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Why employees stay: the roles of psychological ownership, territoriality and work relationship closeness in affecting employee turnover intention

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Abstract

Drawing on a tripartite perspective on attitudes, this study examines the influence of psychological ownership and territoriality on turnover intention, as well as the moderating role of work relationship closeness on the relationship between territoriality and turnover intention. Analyses of longitudinal data collected from 341 employees in three Chinese automobile manufacturing companies demonstrate that employees' psychological ownership is negatively related to their turnover intention. As well, territoriality is negatively related to turnover intention and mediates the relationship between psychological ownership and turnover intention. Additionally, work relationship closeness moderates the relationship between territoriality and turnover intention such that the negative relationship is stronger when employees experience a higher level of work relationship closeness. Theoretical and practical implications are discussed.

Keywords: Territoriality, psychological ownership, Turnover intention, Work relationship closeness

Introduction

Voluntary employee turnover has long been of interest to researchers and practitioners, mainly because of its potential to have a negative effect on organizational productivity and morale (Chen et al., 2011; Shaw et al., 2005). In response to this potential damage, organizational scholars keep trying to answer questions such as "Why do people leave?" and "Why do they stay?" For example, some researchers have suggested that employees stay if they are satisfied with their jobs or identify with the organization (Lambert et al., 2001; Tett & Meyer, 1993; Van Dick et al., 2004), and will leave if they are not; others have proposed more operational approaches to reduce intentions to quit, including various human resource management (HRM) practices to improve workplace relations, such as recognizing employee efforts and contributions (Davies, 2001), providing sufficiently challenging and diversified work content (Kraut & Korman, 1999), empowering more job autonomy (Liu et al., 2011), and involving employees in decision processes (Allen et al., 2003).

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Turnover intention, defined as 'a conscious and deliberate willfulness to leave the organization' (Tett & Meyer, 1993, p. 262), is the most significant attitudinal predictor of actual turnover behavior. Recently, researchers have suggested that when employees perceive and act like owners of the organization, they will feel that they have a greater responsibility to contribute to organizational functioning and success, will experience more commitment toward the organization, and thus will be less likely to quit their jobs (Pierce et al., 2001). Although a variety of researchers have suggested that psychological ownership is positively related to positive work-related attitudes (Avey et al., 2009; Van Dyne & Pierce, 2004; Vandewalle et al., 1995), such as job satisfaction, organizational commitment, and organizational identification, the mechanisms through which psychological ownership helps to reduce turnover intention remain underexamined, and more research is needed to empirically demonstrate the nature of the relationship between psychological ownership and turnover intention.

To address this issue, we propose that turnover intention, as one type of job attitude, is an evaluation of one's job that expresses one's feelings toward, beliefs about, and attachment to one's job (Judge & Kammeyer-Mueller, 2011). Early tripartite perspective on attitudes suggests that attitudes derive from three sources- cognitions, affects, and behaviors- and the interplay between cognitions, affects, and behaviors can influence attitudes and attitude change (Katz & Stotland, 1959; Millar & Tesser, 1986, 1989; Rosenberg & Hovland, 1960; Zanna & Rempel, 1988). More recently, researchers have proposed that attitudes are evaluative judgments that are constructed in the situation based on currently accessible information (Schwarz, 2007; Gawronski & Bodenhausen, 2006), that is, employees' attitudes towards their jobs or organizations (such as turnover intention) are changeable rather than static.

