

Running Head: INFORMATION PRIVACY IN ORGANIZATIONS

**Information Privacy in Organizations: Empowering Creative and Extra-role Performance**

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**Information Privacy in Organizations: Empowering Creative and Extra-role Performance****Abstract**

This article examines the relationship of employee perceptions of information privacy in their work organizations and important psychological and behavioral outcomes. A model is presented in which information privacy predicts psychological empowerment, which in turn predicts discretionary behaviors on the job, including creative performance and organizational citizenship behavior. Results from two studies (Study 1 single organization,  $N = 310$ ; Study 2 multiple organizations,  $N = 303$ ) confirm that information privacy entails judgments of information gathering control, information handling control, and legitimacy. Moreover, a model linking information privacy to empowerment, and empowerment to creative performance and OCBs was supported. Findings are discussed in light of organizational attempts to control employees through the gathering and handling of their personal information.

**Information Privacy in Organizations: Empowering Creative and Extra-role Performance**

Information privacy concerns are growing amongst workers who face increasingly invasive information collection and dissemination demands from their organizations. At the same time, organizations have an increasing need to monitor and control members who may (either wittingly or unwittingly) jeopardize the security of organizational assets. The complexity of this dilemma is underscored by research demonstrating that the institution of rigid control regimes can undermine personal freedom and dignity and may have a constraining effect on discretionary behaviors that benefit the organization (e.g., Benner & Tushman, 2003; Staw, Sandelands, & Dutton, 1981), including creativity (Amabile, 1997; George & Zhou, 2001; Perry-Smith & Shalley, 2003; Tierney & Farmer, 2002) and organizational citizenship (Lee & Allen, 2002; Lepine, Erez & Johnson, 2002). Moreover, although the collection of personal information that is most vital to organizational interests is often deemed most invasive (Stone-Romero, Stone & Hyatt, 2003), situations exist where intense information gathering and control is viewed as necessary and acceptable (e.g., airport passenger screening, background checks for school employees). Our research addresses two critical needs in the area of information privacy within organizational contexts: the need for validated measurement tools that allow us to tap the different sub-dimensions of the construct and an understanding of how information privacy judgments relate to important organizational outcomes.

Research on information privacy has been focused on antecedents, examining how factors such as accuracy, relevance, voice, and outcome favorability affect individuals' perceptions of privacy as they relate to personnel selection (Fusilier & Hoyer, 1980), drug testing (Racicot & Williams, 1993; Stone & Kotch, 1989; Tepper & Braun, 1995), electronic monitoring (Alge, 2001; Zweig & Webster, 2003), and formal organizational information systems (Eddy,

Stone, & Stone-Romero, 1999). Less attention has been devoted to understanding the consequences of information privacy. Additionally, lack of validated measures has made it difficult to interpret and compare studies. Limitations include: reliance on ad hoc or unpublished items, failure to examine factor structures and dimensionality (usually only reporting reliability), inconsistent treatment of dimensionality, and reporting partial item lists and other incomplete information (Alge, 2001; Fusilier & Hoyer, 1980; Stone, Gueutal, Gardner & McClure, 1983). Other studies have developed privacy scales, but the focus has been on dispositional preferences for privacy (Marshall, 1974) or privacy values (Smith, Milberg, & Burke, 1996), both of which focus outside the organization and are context independent. Thus, we build upon prior measures of information privacy by identifying items and grouping them into theoretically meaningful dimensions, confirming dimensionality and ruling out other plausible factor structures, and ensuring that the measures discriminate between sub-dimensions and other constructs.

We propose that information privacy carries intrinsically motivating benefits that lead to increases in discretionary behaviors that help the organization (see Figure 1). However, we expect that the intrinsically motivating benefits provided by information privacy perceptions require a translating mechanism to enact the valued discretionary behaviors. Psychological empowerment, the feeling that people have some control over their surroundings and experience meaning in what they do, should act as a viable translating mechanism in this case. We begin by defining the information privacy construct and identifying its three sub-dimensions.

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### **Information Privacy: Control and Legitimacy Judgments**

Information privacy entails the degree of control an organization affords its employees over practices relating to collection, storage, dissemination, and use of their personal information

(including their actions and behaviors) and the extent that such practices are perceived as legitimate. Employees form perceptions about information privacy that can be broken down into beliefs about their own control over their personal information, including (a) the extent of their control over information gathering (collection and storage) and (b) the extent of their control over information handling (use and dissemination), as well as a belief concerning the legitimacy of a focal organization's personal information practices, or the degree to which individuals believe their focal organization's personal information practices violate their personal expectations of such practices, given the situation.

***Perceptions of Information Control: Information Gathering and Information Handling***

The concept of control or autonomy is central to many conceptualizations of information privacy (Alge, 2001; Eddy et al, 1999; Stone et al, 1983; Stone & Stone, 1990; Zweig & Webster, 2002). Westin (1967, p. 7) defined privacy in terms of control: as “the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others.” Similarly, Shils (1966) conceptualized privacy as control of the movement of information across a boundary from person to person or person to group. Altman (1975, pp. 17-18) defined privacy as the “selective control of access to one's self or group”, that involves the “opening and closing of the self to others and freedom of choice regarding personal accessibility”—less a “keep out” character and a greater emphasis on personal information “control.”

Information privacy involves different facets of information control (Stone et al., 1983). Consistent with Stewart and Segars (2002) and Westin (2003), we distinguish these facets in terms of the control one believes he or she has over the gathering of personal information (collection and storage), and once collected, how much control one believes he or she has over

the handling of that information (use and dissemination) . These dimensions are distinguishable, too, because they are separated in time, as employees form perceptions about the gathering of the information when they are asked for it or are told it is being collected, which generally occurs before they see how the organization handles the information. We label these control perceptions as *information gathering control* and *information handling control* respectively.

