook friends as they could think of for a period of 2 minutes. Upon completing the friend listing task, participants were asked to specify what their specific relationship was to each of the Facebook friends they listed. Finally, participants were asked to fill out a short questionnaire, including an audience manipulation check and ratings of their general level of suspicion. All participants were thoroughly debriefed.

STUDY 5 RESULTS

All participants correctly identified the audience prime and none reported suspicion. Thus, all participants were included in the final analyses. The dependent variable was assessed by first coding the list of participant's Facebook friends into specific categories. After coding, we determined: how many friends were listed, and how many different audience types were listed (e.g., friends/peers, relatives, co-workers, superiors). We then conducted ANOVAs to determine whether or not depletion and/or audience prime influenced these outcomes.

Friendship Coding. We had a large number of friendships to code (3,154 unique friends were listed by participants). Because this was such a large amount of information, we used FileMakerPro (Copyright © 1994-2013, FileMaker, Inc.) to code friends into several different categories. The software allows the researcher to create categories and then to define match words that can be used to assign participant responses into any given category. For instance, the researcher can create a category called "relatives" and then write a code that counts a Facebook friend as being part of that category if the participant used any of the following words to describe their relationship to that Facebook friend: mom, mother, father, dad, grandpa, grandfather, grandma, grandmother, sister, brother, stepsister, stepbrother, niece, nephew, aunt, uncle, cousin, etc. Using these extensive codes and definitions, we were able to quickly sort the listed friends into the various categories. We started off more specific and then collapsed several categories after initial analyses.

Categories that we coded for (including examples of match words) include: Immediate relatives (mom, dad, sister, brother); Extended relatives (cousin, aunt, uncle, nephew, niece,

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grandfather, grandmother); Close friends (best friend, close friend, BFF); Friend (friend); Acquaintance (acquaintance, friend of a friend, some girl from high school, some boy from high school); Romantic (boyfriend, girlfriend, date, dating, fiancé); Co-worker (coworker, co-worker, work together); Teacher (teacher, instructor, professor, mentor); Boss (boss, superior, employer); Ex-friend/Romantic (ex-boyfriend, ex-girlfriend, ex-friend, former friend). We also coded friends into specific domains, or what we called "domain friends". These included friendship listing in which participants specified a specific domain that they knew this person from (e.g., church friend, teammate, band friend, school friend, other club/organization friend, etc).

For each of these categories we were able to quickly categorize a large portion of these 3,140. However, we could not anticipate every possible definition, so we manually coded participant's friends that did not match our search terms. Once we fully coded all friendships, we collapsed a few categories due to low count rates. Specifically, we collapsed several categories into one larger category consisting of individuals who could be seen as an authority figure (including parents, bosses, teachers, mentors). The final categories that we included in the main analyses were: close friends, friends, acquaintances, romantic, immediate relatives, extended family, co-workers, authority figures, and domain friends.

Next, we calculated the total number of friends that participants listed, the total number of audience types (# of different categories) represented in their friendship listings, whether or not they included authority figures and how many. Additionally, we calculated several different proportion scores (dividing the number of times a specific category was listed by the total number friends listed). We did this for each main category such that we had, for example, the proportion of authority figures listed to the total number of friends listed for each participant.

Main analyses. A two-way (depletion: depleted vs. control) X 3(audience prime: no audience, low risk vs. high risk) was conducted using total number of friends listed as the dependent variable. There were no main effects or interaction effects on the total number of friends listed (See Table 6 for means by condition). We conducted the same analysis using number of audiences listed as the dependent variable (See Table 6 for means by condition). Surprisingly, there were no main effects or interaction effects on the number of audience types listed. We also found null effects using number of authority figures listed as the dependent variable. It is worth noting that very few authority figures were listed within the friendship task across all conditions. We also performed this analysis on each of the counts for the 9 main friendship categories, but did not find any significant effect of depletion condition or audience prime (See Table 7 for means by condition).

Next, we conducted ANOVAs utilizing the proportion scores as the main dependent variables. We did this for each of the 9 main friendship categories. Again, we did not find any significant effect of depletion condition, audience prime, or interaction effect on any of the proportion scores.