Thus, drawing on the tripartite view of attitude, the present study develops and examines a model of the relationship between employees' psychological ownership (cognitive component), territoriality (behavioral component), work relationship closeness (affective component) and turnover intention (attitude). First, we examine the link between cognition and attitude – the influence of psychological ownership on turnover intention. Psychological ownership is defined as a feeling of possessiveness and of psychological ties to an object, which reflects the cognition that a piece of that object is "theirs" (Pierce et al., 2001, 2003). Researchers have suggested that employees who experience feelings of psychological ownership toward the organization come to consider it as an extended self (Tian & Belk, 2005), and develop positive attitudes toward the organization (Pierce et al., 1991; Wagner et al., 2003; Van Dyne & Pierce, 2004).
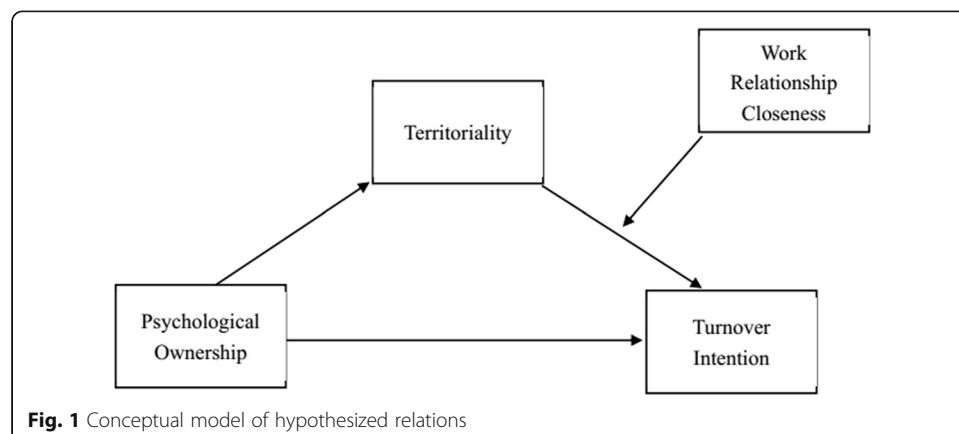
Second, we propose territoriality as a mediator between psychological ownership and turnover intention to examine the cognition-behavior-attitude link. According to the tripartite perspective on attitudes, behavior also plays an important role in the understanding of attitudes (Jackson et al., 1996). Territoriality is defined as actions or behaviors that emanate from psychological ownership for the purpose of claiming, maintaining or protecting one's possession (Brown et al., 2005). Thus, the feelings of psychologically owning an object can lead to corresponding territorial behaviors. In addition, engaging in territorial behaviors requires individuals to invest time and energy, to the extent that they can ensure control over the possessions and exclude others from accessing and using them (Brown, 2009). The more investment they have made, the more they are embedded in the organization (Meyer & Allan, 1984; Wallace, 1997).

Third, we take the affective component of attitude into consideration by examining the moderation effect of work relationship closeness on the relationship between territoriality and turnover intention. Work relationship as a key aspect of the social work environment has been proved to have a significant effect on employee work-related attitudes and behaviors (Settoon & Mossholder, 2002; Simon et al., 2010). In this study, we choose work relationship closeness as a moderator, because it describes the degree to which an individual experiences mutual support, trust and respect among coworkers and the degree of shared similarities, personalities, and interests (Chen & Peng, 2008). Figure 1 depicts our conceptual model.

Taken together, we attempt to extend the extant literature in two respects. First, we seek to reveal the mechanisms underlying the relationship between psychological ownership and turnover intention. Based on the tripartite perspective on attitudes and the recent constructionist view of attitudes, we intend to examine the mediation effect of territoriality in order to clarify how employees' psychological ownership leads to reduced turnover intention. Second, work relationship closeness is theorized as an affective component to investigate whether and how the cognitive component (psychological ownership) and affective component jointly influence attitude change. In doing so, we aim to delineate the boundary conditions of our hypothesized relations.

Theoretical background and hypotheses development

The tripartite perspective on attitudes suggests that attitudes derive from three sources: cognitions, behavior, and affects. For example, Zanna and Rempel (1988) argue that attitudes can be based upon, or develop from, cognitive information, behavioral information, and affective information. Past researchers have revealed the utility of a tripartite perspective in understanding group attitudes, suggesting that cognition, behavior, and affect all contribute to the prediction of attitudes toward a number of social groups (Haddock et al., 1994). Also, Jackson et al.'s (1996) study demonstrates that group attitudes derive not only from stereotypes (cognitions) but also from affects and behavior associated with the group. In light of these findings, we adopt the tripartite view of attitude to demonstrate how employees' turnover intentions are affected by the interplay of psychological ownership, territoriality and work relationship closeness.

Fig. 1 Conceptual model of hypothesized relations

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There are several reasons why a tripartite perspective is well suited to understanding the influence of psychological ownership, territoriality, and work relationship closeness on employees' intentions to quit. First, turnover intention is defined as a conscious and deliberate willingness to leave the organization (Tett & Meyer, 1993), which reflects employees' overall attitudes toward the organization. Second, employees' role definitions will determine the amount of job responsibilities, what kind of behavior they engage in, and their attitude toward the organization (Morrison, 1994). Third, previous researchers have suggested that employees' own behavior can lead to attitude change. For example, moderate levels of working overtime have been found to be positively associated with well-being (Beckers et al., 2004); and dedicated and engaged employees are more satisfied with their jobs and are more committed to the organization (Schaufeli et al., 2008). Last, employees' affective attachment to other organizational members takes center stage in understanding the employee-organization relationship (Meyer et al., 1993). Building on these reasons, we contend that the interplay of the feeling of psychological ownership, the corresponding territorial behavior, and the closeness with other organizational members may affect employees' turnover intention.