### ***Perceived Legitimacy of Information Practices***

Information privacy also embodies a *perceived legitimacy* component, reflecting one's belief in the extent that his or her organization's personal information gathering and handling practices have violated one's expectations of legitimate conduct, given the situation. At a socio-cultural level, privacy is closely related to "social legitimacy." As Westin (2003, p. 433) states, "When a society considers a given mode of personal behavior to be socially acceptable—whether it is hairstyle, dress, sexual orientation, political or religious belief, having an abortion, or other lifestyle choice—it labels such conduct as a private rather than a public matter. This generally means that such matters should not be inquired into for the purpose of denying someone access to the benefits, rights, and opportunities controlled by government or private organizations." This notion can be extended to one's personal view of the legitimacy of organizational attempts to collect and use personal information. According to this perspective, organizational information practices could be viewed as illegitimate when they violate an individual's expectations of how an organization should conduct itself. Importantly, one's views of how his or her organization should act are fluid and can change depending on the situation.

Collectively, these three sub-dimensions (information gathering control, information handling control, and perceived legitimacy) help explain the broader information privacy

construct; a construct that we argue is critical to understanding important psychological and behavioral reactions on the job.

### **Modeling the Outcomes of Information Privacy**

Our model proposes that information privacy is important to organizations in at least two ways. First, we propose that information privacy contributes to people's intrinsic motivation on the job by enhancing their sense of psychological empowerment. Second, we propose that information privacy increases the likelihood one will engage in discretionary behaviors. We have chosen to focus on two categories of discretionary behavior that have theoretical links to information privacy: organizational citizenship behavior (OCB) and creative performance. Finally, we predict that psychological empowerment mediates the relationship between information privacy and discretionary behavior. We expand on these linkages below.

#### ***Information Privacy, Intrinsic Motivation, and Discretionary Behavior***

Intrinsically motivated individuals are more likely to engage in discretionary behaviors. Intrinsic motivation concerns one's desire to perform a task or job for its own sake, rather than perform because of externally imposed prescriptions or associated extrinsic rewards. There has been some support that intrinsic motivation yields increased innovation and creativity (Amabile, 1997; Spreitzer, 1995). Similarly, intrinsic motivation should lead to greater helping that is not formally recognized, but rather, is performed for its own sake. Here, we focus on psychological empowerment, defined as intrinsic motivation embodying a set of four psychological states reflecting an individual's orientation towards his or her work: meaning, self-determination, impact and competence (see Appendix for items and sub-dimension definitions).

In examining potential antecedents of empowerment it becomes clear that control based constructs ought to feed one's overall sense of control or empowerment. Independence or

freedom from constraints of the group increases a person's sense of self-determination (Simmel, 1955). People who believe that they have control over personal information they are disclosing to the group should feel psychologically less constrained by the procedures and norms of the group, and experience a greater sense of self-determination and meaning in what they do.

Although information privacy is expected to influence discretionary behaviors, this effect is likely to be distal, with psychological empowerment serving a more proximal explanatory role. Theoretical support for the distal links between information privacy and discretionary behaviors can be found with respect to creativity (Westin, 1967; Pedersen, 1997) and with respect to OCBs more indirectly. For example, Bies (1993) notes the strong conceptual overlap between information privacy and procedural justice, the latter of which has been found to be strongly linked to OCBs (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Psychological empowerment, in turn, ought to be related to discretionary behaviors on the job—including those aspects of the job that one has more control over as well as those aspects of the job that are not necessarily required or part of one's formal roles. Here we focus on two increasingly important forms of discretionary behavior: OCBs and creative performance.

**OCB.** Organizational citizenship behavior (OCB), the most widely studied variation of extra-role behavior (Lepine et al., 2002), is discretionary behavior that promotes effective organizational functioning, but is not formally recognized by reward systems (Organ, 1988). OCBs can be differentiated in terms of their target or beneficiary (McNeely & Meglino, 1994). OCB dimensions of conscientiousness, civic virtue, and sportsmanship reflect a class of OCBs that primarily target or benefit the organization, what scholars have called OCB-O (e.g., attending voluntary meetings). Altruism and courtesy, alternatively, reflect helping behaviors directed at individuals, or OCB-I (e.g., helping a coworker solve a problem).

Because empowered individuals feel less constrained by their jobs, they have more discretion to act as moral agents to help others without the repercussions of moving off-task (Bandura, 2001), as might be the case in a highly formal, prescribed role. Moreover, empowerment is reflective of environments where personal relationships can develop. Self-determination allows for the unfolding of individuality among group members (Simon & Kampmeier, 2001; Kampmeier & Simon, 2001) and is critical for the development of intimacy, trust, and protected communication, all of which are critical functions of privacy (Pedersen, 1997; Westin, 1967). Employees who feel greater empowerment through increased self-determination will then be more likely to engage in OCB-I.

Feelings of empowerment can also enhance ones' identity to their organization leading to a stronger tendency to help the organization. For example, impact and meaning deal with interactions with the organization, and are consistent with social-identity theory and relational models of justice (Tyler, 1999). When an organization creates conditions to enhance the value of one's membership in that organization, social identity and exchange motives should lead employees to reciprocate by engaging in more citizenship behavior directed at the organization (Brief & Motowidlo, 1986), to enhance the value of the organization and maintain one's status as a valued member of the organization (Masterson, Lewis, Goldman, & Taylor, 2000; Skarlicki & Latham, 1996). Employees who feel they have greater standing and consequently who respect their organization because of what it stands for will be more likely to engage in OCB-O.

