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A NEW LENS: PSYCHOLOGICAL OWNERSHIP AS AN ELEMENT TO
PROMOTING ORGANIZATIONAL CHANGE

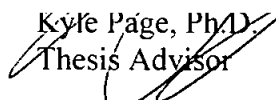
By
TYLER CARLSON

A master's thesis submitted in partial fulfillment of the requirements for the
Master of Science
Major in Industrial and Organizational Psychology
South Dakota State University
2019

A NEW LENS: PSYCHOLOGICAL OWNERSHIP AS AN ELEMENT TO
PROMOTING ORGANIZATIONAL CHANGE

TYLER CARLSON

This thesis is approved as a creditable and independent investigation by a candidate for the Master of Science degree and is acceptable for meeting the thesis requirements for this degree. Acceptance of this does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.


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Date

This thesis is dedicated to my parents, significant other, and “the boys.” Without each of them in my corner throughout this journey I’ve been through, it would have been impossible to accomplish. Thank you all for the encouragement, support, and laughs along the way. Cheers.

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Writing this paper would not have been possible without the support of my advisor, Kyle. He has helped me develop as a writer, researcher, and professional. Furthermore, Alper, and Dr. Pederson have been phenomenal with assisting me. Additionally, Scott Schaefer has provided me with many of the resources required to complete this work; thank you for all your help along the way. Lastly, my fellow I/O Grad students. We went through all this together for the past two years, and I don't think any of us would of made it without each other. Thank you all for your support and I wish you all the best in the future.

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ABBREVIATIONS

EOOC	Employee Openness to Organizational Change
OC	Organizational Commitment
JS	Job Stress
TI	Turnover Intentions
PO	Psychological Ownership
RFT	Regulatory Focus Theory
PTOC	Psychological Theory of Organizational Change

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ABSTRACT

A NEW LENS: PSYCHOLOGICAL OWNERSHIP AS AN ELEMENT TO
PROMOTING ORGANIZATIONAL CHANGE

TYLER CARLSON

2019

Much of the change management literature has focused on change from the perspective of the organization as a whole. However, researchers have begun to explore the impact change has on employees, as well as employee perceptions of organizational change. The current study explored the role psychological ownership has in the context of organizational change, by using it as a moderator between employee openness to organizational change (EOOC), and organizational commitment, job stress, and turnover intentions. Results revealed a significant positive correlation between EOOC and organizational commitment, a significant negative correlation between EOOC and job stress, as well as turnover intentions. Results further revealed that psychological ownership moderated the relationship between EOOC and job stress, such that when psychological ownership is high, the relationship with job stress was weakened. Implications and directions for future research are discussed.

INTRODUCTION

In today's competitive marketplace, organizations are facing more change than ever before as they work to gain or maintain a competitive edge (Connor, 1992). In 2006, the American Management Association reported that 82% of U.S. companies were in the process of at least one major change initiative and 46% claimed that one or more change initiative was planned. Moreover, although organizations recognize the need for change, many still fail in change efforts. In fact, roughly 70% of change initiatives fail (Tasler, 2017); leading many to wonder what factors contribute to a successful organizational change.

In every organization, there are employees that thrive under times of change, but often, the majority of employee's experience feelings of discomfort, stress, and uncertainty (Bordia, Hobman, Jones, Gallois, & Callan, 2004; Coch & French, 1948). When organizations participate in change efforts, employees are expected to be willing and able to help the company succeed (Armenakis, Harris, & Mossholder, 1993). However, studies suggest that even with this expectation of participation, many employees' still resist change initiatives (Schlesinger & Kotter, 1979; Strelbel, 1996). Researchers have focused their efforts on the role that employees play to understand why some organizational change efforts fail while others succeed (Ford & Ford, 1995; Tsoukas & Chia, 2002; Wanberg & Banas, 2000). Specifically, in a sample of 133 officials from the National Association of Housing and redevelopment (NAHRO) it was found that information about the change, self-efficacy, and participation were predictive of higher levels of employee openness to change and lower levels of turnover (Wanberg,

& Banas, 2000). This suggests that when organizations decide to implement any level of change, information, and participation are key elements to ensure success. Moreover, researchers have suggested that cynicism plays a unique role in employee perceptions of organizational change (Reichers, Wanous, & Autsin, 1997; Brockway, Carlson, Jones, & Bryant, 2002), arguing that when cynicism is high in employees, change initiatives become increasingly difficult to implement (Stanley, Meyer, & Topolnysky, 2005).