STUDY 5 DISCUSSION

Against expectations, we did not find any substantial evidence suggesting that failures in self-regulation may cause differences in attentional focus on one's Facebook audiences. However, we think that there is a reasonable explanation for this. The first two studies were unique in that they both required some aspect of self-presentation in participants' responses. In both Studies 3 and 4, participants created an entire profile that would be seen (or not) by an audience. This may be an important distinction and could suggest that actively engaging self-presentational processes is key in demonstrating the relation between depletion and self-presentation via social media. Additionally, by specifying a time frame for participants to complete the friendship listing task, we may have minimized the effectiveness of our dependent variables. That is, persistence and effort on a task (often measured by how long participants engage in that task) was not an option in this study because we the same short time frame for all participants to list their Facebook friends. Thus, it is unclear as to whether or not we would have seen the depletion effects if the task were untimed.

We argue that the null findings may suggest however, that differences in self-regulation do not necessarily lead to differences in the ability to recall ones Facebook friends. We did not see any differences in the total number of friends listed or total audience types across any of the experimental conditions.

Thus, while our findings were not fully consistent with predictions, they do suggest that an important factor in examining self-regulation as it relates to self-presentation, is the actual engagement in self-presentation and that when it comes to simple recall of friends (cognitive component), differences in self-regulation did not affect this capability.

CONCLUSIONS

Overall, these findings demonstrate that self-regulation, as demonstrated through self-control, plays a role in influencing the ways in which individuals present themselves on social networking websites such as Facebook. In Study 1, we found preliminary evidence that trait self-control predicted self-reported engagement in potentially self-damaging Facebook posting. That is, individuals with lower trait self-control were more likely to have reported posting potentially damaging information on Facebook including posts alluding to alcohol use, and ones containing profanity and inflammatory remarks about an employer as compared to those with higher levels of trait self-control. Unexpectedly, self-control did not predict how often individuals reported disclosing risky, potentially damaging information. However, we expect that instances of inappropriate disclosure on Facebook are not necessarily frequently reoccurring ones. Rather, we suggest that these are momentary, impulsive lapses in judgment. If individuals happen to be using Facebook during a moment of self-regulation failure, they may be more likely to disclose damaging information. Furthermore, we demonstrated this relationship despite a high level of attrition, which may have attenuated some of the effects by restricting the variability in the self-control measure. Future research should further examine trait self-control as a predictor of self-presentation and disclosure on Facebook to more adequately determine its impact. Additionally, research that is not subject to high levels of attrition may allow for a better test of the influence of self-regulation on the frequency of specific types of disclosure on social networking sites.

Study 2 validated the ego-depletion task utilized in the subsequent studies and also demonstrated that performance on the GRE test question task is affected by the effects of ego-

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depletion. Study 3, provided some further support for the role of self-regulation in self-presentation on Facebook. Specifically, we demonstrated that when self-regulatory resources are manipulated, depleted individuals are more likely to create Facebook profiles that include risky information (such as favorite swear words). However, contrary to expectations, we found that depletion instead led participants to put more effort in creating a profile. That is, depleted participants disclosed more information (as reflected by higher word counts) in their profiles. This is surprising because research generally demonstrates that individuals exert less effort on tasks after being depleted. However, research conducted specifically on self-presentation and self-regulation has previously found that when depleted, individuals tend to overdisclose personal information (Vohs et al., 2008). This may explain why depleted participants in our study disclosed more in their profiles. Additionally, these individuals did not actually spend more time disclosing more, suggesting that diminished resources may actually lead individuals to disclose more without thinking about what they are actually disclosing. Furthermore, because we examined the proportion of risky disclosure to total disclosure as a main DV, we argue that while self-regulation may lead to increased disclosure, it also affects the disclosure of risky information above and beyond that. That is, depleted individuals posted more risky, potentially damaging information in proportion to their overall disclosure as compared to control participants. Future studies should systematically test explanations (i.e., motivation and gratification factors) for why depletion would lead to more disclosure in a self-presentation task.

Another alternative explanation for the findings in Study 3 may be related to arousal resulting from the depletion manipulation. It is possible that depletion caused participants to experience an increase in arousal, which may have temporarily energized them and led to more disclosure. While we cannot rule this possibility out, there is research demonstrating that the

effects of ego-depletion on a subsequent task were not accounted for by changes in mood, arousal, or frustration (Wegener, Schneider, Carver, & White, 1987). Additionally, another explanation may relate to how we operationalized the high risk audience. In our studies we used university professors as the high risk audience. While professors could be seen as high risk because they may be offended by the types of risky information we included in the study, they may also prime other more general expectations for behavior and disclosure (e.g., expectation of proper grammar and use of complete sentences, attention to detail, etc). Thus, participants may have disclosed more in their profile simply because of heightened expectations that may be associated with professors. For instance, participants may have disclosed more in order ensure that they were providing a more complete profile.