*Hypothesis 1:* Psychological empowerment will mediate the relationship between information privacy and OCB-I.

*Hypothesis 2:* Psychological empowerment will mediate the relationship between information privacy and OCB-O.

***Creative Performance.*** Creative performance is another discretionary behavior important for organizational survival and can help organizations to create and sustain a competitive advantage (Amabile, 1988; George & Zhou, 2001). Creative performance, or the generation of new ideas, products or procedures useful to organizations, is an important precursor to innovation (Amabile, 1988; Madjar, Oldham, & Pratt, 2002), and previous research has demonstrated that psychological empowerment positively relates to innovation (Spreitzer, 1996). Amabile's (1983; 1997) component model of creativity specifically identifies intrinsic task motivation as a precursor to creativity, and empirical research has supported this relationship (Shin & Zhou, 2003; Tierney, Farmer, & Graen, 1999). Westin (1967) argues that privacy is necessary in order to foster ideas and to allow these ideas to develop, free from public scrutiny. It is during such criticism-free zones that one will have the opportunity to be creative. Similarly, Pedersen (1997) suggested that solitude, a mechanism to maintain privacy, reduces evaluation apprehension and allows individuals an opportunity to experiment and be creative. Empowered individuals have the freedom to generate novel ideas and the confidence that such ideas will be valued. Indirectly, research has shown that close monitoring is associated with lower creativity. Such evaluation pressures force employees to desist from taking risks required for creativity and create a situation where workers end up mimicking each other rather than being creative (Zhou, 2003). Intense information gathering and control activities inhibit information sharing among coworkers that is important for creative idea generation (Zuboff, 1988).

*Hypothesis 3:* Psychological empowerment will mediate the relationship between information privacy and creative performance.

## **Method**

### ***Information Privacy Measurement Model***

From prior research, we identified an initial pool of 23 items that were consistent with each privacy sub-dimension. We reduced the final scale to 13 items (see results for item elimination rules). Table 1 contains the final information privacy scales used in the present study, definitions for each of the three sub-dimensions, key sources on which the sub-dimensions are based, and confirmatory factor loadings across two samples.

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### ***Study 1: Initial Analysis for Information Privacy Measurement Model***

***Sample and Procedures.*** Following Dillman's (2000) multi-contact strategy, a survey was sent to 525 white collar employees (e.g., administrators, office/clerical workers) from a variety of schools and departments within a large public university. The university collects and maintains a variety of types of personal information and data providing a relevant context for validating the information privacy scale. All subjects had an e-mail address and university provided computer. A total of 310 surveys were returned for a response rate of 59%. Sample characteristics were as follows: 76.5% female; average age (42.9 years); race (91.6% Caucasian, 1.9% African-American, 1.3% Hispanic, 0.6% Asian); education (21% high school, 20% some college, 59% undergraduate degree or higher); average tenure (8.8 years).

***Measures.*** The survey included the initial 23 information privacy items (for final items, see Table 1). The survey asked subjects to consider their organization's information policies and practices concerning the methods and procedures their organization uses to collect, store, use and disseminate personal and work-related information, including work behaviors.

### ***Study 2: Cross-Validation of Measurement Model and Structural Model Testing***

***Sample and Procedures.*** A survey was sent to 1,800 randomly selected and currently employed college graduates of a large public university with active e-mail accounts listed in the

alumni database. As with Study 1, we employed a multi-contact strategy to enhance response rate. A total of 489 usable surveys were returned for a 27% response rate. All respondents had at least an undergraduate level of education; average age was 41.6 years; average tenure was 9.6 years; 30% female. The ethnic breakdown: Caucasian (92%), African-American (3%), Asian (3%), Hispanic (1.5%).

To minimize common source bias, we collected OCB and creative performance ratings from coworkers. We included a “coworker survey” in the original survey packet. We asked each participant to give the coworker survey to a coworker who was familiar with their work. Complete confidentiality was assured in both surveys. Respondents were not required to write their names on the surveys and coworker surveys were matched through a sequence number. Coworker surveys were mailed directly to the researchers and coworkers were assured that their responses would not be seen by the coworker they were rating. We received 303 matched coworker surveys for a response rate of 62%.

***Additional Measures.*** In addition to the 13 item information privacy scale (Table 1), we measured psychological empowerment with Spreitzer’s (1995) 12-item scale, coworker perceptions of creative performance with a shortened five-item measure from George and Zhou’s (2001) 13-item measure, and coworker perceptions of organizational citizenship behavior with 23 items from Podsakoff, MacKenzie, Moorman, and Fetter (1990) (See appendix for a full list of these scale items). We also asked coworkers to indicate their relationship to the referent employee in terms of familiarity (years working as coworkers) and the employee’s relative status (“1” = subordinate or lower level; “2” = peer/similar level; “3” = supervisor, superior or higher level). Twenty-nine percent of the coworkers were subordinates, 52% peers, and 19% superiors.

To further control for common source bias between privacy and empowerment, we embedded six marker items theoretically unrelated to our substantive constructs (Lindell & Whitney, 2001).

### **Results: Studies 1 & 2**

Descriptive statistics can be found in Table 2. Examining the correlations between our marker item and other substantive variables provides face evidence that common source-method bias is not a serious threat. Additional tests utilizing methodology suggested by Williams and Anderson (1994) confirm that although there is some evidence of common source-method bias, it does not substantially alter the relationship between information privacy and empowerment.