Work done by Dirks, Cummings, and Pierce (1996) suggest that psychological ownership may have the potential to explain why individuals either promote or resist organizational change initiatives. They suggest that the relationship between an individual's psychological ownership of an object (i.e., an organization or specific role in an organization) and his or her disposition toward changing that object is moderated by the type of organizational change taking place. Subsequently, the primary aim of the current study is to further psychological theory of organizational change and regulatory focus theory (Higgins, 1997, 1998) by exploring the effect that psychological ownership has on the relationship between employee openness to organizational change and specific workplace outcome variables (i.e., organizational commitment, job stress, and turnover).

Psychological Ownership

Children often describe their relationship with objects and other humans by using words and phrases like “me,” “mine,” “my toy,” “my mom,” and “my friends,” suggesting that ownership starts in early childhood (Furby, 1980). This progresses into adulthood and manifests through other targets of ownership such as houses, boats, and family. Psychological ownership can be defined as a state in which individuals feel as though the target of ownership, or a piece of it, is theirs (Pierce, Rubenfeld, & Morgan,

1991). As the relationship between an individual and the target of ownership becomes stronger, it eventually becomes an extension of self, resulting in a strong state of psychological ownership (Belk, 1998).

It is unclear where the exact roots of psychological ownership rest and as such, there has been a variety of theorized research. It may be that psychological ownership is a result of an innate need to possess (Porteaous, 1976; Weil, 1952), which suggests that humans have a genetic makeup that drives them to collect and possess various items, whereas it may be that psychological ownership is learned through interactions with others (Ditman, 1992). In fact, this would support some research such as that pertaining to Conservation of Resources theory (Hobfoll, 1989). Some researchers, who take a moderate stance on the roots of psychological ownership, suggest that both genetic and social factors work together to create a state in which psychological ownership exists (Pierce, Kostoca, & Dirks, 2001). Specifically, it has been argued that psychological ownership exists in three motives: (1) efficacy, (2) self-identity, and (3) having a place. Meaning, psychological ownership exists when individuals feel they have control over their decisions, a sense of identity, and a place to call theirs, respectively. Regardless of the specific roots of psychological ownership, the construct is discussed throughout the literature, and it has been identified as a fundamental element of human nature (Pierce, Rodgers, 2004; Rudmin, & Berry, 1987), leading research to explore the relationship psychological ownership has with other constructs.

Regulatory Focus Theory (RFT; Higgins, 1977, 1998) argues that psychological ownership takes two unique forms, promotion and prevention (Avery, Avolio, Crossley, & Luthans, 2009). Individuals who have a promotion focus are more concerned with

professional accomplishments, aspirations, and are more willing to take risks while those who operate in a prevention focused manner, are more concerned with specific duties and obligations and tend to experience more stress and uncertainty (Kark & Van Dijk, 2007). As such, individuals who have a different focus may experience different emotions. For example, an employee who possess a more promotion focused psychological ownership may seek to learn new ways to improve the efficiency of a process because they view it as personal fulfillment, whereas an employee who has a more preventative focus may withhold this type of information to avoid change at the organization. Furthermore, promotional psychological ownership may be a product of sub-elements (I.e., self-efficacy, accountability, sense of belongingness, and self-identity) and preventative psychological ownership may be related to feelings of territoriality, or rather feeling protective over the things that are believed to be owned by a person (Avery et al., 2009).

The sub-elements believed to create a state of promotional psychological ownership are described as innate human traits, or motives within an individual. Self-efficacy is the belief an individual has regarding their ability to successfully complete something (Bandura, 1977). When an individual has the ability to control their own actions, there is an active psychological component present that leads to feelings of self-efficacy, which may in turn, promote psychological ownership. Accountability refers to the possible requirement that an individual may have to justify their beliefs and feelings to others in their organization (Lerner & Tetlock, 1999). By employees holding themselves, as well as other accountable, promotional psychological ownership may develop. Specifically, when people take ownership over various objects, it is in effort to satisfy their need to belong (Ardrey, 1966). At work, this idea manifests itself through

specific roles, projects, and workspaces. Lastly, through the time spent at work, employees develop an identity. By having passion in the work being done and achieving results, promotional psychological ownership develops.

Prevention oriented psychological ownership can be described as having an element of territoriality as organizational members become protective over physical spaces, ideas, roles, and other possessions over the course of their tenure at an organization (Avery, et al., 2009; Brown & Robinson, 2005). Individuals may mark items as being exclusively theirs if feelings become strong enough and even engage in protective territoriality to communicate ownership and deter others from encroaching on their belongings (Avery et al., 2009). Therefore, when feelings of ownership develop in the workplace, employees may behave in a territorial way, leading to intergroup conflict and other negative consequences.

