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# Organizational deviance via social networking site use: The roles of inhibition, stress and sex differences

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ABSTRACT

Organizational deviance via social networking sites (SNS) use, including for example using SNS instead of working, is a common phenomenon with possible negative implications for individuals and organizations. This study seeks to examine its antecedents as a means to point to future interventions. It draws on cognitive-neuroscience models of problematic behavior and suggests that organizational deviance via SNS use can be associated with low inhibition abilities and high stress. Consistent with the stress and problematic behavior literatures it further suggests that there are sex-based differences in people's organizational deviance by using an SNS and in their responses to stress. Findings based on time-lagged data from 321 SNS users suggest that while stress drives organizational deviance via SNS use, SNS-specific use inhibition abilities diminish this behavior. While there were no sex-based differences in organizational deviance via SNS use, men responded to stress by engaging in more organizational deviance via SNS use compared to women. The findings point to similarities and differences between organizational deviance via SNS use and other problematic behaviors; and suggest that researchers and therapists can focus on stress and inhibition abilities, while considering sex-based differences, when attempting to curtail problematic SNS use behaviors.



## 1. Introduction

While social networking sites (SNS) such as Facebook, Instagram and Snapchat have been largely beneficial to many users and can enhance many aspects of their lives, there are ongoing debates regarding their potential to also cause some harm (Carbonell & Panova, 2017). For example, it is clear that users of such sites can in some cases present addiction-like behaviors and symptoms, including salience, tolerance, mood modification, withdrawal, and relapse that are accompanied by significant negative consequences to their personal, social, and professional lives, as well as to their health (He, Turel, & Bechara, 2017; Tarafdar, D'Arcy, Turel, & Gupta, 2015). In other cases SNS simply enables problematic, less socially-approved, behaviors such as using SNS while driving (Turel & Qahri-Saremi, 2016; Turel & Bechara, 2016b), or posting profane messages (Turel & Bechara, 2017). One type of such presumably problematic behaviors is organizational deviance via SNS use, defined as online SNS use behaviors that violate social norms or formal or informal policies and traditions (e.g., policies and traditions that prohibit SNS use during specific times or tasks); these violations are largely disapproved by society or organizations (Hollinger & Clark, 1982). For instance, using SNS during class time instead of listening to a lecture is such a deviant behavior because it infringes informal expectations from students and in some cases also violates formal school (organizational) policies (Qahri-Saremi & Turel, 2016). In work settings, it can introduce task distractions, reduce positive emotions and eventually translate into reduced job performance (Moqbel & Kock, 2017).

Such deviant behaviors via SNS use are largely unintentional and non-malicious (i.e., the person does not mean to hurt the organization, others or themselves) but can still harm others (in which case the behaviors are classified as "interpersonal deviance") or the perpetrator, and directly or indirectly the organization to which the person belongs (in which case they are classified as "organizational deviance") (Bennett & Robinson, 2000). This study focuses on a subset of organizationally deviant behaviors that are SNS-mediated (O'Connor, Stone, Walker, & Jackson, 2017), termed "Organizational deviance via SNS use". It is defined as unprofessional SNS use behaviors that deviate from organizational norms and policies and have the potential to harm the individual and the organization to which he or she belongs.

Arguably, this form of deviance is very common; 77% of SNS users access these sites during working hours, the vast majority use them for personal reasons (Gaudin, 2009), and in many cases SNS are accessed at the expense of work tasks and without much attention to the appropriateness of the content users' share (Tarafdar, D'Arcy, Turel, & Gupta, 2015). Similarly, students waste about one-fifth of their time in class on digital devices toward "non-class purposes",

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including use of SNS (McCoy, 2013; McCoy, 2016). Given the high prevalence and harm potential of such behaviors, many organizations consider steps to curtail them (Turel & Qahri-Saremi, 2016; Turel, Mouttapa, & Donato, 2015). Therapists too look for ways to inhibit them, because online deviance encapsulates maladaptive behaviors that can either represent addiction-like symptoms or serve as a gateway for social and professional conduct problems (Brand, Young, Laier, Wölfling, & Potenza, 2016).

This study seeks to explain this phenomenon by borrowing from the cognitive neuroscience and psychology literatures on problematic behaviors and decision making under stress. Cognitive neuroscience models suggest that problematic behaviors stem, in part, from weak inhibition abilities, manifested through hypo-activity of prefrontal brain regions; these regions fail to execute control over desires to engage in rewarding, yet problematic behaviors (Bechara, 2005; Bechara, Damasio, Damasio, & Lee, 1999). The role of weak inhibition abilities in driving such behaviors has received support in many behavioral and neuroscience studies (Billieux & Van der Linden, 2012). In this study we capture SNS-specific inhibition ability with the *SNS Use Inhibition* construct defined as one's ability to control his or her urges to use the SNS. Consistent with the abovementioned theories and their operationalization (Turel & Bechara, 2016a), it is hypothesized that (H1) SNS use inhibition will reduce organizational deviance via SNS use. In other words, members of an organization will likely avoid organizational deviance via SNS use when their abilities to inhibit SNS use urges are high.