Psychological ownership and turnover intention

Psychological ownership is defined as a state of mind in which individuals feel as though the target of ownership or a piece of that target is "theirs" (Pierce et al., 2001). The conceptual core of this definition is a sense of possession toward a particular target, and it reflects a close connection between an individual and the target. In the organizational context, organizational members can develop feelings of ownership through three routes: controlling the target, intimately knowing the target, and investing themselves in the target (Pierce et al., 2001, 2003). Those employees who have developed a sense of psychological ownership come to perceive themselves as "owners", and the possessions become part of his or her self-concept (Tian & Belk, 2005). Thus, employees are psychologically intertwined with their organizations, and the awareness of being owners is also accompanied by a feeling of responsibility and a sense of burden sharing for the functioning and success of the organization (Pierce et al., 2001).

Turnover intention is defined as one's behavioral attitude to withdraw from the organization, which has been proved to be the most direct predictor of actual turnover. Employees' reduced intentions to leave are often accompanied by some increased positive work-related attitudes. Employees' beliefs of being organizational owners may affect their turnover intention in two ways. First, individuals tend to consider that they have to be more valuable (Beggan, 1992; Nesselroade et al., 1999), thus employees who experience psychological ownership may think more highly of their organization when comparing it with other organizations. Second, some researchers (Pierce et al., 1991; Wagner et al., 2003; Van Dyne & Pierce, 2004) have suggested that psychological ownership can inspire positive attitudes toward the job and the organization, such as job satisfaction, organizational commitment, and organizational identification, which in turn reduce intentions to leave (Avey et al., 2009; Van Dyne & Pierce, 2004; Vandewalle et al., 1995). Therefore, we hypothesize:

Hypothesis 1. Psychological ownership is negatively related to turnover intention.

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The mediating role of territoriality

Researchers have suggested that feelings of possession may exist even without any formal or legal claim of ownership (Rousseau & Shperling, 2003). However, some of the objects which they psychologically own are objectively valuable to members in the organization, such as information, resources, and innovative ideas or suggestions. In that case, there are risks that these objects may be taken, used or controlled by other members in the organization. Thus, building on the concept of psychological ownership, Brown et al. (2005) introduce the concept of territoriality which refers to actions or behaviors conducted to mark and defend those objects that one feels psychological ownership over and to help establish not only what is "mine" but also what is "not yours".

As we discussed earlier, psychological ownership is negatively related to employees' turnover intention. Further, we propose that the relationship is mediated by territoriality. According to the definition, territoriality is actions or behaviors emanating from psychological ownership for the purpose of claiming, maintaining or protecting one's possession (Brown et al., 2005). Thus, the feelings of psychologically owning an object can lead to corresponding territorial behaviors. Indeed, people are innately motivated to mark and defend what they feel is theirs (Hall, 1966), especially when those possessions are valuable to them. This motivation may come mainly from the fear of losing one's precious property. Researchers have demonstrated that people evaluate an object as more valuable when they own it (Beggan, 1992; Nesselroade et al., 1999). Territorial behavior, including marking and defending behavior, helps to reduce the potential infringement from other organizational members and to make sure it will not be taken away by others (Brown, 2009). Thus, the more psychological ownership an employee experiences, the more territorial behavior he or she will conduct to defend their territory.

In addition, by engaging in territorial behavior, employees become more "embedded" in the organization. First, creating and maintaining territories fulfil one's need of having a place of one' own, which in turn increases rootedness and belongingness (Brown et al., 2005). Second, employees engage in territorial behavior to ensure their control over objects (territories), and to exclude others from accessing or using them. Objects that can be controlled become regarded as part of the self (McClelland, 1951), and the greater the amount of control, the more the object is experienced as an important part of the self (Furby, 1978; Pierce et al., 2003). Third, both marking and defending behavior require an employee to keep investing his or her time and energy (Brown, 2009), and sometimes even include personal sacrifice. Those investments then turn into "sunk costs" and employees become more committed to the organization (Meyer & Allan, 1984; Wallace, 1997). Thus, territorial behavior will increase employees' willingness to retain by enhancing their belongingness to the organization, by strengthening their attachment to the organization, and by increasing the cost of leaving the organization.

Taken all together, the feeling of psychological ownership enables employees to consider themselves as owners, then the cognition of "it is mine" drives them to engage in territorial behavior to mark and defend "what is mine". Those efforts made to ensure "it is not yours" further strengthen their embeddedness in the organization, thus reducing intentions to give up organizational membership. Therefore, we hypothesize:

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Hypothesis 2. Territoriality mediates the relationship between psychological ownership and turnover intention.

The moderating effect of work relationship closeness

Work relationship as a key aspect of the social work environment has long been suggested to have a significant effect on employees' decision to leave or stay in an organization (Dess & Shaw, 2001; Morrison, 2004). During the process of continual interaction, employees may develop feelings of trust, confidence, and dependence toward their supervisors and coworkers. At the same time, employees also perceive support, encouragement, and help from other organizational members. As a result, some other members become close, ones to whom employees are affective attached. Work relationship closeness indicates the degree of mutual support, trust, understanding, and perspective taking employees perceive from coworkers (Chen & Chen, 2004; Chen & Peng, 2008). A number of researchers have shown that the quality of relationships with coworkers influences employees' behavior and work-related attitudes. For example, coworker relationship quality can affect interpersonal citizenship behavior (Setton & Mossholder, 2002), and support from coworkers can increase employees' affective attachment and identification with organizations (Rousseau & Aubé, 2010).