Organizational Change

Scholars and practitioners have studied organizational change for decades, primarily focusing on change from the perspective of the organization as a whole (Galpine, 1996; Judson, 1991; Kotter, 1995; Lewin, 1947). However, in recent years, research focusing on employee outcomes, such as organizational commitment, job stress, and turnover intentions during organizational change initiatives, has increased (Vakola & Nikolaou, 2005; Wanberg et al., 2000).

Organizational commitment is an emotional attachment to, identification with, and involvement in a particular organization (Allen & Meyer, 1990) and is related to employee experience at work (Glazer & Beehr, 2005; Tucker, Sinclair, & Thomas, 2005). As such, employees who are committed to an organization often align with its goals,

values, and beliefs. Research also suggests that employees with higher levels of organizational commitment tend to have stronger performance (Brett, Cron, & Slocum, 1995, Kontoghiorghes, 2016). However, when organizations are in times of change due to initiatives such as mergers, acquisitions, or technology changes, it is unclear what happens to employees' organizational commitment.

Individual differences theory, proposes that due to different cognitive structures, individuals react differently to various stimuli (Armenakis & Harris, 2002). In the context of organizational change, individuals tend to react differently when change proposals are made and/or initiated. These various reactions are based on personality types, personal experiences, work experiences, organizational culture, and mental processes (Madsen, Miller, & John, 2005). Employee' levels of organizational commitment during times of organizational change may also vary significantly. Some research has found a positive relationship between employee' openness to change and organizational commitment (Fedor, Caldwell, & Herold, 2006; Madsen et al., 2005), but due to the high focus on organizational commitment during times of change (Meyer, et al., 2002; Maertz, Mosley, & Alford, 2002; Mowday, Steers, & Porter, 1976), it will be re-tested in the present study.

Hypothesis 1: During an organizational change, employee openness to change will positively relate to organizational commitment.

Similarly, to organizational commitment, job stress has been a central focus of research due to the negative effect it has on employees, as well as the organization a whole (Vakola, & Nikolau, 2005). Job stress can be defined as deviation from normal psychological or physiological functioning as a result of an individual's immediate

environment (Parker & DeCotis, 1983). Meaning, any stimuli that alters an individual's environment in a negative way, results in an agitated state. It's been noted that employees who experience higher job stress, display low motivation and morale, decreased performance, and have a higher chance of turnover (Schabracq & Cooper, 2000; Murphy, 1995).

Uncertainty theory proposes that employee' levels of job stress is a function of uncertainty, importance, and duration (Cooper, 1998). These elements work together to create a spectrum where employees find themselves experiencing either low rates of stress or very high rates of stress. Organizations are beginning to understand the need to manage employee' stress to ensure the health of employees as well as organizational goals. Research on employee' stress and organizational change suggests that if employees are highly stressed due to a change initiative, there is a significantly higher chance that the change will not be implemented successfully (Elrod and Tippett, 2002; Grant, 1996). Oppositely, when employees feel engaged in the change initiative, they generally experience positive emotions toward the change, less stress, and it's more likely the change initiative is successful (Weber & Weber, 2001; Kotter, 2007).

Hypothesis 2: During an organizational change, employee openness to change will be negatively related to job stress.

