

WHITE PAPER: THE DEVELOPMENT OF JOB-BASED PSYCHOLOGICAL OWNERSHIP

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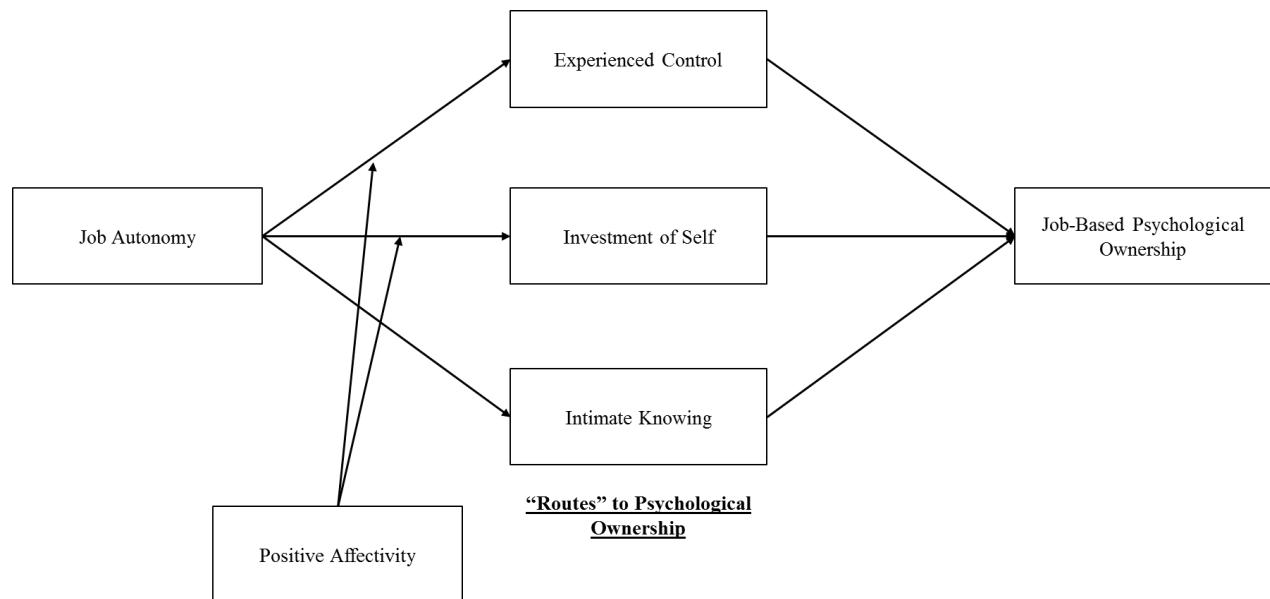
In organizational settings, the concept of psychological ownership is continuing to gain prominence as a valuable state with implications on employee attitudes and behaviors. Pierce, Kostova, and Dirks (2003) describe psychological ownership as a cognitive affective state where “individuals feel as though the target of ownership or a piece of that target is theirs” (p. 86). It reflects a deep relationship between a person and a target, such that the owner comes to experience the target as a part of their extended self (Belk, 1988). In organizational settings, employees that develop psychological ownership towards their jobs come to experience ownership towards their organization (Peng & Pierce, 2015) and come to see their organization’s success as their *own* success (Dittmar, 1992; Pierce & Rodgers, 2004). While a host of studies have examined the attitudinal, motivational, and behavioral effects of psychological ownership (e.g., VandeWalle, Van Dyne, & Kostova, 1995; Wagner, Parker, & Christiansen, 2003; Mayhew, Ashkanasy, Bramble, & Gardner, 2007), relatively little attention has been paid towards the complex processes by which employees come to develop feelings of ownership towards their job or organization (Brown, Pierce, & Crossley, 2014), and in particular the role played by individual traits in this process. To address these gaps, the author conducted a study to explore how job autonomy and employee disposition promote job-based psychological ownership through three key experiences. These experiences, called the “routes” to psychological ownership (Pierce, Kostova, & Dirks, 2001), include (i) exercising control over work-related activities, (ii) investing one’s time, efforts, and attention into their job, and (iii) coming to develop an intimate understanding of one’s work.

