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## Boss phubbing, trust, job satisfaction and employee performance

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## ABSTRACT

This paper introduces boss phubbing (phone snubbing), defined as an employee's perception that his/her immediate supervisor is distracted by his/her smartphone while in their presence, and studies its relationship with employee performance. Despite the importance of supervisor-subordinate interactions and the ubiquitous nature of smartphones, research is yet to investigate how smartphones impact important employee outcomes. Three theories are used to undergird the proposed model of relationships between boss phubbing, supervisory trust, job satisfaction, and performance: Reciprocated Social Exchange theory, Expectancy Violations theory, and Social Presence theory. A sequential mediation model was used to examine the relationships between boss phubbing and employee job performance. Two studies of US adults working in a range of industries ( $n = 156$ ,  $n = 181$ ) reveal that boss phubbing has a negative association with employee's job performance through supervisory trust and job satisfaction. Theoretical and practical implications and future research directions are also discussed.

## 1. Introduction

It would be difficult to refute the statement that smartphones are ubiquitous. The modern workplace has felt the impact of the increasing use and presence of smartphones. One in five employers state that their employees are productive less than five hours each day, and the majority (55%) of these same employers identified employee smartphone use as the major cause of workplace distraction. Twenty-eight percent of employers reported that workplace smartphone use negatively impacts the supervisor-employee relationship (Farber, 2016).

With the ubiquitous status of smartphones (Yueh, Lu, & Lin, 2015), it is incumbent upon researchers to investigate how the use of these devices impacts relationships (McDaniel & Coyne, 2014). A recent study investigated the impact of "partner phubbing," - being snubbed by your spouse or significant other using his/her cellphone in your company (Roberts & David, 2016). Phubbing ("phone snubbing") occurs when someone in your presence is distracted by his/her cellphone instead of communicating with you. Roberts and David (2016) found that perceived partner phubbing undermined the relationship satisfaction of the phubbed partner, ultimately reduced reported life satisfaction, and increased reported symptoms of depression among the aggrieved romantic partners.

## 1.1. Study contributions

The present study builds upon the above partner phubbing research and contributes to the literature in several important ways. First, the present research extends the extant phubbing literature by examining phubbing in a workplace (rather than a personal/romantic relationship) context. Second, the current research adds to nascent research efforts to identify whether phubbing (also referred to as multi-communicating or co-present phone use) is simply viewed as "taken-for-granted" with no or little perceived negative impact by the affected individuals (Gonzales & Wu, 2016). Third, this study contributes to the current knowledge base on technology use and communications between supervisors and employees. Specifically, the present research introduces the notion of boss phubbing (BPhubbing), defined as an employee's perception that his/her immediate supervisor is distracted by his/her cellphone while in their company.

Additionally, the current research offers a nine-item measure of BPhubbing which can be used to assess the extent to which employees feel phubbed by their immediate supervisor. Given the importance of supervisor-employee relationships to the success of organizations, and the ever-growing use of smartphones, BPhubbing should be a consideration in research investigating the impact of technology on workplace relations.

Lastly, the present research contributes to the literature by building a framework by which to investigate the impact of BPhubbing on

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Fig. 1. Conceptual model with sequential mediation.

several important variables of interest, including employee's trust in their supervisor and subsequent job satisfaction and performance. A sequential mediation model is proposed in which the perception of BPhubbing is posited to have a negative indirect relationship with employee job performance via employee's trust in their supervisor and job satisfaction. Focusing on smartphone use exclusively, the present research explores smartphone use in the workplace and examines the relationship between perceived BPhubbing and employee job performance, as well as a potential route through which perceptions of BPhubbing are associated with lower employee job performance.

Given the increased use of smartphones in the workplace (Yueh et al., 2015), this research provides a unique and much needed look at the associations their use has with three managerially important outcome variables: supervisory trust, employee job satisfaction and employee job performance. Overall, the conceptual model presented herein (and shown in Fig. 1) predicts that perceived BPhubbing is directly associated with less trust in one's boss, and indirectly associated with lower employee job satisfaction and weaker job performance. It is important to note that the act of phubbing is distinct from the range of incivilities (Cortina, Magley, Williams, & Langhout, 2001; Thoroughgood, Tate, Sawyer, & Jacobs, 2012) that employees may experience from their supervisors. Where incivilities are purposefully hurtful, abusive, and, most importantly, intentional (Jenkins, Zapf, Winefield, & Sarris, 2012), BPhubbing is more often unintentional and an act of neglect rather than a pointed attack by an employee.

The next section details the theoretical support and reasoning underlying each of the relationships proposed in our conceptual model. Following the theoretical development, two studies are presented which test the predictions set forth in the conceptual model. A discussion of the implications of the research, as well as limitations and directions for future research is then provided.