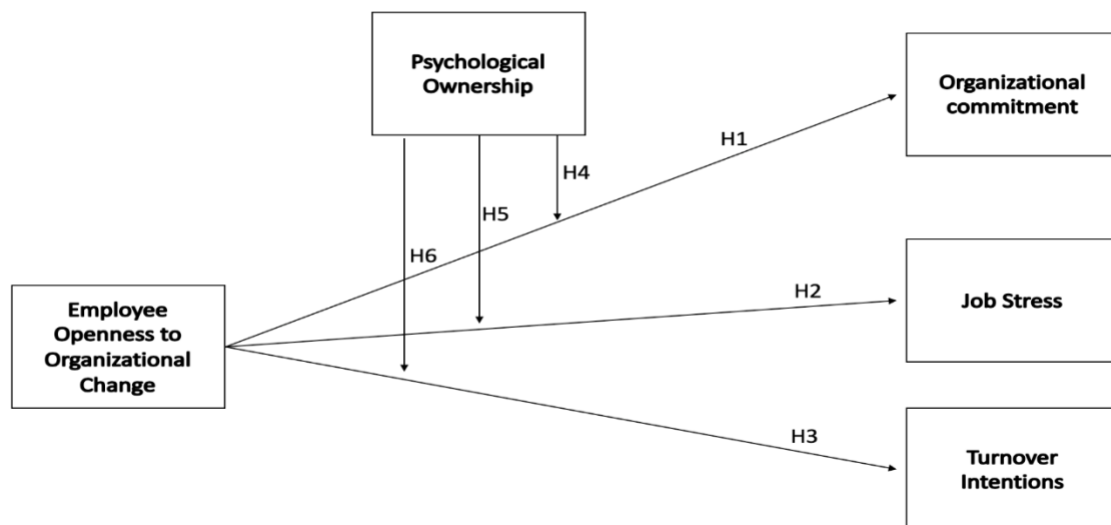
Employee turnover is of concern for every organization, regardless of size. It has been reported that, for a manager making \$40,000 per year, the average cost to replace that manager is between \$20,000 and \$30,000 (Merhar, 2016). The cost of turnover has driven many researchers to investigate variables that may affect it. A recent meta-analysis

showed that job satisfaction, organizational commitment, and withdrawal cognitions were some of the strongest predictors of turnover intentions (Grifeth, Hom, & Gaertner, 2000).

During organizational change initiatives, roles are often revisited, revised, or possibly eliminated leading many employees to question their role in the organization. Job roles are patterns of behavior that organizations require from employees (Anton, 2009). Role stress theory proposes that when employees are uncertain about their role in an organization, stress levels increase. Increased stress, in turn, relates to lower job satisfaction and organizational commitment and higher levels of turnover intentions (Quick & Quick, 1984; Anton, 2009). During times of change, employees may find their roles changing, in terms specific tasks and responsibilities, but also in terms of how their role impact the entire business.

Hypothesis 3: During an organizational change, employee openness to change will negatively related to turnover intention.

Figure 1. Hypothesized Model



Organizational Change and Psychological Ownership

As aforementioned, understanding why some employees embrace change, while others oppose it, is a key element to understanding how change impacts employees. This has led research to focus on understanding employees who embrace organizational change. Specifically, Armenakis, Bernerth, Pitts, and Walker (2007), have identified five core employee beliefs, identified as Change Recipients' Beliefs: discrepancy, appropriateness, efficacy, principal support, and valence.

Discrepancy is the idea that employees must recognize the need for change and believe the change is necessary in order for a successful change initiative to occur (Bandura, 1986; Bartunek, Rousseau, Ruddolph, & DePlama, 2006; Rafferty & Griffen, 2006; Rousseau & Tijoriwala, 1996). Research suggests that when employees are aware of the need for change, their commitment to ensuring a successful change initiative occurs increases (Parish, Cadwallader, & Busch, 2006). Appropriateness, refers to how appropriate an employee believes the change is, in terms of depth. A variety of studies demonstrate that when employees are exposed to the reasons why change is occurring and to the level of change that is taking place, they tend to be less uncertain than employees who did not receive the information (Pecorella, 1975; Rousseau & Tijoriwala, 1999; Rafferty & Griffen, 2006). Thus, communication is a critical element in ensuring a successful change initiative. Efficacy, in the context of organizational change, can be defined as the level in which an employee believes they are capable of implementing the change (Bandura, 1986). Employees who have higher self-efficacy are more likely to accept change. Principal support is the idea that managers support the change initiative, and through a process known as behavioral integrity (Simons, 2002), behaving in a way

that demonstrates their support for the change. This in turn is recognized by followers and greater support for the change is achieved. Lastly, valence is described as the perceived award to be gained following a change initiative. Research demonstrates that when employees are rewarded for their part in a change initiative, overall perceptions of the change are higher, and employees are more open to the change (Van Dam, 2005; Morese & Reimer, 1956).

Psychological theory of organizational change (PTOC), proposes that psychological ownership may have the potential to explain why individuals resist or promote organizational change (Dirks, et al., 1996). Unlike most change theories that start with an individual and end with a target of change, PTOC proposes that an individual's disposition toward a change initiative is dependent on the presence of a third variable (i.e., psychological ownership). This theory stems from three basic needs of the self: (1) self-enhancement, (2) self-continuity, and (3) control and efficacy. These basic needs work together in an individual, motivating them to either promote or resist organizational change.