With regards to turnover intention, the quality of workplace relationships also affects an employee's intention to quit a job (Dess & Shaw, 2001; Morrison, 2004). This is because the demonstration of mutual trust, care, and consideration engenders emotional bonds between employees and other organizational members (Mossholder et al., 2005). Maertz and Griffeth (2004) propose that the affective attachment to others in an organization typically indicates the attachment to the organization. Thus, as individuals develop more extensive and high-quality relationships in the workplace, the increased affective attachment will lead to more embeddedness in the organization and less intention to leave (Mossholder et al., 2005).

Work relationships may also affect employees' territorial behavior. As Aron et al. (1991, 2004) propose, in a close relationship, each includes to some extent in his or her self the other's resources, material resources (e.g., possessions), knowledge resources (e.g., abilities, information), and social resources (e.g., friendship networks). In addition, one may feel he or she has access to those resources, as if, to some extent, the other's resources are one's own. Thus, the other's acquisition and loss of resources is experienced to some extent as one's own acquisition and loss. More recently, Pierce and Jussila (2010) propose that the feelings of ownership also exist as a collective sense among group members that the target of ownership (e.g., workspace, project, idea, product created) is collectively "ours". Therefore, there may exist a sharing of territories among closed organizational members.

Taken together, we posit that the negative relationship between territoriality and turnover intention will be more pronounced in the presence of high work relationship closeness. While employees develop a close relationship with coworkers, they share possessions, resources, information and even social networks with each other, thus the scope of one's territory would be expanded from "mine" to "ours". As a result, not only do they mark and defend their own territories, but they also protect close others' territories, because "helping other is helping self; interfering with other is interfering with

self" (Aron et al., 2004). The expanded territory enables employees to have access to more job resources, enhances their attachment to the organization, and further increases their embeddedness in the organization. Thus, employees are more likely to maintain their organizational membership, and if not, they will suffer more financial or personal loss. Therefore, we hypothesize:

Hypothesis 3. Work relationship closeness moderates the relationship between territoriality and turnover intention such that the negative relationship is stronger when employees experience a higher level of work relationship closeness.

In sum, we propose a moderated mediation model of turnover intention: Employees' psychological ownership is related to turnover intention (partially) via conducting territorial behavior. Yet, a high level of work relationship closeness is proposed to be an affective component, which could also influence employees' attitude change. In contrast, under the boundary condition of a low level of work relationship closeness, employees' reduced turnover intention mainly comes from the cognitive component (psychological ownership) and behavioral component (territoriality).

Hypothesis 4. Work relationship closeness moderates the indirect effect of territoriality between psychological ownership and turnover intention, such that the indirect effect is stronger when work relationship closeness is low and weaker when it is high.

Methods

Sample and procedures

Participants in this study are employees working in three automobile manufacturing companies in China. Three waves of data were collected throughout an 8-month period to minimize potential common method variance and explore the causality among the variables (Podsakoff et al., 2003). We used a matched code to identify each employee's responses. In Phase 1, the employees provided information on their own demographics and psychological ownership. In Phase 2, which was 4 months after Phase 1, the employees reported their territoriality and work relationship closeness. In Phase 3, which took place 4 months after Phase 2, the employees reported their turnover intentions.

With the assistance of the human resource (HR) departments, we randomly selected 425 employees to participate in our survey. All respondents were assured of the confidentiality of their responses. After completing the questionnaires, respondents placed them in sealed envelopes in the HR departments. The HR departments in turn mailed the questionnaires directly to the research team. After deleting incomplete cases, our final sample consists of 341 employees.

Of the 341 employees, 66.9% were men. 34.6% were aged under 26, 31.1% aged between 26-30, 27.6% aged between 31-35, 5.6% aged between 36-40, and 1.2% aged above 40. In terms of their education, 47.8% held under-bachelor degrees, 46.9% held bachelor degrees, and 5.3% held postgraduate degrees. For the job levels, 84.2% were employees, 15.2% were first-line managers, and 0.6% were middle managers.

Measures

Because all our measures were originally constructed in English, we translated them into Chinese and then had them translated independently back into English (Brislin, 1980).

Five-point Likert scales were used for all multi-item measures, with anchors ranging from 1 (strongly disagree or not at all) to 5 (strongly agree or to a very great extent).