## 2. Theoretical framework

### 2.1. Boss phubbing and employee trust-in-supervisor

Boss phubbing (BPhubbing) is defined as "the perception of the employee that his or her supervisor is distracted by their smartphone when they are talking or in close proximity to each other in the work environment" (Roberts & David, 2017, page 206). The current research proposes that BPhubbing is negatively associated with subordinate's trust in their supervisor. Expectancy Violations theory (Burgooon and Le Poire, 1993) argues that people have certain expectations or schemas of appropriate behavior in a given social situation. When these expectations or schemas are violated by a conversation partner, the affected individual attempts to understand the motive behind such norm-violating behavior. Whether in a work or social situation, most people expect others to give them their undivided attention. Social Presence theory (Short, Williams, & Christie, 1976) emphasizes the importance of nonverbal cues when two people interact. Leaning toward one's conversation partner, maintaining eye contact, and reacting immediately are all signs of an attentive conversation partner (Vanden Abeele, 2019). A distracted conversation partner does not display these important nonverbal cues. Such deviations from expected behavior have been shown to undermine the perceived trustworthiness of the transgressor (Krishnan, Kurtzenberg, & Naquin, 2014; Vignovic & Thompson, 2010). Several related studies provide support to suggest that perceptions of BPhubbing may be negatively associated with supervisory trust. Research by Chotpitayasunondh and Douglas (2016), for example, found that Internet addiction, fear of missing out, and self-

control predicted smartphone addiction, which in turn predicted phubbing behavior. Consistent with the present argument, these researchers concluded that, "smartphones may actually sometimes detract, rather than complement, social interactions" (p. 9). Similar research has investigated the impact of "co-present" phone use (texting during offline conversations) on impression formation and interaction quality among a sample of college students (Abeele, Antheunis, & Schouten, 2016). The results of their first experiment showed that co-present phone users were perceived to be less polite and attentive. Self-initiating phone use was found to be more detrimental to impression formation than simply responding to a notification. A second experiment by these authors found that co-present phone use negatively affected perceived conversation quality.

Similarly, studies by Przybylski & Weinstein, 2013 found that the mere presence of a smartphone undermines perceived closeness, connection and conversation quality. The two researchers manipulated the presence of a smartphone while a pair of subjects conversed for ten minutes. In the cellphone present condition, a non-descript cellphone was placed outside the direct line of vision of the pair of subjects. Results showed that, following the conversations, subjects in the cellphone present (vs. absent) condition reported lower levels of relationship quality and closeness to their partners. A second experiment corroborated these findings - the presence of a cellphone lowered reported relationship quality. Importantly, partner trust was also undermined when a cellphone was present and the conversation less meaningful. Thus, it seems likely that perceived distractions caused by BPhubbing could undermine the trust an employee has in his or her immediate supervisor.

In addition to the extant literature discussed above, research by Nakamura (2015) concludes that looking at one's smartphone while holding a conversation with someone else undermines a sense of emotional connection. Shellenbarger (2013) argues that frequent use of one's smartphone in the presence of others reduces the amount of eye contact between the involved parties. This lack of eye contact reduces a sense of emotional connection. A supervisor who is often distracted by their smartphone in the presence of employees is sending a clear signal that the affected employees are not a high priority. Additionally, a large body of research has found that smartphone use while interacting with others is considered "rude and socially inappropriate" (Abeele et al., 2016, p.562). This is consistent with research by Cameron and Webster (2011) which found that, in certain circumstances, employees who were phubbed reported that this type of behavior was disrespectful and reduced their trust in the focal individual.

Relatedly, Reciprocated Social Exchange theory (Newman, Rose, & Teo, 2016) provides a relationship-based perspective that is helpful in explaining the impact of BPhubbing on supervisory trust. This relationship-based theory is predicated upon the tenets of social exchange (Dirks & Ferrin, 2002). Supervisory trust is an outcome of the processes that take place between an immediate supervisor and his/her employee "as they engage in the process of reciprocated social exchange" (Newman et al., 2016, p. 56). Simply put, an employee will reciprocate with a higher level of trust in a supervisor who has exhibited concern and consideration for said employee. As argued by Cameron and Webster (2011), repeated social exchanges that exhibit reciprocated respect and regard for the other will likely result in shared affective trust. A core tenet of Social Exchange theory is that mutually successful exchanges promote trust and, importantly for the present research, lay the groundwork for future successful exchanges. Unsatisfactory exchanges, however, can undermine trust (Blau, 1964).

Based on the above, it seems likely that a supervisor who is distracted by his/her phone and shows little consideration for the thoughts and ideas of his or her employee, could undermine supervisory trust. Thus, it is predicted that perceived BPhubbing is associated with lower levels of employee's trust in their phubbing supervisor. Related research shows that, for a relationship (work or personal) to be mutually satisfying, each member must be present for the other (McDaniel &

Coyne, 2014; Roberts & David, 2016). Supervisors must be present for their employees, not just in a physical sense but attentionally as well. Although multicommunicating in the presence of another may not affect one's perceived professionalism, it does negatively affect one's affective relationships (Cameron & Webster, 2011). Similarly, BPhubbing has the potential to interfere with and block healthy supervisor-employee interactions and is likely associated with lower levels of employees' trust in their supervisors. Based on this review, the following is proposed:

**H1.** BPhubbing is negatively associated with subordinates' trust in their supervisor.

## 2.2. Employee trust-in-supervisor, job satisfaction, and job performance

The current research predicts that lower levels of trust in one's supervisor (observed among individuals who were phubbed by their boss) are associated with less job satisfaction. In a survey of salespeople ( $n = 193$ ) and their immediate managers ( $n = 218$ ), Rich (1997) found that trust in sales managers increased job satisfaction. Related research has shown that salespeople who trust their supervisors also report higher levels of job satisfaction (Mackenzie, Podsakoff, & Rich, 2001). Similarly, a study of 333 pharmaceutical salespeople by Mulki, Jaramillo, and Locander (2006) found that trust-in-supervisor was positively associated with overall job satisfaction. In addition, a meta-analysis of four decades (1960-2000) of research regarding trust in leadership concluded that trust in leadership and job satisfaction are closely associated ( $r = 0.51$ ,  $\rho = 0.65$ ) (Dirks & Ferrin, 2002). These authors concluded that effective leaders perform certain behaviors that engender trust in their employees which in turn leads to improved work-related outcomes. Thus, it is likely that lower levels of trust in one's supervisor that are associated with perceptions of BPhubbing are also associated with lower levels of job satisfaction.

The final link in the proposed sequential mediated model is the link between job satisfaction and job performance. It is a near universally held axiom in marketing that attitudes precede behaviors. The Theory of Reasoned Action holds that behavior is a function of behavioral intentions that, in turn, are a function of attitudes and subjective norms (Fishbein & Ajzen, 1975). When we are favorably predisposed toward an attitude object, we tend to engage in behaviors that are consistent with such predispositions. If such reasoning holds in the workplace, one could expect that job satisfaction should be positively associated with higher levels of performance. A large-scale meta-analysis of 301 studies with a sample size of 54,471 found that the correlation between job satisfaction and job performance was 0.30 (Judge, Thoreson, Bono, & Patton, 2001). Similarly, Mulki, Caemmerer, and Heggde (2015) found that satisfaction with one's supervisor (where trust plays a role) led to higher levels of work effort and enhanced job performance. In addition, Bouckennooghe, Raja, and Butt (2013) conclude that "Job satisfaction is likely to function as a facilitator in the context of job performance" (p. 109). Thus, the following predictions are made:

**H2.** a Trust-in-supervisor is positively associated with employees' job satisfaction. **H2b:** Employees' job satisfaction is positively associated with job performance.

## 2.3. The indirect relationship between BPhubbing and employee performance

The sequential mediation model presented herein predicts that perceived BPhubbing is negatively associated with employee's job performance and that this relationship is mediated by supervisory trust and job satisfaction. In a related study, Li and Tan (2013) researched a sample of 206 supervisor-subordinate dyads and found that supervisory trust influences job performance through psychological conditions which have strong parallels to job satisfaction (Kahn, 1990; Li & Tan, 2013). The more an employee trusts his/her supervisor the more

satisfied they are likely to be with their job (Gilstrap & Collins, 2012). Since supervisors have significant control over the workplace environment, it is likely that perceived BPhubbing is not only negatively associated with supervisory trust but may also be negatively related to employees' job satisfaction and job performance. Across three studies, Roberts and David (2017) found that BPhubbing was negatively associated with employee engagement – a self-report measure of the effort an employee expended to do his/her best work possible.

Based upon the review above, it is posited that perceptions of BPhubbing decrease employee's trust in their supervisor, which in turn lowers the employee's job satisfaction and results in lower levels of job performance. Given the important role immediate supervisors play in the work life of an employee (frequent interaction and sanction/reward power), perceived BPhubbing is predicted to not only be associated with less trust in one's supervisor, but to also be indirectly associated with lower levels of job satisfaction and performance. Specifically, the following is hypothesized:

**H3.** BPhubbing has a negative indirect relationship with employees' job performance via trust-in-supervisor and job satisfaction.

The next section presents the results of two studies. Study 1 was designed to test the above predictions. The second study was designed as a replication study that would also extend study 1 in two important ways (Schmidt, 2009). Specifically, the replication study tests an alternative explanation related to more general uncivil behaviors by supervisors (vs. BPhubbing specifically). Importantly, the replication study also extends study 1 by including two alternative measures of the key outcome variable, employees' self-reported job performance. Overall, the results from both studies show support for the above predictions.

## 3. Method

### 3.1. Study 1

The study data were collected using Amazon's Mechanical Turk (MTurk) to administer questionnaires to working adults in the US. Consistent with recommended and commonly used criteria in psychological research, participants were only able to participate in the study if they met the following criteria: live in the US, are at least 18 years of age, have at least a 95% MTurk approval rating, and have completed at least 1000 approved studies on MTurk (Amazon, 2014; Kumar, 2013; Necka, Cacioppo, Norman, & Cacioppo, 2016; Staffebach et al., 2014). The sample consisted of 156 adults in the US (54% male,  $M_{\text{age}} = 36$ ,  $SD = 10.56$ ) who were currently full-time employed and had a supervisor (59% male;  $M_{\text{Estimated Age}} = 46$ ,  $SD = 9.81$ ). The majority of participants were Caucasian (79%), followed by African American (10%), Asian (8%), and Hispanic (3%). Nine percent of participants had a high school diploma, 26% had some college, 50% had a college degree, and 15% had a masters/doctoral degree. The majority of participants had been working in their current job for either 1-2 years (37%), 3-4 years (24%), or 5-6 years (15%). A broad sample was chosen anticipating widespread use of cellphones and the likely prevalence of BPhubbing across many industries and job types (Nielsen Research, 2010).