Study 4 provided further evidence for the role of self-regulation in self-presentation on Facebook. However, it is unclear from study 4 whether disclosing potentially damaging information specifically consumes regulatory resources. And, the influence of audience type is also somewhat puzzling. Specifically, we demonstrated that presenting oneself to multiple audiences (as compared to one single audience) may consume more regulatory resources and as such, individuals perform worse on a subsequent task (test questions). Furthermore, we demonstrated that individuals with multiple audiences were not necessarily disclosing different amounts of information per se, but they were spending more time creating the profile. Thus, it appears that self-presenting to multiple Facebook audiences may be more demanding in that participants spend more time creating a profile that will be viewed by those audiences. Additionally, these individuals then perform worse on test questions. What is puzzling is why audience condition had no effect on disclosure of risky information. A possible explanation is that a diverse audience may cause individuals to simply think more about their audience and/or

what information they should disclose. That is individuals in the multiple audience condition had

two conflicting audiences (professors and other undergraduate students). This may have caused

individuals to spend more time thinking about their audience/disclosure because they felt

conflicted about what information would be appropriate for both audiences. It is a possibility that

their time spent thinking about these conflictions was depleting even though there were not any

direct differences in disclosure as compared to those with a single audience. This would also

account for their decreased performance on the subsequent test questions.

Another limitation lies in the manner in which we manipulated audience. We tested

multiple audiences including a high and low risk audience. However, we did not include a

multiple audience condition consisting of similar audiences (i.e., two high risk or two low risk

audiences). Follow up studies should include both conditions in order to determine whether

differences in self-presentation and self-regulation are specific to the demands of having

conflicting audiences or just having more than one audience.

What remains a question in Study 4, is what exactly mediates the relationship between

Facebook audience and performance on the test questions. The only evidence of mediation we

found was when we compared participants who had any sort of high risk audience (both the

multiple audience condition and single high risk audience condition) vs. those with a low risk

audience. We found that time spent on the test questions mediated the relationship between

audience and test performance. Those with a high risk audience spent less time on the test

questions and performed worse compared with those in the single low risk audience condition.

Yet, these participants did not spend more time or put more effort into the profile. This is

confusing when viewed in light of the findings above – participants with multiple audiences

spent more time on the profile and also performed worse on the test. A potential explanation is

that in both cases, the nature of the audience led to more time spent ruminating, which may have been depleting. In the first case, multiple audiences may have caused participants to ruminate about what information they should disclose (during the profile task) because they had two conflicting audiences, leading to worse performance on the test. In the latter case, any audience involving risk may have posed a threat and caused participants to ruminate about their audience (after the profile task), leading to less time spent and worse performance on the test questions. This explanation could also be extended to the puzzling findings above. Ruminating about one's audience may explain more time spent on the profile and impaired test performance (above) and may also explain less time spent on test and impaired performance. We cannot fully conclude that this is the case based solely on this data. Thus, future studies should examine to what extent participants continue to think about or ruminate about their audience and/or information they disclosed after creating the profile.

Finally, one major limitation that we must address (for Studies 3 and 4) is the validity of the profile creation task. That is, we asked participants to create an entire Facebook profile in a controlled laboratory setting. Designing a social networking experience that would be comparable to real world social networking was difficult. We believed that asking participants to post a real status update in a laboratory setting may have been too restrictive as a measure of our DV, given that they may be unlikely to post self-damaging information without being provoked in some sort of way. Thus, we utilized the full profile method so that we would have greater opportunity to capture risky disclosure. It is unclear whether this would translate into Facebook use on an everyday basis. Most individuals do not create and/or edit their entire Facebook profile in one sitting. It is more likely the case that individuals post smaller amounts of information (i.e., a single status update or photo) at any given time. However, we believe these studies provided a

good conceptual test of our research questions. Future studies should examine the effect of depletion on single status posts as these are likely to be the spontaneous posts that contain moment-to-moment information.