Psychological ownership. We used a three-item scale adapted from Van Dyne and Pierce (2004) to measure psychological ownership. A sample item was "I sense that this is MY company". The Cronbach's alpha for the scale was .81.

Territoriality. A twelve-item scale adapted from Brown (2009) was used to measure territoriality. A sample item was "I use signs to communicate that the workspace has been claimed". The Cronbach's alpha for the scale was .87.

Turnover intention. We used a three-item scale adapted from Bozeman et al. (2001) to measure turnover intention. A sample item was "I am not thinking about quitting my job at the present time" (reverse coded). The scale's Cronbach's alpha was .77.

Work relationship closeness. A nine-item scale developed by Chen and Peng (2008) was used to measure employee perceived work relationship closeness. A sample item was "We support each other at work". The Cronbach's alpha was .84.

Control Variables. We controlled for employee demographics, including gender, age, education and job level. Male was coded as "0" while female was coded as "1". Age was coded as "1" = under 26, "2" = between 26 and 30, "3" = between 31 and 35, "4" = between 36 and 40, "5" = between 41 and 45, "6" = between 46 and 50, "7" = above 50. Education was coded as "1" = secondary education, "2" = senior high school, "3" = junior college education, "4" = bachelor's degree, "5" = postgraduate degree, "6" = PhD degree. Job level was coded as "1" = grassroots employee, "2" = first-line manager, "3" = middle manager.

Analytic strategy

We tested our hypothesized model in two steps (cf. Preacher et al., 2007). First, we tested a simple mediation model (Hypothesis 1, 2). Second, we tested the proposed moderation effect (Hypothesis 3) and the overall moderated mediation model (Hypothesis 4). To test the mediation model, we applied Preacher et al.'s (2007) PROCESS program which combines the step wise procedure of Baron and Kenny (1986) with a Sobel test and also allows bootstrapping. The moderated mediation effect was also tested with the same PROCESS program, which can test the conditional indirect effect, including the recommended bootstrapping. In this study, 2000 bootstrapped resamples were used to compute bias-corrected CIs. Employees' age, education level, gender and job level were included as controls in these analyses.

Results

Confirmatory Factor Analysis

We first conducted CFAs on our data using AMOS 22. Before conducting CFAs, we followed Mathieu and Farr's (1991) suggestions and parceled the items of territoriality and work relationship closeness into three and four factors, respectively. As seen from Table 1, the hypothesized four-factor model displayed a good fit to the data. These analyses indicate that our variables are distinguishable.

Descriptive statistics

Table 2 shows the means, standard deviations, and Pearson correlations among the control, independent, and dependent variables. As shown in the table, psychological

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Table 1 Confirmatory factor analysis

Model	χ2	df	CFI	GFI	IFI	RMSEA
Hypothesized four-factor model	178.9	59	0.91	0.92	0.91	0.08
Three-factor model: psychological ownership and territoriality combined	481.22	62	0.69	0.81	0.69	0.14
Three-factor model: psychological ownership and turnover intention combined	434.49	62	0.72	0.83	0.73	0.13
three-factor model: psychological ownership and relationship combined	306.24	62	0.82	0.87	0.82	0.11
Two-factor model: psychological ownership and territoriality combined; turnover intention and relationship combined	611.85	64	0.6	0.77	0.6	0.16
Single-factor model	772.53	65	0.48	0.73	0.48	0.18

Notes: $N = 341$. *RMSEA* root mean square error of approximation, *CFI* comparative fix index, *GFI* goodness of fit index, *IFI* incremental fit index

ownership is negatively related to turnover intention ($\gamma = .17$, $p < 0.01$), and positively related to territoriality ($\gamma = .27$, $p < 0.01$). Territoriality is negatively related to turnover intention ($\gamma = -.16$, $p < 0.01$), which provides initial evidence in support of our hypothesized relationships.

Tests of hypotheses

Hypothesis 1 posits that employees' psychological ownership is negatively related to turnover intention. As shown in Table 3, we found that the direct effect of psychological ownership on turnover intention is significant and negative ($\beta = -.09$, $p < 0.05$). Thus, Hypothesis 1 is supported.

Hypothesis 2 posits that territoriality mediates the relationship between psychological ownership and turnover intention. Results in Table 3 demonstrate that psychological ownership is significantly and positively related to territoriality ($\beta = .16$, $p < 0.01$), territoriality is significantly and negatively related to turnover intention ($\beta = -.28$, $p < 0.01$), and the indirect effect of psychological ownership on turnover intention via territoriality is significant (indirect coefficient = $-.04$, $p < 0.05$). A Sobel test supports the significance of this indirect effect ($z = -3.02$, $p < 0.01$). Thus, Hypothesis 2 is supported.