### 3.2. Measures

#### 3.2.1. BPhubbing

The Roberts and David (2016) 9-item measure of partner phubbing was adapted to assess the extent to which participants perceive experiencing BPhubbing ( $\alpha = 0.95$ ). Changes to the scale items included the replacement of the word "partner" with "boss." Like Roberts and David (2016), items one and four of the BPhubbing scale were adapted from McDaniel and Coyne's (2014) Tiles scale. Example items included "My boss uses his/her cellphone when we are in meetings," and "When I am talking with my boss, he/she is constantly on his/her cellphone."

Response categories range from “Strongly Disagree” (1) to “Strongly Agree” (7).

3.2.2. Trust-in-supervisor

Trust-in-supervisor ( $\alpha = 0.96$ ) was measured using items adapted from Nicholson, Compeau, and Sethi (2001) 4-item measure of interpersonal trust (in one's supplier). Specifically, participants indicated how much they disagree/agree (on a 7-point scale) with the following statements: “I can rely on my supervisor to keep the promises he/she makes,” “I trust my supervisor completely,” “I know that my supervisor will treat me fairly,” and “I can expect my supervisor to tell me the truth.”

3.2.3. Job satisfaction

Participants' job satisfaction ( $\alpha = 0.89$ ) was assessed using a 5-item measure by Wood, Chonko, and Hunt (1986). Specifically, participants indicated on 7-point Likert scales the extent to which they disagree/agree with the following statements: “Overall, I am satisfied with my job,” “I am satisfied with the information I receive from my supervisor about my job performance,” “I am satisfied with the variety of activities my job offers,” “My job has enough opportunity to complete the work I start,” and “I am satisfied with my pay.”

3.2.4. Job performance

Job performance was assessed by asking participants to consider how hard they strive to perform well in their role and to then indicate the percentage of effort (ranging from 0-100 percent) they put into making sure that they do the best work possible. Although this self-reported measure of performance could be prone to social desirability biases, the descriptive results suggest that such biases were not highly prevent in the data. For example, the reported job performance values ranged from 30-100 across the sample, with the average reported performance level being 87.38, which is neither uncommon nor overly high. Like many, if not most assessments of job performance, this measure is not without inherent limitations. As such, we conducted a second study which examined whether the findings of this study are replicated when using two additional, alternatively operationalizations of job performance. The results of the replication study are presented later in the paper.

4. Results

Since data for all the study measures were obtained from the same source, common method bias could be a potential issue. Thus, we performed the Lindell and Whitney (2001) marker variable procedure to assess whether common method bias was likely to affect the results. Correlations between the marker variable item and each study measure were small (ranging from -0.04 to 0.08) and non-significant; thus, it is unlikely that common method bias affected the results (Jayachandran et al., 2005; Lindell & Whitney, 2001). The means, standard deviations, and correlations for the marker variable and study measures are reported in Table 1.

Table 1  
Study 1 means, standard deviations, and correlation coefficients.

	M	SD	Age	Income	Marker Variable	Boss Phubbing	Trust-in-supervisor	Employee Job Satisfaction
Age	35.69	10.56						
Income (in thousands USD)	66.09	52.34	-0.23**					
Marker Variable	5.04	1.58	-0.05	-0.01				
Boss Phubbing	3.41	1.71	-0.07	0.10	0.03			
Trust-in-supervisor	4.86	1.77	0.06	-0.02	-0.01	-0.43**		
Employee Job Satisfaction	4.52	1.38	0.10	0.10	-0.04	-0.15	0.45**	
Employee Job Performance	87.38	14.41	0.34**	0.11	0.08	-0.14	0.33**	0.26**

\* $p < .05$ ,

\*\*  $p < .01$ .

Of note, preliminary descriptive analyses showed a negative relationship between estimated boss' age and BPhubbing, such that younger supervisors reportedly engage in more BPhubbing ( $r = -0.15, p < .05$ ). Also, of note, the analyses presented below were also conducted where respondent's age, gender, and income, as well as boss' age and gender, were included as control variables. The inclusion of these control variables did not impact the results presented below.

The Process Model 6 (Preacher & Hayes, 2008) was used to test our conceptual model including predictions involving sequential mediation (Krieger & Sarge, 2013). To begin, the model tests the relationship between BPhubbing and employees' trust in their supervisor. In support of H1, the results ( $F_{1, 154} = 52.11, p < .01, R^2 = 0.25$ ) indicate that BPhubbing is negatively associated with trust-in-supervisor ( $\beta = -0.464, p < .01$ ).

Next, the model tests whether BPhubbing and trust-in-supervisor are directly associated with job satisfaction. In support of H2a, the results ( $F_{2, 153} = 72.74, p < .01, R^2 = 0.49$ ) indicate that trust is directly associated with job satisfaction ( $\beta = 0.647, p < .01$ ). However, BPhubbing is not directly associated with job satisfaction ( $p > .05$ ). The model next tests the relationship that BPhubbing, trust, and job satisfaction have with job performance. In support of H2b, the results ( $F_{3, 152} = 9.69, p < .01, R^2 = 0.16$ ) show a significant relationship between job satisfaction and performance ( $\beta = 3.376, p < .05$ ). BPhubbing and trust-in-supervisor are not directly associated with job performance ( $p > .05$ ). Importantly, and as predicted in H3, the results show support for sequential mediation ( $\beta = -1.014; SE = 0.40, 95\% CI: -2.015, -0.366$ ), such that BPhubbing is indirectly associated with job performance via trust-in-supervisor and then job satisfaction. A summary of all direct and indirect paths tested in the model is provided in Table 2.