Psychological ownership has already been researched for decades in organizations, with research finding it relating significantly to organizational commitment and organizational citizenship behaviors (Vandewalle, Van Dyne, & Kostova, 1995), and serving as a mediator in the relationship between transformational leadership and organizational citizenship behavior (Park, Song, Yoon, & Kim, 2013). However, it has not been studied in the context of organizational change. Building up PTOC may offer to organizations another avenue to understand employee's during

organizational change initiatives. Subsequently, it will serve as a moderator in the current study.

Hypothesis 4: During an organizational change, psychological ownership will moderate the relationship between employee openness to change and organizational commitment such that when psychological ownership is high, the relationship will be stronger.

Hypothesis 5: During an organizational change, psychological ownership will moderate the relationship between employee openness to change and job stress such that when psychological ownership is high, the relationship will be stronger.

Hypothesis 6: During an organizational change, psychological ownership will moderate the relationship between employee openness to change and turnover intentions such that when psychological ownership is high, the relationship will be stronger.

MATERIALS AND METHODS

Participants and Procedure

Participants were human resource (HR) employees from a large, nonprofit, Midwestern healthcare organization. Surveys were distributed through Qualtrics, an online survey software. Individuals ($n = 343$) were contacted through the company listserv. Of those contacted, 152 (44%) completed the survey. The 5-10-minute survey was taken by the HR employees during their workday while one of the largest change initiatives in the company's history was occurring. Specifically, a new human resource software, Workday, was being implemented which altered the way that every human

resource employee conducted their work. Moreover, the company was in the process of merging with another large healthcare organization.

Measures

Organizational Change Recipients' Belief Scale. To measure employee openness to organizational change (EOOC), a 24-item, Likert type scale was used (Armenakis et al., 2007). Items were rated from 1 (*strongly disagree*) to 5 (*strongly agree*). This scale consisted of 5 factors: Discrepancy ($\alpha = .88$), Appropriateness ($\alpha = .90$), Efficacy ($\alpha = .85$), Principal Support ($\alpha = .83$), and Valence ($\alpha = .77$). Items include: (1) "We need to change the way we do some things around here," (2) "The change we have implemented in our operations will improve the performance of our organization," (3) "I can implement this change in my job," (4) "Most of my respected peers have embraced the change," and (5), "The change in my job assignments will increase my feelings of accomplishments," for each factor, respectively. An aggregate score was used.

Organizational commitment. This was measured with a 9-item, Likert-type scale (Mowday, Steers, & Porter, 1979), with each item being rated from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include: 1) "I am willing to put in a great deal of effort beyond that normally expected of me to help this organization succeed," 2) "I am proud to tell others that I am part of this organization," and 3) "I really care about the fate of this organization." An aggregate score was used.

Job Stress Scale. Job stress was measured with a 13item, Likert-type scale (Parker, & Decotiis, 1983), with items being scored from 1 (*strong disagreement*) to 5 (*strong agreement*). Sample items include: (1) "Working here makes it hard to spend enough time with my family," (2) "I sometimes dread the telephone ringing at home

because the call might be job-related,” and (3) “Too many people at my level in the company get burned out by job demands.” An aggregate score was used.

Turnover Intentions. Turnover intentions were measured with a 3-item, Likert-type scale (Konovsky & Cropanzano, 1991), with two items scored from 1 (*very unlikely*) to 7 (*very likely*), and one item from 1 (*not at all*) to 7 (*very much so*). The items included in the measure were as follows: (1) “How likely is it that you will look for a job outside of this organization during the next year?” (2) “How often do you think about quitting your job at this organization?” (3) “If it were possible, how much would you like to get a new job?” An aggregate score was used.

Psychological Ownership. This was measured with a 16-item, Likert-type scale (Luthans, Avolio, & Yourseff, 2007) with scores ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The scale consisted of 5 factors: preventative psychological ownership ($\alpha = .84$), self-efficacy ($\alpha = .90$), accountability ($\alpha = .81$), belongingness ($\alpha = .92$), and self-identity ($\alpha = .73$). Sample items include: (1) “I feel I need to protect my ideas from being used by others in my organization,” (2) “I am confident in my ability to contribute to my organizations success,” (3) “I would challenge anyone in my organization if I thought something was done wrong,” (4) “I feel I belong in this organization,” and (5) “I feel the need to defend my organization when it is criticized,” for each factor, respectively. An aggregate score was used.