In Study 5, we explored the influence of depletion on attention to one's Facebook audience. Unexpectedly, we did not find that depletion or audience prime affected participant's ability to recall their Facebook friends. Depleted and control participants were similar in the total number of friends they listed, total number of different audience types, and also their likelihood of listing authority figures (which was relatively low overall). However, we argue that this may further demonstrate the crucial role of self-regulation in self-presentation. That is, in Studies 3 and 4 participants actively engaged in self-presentation by creating Facebook profiles. In Study 3 we showed that depletion effects were seen after actively creating a Facebook profile. In Study 4, actively creating a profile consumed regulatory resources for some. In Study 5, there was no active self-presentation. Thus, Study 5 may have been a test of depletion effects on cognitive performance, in which case we found no significant effect. Future research could extend this paradigm by including a measure of persistence and/or including an active form of self-presentation within the study. That is, a better test may be to employ the Facebook profile creation task and then measure friendship listings (without a time frame). Alternatively, another possible explanation is that depletion does not affect attention to one's Facebook audience and this explains the null findings. However, this cannot be assumed without further careful exploration of this question.

Overall, results from four studies indicate that self-regulation plays a role in self-presentation on social networking sites like Facebook. Results suggest that failures in self-regulation may lead some individuals to post more potentially risky and damaging information.

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Additionally, some forms of self-presentation on Facebook may be demanding and consume more regulatory resources. However, the exact role that audience plays (in terms of both number of audiences and type) in the relationship between self-regulation and self-presentation on online social network sites needs to be further explored. It appears that audience is influential in predicting how much effort (in time) individuals put into their Facebook self-presentation. Yet, these findings do not clearly and fully demonstrate that the effect of self-regulation and disclosure of potentially damaging information is particularly dependent on Facebook audience.

Implications and Future Directions

It seems counterintuitive that people would post risky, potentially self-damaging material in such a public venue. However, failures in self-regulation provide a parsimonious explanation for such behavior. Additionally, the findings from this series of studies suggest a new and novel rationale for why people generally behave badly in a broader context of public venues on the Internet. Findings from this research have theoretical, practical, and applied implications. These results further our understanding of the role of self-regulation in online self-presentation. Specifically, they suggest that failures in self-regulation can explain why individuals engage in less effective self-presentation on Facebook and other social media sites. Thus, one implication may be that individuals should avoid sharing information during times of self-regulation failure (e.g., after doing something that required a lot of effort, when stressed or fatigued, etc). Furthermore, because of the job related and legal implications, companies and other work environments may consider incorporating stricter policies about social media use, especially in high stress (more depleting) contexts. Future research should further examine to what extent self-regulation and ability to exert self-control impact self-presentation via technology. Research should further explore the role of audience factors (for instance comparing multiple low risk to

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multiple high risk audiences). Additionally, research should explore other potential factors that may moderate or mediate these processes. For example, other factors influence self-presentation (e.g., need to belong affects the use of self-enhancement tactics in self-presentation; Baumeister, 1982). Thus, it is very likely that these may also play a role in individuals' self-presentation via social media.

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Table 1. *Study 1 trait self-control as a predictor of risky Facebook posting*

FB Behavior	β	S.E.	Wald	df	p value
Alcohol consumption	-3.39	1.24	7.44	1	.006
Other substance consumption	-1.33	1.09	1.47	1	.23
Sexual portrayal of self	-2.06	1.16	3.15	1	.07
Sexual (not involving self)	-1.66	.89	4,41	1	.06
Inflammatory posts about work, co-worker, professional affiliations	-3.13	1.13	7.68	1	.04
Politically/morally charged	-3.81	3.06	1.56	1	.21
Violent/aggressive posts	-1.33	1.99	.45	1	.51
Curse words	-3.36	1.66	4.07	1	.04
Illegal behaviors (vandalism, theft, trespassing, etc)	-4.14	2.18	3.59	1	.06
Jeopardizes well-being (e.g., home alone)	Nobody reported posting this type of info				
Jeopardizes belongings (e.g., out of town)	Nobody reported posting this type of info				

Note. Items were coded such that 0 = never posted, 1 = have posted.