Overall, these results illustrate the central role of trust-in-supervisor and job satisfaction in lowering performance of employees who are phubbed by their supervisors. Specifically, the lower level of supervisory trust observed among individuals who were phubbed by their boss is associated with less job satisfaction, and ultimately, lower levels of performance. That is, BPhubbing has a negative indirect relationship with employee job performance. In effort to examine the robustness of these findings, a second study was conducted and is presented next.

5. Replication study

The replication study tested the same hypotheses as those tested in study 1, but with different operationalizations of performance, as well as an added important covariate (incivility) which tested an alternative explanation for the results. Using the same criteria as in study 1, an MTurk sample was gathered to participate in the replication study. Following recommended standards, participants were screened such that they were unable to participate in the replication study if they had previously participated in study 1 (Chandler, Mueller, & Paolacci, 2014; Paolacci, Chandler, & Ipeirotis, 2010). The sample included one hundred and eighty-one working US adults (53% male).

Perceptions of BPhubbing ( $\alpha = 0.92$ ) (Roberts & David, 2016), trust

**Table 2**  
Study 1 sequential mediation results including all direct and indirect effects.

	Coefficient	SE	95% LLCI	95% ULCI
BPhubbing → Trust-in-supervisor	-0.46	0.06	-0.591	-0.337
BPhubbing → Job Satisfaction	0.08	0.05	-0.028	0.185
Trust-in-supervisor → Job Satisfaction	0.65	0.06	0.532	0.762
BPhubbing → Performance	-0.04	0.73	-1.481	1.396
Trust-in-supervisor → Performance	0.91	1.05	-1.167	2.988
Job Satisfaction → Performance	3.38	1.08	1.233	5.519
BPhubbing → Trust-in-supervisor → Performance	-0.42	0.61	-1.691	0.721
BPhubbing → Trust-in-supervisor → Job Satisfaction → Performance	-1.01	0.42	-2.091	-0.380
BPhubbing → Job Satisfaction → Performance	0.27	0.21	-0.038	0.862

Note: Results obtained with bootstrapping (n = 5000)

in supervisor ( $\alpha = 0.95$ ) (Nicholson et al., 2001), and job satisfaction ( $\alpha = 0.81$ ) (Wood et al., 1986) were assessed using the same measures as in study 1, and the questionnaire was similar to that of study 1 with two key exceptions. First, the study included two additional, alternative measures of job performance. Specifically, in addition to the job performance item used in study 1, participants were asked to consider (and indicate on a 1-7 Likert Scale anchored with much worse—much better) how well they have performed in comparison to others while working under their supervisor. In addition, participants were asked to grade themselves in terms of their performance at work while working under their supervisor. Participants used a slider bar to assign themselves a performance grade ranging from 50, which would be a failing grade, to 100, which would be the highest possible grade.

The other main difference from study 1 is that the replication study included a measure of supervisor incivility. Specifically, supervisor incivility was assessed using the 7-item uncivil workplace behavior questionnaire ( $\alpha = 0.92$ ) (Blau & Andersson, 2005; Cortina et al., 2001) and was included as a control variable in the analyses presented below. Similar to the findings in study 1, preliminary descriptive analyses of the replication study data showed a negative relationship between estimated boss' age and BPhubbing ( $r = -0.14, p = .05$ ), again suggesting that younger supervisors may well engage in more BPhubbing. Of note, the analyses presented below were also conducted where respondent's age and gender, as well as boss' age and gender, were included as control variables. The inclusion of these control variables did not impact the results presented below.

## 6. Results

Like study 1, the measures used in the replication study were obtained from the same source; and, thus, we used the Lindell and Whitney (2001) marker variable procedure to assess whether common method bias was likely to affect the results. The correlations between the marker variable item and each study measure were small (ranging from -0.10 to 0.09) and non-significant, indicating that it is unlikely that common method bias affected the results (Jayachandran et al., 2005; Lindell & Whitney, 2001). The means, standard deviations, and correlations for each study measure, including the marker variable are provided in Table 3.

The Preacher and Hayes (2008) Model 6 was used to test the predictions in our conceptual model. Table 4 shows the results for all direct and indirect effects tested in the model. In support of H1, the main effect of BPhubbing on employee's trust in their supervisor was significant ( $\beta = -0.18, p < .05$ ). Next, the results showed that trust in supervisor (H2a,  $\beta = 0.50, p < .05$ ) is a significant predictor of job satisfaction, but the effect of BPhubbing is non-significant. In addition, the results showed that job satisfaction is a significant predictor of performance (H2b,  $\beta = 3.20, p < .05$ ), although the main effects of BPhubbing and supervisory trust were non-significant.