Demographic information. Demographics, collected from the company database, included: (1) Equal Employment Opportunity Commission (EEOC), (2) location, (3) gender, (4) age, (5) race, and (6) tenure

RESULTS

Means, standard deviations, correlations, and alpha reliabilities are reported in Table 1. The first three hypotheses were tested using Pearson Product-Moment correlation. Hypothesis 1 was supported as a significant, positive correlation between EEOC and organizational commitment ($r = .28, p < .01$) was found. Hypothesis 2 was also supported, as there was a significant, negative correlation between EEOC and job stress ($r = -.20, p < .05$). Lastly, hypothesis 3 was supported as a significant, negative correlation ($r = -.22, p < .001$) between EEOC and turnover intentions was found.

Table 1. Means, standard deviations, correlations, and alpha reliabilities for study variables

	Mean	SD	1	2	3	4	5
1. EEOC	3.94	.43	(.92)				
2. OC	5.48	1.10	.28**	(.93)			
3. JS	2.77	.88	-.20*	-.37**	(.94)		
4. TI	2.27	.96	-.22**	-.64**	.45**	(.81)	
5. PO	3.94	.53	.24**	.61**	-.21*	-.42**	(.80)

Note. EEOC is employee openness to organizational change, OC is organizational commitment, JS is job stress, TI is turnover intentions, and PO is psychological ownership. ** represents significance at $p < .01$ (2-tailed), * Represents significance at $p < .05$ (2-tailed), and $n = 152$. Bold values in parentheses represent Cronbach's Alpha scores.

Analysis was conducted on demographic data to explore possible confounding effects. Four demographic variables were coded for the analyses. EEOC groups consisted of seven groups: Executive Management (1.00), Directors (2.00), Managers (3.00), Supervisors (4.00), Professional Non-Medical Workers (5.00), Registered Nurses (6.00), and Administrative Support Workers (7.00). Race was coded into five categories: White/Caucasian (1.00), Hispanic/Latino (2.00), American Indian/Alaska Native (3.00), Asian (4.00), and other (5.00). Due to the size and presence of the company in the

Midwest, four locations were coded based on city, but the city names are not reported to ensure anonymity. Gender was coded into two groups: male (1.00) and female (2.00).

To test for differences between EEOC codes, one-way Analysis of Variance (ANOVA) was used. For employee openness to organizational change (EOOC), there was a significant difference between EEOC job codes ($F(6, 145) = 5.48, p < .001$). Specifically, registered nurses ($M = 3.56$) were significantly lower than executive management ($M = 4.32, p < .001$), directors ($M = 4.24, p < .005$), supervisors ($M = 4.39, p < .05$), and professional non-medical ($M = 3.97, p < .005$). For job stress, there was also a significant difference between EEOC codes ($F(6, 145) = 2.72, p < .05$). Specifically, administrative support workers ($M = 2.41$) were marginally lower than managers ($M = 3.51, p = .06$) and marginally lower than registered nurses ($M = 3.25, p = .06$). Lastly, for EOOC, there was a significant difference in scores between men ($M = 4.15$) and women ($M = 3.90; F(1, 150) = 6.89, p = .01$).