In a seminal paper that integrated psychological ownership theory into the job characteristics model, Pierce, Jussila, and Cummings (2009) theorized that among all job characteristics, only job autonomy should provide key experiences along all three routes to ownership. Specifically, they theorized that autonomous jobs provide employees with experiences of control over their work (e.g., employees who can exercise their own discretion should develop a sense that they are the cause of job-related outcomes), they encourage a greater investment of self (e.g., employees need to invest more of their thoughts and ideas to make decisions about how to accomplish goals), and they promote a greater amount of intimate knowledge about the work (e.g., employees need to seek out, comprehend, and apply more job-related information to solve problems and make decisions).

Furthermore, ownership theorists also claim that personality and disposition should matter (Mayhew et al., 2007; Pierce & Jussila, 2011). When considering various traits, dispositional affectivity is particularly relevant because it is among the most proximal influences on other cognitive–affective states such as job satisfaction (Judge & Larsen, 2001). Positive affectivity (PA) is a stable dispositional trait that reflects the experience of positive moods and roughly corresponds to the personality factor of extraversion (Watson & Clark, 1992). People high in PA are characteristically energetic, enthusiastic, and optimistic, whereas those low in PA are lethargic, sad, and uninspired (Watson, Clark, & Tellegen, 1988). By exploring the role of PA in the development of psychological ownership, we can also answer the question “How do feelings of ownership develop across a wide range of dispositions, from bubbly and energetic to morose and apathetic?”

By integrating various theories of identity and disposition, we predicted that PA would moderate the effect of autonomy on experienced control and the effect of autonomy on

investment of self. To assess the joint and interactive effects of both job autonomy and positive affectivity on psychological ownership, we developed and tested a moderated multiple mediation model.



Employing a cross-sectional approach, data were collected using an online survey where participants were asked to complete measures of PA, job characteristics, work experiences, and job-based psychological ownership (among other “filler” tasks). Because the study focused on job-related phenomenon, participants were required to work full-time in a location other than their home to be considered for this study. The final 426 participants (60.4% male, 39.6% female) had an average tenure of 5.04 years ($SD = 5.03$) and represented a wide range of industries and job levels (23.7% entry-level, 31.0% individual contributor, 17.8% supervisory, 10.8% mid-level manager, 2.8% senior manager, 13.8% technical or professional). Hypotheses were tested using bootstrapped regression analyses via PROCESS (Hayes, 2013) and structural equation modeling via AMOS.

Results (Figure 10 and Table 11) indicated that job autonomy has a positive effect on job-based psychological ownership ($B = 0.501$, CI 0.415 to 0.594) through three mediated paths: investment of self into one's work ($B = 0.448$, $p < .01$), experienced control and influence over one's work ($B = 0.244$, $p < .01$), and intimate knowledge and understanding of one's job ($B = 0.130$, $p < .10$). Employee PA significantly moderated the mediated path from autonomy to ownership through experienced control ($Index\ of\ ModMed = 0.017$, $SE = 0.011$, CI 0.000 to 0.045), such that experienced control was a more direct route for high-PA employees. However, PA did not moderate the investment of self route ($Index\ of\ ModMed = -0.014$, $SE = 0.025$, CI -0.063 to 0.033). A visual inspection of simple slopes revealed instead that both autonomy and PA have *direct* effects on investment of self.