Table 2. *Study 3 profile creation by audience and depletion condition*

	No Audience n = 55		Low Risk Audience n = 61		High Risk Audience n = 58	
	M	*SD*	*M*	*SD*	*M*	*SD*
Risky sections completed						
Depleted n = 93	1.67	1.17	1.92	.93	2.29	1.35
Control n = 81	.29	.46	.54	.61	.23	.50
Total profile sections completed						
Depleted n = 93	10.48	3.61	12.35	3.77	12.18	4.57
Control n = 81	6.57	1.97	10.49	3.12	10.93	3.55
Time spent on risky sections (seconds)						
Depleted n = 93	51.58	40.42	59.95	43.87	80.08	88.34
Control n = 81	53.49	36.31	66.48	49.57	112.21	51.86
Time spent on total profile (seconds)						
Depleted n = 93	386.66	184.72	591.88	308.35	509.79	263.59
Control n = 81	465.83	258.80	550.49	326.15	676.70	297.80
Risky sections word count						
Depleted n = 93	4.74	4.73	8.42	13.12	18.32	40.90
Control n = 81	.89	2.00	2.77	5.23	1.97	4.97
Total profile word count						
Depleted n = 93	62.48	61.55	110.00	108.13	100.18	84.92
Control n = 81	29.25	20.56	71.48	51.58	77.30	65.11

Table 3. *Study 3 number of participants who completed risky profile sections by audience and depletion condition*

Risky Categories	No Audience n = 55		Low Risk Audience n = 61		High Risk Audience n = 58	
	Completed	*Not Completed*	*Completed*	*Not Completed*	*Completed*	*Not Completed*
Favorite Bars						
Depleted n = 93	9	18	9	17	12	16
Control n = 81	1	27	3	32	1	29
Favorite alcoholic drink						
Depleted n = 93	15	12	18	8	18	10
Control n = 81	4	24	9	26	0	30
Favorite swear words						
Depleted n = 93	6	21	7	19	7	21
Control n = 81	0	28	0	35	0	30
Celebrities I'd have sex with						
Depleted n = 93	8	19	7	19	16	12
Control n = 81	0	28	5	30	5	25
Craziest thing I've ever done						
Depleted n = 93	8	19	7	19	16	12
Control n = 81	0	28	5	30	5	25

Table 4. *Study 4 profile creation by audience condition*

	Single Low Risk Audience n = 36		Single High Risk Audience n = 37		Multiple (Low Risk + High Risk) Audiences n = 37	
	M	*SD*	*M*	*SD*	*M*	*SD*
Risky sections completed	1.08	.55	1.24	.59	1.16	.86
Total profile sections completed	18.94	3.30	8.21	3.01	7.78	4.18
Time spent on risky sections (seconds)	55.163	25.37	60.95	31.42	113.31	65.12
Time spent on total profile (seconds)	427.13	232.94	396.93	203.61	618.19	327.22
Risky sections word count	5.53	9.19	7.54	8.30	9.16	19.04
Total profile word count	83.06	67.89	84.24	59.26	92.95	83.59

Table 5. *Study 4 test performance by audience condition*

	Single Low Risk Audience n = 36		Single High Risk Audience n = 37		Multiple (Low Risk + High Risk) Audiences n = 37	
Number of questions correct						
	M	*SD*	*M*	*SD*	*M*	*SD*
	9.28	3.83	9.86	3.52	5.54	2.68
Time spent on test questions						
	720.04	172.96	682.54	264.14	583.92	174.34