#### ***Dimensionality of Information Privacy***

To examine the validity of our measurement model we first conducted exploratory factor analysis on a random 50% of the cases in Study 1 ( $N = 155$ ), specifying maximum likelihood estimation with oblique rotation. Three factors emerged. Items that did not load at least .40 or higher (see Bennett & Robinson, 2000) or that cross-loaded on other factors (as indicated by a difference of at least .30 between loadings per Nunnally & Bernstein, 1994) were dropped. Thirteen items were retained (see Table 1). We then conducted a three factor confirmatory analysis on the remaining items using the remaining 50% of cases ( $N=155$ ). Results of this cross-validation step confirmed that a 3-factor solution fit the data well,  $RMSEA = .06$ ,  $TLI = .93$ .

For both Study 1 and Study 2, full sample confirmatory factor analytic results for the expected three-factor measurement model and alternative two and one-factor measurement models are represented in Table 3 (sections A & B respectively), with factor loadings shown next to each item in Table 1. For Study 1, results indicate that the 3-factor solution provides a close fit to the data ( $N = 310$ ). All fit measures exceeded conventional standards of good fit. Moreover, applying the chi-square difference test, the three-factor solution provided a significantly better fit

than a two-factor solution combining control dimensions ( $\chi^2 \Delta (2) = 87.16, p < .05$ ) and the one-factor ( $\chi^2 \Delta (3) = 418.53, p < .05$ ) solution collapsing all dimensions. Results from Study 2 confirm the dimensionality and reliability findings from Study 1. Again, the three-factor solution provided the best fit to the data (see Table 3). Despite a high correlation between the control dimensions, a nested chi-square test once again indicated that the three-factor solution provided a relatively better fit to the data than the two-factor solution combining control dimensions ( $\chi^2 \Delta (2) = 71.99, p < .05$ ) and the one-factor solution ( $\chi^2 \Delta (3) = 650.65, p < .05$ ). For both studies, all sub-dimension reliabilities exceeded .70 (see Table 1).

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 Insert Tables 2 & 3 about here  
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Although Anderson and Gerbing (1988) indicate that the above demonstration of dimensionality provides evidence of discriminant validity, they recommend an additional test for situations where discrimination may be questionable. Because of the high correlation between control constructs, we compared a model in which the correlation between control dimensions was allowed to vary versus a model where the correlation was fixed to one (without legitimacy in the model). Further evidence of discriminant validity is established if the chi-square difference test is significant (Anderson & Gerbing, 1988; Shook, Ketchen, Hult, & Kacmar, 2004). The results suggest the unrestricted model fit better than the model where the correlation was restricted to 1 ( $\chi^2 \Delta (1) = 4.87, p < .05$ ), further supporting discriminant validity between control dimensions of privacy. Thus, the three factor measurement model for information privacy being proposed exhibits sufficient discriminant validity among its three sub-dimensions.

To test that information privacy is related, but distinct from psychological empowerment, we conducted a confirmatory factor analysis specifying two higher order factors (information privacy and psychological empowerment) indicated by each of their sub-dimensions

respectively. This solution fit the data well and fit significantly better than a model that collapsed information privacy and psychological empowerment indicators ( $\chi^2 \Delta (1) = 219.69, p < .01$ ), providing additional evidence of discriminant validity. The results from Study 1 and Study 2 suggest that our information privacy measurement model is reliable and valid. The proposed three sub-dimensions are distinguishable from each other, are reliable, and are distinguishable from other related constructs.

Because we conceptualize information privacy as a broad construct indicated by its three sub-dimensions, consistent with research suggesting that information privacy can be represented as a common factor (Stewart & Segars, 2002), we tested our hypotheses using the broader 2<sup>nd</sup> order information privacy construct as indicated by its three sub-dimensions.

### ***Confirmation of a General Model of Information Privacy and Outcomes***

***Overall Fit.*** Using data from Study 2, fit statistics confirm that the model provides a good fit to the data (e.g., RMSEA = .056, TLI = .98; Hu and Bentler 1999; see Table 3C). Figure 2 provides the standardized path loadings (including measurement model factor loadings), all of which are significant at  $p < .01$ .

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***Mediation Tests.*** For Hypotheses 1-3 we tested mediation following Baron and Kenny (1986) extended to structural equation modeling (Bing, Davison, LeBreton, & LeBreton, 2002; Grandey 2003; Holmbeck, 1997; Kenny, Kashy, & Bolger, 1998; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Rupp & Cropanzano, 2002). We also report the Sobel (1982) test, a measure of the indirect effect (i.e. the extent the effect of independent variable on mediator is carried forward to dependent variable), in situations where steps two and three in Baron and Kenny (1986) are satisfied, but step one is not (see also Kenny et al., 1998).

The above model test established significant relationships between our independent variable and mediator variable, as well as significant relationships between our mediator variable and our outcome variables (Baron and Kenny steps 2 & 3; see Figure 2). For mediation, one must also establish that the independent variable is related to the dependent variable when the mediator is absent (step 1), and that this relationship is reduced when the mediator is present (step 4). We ran three separate structural models to examine these direct relationships between information privacy and OCB-O, OCB-I, and creative performance respectively.

Both the paths from information privacy to OCB-O,  $\beta = .20$ ,  $p < .01$ , and OCB-I,  $\beta = .20$ ,  $p < .01$ , were significant. We then tested whether these relationships were weakened when the mediator was added to the model. In both cases, when the mediator, psychological empowerment, was added to the model, the direct relationship between information privacy and both OCB-O and OCB-I went from significant to non-significant, suggesting full mediation. Moreover, the nested chi-square difference test between the full mediation (indirect influence only) and partial mediation model (direct and indirect influence) suggested that the full mediation model provided a relatively better fit ( $\chi^2 \Delta (2) = 4.31$ ,  $p > .05$ ). The added complexity of the additional partial mediation paths (direct effect) did not significantly improve model fit, and we thus reject the more complex partial mediation model. Hypotheses 1 and 2 were supported. The positive relationships between information privacy and OCB-O and OCB-I are fully mediated by psychological empowerment.