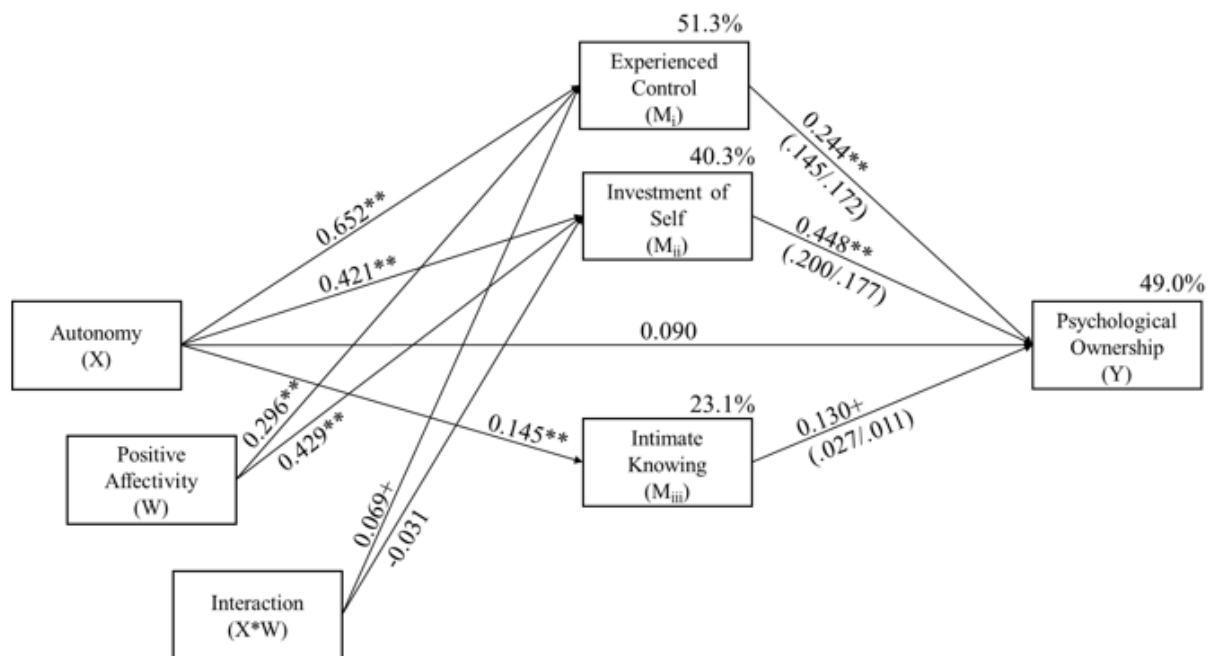


Figure 10. Regression Coefficients and Conditional Indirect Effects for Final Moderated Mediation. Values in parenthesis on the three b paths indicate the conditional indirect effects of X on Y at one SD above/below the mean level of W. Percentages above mediators and outcome represent the variance accounted for by predictors in model. Control variables include age, gender, and tenure. $+ p < .10$, $* p < .05$, $** p < .01$.

Table 11

Conditional Indirect Effects of Autonomy on Psychological Ownership Through the Routes of Experienced Control, Investment of Self, and Intimate Knowing at Various Levels of Positive Affectivity

Positive Affectivity	Experienced Control			Investment of Self			Intimate Knowing		
	Indirect Effect	95CI		Indirect Effect	95CI		Indirect Effect	95CI	
		Lower	Upper		Lower	Upper		Lower	Upper
10 th percentile	0.141*	0.067	0.223	0.204*	0.123	0.300	0.030*	0.000	0.076
25 th percentile	0.149*	0.071	0.231	0.197*	0.127	0.281	0.025*	0.000	0.061
50 th percentile	0.159*	0.076	0.245	0.188*	0.124	0.272	0.019*	0.000	0.048
75 th percentile	0.169*	0.081	0.262	0.180*	0.113	0.275	0.013*	0.000	0.041
90 th percentile	0.176*	0.084	0.276	0.174*	0.099	0.280	0.009	-0.003	0.042

Note. 95CI = 95% bootstrapped (10,000 samples) bias-corrected confidence intervals. Indirect effects represent the strength of conditional indirect effects from job autonomy to psychological ownership through the specified mediators, presented at specified levels of the moderator. Indirect effects are calculated by multiplying the unstandardized *a* path and *b* path coefficients. * $p < .05$ or confidence interval does not include zero.

To better identify the role that PA plays in psychological ownership, an exploratory path analysis was conducted via structural equation modeling. This analysis was guided by recommendations from Byrne (2010) for revising a structural model by trimming non-significant paths and using modification indices to guide the placement of new paths (the final best-fitting model is shown in Figure 18 and Table 19). This analysis suggests that PA may play a dual role – as a moderator of autonomy’s effects on control ($B = 0.052$, CI 0.009 to 0.100), and as an indirect effect on ownership itself. For example, PA behaved like a moderating effect in some situations (e.g., the result that high-PA employees were more susceptible to biased perceptions of control than their low-PA counterparts in high autonomy jobs only), and a main effect in other situations (e.g., by motivating high-PA employees to invest more effort and energy in their work across all types of job).

As a co-predictor of psychological ownership through the three routes, the effects of PA were primarily mediated through investment of self ($B = 0.255$, CI 0.177 to 0.361). In other words, high-PA employees reported greater investment in their work ($B = 0.502$, CI 0.367 to 0.639), which in turn predicted higher job-based psychological ownership ($B = 0.508$, CI 0.406

to 0.621). PA had significant but substantially weaker indirect effects on psychological ownership through the other two routes of experienced control ($B = 0.064$, CI 0.034 to 0.104) and intimate knowing ($B = 0.045$, CI 0.002 to 0.096). Overall, the total indirect effect of PA on ownership ($B = 0.363$, CI 0.273 to 0.444) was significantly weaker than the total indirect effect of autonomy on ownership ($B = 0.535$, CI 0.465 to 0.606).