Importantly, support for sequential mediation is found ( $F_{(4, 176)} = 6.95, p < .05, R^2 = 0.14$ ). Specifically, the indirect effect of

BPhubbing on performance is significant via supervisory trust and then job satisfaction (H3,  $\beta = -0.28; SE = 0.19, 95\%CI: -0.840, -0.020$ ). Similar results were found using each of the alternative measures of job performance (alternative measure 1:  $F_{(4, 176)} = 4.27, p < .05, R^2 = 0.09; \beta = -0.24; SE = 0.17, 95\%CI: -0.759, -0.018$ ; alternative measure 2:  $F_{(4, 176)} = 8.21, p < .05, R^2 = 0.16; \beta = -0.16; SE = 0.10, 95\%CI: -0.440, -0.019$ ). That is, the results across three different measures of job performance reveal a significant indirect negative relationship between BPhubbing and employee job performance. Of note, these findings are consistent with those found in a model where incivility was not included as a covariate ( $F_{(3, 177)} = 4.79, R^2 = 0.08; \beta = -0.48; SE = 0.26, 95\%CI: -1.217, -0.123$ ; alternative measure 1:  $F_{(3, 177)} = 2.49, R^2 = 0.04; \beta = -0.44; SE = 0.24, 95\%CI: -1.083, -0.106$ ; alternative measure 2:  $F_{(3, 177)} = 4.73, R^2 = 0.07; \beta = -0.28; SE = 0.13, 95\%CI: -0.637, -0.085$ ).

## 7. Discussion

People from all age groups are spending an increasing amount of time interacting with their smartphones. Despite the many benefits that smartphones bring individuals, their use could also be harmful. Specifically, research on phone snubbing has shown that partner phubbing can undermine romantic relationships and result in lower overall reported well-being (Roberts & David, 2016). The present research builds upon extant research on partner phubbing and examines phubbing in a workplace context; specifically, BPhubbing.

Across two studies, the results reveal that perceived BPhubbing is associated with lower supervisory trust, as well as lower employee job satisfaction and performance. Specifically, the findings demonstrate that supervisor – employee interactions interrupted by a supervisor's smartphone use are negatively associated with supervisory trust. Although this in and of itself, is a significant finding, the results reveal that the negative impact of perceived BPhubbing does not end with lower observed levels of supervisory trust. The proposed sequential mediation model uncovers a hypothesized path by which perceived BPhubbing is associated with employee performance through trust and its association with job satisfaction. Specifically, the results of both studies support the predictions regarding how perceived BPhubbing negatively affects employee job performance by harming one's trust in their supervisor which then leads to lower job satisfaction, and ultimately, lower job performance. Given the importance of job performance to organizational success, the research presented herein may well identify a new supervisory characteristic that should be considered when studying employee and firm performance. Importantly, the findings presented herein provide evidence to rule out an alternative explanation regarding uncivil behavior and whether perceptions of boss incivility could explain the hypothesized and observed effects of BPhubbing. Indeed, the results demonstrate that the hypothesized effects of perceived BPhubbing exist regardless of whether incivility is included in the model as a covariate.

The present research may contribute to Social Exchange theory.

**Table 3**  
Replication study means, standard deviations, and correlation coefficients.

	M	SD	Marker Variable	Incivility	Boss Phubbing	Trust-in-supervisor	Employee Job Satisfaction	Job Performance Measure 1	Job Performance Measure 2
Marker Variable	3.28	1.67							
Incivility	1.41	0.70	0.09						
Boss Phubbing	3.27	1.56	0.04	0.34**					
Trust-in-supervisor	5.17	1.53	-0.03	-0.27**	-0.25**				
Employee Job Satisfaction	5.51	1.25	-0.04	-0.29**	-0.21**	0.67**			
Job Performance Measure 1	87.27	13.37	-0.10	-0.30**	-0.07	0.12	.25**		
Job Performance Measure 2	89.81	8.17	-0.05	-0.34**	-0.10	0.07	.24**	.45*	
Job Performance Measure 3	4.70	1.12	-0.10	-0.17*	-0.06	0.40**	.67**	.37**	.24**

\*  $p < .05$ ,  
\*\*  $p < .01$ .

Specifically, Social Exchange theory argues that when a person is treated with respect he or she is more likely to reciprocate with the same regard (Blau, 1964; Newman et al., 2016), and the finding herein that supervisor – employee interactions interrupted by supervisor smartphone use is negatively associated with supervisory trust, may to some degree broaden the theory. Given scant existing research on how technology, specifically smartphones, distract or interfere with workplace interactions, the current paper fills an important gap in the literature.

Lastly, the present findings run counter to the idea that smartphones have achieved the status of “taken-for-grantedness” (Gonzales & Wu, 2016; Ling, 2012). Others have also argued that phubbing behavior has become normalized - the cost of doing business in a technology-driven workplace where the boundaries between our private and professional lives have become increasingly blurred (Chotpitayasunondh & Douglas, 2016). The present study offers support for both Expectancy Violations (Burgoon & Le Poire, 1993) and Social Presence (Short et al., 1976) theories. Smartphone use during workplace conversations are not taken as a given. When supervisors are distracted by their smartphones during conversations with their employees, it is seen as violating the expectations of employees. Despite the increasing use of smartphones in the workplace, employees still expect to be given the undivided attention of their supervisors. When they are not, as the present study finds, it can undermine the trust an employee has in his or her supervisor as well as undermine their job satisfaction and performance. As found by Roberts and David (2017), BPhubbing undermines employee engagement which is an important precursor to actual performance.