However, the path from information privacy to creative performance was not statistically significant. Hypothesis 3 is not supported according to Baron and Kenny (1986). However, because scholars have recently suggested that the zero-order relationship between independent variable and dependent variable need not be present for mediation (Bing et al., 2002; Kenny et

al., 1998; MacKinnon et al., 2002), we also conducted a test of the indirect effect of information privacy on creative performance. The Sobel (1982) test suggests that the indirect effect of information privacy on creative performance (through empowerment) is significant,  $z = 2.34, p < .05$ , with a standardized indirect effect of .10, indicating a possible distal effect (Shrout & Bolger (2002). Although Hypothesis 3 is not supported using Baron and Kenny (1986), the Sobel (1982) test supports the conclusion of an indirect effect of information privacy on creative performance.

### **Discussion**

The present study contributes to the information privacy literature in at least two ways. First, the present study provides some of the first evidence linking employees' information privacy judgments to important psychological and behavioral outcomes. Specifically, information privacy was directly associated with psychological empowerment, and indirectly related to both OCB-I and OCB-O. Theoretically, this study establishes information privacy as a viable antecedent to empowerment, and provides some support for the mediating role of empowerment with organizational behaviors.

Second, in order to examine information privacy in organizations, it is important to have measures that tap into the constructs of interest. Although researchers have made several prior attempts to conceptualize and develop measures of privacy-related constructs (e.g., Marshall, 1974; Pedersen, 1997; Smith et al., 1996), this is the first study to develop the information privacy construct *within* an organizational context, including its measurement. We found that the higher order information privacy construct can be represented in terms of three sub-dimensions: information gathering control, information handling control, and perceived legitimacy of information policies. Moreover, we validated scales that tap into each of these three sub-

dimensions by confirming that they represent distinct sub-dimensions, are reliable, and can be distinguished from other constructs such as psychological empowerment.

The present study suggests that creative performance is likely one benefit of ensuring an intrinsically motivating workplace. Surprisingly, although creative performance was related to psychological empowerment, it was unrelated to information privacy. Perhaps information privacy is not as important to creativity as originally thought (e.g., Pedersen, 1997; Westin, 1967), but a key psychological mechanism privacy is purported to support, empowerment, is. Alternatively, the relationship between information privacy and creative performance may be context specific. This relationship, for example, may depend on factors like coworker support and employee personality (George & Zhou, 2001), or type of industry. Also, if information privacy is a distal antecedent of creative performance, the zero-order effect of information privacy on creative performance may be low and undetectable. A weaker effect might be observed as well if coworkers were judging employees creative performance based on innovations (which can take months to realize), rather than creative behaviors expressed on a daily basis. We found a significant indirect effect of information privacy on creative performance applying Sobel (1982). Ultimately, additional future research will have to decide whether or not information privacy is or is not a distal antecedent to creative performance.

Results of the present study have implications for organizational control initiatives. Organizations implement controls for a variety of reasons, including the goal to generate behaviors that are consistent with organizational goals. However, prior research has demonstrated that control initiatives can undermine employee perceptions of fairness and privacy (e.g. Alge, 2001). This suggests that increased attempts to control can potentially lead to unintended consequences. Although monitoring and control initiatives may reduce the incidence

of misbehavior and discourage security breaches, they may also inhibit an organization's ability to innovate (Zhou, 2003) and may dissuade employees from extending themselves beyond their formally prescribed roles insofar as empowerment is reduced.

The cross-sectional nature of the study design precludes us from drawing causal inferences. There are also potential biases introduced in allowing employees to select the coworker rating them as well as having only one coworker rating. For example, employees could select coworkers with whom they have a good working relationship. Despite this potential, we felt that this strategy outweighed alternatives, such as allowing the employee to rate themselves on creative and extra-role performance. Moreover, both the status and familiarity of the coworker were unrelated to coworker ratings of employee behaviors (see Table 2).

Information privacy is a complex issue for organizations. Workers in certain industries (e.g., academia, R&D) may be more sensitive to privacy violations. In other situations, privacy invasions may be deemed more reasonable, including the aforementioned scenarios of airport passenger screening and school employees. Future research is needed, therefore, to discern how contextual factors influence the relationship between information control initiatives and individual freedom or privacy. This balancing act is delicate: too little organizational control and organizations run the risk that employees may behave opportunistically, possibly leading to security breaches. Too much organizational control and individuals may believe their privacy is compromised. Insofar as people feel less empowered, creativity and extra-role behaviors may be diminished impeding an organization's ability to develop and sustain a competitive advantage. Future research should continue to explore this intriguing paradox.