Hypothesis 3 proposes that work relationship closeness moderates the relationship between territoriality and turnover intention. As shown in Table 4, the interaction term

Table 2 Means, Standard Deviations, and Correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8
1. Age	2.05	.98								
2. Educational level	3.29	.88	.36**							
3. Gender	1.25	.41	.08	.06						
4. Job level	1.13	.35	.17**	.03	.05					
5. Psychological ownership (T$_1$)	3.25	.83	-.07	-.27**	-.12*	.15**	(.81)			
6. Territoriality (T$_2$)	3.08	.59	-.10	-.20**	.05	.15**	.27**	(.87)		
7. Work relationship closeness (T$_2$)	3.60	.49	.09	-.01	.05	.17**	.13*	.27**	(.84)	
8. Turnover intention (T$_3$)	2.59	.66	-.10	-.08	.08	-.20**	-.17**	-.25**	-.16**	(.77)

Notes: $N = 341$. Age: "1" under 26, "2" between 26 and 30, "3" between 31 and 35, "4" between 36 and 40, "5" between 41 and 45, "6" between 46 and 50, "7" above 50. Educational level: Education was coded as "1" secondary education, "2" senior high school, "3" junior college education, "4" bachelor's degree, "5" postgraduate degree, "6" PhD degree. Gender: "0" female, "1" male. Job level: "1" grassroots employee, "2" first-line manager, "3" middle manager
*$p < .05$, **$P < .01$, Two-tailed tests

Table 3 Mediating effect of territoriality on the psychological ownership and turnover intention relationship

Variable	Territoriality				Turnover Intention			
	B	SE	t	p	B	SE	t	p
Constant	2.52	0.23	10.94	0.00	4.23	0.30	14.26	0.00
Age	-0.04	0.03	-1.10	0.27	-0.04	0.04	-1.13	0.26
Educational Level	-0.08	0.04	-2.10	0.04	-0.10	0.04	-2.44	0.02
Gender	0.11	0.08	1.50	0.14	0.17	0.08	2.05	0.04
Job Level	0.21	0.09	2.30	0.02	-0.26	0.10	-2.59	0.01
Psychological Ownership	0.16	0.04	4.14	0.00	-0.09	0.04	-1.99	0.05
Territoriality					-0.28	0.06	-4.56	0.00
R^2	R = 0.335, R^2=0.112, F = 8.413, $p < 0.001$				R = 0.370, R^2 = 0.137, F = 8.755, $p < 0.001$			

Total effect, direct effect, indirect effect of psychological ownership on turnover intention

	Effect	SE	t		p	LLCI	ULCI
Total Effect	-0.13	0.04	-2.99		0.00	-0.22	-0.05
Direct Effect	-0.09	0.04	-1.99		0.05	-0.18	-0.00
Indirect Effect	Effect	Boot SE	LLCI		ULCI		
	-0.04	0.02	-0.08		-0.02		
Normal Theory Tests for Indirect Effect	Effect	se	z		p		
	-0.04	0.01	-3.02		0.00		

Notes: N = 341. Bootstrap sample size = 2000, 95% bias-corrected confidence interval

Table 4 Moderating effect of work relationship closeness

Variable	Territoriality				Turnover Intention			
	B	SE	t	p	B	SE	t	p
Constant	-0.56	0.23	-2.41	0.02	3.35	0.26	13.08	0.00
Age	-0.04	0.03	-1.10	0.27	-0.04	0.04	-0.95	0.34
Educational Level	-0.08	0.04	-2.10	0.04	-0.11	0.04	-2.53	0.01
Gender	0.11	0.08	1.49	0.14	0.18	0.08	2.20	0.03
Job Level	0.21	0.09	2.30	0.02	-0.25	0.10	-2.49	0.13
Psychological Ownership	0.16	0.04	4.13	0.00	-0.08	0.04	-1.87	0.06
Territoriality					-0.23	0.06	-3.69	0.00
Work Relationship Closeness					-0.09	0.07	-1.18	0.24
T × WRC					-0.30	0.12	-2.59	0.01
R^2	R = 0.335, R^2 = 0.112, F = 8.391, $p < 0.001$				R = 0.398, R^2=0.158, F = 7.739, $p < 0.001$			

Conditional indirect relationship between psychological ownership and turnover intention