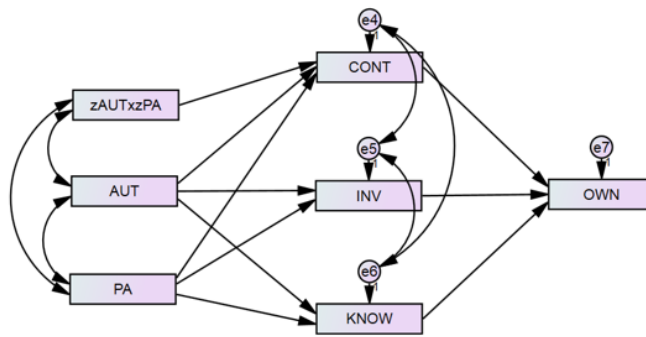


Figure 18. Final Exploratory Path Model. This model suggests that both job autonomy and employee PA promote ownership indirectly through joint and interactive effects on the three routes. $\chi^2 (5) = 5.813, p = .325$, CFI = 0.999, RMSEA = 0.020.

Table 19

Bias-Corrected Bootstrap Analysis of Magnitude and Statistical Significance of Indirect Effects in the Exploratory Model using Phantom Variables

Effect	<i>a</i> path	<i>b</i> path	Mean effect			90CI ^a		
			(<i>B</i>) ^a	<i>SE</i> ^a	<i>p</i> ^b	Lower	Upper	
Indirect Effects								
AUT → CONT → OWN	0.919	X 0.246	= 0.226**	0.044	.002	0.154	0.297	
AUT → INV → OWN	0.565	X 0.508	= 0.287**	0.045	.002	0.219	0.367	
AUT → KNOW → OWN	0.178	X 0.125	= 0.022*	0.014	.059	0.003	0.051	
PA → CONT → OWN	0.258	X 0.246	= 0.064**	0.020	.001	0.034	0.104	
PA → INV → OWN	0.502	X 0.508	= 0.255**	0.054	.001	0.177	0.361	
PA → KNOW → OWN	0.356	X 0.125	= 0.045*	0.028	.085	0.002	0.096	
AUT*PA→CONT→OWN	0.052	X 0.246	= 0.013*	0.007	.030	0.003	0.025	
Direct Effects								
AUT→CONT			0.919**	0.031	.001	0.869	0.977	
AUT→INV			0.565**	0.046	.002	0.486	0.636	
AUT→KNOW			0.178**	0.036	.001	0.124	0.236	
PA→CONT			0.258**	0.060	.002	0.151	0.354	
PA→INV			0.502**	0.081	.002	0.367	0.639	
PA→KNOW			0.356**	0.055	.002	0.262	0.441	
AUT*PA→CONT			0.052*	0.028	.045	0.009	0.100	
CONT→OWN			0.246**	0.047	.002	0.165	0.320	
INV→OWN			0.508**	0.066	.002	0.406	0.621	
KNOW→OWN			0.125*	0.075	.090	0.005	0.259	
Total Indirect Effects								
Total effect of AUT on OWN through the routes			0.535**	0.041	.002	0.465	0.606	
Total effect of PA on OWN through the routes			0.363**	0.052	.003	0.273	0.444	

Note. AUT=autonomy; PA=positive affectivity; CONT=experienced control; INV=investment of self; KNOW=intimate knowing; OWN=psychological ownership. ^a bootstrapped (1,000) bias-corrected estimates; ^b two-tailed significance (also bootstrapped bias-corrected). ** $p < .01$; * $p < .05$ or confidence interval does not include zero.

Results from this study show new avenues for incorporating employee traits into the study of psychological ownership. They also suggest that job autonomy is the best area to focus efforts when trying to boost employee feelings of ownership towards their work. Ultimately, job autonomy stood out as having a particularly strong and consistent positive effects on job-based psychological ownership for high-PA and low-PA employees. While individual employees may be predisposed to one route or another, it seems that *all* employees, from the most enthusiastic to the most apathetic can experience this positive psychological state. That is, as long as they are afforded a high level of autonomy in deciding how to plan and carry out their work.

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