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**Table 1**

*Information Privacy Items<sup>a</sup> with Confirmatory Factor Loadings for Study 1(N=310) and Study 2 (N=489)*

Measure Item	Study 1	Study 2
<u>Perceived legitimacy<sup>b</sup></u> : Belief in the extent that an organization's personal information gathering and handling practices have violated one's expectations of how it should conduct itself, given the situation.		
1. I feel that my organization's information policies and practices are an invasion of privacy	<b>.65</b>	<b>.70</b>
2. I feel uncomfortable about the types of personal information that my organization collects	<b>.72</b>	<b>.56</b>
3. The way that my organization monitors its employees makes me feel uneasy	<b>.84</b>	<b>.75</b>
4. I feel personally invaded by the methods used by my organization to collect personal information	<b>.73</b>	<b>.86</b>
5. I have little reason to be concerned about my privacy here in my organization (Reversed)	<b>.51</b>	<b>.53</b>
<u>Information gathering control<sup>c</sup></u> : Belief in one's ability to control what personal information their organization can collect and store.		
6. I am able keep my organization from collecting personal information about me that I would like to keep secret	<b>.53</b>	<b>.52</b>
7. I determine the types of information that my organization can store about me	<b>.65</b>	<b>.64</b>
8. I am completely satisfied that I am able to keep my organization from collecting personal information about me that I want to keep from them	<b>.64</b>	<b>.67</b>
9. I am satisfied in my ability to control the types of personal information that my organization collects on me	<b>.77</b>	<b>.76</b>
<u>Information handling control<sup>c</sup></u> : Once personal information is collected by an organization, the belief in one's ability to control how their organization uses and disseminates that information.		
10. My organization always seeks my approval concerning how it uses my personal information	<b>.64</b>	<b>.81</b>
11. My organization respects my right to control who can see my personal information	<b>.64</b>	<b>.71</b>
12. My organization allows me to decide how my personal information can be released to others	<b>.81</b>	<b>.88</b>
13. I control how my personal information is used by my organization	<b>.84</b>	<b>.86</b>

<sup>a</sup> All items use a seven-point scale with anchors of 1 = Strongly Disagree and 7 = Strongly Agree.

<sup>b</sup> Sources for dimension/items: Eddy et al. (1999); Stone & Kotch (1989); Stone (1981); Tepper & Braun, 1995.

<sup>c</sup> Sources for dimension/items: Altman (1975); Eddy et al. (1999); Smith et al. (1996); Stone et al. (1983); Stone (1981); Westin (1967).

**Table 2<sup>a</sup>***Means, SDs, Zero-Order Correlations, and Reliabilities Among Scale Composites for Study 1 and Study 2*

Construct	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Perceived Legitimacy	2.87 (3.84)	1.10 (1.05)	.81 (.80)	.28**	.39**										
(2) Information Gathering Control	3.61 (3.50)	1.21 (1.11)	.38**	.75 (.75)	.51**										
(3) Information Handling Control	3.50 (3.56)	1.37 (1.08)	.38**	.68**	.88 (.81)										
(4) PE- Meaning	5.91	1.18	.25**	.18**	.22**	.93									
(5) PE- Self-determination	5.90	1.09	.21**	.17**	.14**	.34**	.89								
(6) PE-Impact	4.60	1.53	.21**	.27**	.32**	.44**	.48**	.90							
(7) PE- Competence	6.27	.72	.07	.03	.04	.27**	.31**	.20**	.79						
(8) OCB-I	5.97	.77	.07	.16**	.13*	.11*	.13*	.06	.10	.91					
(9) OCB-O	6.10	.62	.18**	.16**	.15**	.20**	.20**	.21**	.07	.67**	.84				
(10) Creativity	5.84	.84	.06	.05	.00	.18**	.24**	.21**	.18**	.45**	.40**	.88			
(11) Familiarity with Coworker	4.95	5.24	-.04	-.04	.04	.17**	.00	.10	.09	-.05	.00	.03	--		
(12) Status Relative to Coworker	1.88	.73	-.05	-.04	-.10	-.02	-.05	-.09	-.03	-.05	-.08	-.03	.05	--	
(13) Marker Variable	5.51	.83	.15**	.07	.04	.14**	.09*	.05	.09	.03	.05	.03	.11	-.01	.61

<sup>a</sup> Study 1  $N = 310$ ; Study 2  $N = 286-303$  for correlations with OCB-I, OCB-O, Creativity, Status, Familiarity.  $N = 489$  for all other Study 2 relationships. Study 1 correlations above diagonal, Study 2 correlations below diagonal. Alphas on diagonal for Study 2 (in parentheses for Study 1). Descriptives for Study 1 in parentheses. \*  $p < .05$ , \*\*  $p < .01$ .

**Table 3***Confirmatory Measurement and Structural Model Fit Results*

Structure	$\chi^2$	df	$\chi^2/df$	NNFI (TLI)	RMSEA	RMSEA Confidence Interval
<b>A. Study 1 Information Privacy Sub-Dimensions CFA (<math>N = 310</math>)</b>						
One-Factor	551.72**	65	8.49	.94	.156	(.144, .168)
Two-Factor <sup>a</sup>	220.35**	64	3.44	.98	.089	(.076, .102)
Three-Factor	133.19**	62	2.15	.99	.061	(.047, .075)
<b>B. Study 2 Information Privacy Sub-Dimensions CFA (<math>N = 489</math>)</b>						
One-Factor	888.64**	65	13.67	.92	.16	(.151, .169)
Two-Factor <sup>a</sup>	309.98**	64	4.84	.98	.088	(.078, .098)
Three-Factor	237.99**	62	3.84	.98	.076	(.066, .086)
<b>C. Study 2 Structural Model Test (<math>N = 303</math>)</b>						
Hypothesized Model	1593.59**	623	2.56	.98	.056	(.053, .059)

\*\*  $p < .001$ .

<sup>a</sup> The two factor solution combined the 8 items comprising the two control dimensions (information gathering and information handling) into a single dimension with legitimacy remaining a separate dimension.