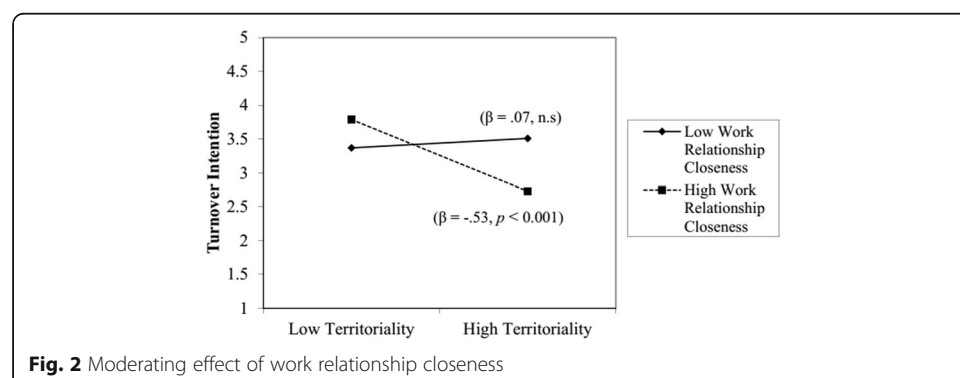| Work Relationship Closeness	effect	boot SE	LLCI	ULCI
High	-0.01	0.02	-0.06	0.02
Mean	-0.04	0.01	-0.07	-0.01
Low	-0.06	0.02	-0.11	-0.03

Notes: N = 341. Bootstrap sample size = 2000, 95% bias-corrected confidence interval
T territoriality, WRC work relationship closeness

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"territoriality × work relationship closeness" is negatively related to turnover intention (β = −.30, p < 0.05). To demonstrate the pattern of interaction, we further plotted the moderation of work relationship closeness according to Aiken and West's (1991) suggestions. As shown in Fig. 2, the negative relationship between territoriality and turnover intention is stronger when work relationship closeness is high (β = −.53, p < 0.001) as opposed to when it is low (β = .51, n.s).

Finally, we tested the moderated indirect effects of work relationship closeness (Hypothesis 4). As shown in Table 4, the indirect path from psychological ownership to turnover intention varies significantly at different values of work relationship closeness. Specifically, when work relationship closeness is low, psychological ownership has an indirect effect on turnover intention via territoriality (b = −.06, boot SE = .02, 95% bias−corrected CI= [−.11, −.03]) and a 95% bias−corrected confidence interval around the bootstrapped indirect, which does not contain zero. When work relationship closeness is high, the indirect effect of psychological ownership on turnover intention via territoriality is not significant (b = −.01, boot SE = .02, 95% bias-corrected CI= [−.06, .02]). Hypothesis 4 is supported.

Discussion

In this study, we draw on a tripartite perspective on attitude to develop and analyze a model of the relationships between employees' psychological ownership, territoriality, work relationship closeness and turnover intention. The results indicate that the degree of employees' experienced psychological ownership is negatively related to employees' intention to leave, and positively related to territorial behaviors; the more territorial behavior employees engaged in, the less turnover intention evolved. In addition, territorial behavior mediates the relationship between psychological ownership and turnover intention. We also examined the moderation role of work relationship closeness on the relationship between territoriality and turnover intention. Results substantiate the moderation effect, which highlights that the close relationship with coworkers can intensify the negative influence of territorial behavior on employees' leaving intention. Specifically, if an employee perceives a high level of close relationships with other coworkers, which including shared support, trust, understanding and perspective taking, then his or her likelihood of staying owing to territoriality may increase. Conversely, if an employee experiences a general coworker relationship, he or she may feel more turnover intention as compared with those who are in a close relationship. The theoretical and managerial implications of our findings are discussed in the following sections.

Fig. 2 Moderating effect of work relationship closeness

Theoretical implications

Our study makes several valuable contributions to psychological ownership theory, territoriality theory as well as turnover research. First, previous studies have answered the question "why employees stay" from different relational perspectives, such as social capital theory (Dess & Shaw, 2001), social exchange theory (Van Knippenberg et al., 2007), and job embeddedness theory (Mitchell et al., 2001). Our present study provides new insight into the question by drawing on the tripartite view of attitude, and proposing that turnover intention as a reflection of employees' overall attitude toward the organization can be affected by the interplay of the cognition, behavior, and affect associated with the organization.

Second, we explicitly proposed and empirically tested a mechanism which answered the question "how psychological ownership reduces employee turnover intention". Although previous researchers have proposed that psychological ownership may reduce the likelihood of employees' intention to give up their organizational membership, empirical examination still remains limited. The present study fills this gap and provides empirical evidence for the negative influence of psychological ownership on turnover intention. In addition, the results of our study further demonstrate that the relationship between psychological ownership and turnover intention is mediated by territoriality.

Third, our study makes a distinct contribution to the theory of territoriality in organizations. In their concept of territoriality, Brown and his colleagues (2005) highlight the universality of territoriality in organizations and propose that territorial behavior can have important impacts on the relationship between an employee and the organization. However, so far, empirical evidence still remains limited. Our study is the first to empirically examine possible antecedents and consequences of territoriality. Results of our study confirm the positive relationship between psychological ownership and territoriality, and further reveal the negative influence on turnover intention.