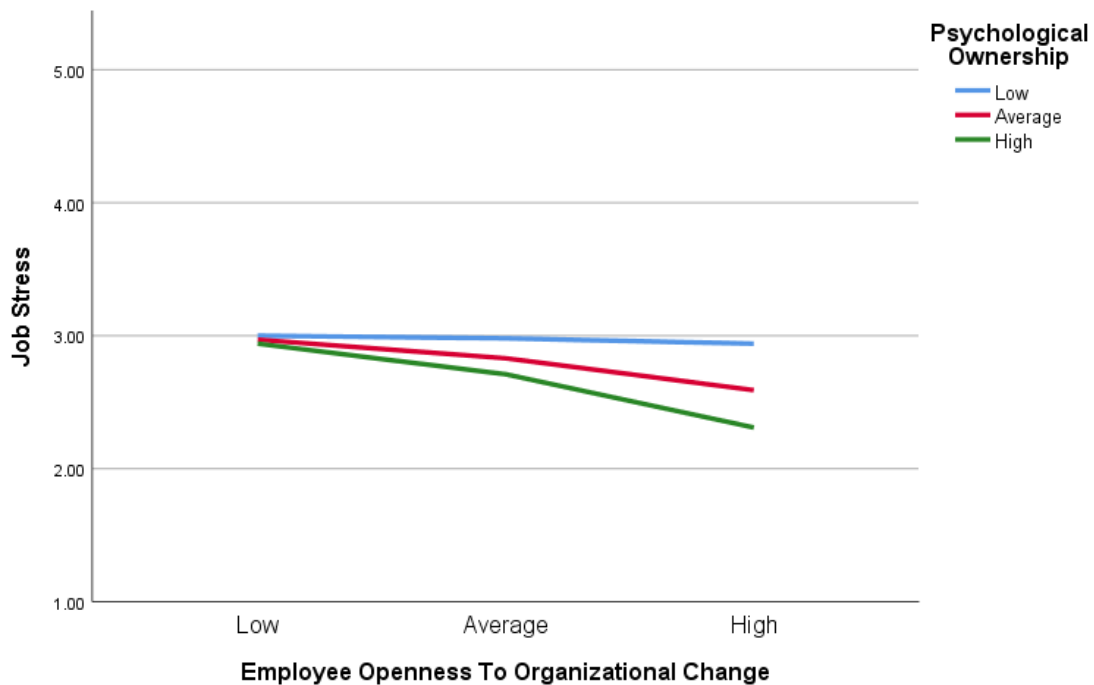
To analyze the continuous demographic variables (i.e., age and tenure) linear regression was used. Results show that tenure significantly predicted increases in job stress ($R^2 = .04, F(1, 150) = 6.12, p < .05$). Tenure also had a marginal effect in predicting EOOC ($R^2 = .02, F(1, 150) = 3.77, p < .054$) and increase in turnover intentions ($R^2 = .03, F(1, 150) = 5.11, p < .05$). Lastly, tenure significantly predicted psychological ownership ($R^2 = .03, F(1, 150) = 4.47, p < .05$) such that a linear and quadratic relationship, taking the form of an inverted U, were supported ($\Delta R^2 = .05, t = -2.91, p < .005$).

Supplemental analyses to control for these possible confounding effects was conducted using hierarchical linear regression. For hypothesis 1, after controlling for

EEOC, race, location, and gender, EEOC predicted organizational commitment ($\Delta R^2 = .06$, $F(7, 144) = 2.43$, $t = 3.57$, $p < .05$). For hypothesis 2, after controlling for EEOC, race, location, and gender, EEOC predicted job stress ($\Delta R^2 = .06$, $F(7, 144) = 3.56$, $t = -3.19$, $p < .005$). For hypothesis 3, after controlling for EEOC, race, location and gender, EEOC predicted turnover intentions ($\Delta R^2 = .06$, $F(7, 144) = 2.55$, $t = -3.05$, $p < .005$). Therefore, after controlling for confounding demographic variables, all hypotheses were still supported.

Hypothesis 4, 5, and 6 were tested using model 1 of the PROCESS MACRO (Hayes, 2013) with mean centered variables. Hypothesis 4 and 6, which posited that psychological ownership would moderate the relationship between EEOC and organizational commitment and turnover intentions, respectively, were not supported. Hypothesis 5, which predicted that psychological ownership would moderate the relationship between EEOC and job stress, was supported. Specifically, the overall model was significant ($F(9, 142) = 3.95$, $p < .001$), as was the interaction ($F(1, 142) = 4.52$, $p < .05$). This finding suggests that as psychological ownership increases, the positive relationship between EEOC and job stress weakens (Figure 2).

Figure 2. Psychological ownership moderating the relationship between employee openness to organizational change and job stress



DISCUSSION

The primary objective of this study was to further PTOC (Dirks et al., 1996) by exploring the role psychological ownership plays in employee perceptions of organizational change. Over the years, organizational change has primarily been studied at the organizational level, but in recent years, researchers have begun to explore the effects this type of change has on the individual level. As such, this study contributes to the literature in two significant ways. First, we replicated previous findings for organizational commitment, job stress, and turnover intentions during two large-scale change initiatives (i.e., merger and software implementation), within a group of professional human resource employees. We found support for the positive relationship

between EEOC and organizational commitment (Fedor, Caldwell, & Herold, 2006; Madsen et al., 2005), the negative relationship between EEOC and job stress (Elrod and Tippett, 2002), as well as the negative relationship between EEOC and turnover intentions (Quick & Quick, 1984).

Second, we tested propositions made by Dirks et al., (1996), that suggests psychological ownership may play a significant role in employee perceptions of organizational change. To the best of our knowledge, this is the first study to quantitatively investigate the effects of psychological ownership in the context of organizational change. This study supports theoretical arguments, and propositions provided by previous research (Ford & Ford, 1995; Tsoukas & Chia, 2002; Wanberg & Banas, 2000). Specifically, research has suggested there are individual differences that impact the degree in which an employee is open to organizational change (i.e., psychological ownership). Additionally, change has been described as natural in organizations, and like psychological ownership, it should develop naturally and gradually over time.