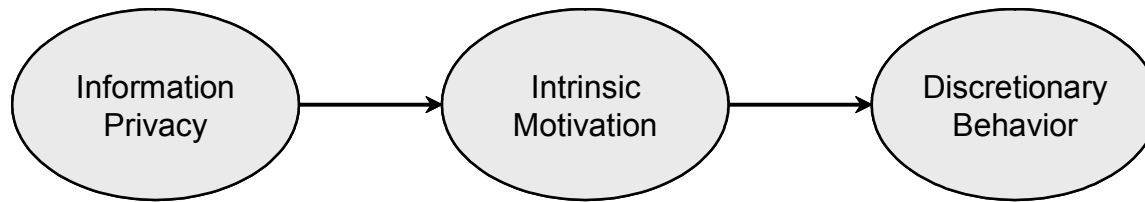
**Figure Captions**

*Figure 1.* Guiding theoretical framework and hypothesized model

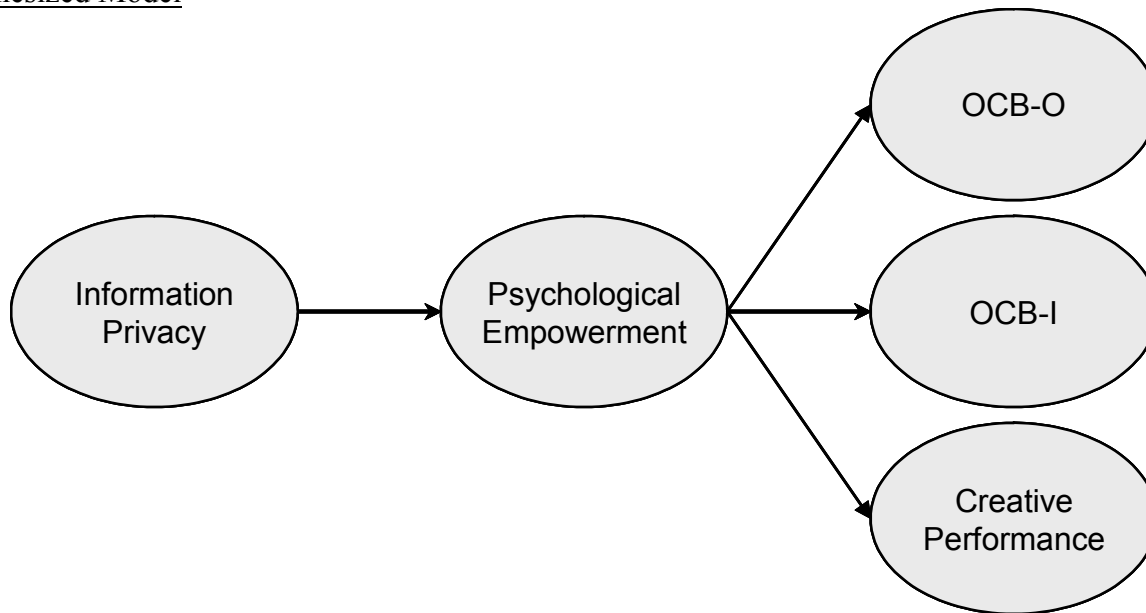
*Figure 2.* Results of higher order (i.e. broad dimension) structural model (standardized) of the relationship of information privacy (2<sup>nd</sup> order), psychological empowerment (2<sup>nd</sup> order) and discretionary behaviors