Fourth, we introduce work relationship closeness as a moderator of the relationship between territoriality and turnover intention. Doing so, again, highlights the significance of social relationships in working environments (Chiaburu & Harrison, 2008; Dan, 2010; Kilduff & Brass, 2010; Podolny & Baron, 1997). While employees develop close relationships with coworkers, they share territories with each other, and "what I have" and "what you have" become "what we have", thus expanding the scope of territories and becoming more embedded in the organization.

Practical implications

Turnover has long been a topic of organizational research with clear relevance to practice, given the costs that turnover imposes on organizations in terms of loss of key employees, and given increasing evidence that turnover is negatively related to organizational performance (Shaw et al., 2009). Our findings provide practitioners with valuable insights on how to decrease employee turnover intentions. Territoriality is a common phenomenon in organizations, employees are motivated to establish and maintain territories toward which they psychologically feel ownership. Thus managers should understand it is inevitable and natural that employees engage in those territorial behaviors (Brown et al., 2005). As results of our study show that employees' engagement in territorial behavior can enhance their attachment to the work environment and

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increase their embeddedness, which further reduce their turnover intentions, managers should encourage those behaviors or at least not forbid them.

A second crucial managerial implication suggested by our study is that the perception of work relationship closeness can strengthen the connection between organizational members and their organizations. To be more precise, while employees perceive more mutual support, trust, understanding and perspective taking among coworkers, they integrate into a unit as a whole and territorial behavior protects the collective territory, thus further increasing employees' commitment to the organization. Therefore, managers should attempt to create friendly, closely-connected interpersonal relationships among employees in the workplace by implementing formal or informal practices to encourage more interpersonal communications. For example, carefully developed mentoring programs between experienced and less experienced employees may help to establish mutual interdependence, trust, and perspective taking (Settoon & Mossholder, 2002).

Limitations and future research

Several limitations in this study remain for subsequent research to address. First, as an explorative study of the empirical examination of the theory of territoriality in organizations, our model is incomplete and underspecified. Future researchers can explore other possible consequences of territorial behaviors on individual level or organizational level outcomes. Questions such as whether employees' territoriality is positively related to their job satisfaction and organizational commitment still remain unanswered and lack validation. In addition, as Brown et al. (2005) propose, territoriality in organizations may bring not only positive influence but also may have negative effects on individuals and organizations. For example, investing one's time and energy into territorial behavior may distract employees from concentrating on his or her own work, thus undermining work performance. Likewise, too much territoriality may result in isolation among organizational members, and excessive territorial consciousness may lead to reluctance to share information and knowledge with other coworkers, which is important for cooperation. Thus, it is also necessary to examine situational factors that can determine under what circumstances territoriality has a positive or otherwise impact.

Second, though our study highlights the significance of interpersonal relationships in effecting employees' territorial behavior, we only examined how the quality of coworker relationships influences employees' territorial behavior. However, in the leadership literature, relationships with supervisors are also shown to have influence on some subordinate outcomes, such as the quality of leader–member exchange (LMX), and can affect subordinates' job performance, job satisfaction and organizational citizenship behavior (Ilies et al., 2007; Wang et al., 2005). In addition, different from relationships with coworkers, there is a one-to-one relationship between a subordinate and his or her supervisor, thus future research is needed to examine how relationships with supervisors influence subordinates' territorial behavior and also how they compare with coworker relationships.

Third, our study suggests, though does not explicitly state, that territoriality can become a collective action. Recently, Pierce and Jussila (2010) introduced the concept

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of collective psychological ownership suggesting that feelings of ownership also exist as a collective sense among group members such that the target of ownership (e.g., workspace, project, idea, product created) is collectively "ours". Indeed, individuals are willing to share possessions (territories) with close others (considering an extreme example of married couples), thus employees who are in a tightly united team may cognitively distinguish his or her group members as insiders and others as outsiders, and thus, in turn, will engage in different territorial behaviors from those who work independently. As more and more work is carried out and completed in work groups, it is of important significance for subsequent researchers to study territoriality at the group level.

Finally, though our study uses longitudinal data, which were collected from 341 employees in three Chinese automobile manufacturing companies, to reduce possible common method biases, we did not control for the organizations in the regression analysis. As a result, the generalization of our findings may be limited. Future researchers could try to conduct studies based on different samples, such as collecting data from different industries, even from different cultures, to validate our conclusions.

Conclusion

Despite these limitations, this study has taken an initial step to examine the mechanism through which psychological ownership is negatively related to turnover intention. Drawing on the tripartite view of attitude, we propose that the interplay between psychological ownership, territoriality, and work relationship closeness effect employees' turnover intention. Results of this study suggest that employees' feeling of psychological ownership leads to corresponding territoriality, and by engaging in territorial behavior they become more embedded in the organization, which further reduces intentions to quit. In addition, when employees develop a close relationship with other coworkers, the negative relationship between territoriality and turnover intention is strengthened.

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