The current results also provide support for Social Presence theory. Non-verbal cues do matter. A clear sign of inattention, BPhubbing sends a message to the affected employee that his or her input is not highly valued, and, in turn, undermines employee supervisory trust and the

important outcomes of job satisfaction and performance. It does not appear that the ubiquitous nature of smartphones has lessened an individual's attention to such non-verbal cues as BPhubbing when evaluating one's supervisor.

It is clear from the present study's results that a supervisor's use of his or her smartphone in the presence of subordinate employees (phubbing) is worthy of research attention. As noted earlier by Mayer et al. (1995), trust in the workplace is becoming increasingly important given more diverse workplaces, hands-on management practices, work teams with increasing autonomy, and more entrepreneurial workplace cultures. Moore's law suggests that computing capacity doubles every two years. The human capacity to process information, however, has remained largely stagnant despite the availability of an ever-increasing amount of information (David, Roberts, & Christenson, 2017). Human beings are social animals. The need to be in relationship with others is paramount to our very survival. It is unlikely that the 30-40 years of the current technology age has done anything to reverse our primal need as humans to be in healthy and mutually beneficial relationships in and outside of the workplace.

### 8. Managerial Implications

As the present study's results suggest, BPhubbing can negatively impact employee trust in their supervisor and undermine the important outcomes of job satisfaction and performance. There appears to be some truth to the saying that “employees leave managers not companies.” This section addresses several of the managerial implications of the above findings. First, supervisors need to be taught what constitutes appropriate smartphone use in the company of others. This training is particularly relevant given that many of those currently in supervisory positions are from “tech savvy” generations and may exhibit the same

**Table 4**  
Replication study sequential mediation results of all direct and indirect effects.

	Coefficient	SE	95% LLCI	95% ULCI
BPhubbing → Trust-in-supervisor	-0.18 (-0.25)	0.07 (0.07)	-0.323 (-0.386)	-0.033 (-0.108)
Incivility → Trust-in-supervisor	-0.45 (n/a)	0.16 (n/a)	-0.779 (n/a)	-0.130 (n/a)
BPhubbing → Job Satisfaction	-0.01 (-0.04)	0.05 (0.05)	-0.104 (-1.28)	0.084 (0.053)
Trust-in-supervisor → Job Satisfaction	0.50 (0.51)	0.05 (0.05)	0.401 (0.421)	0.589 (0.607)
Incivility → Job Satisfaction	-0.21 (n/a)	0.11 (n/a)	-0.424 (n/a)	-0.002 (n/a)
BPhubbing → Performance	0.45 (-0.27)	0.70 (0.70)	-0.944 (-1.642)	1.835 (1.106)
Trust-in-supervisor → Performance	-1.09 (-0.88)	0.90 (0.92)	-2.859 (-2.697)	0.679 (0.945)
Job Satisfaction → Performance	3.20 (3.78)	1.11 (1.14)	1.006 (1.543)	5.398 (6.025)
Incivility → Performance	-5.67 (n/a)	1.60 (n/a)	-8.824 (n/a)	-2.506 (n/a)
BPhubbing → Trust-in-supervisor → Performance	0.19 (0.22)	0.21 (0.26)	-0.060 (-0.151)	0.895 (0.923)
BPhubbing → Trust-in-supervisor → Job Satisfaction → Performance	-0.28 (-0.48)	0.19 (0.26)	-0.840 (-1.217)	-0.020 (-0.123)
BPhubbing → Job Satisfaction → Performance	-0.03 (-0.14)	0.19 (0.21)	-0.419 (-0.638)	0.332 (0.221)

Note: Results obtained with bootstrapping (n = 5000); Values shown in parentheses are from model without incivility included as a covariate.

proclivities as their colleagues when it comes to their smartphone use. In a sense, we may be asking “the fox to guard the chicken coop.”

Supervisors need to be able to put their smartphones away to effectively communicate with their employees. Research is clear in indicating that using one's smartphone while talking with others can undermine the perceived trust, closeness, and connection with a conversation partner as well as overall conversation quality. Phones must be placed out of sight to avoid them causing distractions when communicating with employees (Przybylski & Weinstein, 2013). Another suggestion to foster healthier supervisory use of their smartphone is to let calls go to voice mail. Automatic responses to calls, texts, and emails can tell the other party when you will get back to them without distracting from the present face-to-face conversation. Also, employees should be encouraged (required) not to bring their phone to meetings unless it is absolutely necessary. If they do bring their phone to a meeting and need to respond to a message, protocol should be to step out of the room to do so.

A culture of mutual respect must be fostered. Smartphones should be stored out of sight in silent mode. All employees must refrain from sending texts, scrolling social media or playing games while in meetings. The old rules of common courtesy must be retaught in the current digital age. Supervisors must set the tone for their subordinates.