**(FIGURE 1)**

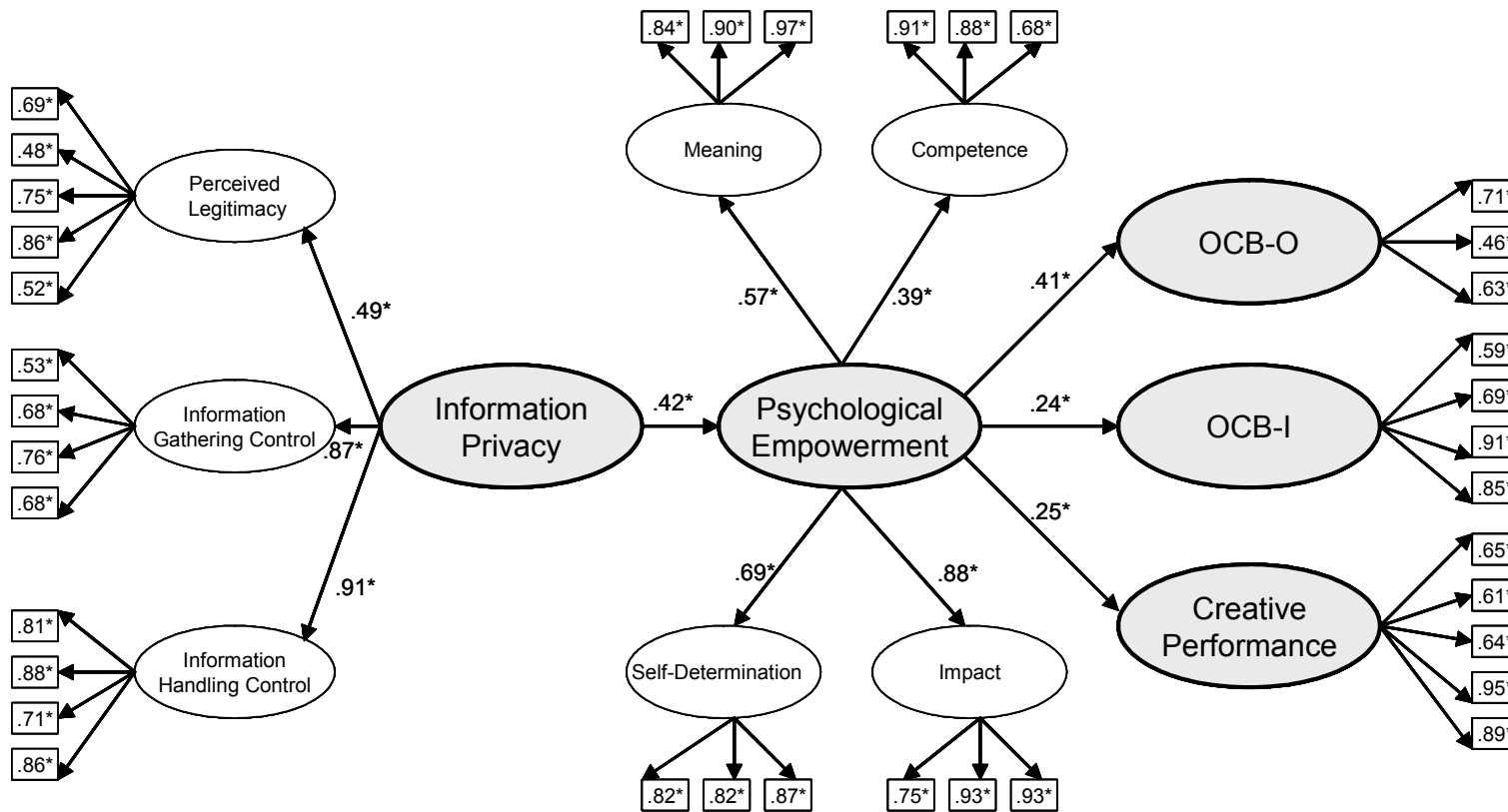
Guiding Theoretical Framework



Hypothesized Model



(FIGURE 2)



Note. Factor loading for each measured variable are within boxes. Gray-shaded ovals represent highest level of construct in the model. OCB-O = organizational citizenship directed at the organization, OCB-I = organizational citizenship directed at the individual. OCB-I is indicated by two items parcels for altruism and two item parcels for courtesy.

\*  $p < .01$

## Appendix

### *Psychological Empowerment (Spreitzer, 1995)*

#### **Meaning ( $\alpha = .93$ ):**

- The work I do is very important to me
- My job activities are personally meaningful to me
- The work I do is meaningful to me

#### **Self-determination ( $\alpha = .89$ )**

- I have significant autonomy in determining how I do my job
- I can decide on my own how to go about doing my work
- I have considerable opportunity for independence and freedom in how I do my job

#### **Impact ( $\alpha = .90$ )**

- My impact on what happens in my organization is large
- I have a great deal of control over what happens in my organization
- I have significant influence over what happens in my organization

#### **Competence ( $\alpha = .79$ )**

- I am confident about my ability to do my job
- I am self-assured about my capabilities to perform my work activities
- I have the skills necessary for my job

Sub-dimension definitions: meaning—the fit between the requirements of one’s role and one’s beliefs, values, and behaviors; self-determination—control over the initiation and continuation of work behavior and processes; impact—the degree to which a person can influence strategic, administrative or operating outcomes in their organization; and competence—confidence in carrying out one’s tasks (Spreitzer, 1995; 1996; Thomas & Velthouse, 1990).

### *Organizational Citizenship Behavior (Podsakoff et al. 1990)*

#### **OCB-O ( $\alpha = .84$ )**

- Attendance at work is above the norm (Conscientiousness)
- Does not take extra breaks (Conscientiousness)
- Obeys company rules and regulations even when no one is watching (Conscientiousness)
- Is one of our most conscientious employees (Conscientiousness)
- Believes in giving an honest days work for an honest days pay (Conscientiousness)
- Consumes a lot of time complaining about trivial matters (Sportsmanship) (Reverse)
- Always focuses on what’s wrong, rather than the positive side (Sportsmanship) (Reverse)
- Tends to make “mountains out of molehills (Sportsmanship) (Reverse)
- Always finds fault with what the organization is doing (Sportsmanship) (Reverse)
- Is the classic “squeaky wheel” that always needs greasing (Sportsmanship) (Reverse)
- Attends meetings that are not mandatory, but considered important (Civic Virtue)
- Attends functions that are not required but help the company image (Civic Virtue)
- Keeps abreast of changes in the organization (Civic Virtue)
- Reads and keeps up with organization announcements, memos, and so on (Civic Virtue)

**Appendix (continued)****OCB-I ( $\alpha = .91$ )**

- Takes steps to try to prevent problems with other coworkers (Courtesy)
- Is mindful of how his/her behavior affects other people's jobs (Courtesy)
- Does not abuse the rights of others (Courtesy)
- Tries to avoid creating problems with coworkers (Courtesy)
- Considers the impact of his/her actions on coworkers (Courtesy)
- Helps others who have been absent (Altruism)
- Helps others who have heavy workloads (Altruism)
- Willingly helps others who have work related problems (Altruism)
- Is always ready to lend a helping (Altruism)

**Creative Performance (George & Zhou, 2001) ( $\alpha = .88$ )**

- Comes up with creative solutions to problems
- Not afraid to take risks
- Promotes and champions ideas to others
- Is a good source of creative ideas
- Exhibits creativity on the job when given the opportunity to

*Note:* The original George and Zhou scale was 13 items. We used a shortened version in order to keep the coworker survey to a single page. Items representing conscientiousness, sportsmanship, and civic virtue were grouped together to form the OCB-O measure. The courtesy and altruism dimensions were grouped together to form a measure of OCB-I. One item from the OCB-I (altruism) measure was omitted, again due to our desire to keep the coworker survey to one page. All items in appendix use a seven-point Likert scale with anchors of 1 = Strongly Disagree and 7 = Strongly Agree.