Stress, defined as a sense that a situation or life in general is psychologically and emotionally difficult (McEwen, 2007) is another key driver, though personal-situational, of problematic behaviors (Sinha, 2008). This effect can be explained from several perspectives. First, decision making under stress tends to be suboptimal and gravitate toward impulsive rewarding behavioral choices (Starcke & Brand, 2012). People under stress present irrational preferences for previously rewarding outcomes combined with a failure to avoid previously encountered negative outcomes. This happens because people under stress pay closer attention to positive rather than negative outcomes of behaviors (Mather & Lighthall, 2012). Therefore, people under stress would pay closer attention to the rewards associated with SNS use and downplay the fact that their behavior can be conceived as deviant, socially disapproved and can cause harm; they will also fail to learn from prior negative consequences of the behavior. Second, the "self-medication hypothesis" suggests that rewarding behaviors such as the use of SNS instead of working are enacted in order to self-medicate the user and reduce his or her levels of stress (Swendsen et al., 2000). This theory assumes that deviant use of SNS can be a way to cope with one's stressors. Indeed, stress has been shown to drive risky and problematic decisions across situations (Starcke & Brand, 2012). Integrating these views it is hypothesized that (H2a) stress will increase organizational deviance via SNS use. It is assumed that when stress is high people will be more likely to try to suppress it via SNS use, including during and instead of work.

Recent developments in cognitive neuroscience suggest that states such as stress and craving perturb individuals and that these perturbations hijack the prefrontal cortex and occupy it; by doing so the inhibition facilities and efforts of the prefrontal cortex become less potent (Naqvi & Bechara, 2010). Under such circumstances people tend to choose riskier and less optimal behaviors, even if their inhibition abilities are intact. Indeed, behavioral studies show that such interoceptive awareness regarding one's state violates homeostasis, taxes the prefrontal brain activity as it requires attention, and consequently prevents people from fully engaging their inhibition abilities (Turel & Bechara, 2016a). It is therefore hypothesized that (H2b) stress will moderate the negative effect of SNS use inhibition on organizational deviance via SNS use, such that this effect will be less negative at higher levels of stress.

Moreover, the literature points to potential sex differences in problematic behaviors; on average, men engage in more risky deviant behaviors compared to women (Pawlowski, Atwal, & Dunbar, 2008). This stems from possible sex-based differences in neural activity associated with risk assessment (Lee, Chan, Leung, Fox, & Gao, 2009) and the differing overarching motivations of the sexes; men look at risky situations more often as challenges that require "approach" whereas women look at such situations more often as threats that promote "avoidance" attitudes (Arch, 1993). Many studies support such differences in risk taking (Mather & Lighthall, 2012). Since deviant use of SNS can be conceived as a risky behavior (risks include academic failure, getting caught, getting fired) it is hypothesized that (H3a) males would present higher levels of organizational deviance via SNS use, compared to women.

Lastly, it has been suggested that stress can augment this effect and that consequently, men respond to stress by increasing risky behavior and women can respond to stress by reducing risky behaviors (Lighthall, Mather, & Gorlick, 2009). This may be attributed to sex-based differences in insular cortex and dorsal striatum response to stress (regions that are involved in somatic state mediation and behavior motivation); the activation of these regions in response to stress was increased in men but decreased in women (Mather & Lighthall, 2012). Such sex-based differences in risk taking in response to stress have been observed across many contexts (Preston, Tansfield, Buchanan, & Bechara, 2007). It is accordingly hypothesized that (H3b) sex would moderate the effect of stress on organizational deviance via SNS use such that the effect will be stronger for men compared to women. In essence, men would respond to stress by engaging in the deviant behavior more than women would do.

## 2. Method

### 2.1. Participants and procedure

All participants in the study were over 18 years old and signed an informed consent which was approved by the Institutional Review Board of the university. The study began with a pilot study involving 38 SNS users (91% response rate) who were university students. Results demonstrated sufficient validity and reliability. Next, two waves of surveys were collected one week apart from SNS users at the same university; survey completion was motivated with course bonus points. The predictors and control variables were measured at $t_1$. The outcome variable and moderator were measured at $t_2$. This design provided temporal separation between the predictors and outcomes, which allows better (but imperfect) support for causal arguments and reduces common method bias. We recruited a student sample because this segment of SNS users engages in many context-relevant deviant behaviors such as being late to class because of extended use of the SNS, spending too much time on the SNS instead of studying for exams, checking or updating their SNS while in class instead of participating in class discussion or listening, and using SNS in ways which violate acceptable use policies (Turel & Qahri-Saremi, 2016).

The initial survey was emailed to 400 participants, of which 349 (87%) completed the survey. They were asked to report the most frequently used SNS. After one week, a follow-up survey was sent to them and was completed by 321 participants (92% from survey 1). Sample characteristics are provided in Table 1. Multivariate Analysis of Variance indicated that there are no omnibus differences in the studied variables based on the SNS the respondents reported on (Pillai's Trace = 0.021, F(9936) = 0.723, $p$-value = 0.67). Hence, the dataset was analyzed as a whole.

### 2.2. Measures

All measures were based on existing valid and reliable scales. The measures were discussed in a small focus group (five SNS users), and were deemed to be appropriate. In addition, all of the used deviant behaviors were identified by this sample to be relevant in the university