Second, supervisors must be trained in soft skills that lead to better relationships with their employees. Of the eight soft skills identified by ERC (2018), four are directly impacted by a supervisor's use of his or her smartphone: communication skills, critical thinking (must be free from distractions), interpersonal skills, and time and priority management. Supervisors need to be taught the important role that non-verbal cues like BPhubbing play in impression management. Being fully present with colleagues sends a clear message that their input is valued and that they are important members of the team. Smartphone use during conversations reduces eye contact. Reduced eye contact undermines the likelihood of establishing an emotional connection or the ability to positively influence one's conversation partner.

Programs must be put in place that cultivate in supervisors these critical soft skills and the role smartphones can play in undermining their effective use. Role-playing is also a good tool for teaching supervisors the impact BPhubbing has on employees. Many supervisors may not grasp the importance of their undivided attention when they are talking with their employees. Appropriate role-playing scenarios will sensitize supervisors to the potentially negative impact of phubbing on employee supervisor trust, job satisfaction, and performance.

Lastly, companies must have smartphone use policies that delineate what is, and what is not, considered acceptable smartphone use in the workplace. A carefully crafted smartphone use policy, with input from employees, will set clear, reasonable, standards for smartphone use in the workplace (David, David, Meredith, & David, 2020). Standards must be consistently enforced but will take time until they become part of the corporate culture. All employees need to be made aware of the amount of time that is wasted by smartphone distractions and how their use in face-to-face communications can send the wrong message.

A good smartphone/technology corporate policy should include establishing smartphone-free zones and situations (meetings, work-related conversations) where smartphones are not allowed. How much leeway is given to employees will vary from organization to organization. Research and practical experience, however, suggest that if an organization does not have a reasonably comprehensive smartphone/technology policy in place, employees will increasingly use their phones for non-work-related activities drastically undermining their productivity.

## 9. Limitations and Future Research

The present research is not without limitations. To begin, the present research is correlational in nature. Roberts and David (2017) successfully manipulated boss phubbing revealing that phubbed

employees reported lower levels of supervisory trust and ultimately employee engagement. Additional causal research, however, is needed to better understand the direction of causal flow and the valence of potential reactions to being phubbed. It is possible that BPhubbing could be an outcome of poor employee-supervisor relationships. A study that involved two experiments by Abeele, Antheunis, & Schouten (2016), for example, seems to suggest that phubbing is a causal factor negatively impacting impression formation and social interaction quality.

The present study also relied on self-report measures of employee job performance which may be prone to social desirability bias. Future research could benefit from the use of more objective employee performance measures, as well as supervisory ratings of employee performance. Research has shown, for example, that although self-reported and objective measures of performance are related, they may differ in the specific aspects of performance that they assess (Harris & Schaubroeck, 1998). Future research is necessary to understand the nuances of the relationship between BPhubbing and objective ratings of employee performance.

Relatedly, the present research relied on samples from MTurk, which could represent a limitation. Indeed, it is possible that MTurk participants could respond to questionnaires in a manner that could adversely affect data quality. Evidence has shown, however, that MTurk datasets are generally high quality, as participants from MTurk tend to be relatively familiar with the scientific process and value their ability to contribute to scientific studies on real phenomena; whereas, community samples are more prone to respond in ways that they believe will help the researchers without regard to the integrity of the data they provide (Necka et al., 2016).

Similar research has shown that participants who have completed more studies are less likely to engage in problematic response behaviors, as these relatively prolific participants are often more involved with the research (Chandler et al., 2014). In addition, research comparing data from MTurk samples, student samples, and community samples, however, has shown comparable rates of problematic respondent behavior from all samples (Crump, John, McDonnell, & Gureckis, 2013; Horton, Rand, & Zeckhauser, 2011; Klein et al., 2014; Necka et al., 2016; Paolacci et al., 2010). Further, it should be noted that in effort to identify problematic respondent behaviors, a quality check item was embedded in each of our study questionnaires and nearly all participants passed the quality check. Also, of note, analyses were run (for each study) where these participants were not included in the data, and the results did not differ from those presented in the paper.

Future research is also needed that assesses any similarities and differences between BPhubbing and any of the many possible incivilities directed toward employees by their supervisors. The research presented herein not only suggested that BPhubbing is distinct from such incivilities, but it also empirically showed that perceived BPhubbing was associated with supervisory trust, above and beyond any impact of incivility. However, a correlational study by Cameron and Webster (2011) investigated the issue of multi-communicating (managing multiple conversations at the same time) and found that multicommuting leads to impressions of incivility on behalf of the offended party which undermined their trust in the multicommutator. Future research is needed to clarify the relationship between phubbing and incivility. It may be that BPhubbing is less intentional and more neglectful than the more purposeful and hurtful motives behind many incivilities.

## 10. Conclusion

Although advancements in technology surrounding mobile phones have certainly enhanced the speed and convenience with which managers can communicate, they have also presented businesses with additional challenges, such that they may hinder rather than foster

individual performance. The present research reveals that smartphone use by supervisors, while in the presence of their subordinates, is associated with reduced supervisor trust, which in turn is associated with lower subordinate job satisfaction and performance. Given that job satisfaction and job performance are cornerstones of a business' performance, future research that further investigates how smartphone use impacts workplace interactions and firm performance is critical. Going forward, businesses will be faced with the mounting challenge of effectively managing smartphone use in the workplace.

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