Table 6. *Study 5 Facebook friends listed by audience and depletion condition*

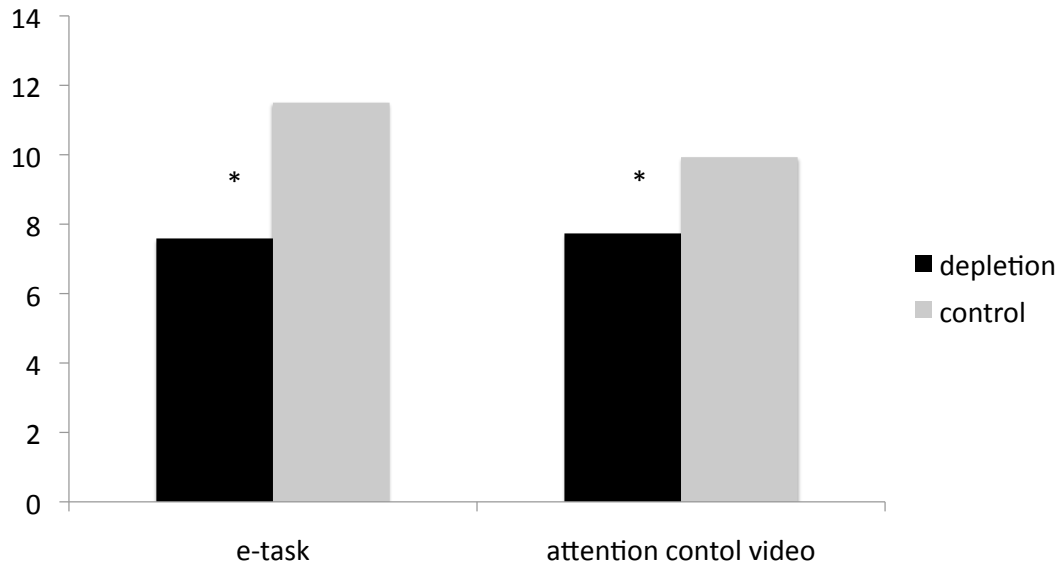|	No Audience n = 53		Low Risk Audience Prime n = 54		High Risk Audience Prime n = 67	
	M	*SD*	*M*	*SD*	*M*	*SD*
Total number of FB friends listed						
Depleted n = 89	18.25	3.41	19.50	5.72	18.17	3.38
Control n = 85	18.91	2.66	19.11	5.71	19.44	5.08
Total number of FB audiences listed						
Depleted n = 89	4.75	1.40	4.54	1.32	4.97	1.40
Control n = 85	4.61	1.37	4.44	1.89	4.94	1.46

Table 7. *Study 5 Facebook friends listed (by type) by audience and depletion condition*

Friendship Category	No Audience n = 53		Low Risk Audience Prime n = 54		High Risk Audience Prime n = 67	
	M	*SD*	*M*	*SD*	*M*	*SD*
Authority friends						
Depleted n = 89	.86	1.00	.71	.75	1.29	1.25
Control n = 85	1.00	1.09	1.08	1.29	1.56	2.14
Close friends						
Depleted n = 89	3.68	3.42	5.00	4.39	3.31	3.53
Control n = 85	3.57	2.78	3.50	4.08	3.41	3.27
Friends						
Depleted n = 89	2.67	3.98	4.49	6.20	3.17	4.66
Control n = 85	4.22	4.98	2.92	3.86	3.19	4.65
Acquaintances						
Depleted n = 89	.75	.96	.75	1.32	.97	1.48
Control n = 85	.87	1.74	1.15	1.85	.78	1.16
Romantic affiliations						
Depleted n = 89	.38	.49	.25	.44	.23	.43
Control n = 85	.35	.49	.19	.40	.25	.44
Immediate family						
Depleted n = 89	1.04	1.32	1.21	1.21	1.49	.98
Control n = 85	1.39	1.40	.65	.80	1.25	1.01

Table 7 Continued. *Study 5 Facebook friends listed (by type) by audience and depletion condition*

Friendship Category	No Audience n = 53		Low Risk Audience Prime n = 54		High Risk Audience Prime n = 67	
	M	*SD*	*M*	*SD*	*M*	*SD*
Extended family						
Depleted n = 89	1.29	1.65	1.38	1.97	1.89	2.97
Control n = 85	1.44	2.06	.89	1.69	1.59	2.17
Co-workers						
Depleted n = 89	.18	.77	.00	.00	.03	.17
Control n = 85	.04	.21	.15	.61	.03	.18
Domain friends						
Depleted n = 89	1.42	3.57	1.62	2.65	2.03	3.25
Control n = 85	2.17	3.59	1.45	2.45	2.72	4.76

Figure 1. *Study 2 test questions correct by depletion condition and task type*

APPENDIX

Appendix A

Trait Self Control Scale (Tangney, Baumeister, & Boone, 2004)

Directions: Using the scale provided, please indicate how much each of the following statements reflects how you typically are.

1	2	3	4	5
Not at all		Somewhat		Very Much

___1. I am good at resisting temptations
___2. I have a hard time breaking bad habits
___3. I am lazy
___4. I say inappropriate things
___5. I do certain things that are bad for me, if they are fun
___6. I refuse things that are bad for me
___7. I wish I had more self-discipline
___8. People would say that I have iron self-discipline
___9. Pleasure and fun sometimes keep me from getting work done
___10. I have trouble concentrating
___11. I am able to work effectively toward long-term goals
___12. Sometimes I can't stop myself from doing something, even if I know it is wrong
___13. I often act without thinking through all the alternatives