We provide evidence to support the idea that when employee' levels of psychological ownership are high, job stress decreases. This aligns with the theoretical framework of Uncertainty theory (Cooper, 1998), that describes a spectrum where employees experience either high or low levels of stress. Individuals who have high ownership over their work, experience less stress because how they emotionally tied to their work. Therefore, some evidence has been established to support PTOC and further advance the idea that psychological ownership plays a significant role in employee' perceptions of organizational change.

It was hypothesized that psychological ownership would also moderate the relationship between EEOC and organizational commitment and turnover intentions, however, results from this study did not support this. This may be the case for a variety of reasons. First, it's important to note that our sample size may have contribute to our lack of findings. Although our sample size was similar to other organizational studies, it can still be considered as relatively small (Wanberg et al., 2000). Furthermore, using an online sample size calculator (i.e., Rasoft) with the desired parameters of 5% margin of error, it was estimated that a sample size of 377 would be needed to reach significance for a similar effect size. The lack of significance could also be due to the type of change that was occurring at the organization. Specifically, it is possible that the employees felt the change was needed, or perhaps the employees were stressed at the amount of change that was taking place at once. Following Uncertainty theory (Cooper, 1998), the amount of change that was taking place at once could have pushed employees to feel overwhelmed and experience an increased state of stress. Nevertheless, further investigation into the role psychological ownership has in the context of organizational change is needed.

Practical Implications

Due to the applied nature of the current study, we believe there are practical implications that should be considered. First, due to the sample and the time the survey was distributed, practitioners should be careful when planning how to implement change. This study and several others have demonstrated what can happen to specific employee outcomes variables (i.e., organizational commitment, job stress and turnover intentions), when employees aren't open to organizational change initiatives. Therefore, not only

should organizations work to understand employee perceptions to change, they should also carefully craft how the change is implemented. This is in line, with the recommendations made by Wanberg and Colleagues (2009).

Second, by beginning to understand the role psychological ownership has in employee perceptions of change, researchers and practitioners can begin to explore ways to increase employee' levels of psychological ownership. This in turn, could have a positive impact on employee' perceptions of change, and ultimately assist in making change initiatives more successful. Liu, Wang, Hui, and Lee (2012) suggest that when employees feel ownership over things they help create and nurture objects, as well as ideas that they "own." Therefore, if managers allow employees to give input into decisions that affect them, this may in turn give those employees a sense of ownership over their work. This could manifest in the form of participative decision making, opinion surveys, or focus groups.

Limitations and Directions for Future Research

As with all studies, there are limitations for this study. This first limitations of the present study is the sample size. Additionally, even though our response rate is comparative to other studies (Wanberg et al., 2000; Glazer & Beehr, 2005; Avery et al., 2009), for the number of constructs, control variables measured, and the analyses conducted, a larger sample would be preferred. Secondly, while it is believed that the surveys were distributed at an optimal time (e.g., during two extensive change initiatives), this could have had a negative impact on the results. It is possible that some employees who were having a harder transition with the new software could have reported significantly lower values than what their true impressions. Oppositely,

employees who had an extremely positive transition with the new software, could have reported significantly higher scores than average. Lastly, data was collected at a single time and could be considered a convenience sample. If data were collected prior to, during, and after the organizational changes occurred, causal relationships could have been tested. As such, more in-depth analyses could have been conducted.

In light of the findings presented in this study, there are many possible avenues for future research. First, studies should continue to investigate the presence of psychological ownership in organizations. Specifically, research should seek to identify where levels of psychological ownership are highest in terms of hierarchy, age, department, and other demographic variables. Secondly, research should focus on other propositions made by Dirks et al., (1996). Specifically, investigation of employees' levels of psychological ownership during specific types of organizational change initiatives (i.e., restructures, software changes, etc.) may be beneficial. By continuing to investigate the role that psychological ownership has in the context of organizational change, perhaps change management practitioners can have a better understanding about ownership in organizations.

Conclusion

In summary, the primary aim of this study was to further advance PTOC by studying psychological ownership in the context of organizational change. It was found that psychological ownership moderated the relationship between EOO and job stress, suggesting that when employee' levels of psychological ownership are high, the relationship between EOO and job stress weakens. It is our hope that this is only the

beginning of a journey exploring the impact psychological ownership has with other workplace variables.

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