

Collective Psychological Ownership, Status Promotion Criteria, and Team Creativity

Authors: Wei Lihua, Liu Zhiqiang, Shudi Liao, Long Lirong, Liao Jianqiao, Liao Shudi

Date: 2019-01-29T00:00:00+00:00

Abstract

Based on motivated information processing theory, this study empirically examines for the first time the influence mechanism of collective psychological ownership on team creativity. Statistical analysis of data from 91 work teams in domestic enterprises reveals that collective psychological ownership positively influences team creativity; information elaboration mediates the relationship between collective psychological ownership and team creativity; status promotion criteria significantly moderate the relationship between collective psychological ownership and information elaboration, wherein graded promotion criteria strengthen the positive effect of collective psychological ownership on information elaboration, while tournament-based status promotion criteria weaken the positive effect of collective psychological ownership on information elaboration.

Full Text

Preamble

Collective Psychological Ownership, Status Promotion Criteria, and Team Creativity

Wei Lihua¹, Liu Zhiqiang¹, Liao Shudi², Long Lirong¹, Liao Jianqiao¹

(¹ School of Management, Huazhong University of Science and Technology, Wuhan, 430074, China)

(² School of Business, Hubei University, Wuhan, 430068, China)

Abstract

Based on motivated information processing theory, this study empirically examines the influence mechanism of collective psychological ownership on team creativity for the first time. Statistical analysis of data from 91 work teams in

domestic enterprises reveals that collective psychological ownership positively affects team creativity, with information elaboration mediating this relationship. Status promotion criteria significantly moderate the relationship between collective psychological ownership and information elaboration, wherein criterion-based promotion standards strengthen the positive effect of collective psychological ownership on information elaboration, while tournament-based promotion standards weaken this effect.

Keywords: collective psychological ownership; information elaboration; team creativity; status promotion criteria; motivated information processing

1. Problem Introduction

Modern organizations' empowerment of team autonomy and the interdependent design of team structures have largely led to shared control, shared attention, and shared investment in team work among individuals, objectively facilitating the formation of collective psychological ownership (Pierce & Jussila, 2010). In this study, the target of collective psychological ownership is defined as team work. Collective psychological ownership has increasingly attracted scholarly attention, with existing research primarily focusing on theoretical analysis of its motivational foundations, formation paths, influencing factors, and positive effects (Pierce et al., 2010; Dawkins, Tian, Newman, & Martin, 2017). Some literature also suggests that collective psychological ownership not only promotes team cognition but also enhances team members' prosocial behaviors through its motivational antecedents (such as social identification) (Pierce et al., 2010), which may potentially enhance team creativity by facilitating team cognitive processing (De Dreu, Nijstad, Bechtoldt, & Baas, 2011). However, existing research has not further investigated this link. Therefore, this study aims to empirically examine the relationship between collective psychological ownership and team creativity.

From the perspective of motivated information processing in groups (MIP-G), collective psychological ownership and team creativity are closely connected. MIP-G posits that teams are information processors (Hinsz, Tindale, & Vollrath, 1997), and the effectiveness of team information processing depends on teams' epistemic motivation and social motivation (De Dreu, 2003; De Dreu, 2007; De Dreu et al., 2011). Epistemic motivation determines the extent to which information is systematically processed, while social motivation determines the types of information that team members search for, process, and communicate, including proself motivation and prosocial motivation, both of which can be activated by situational cues (De Dreu, Nijstad, & Van Knippenberg, 2008). Since information processing driven by epistemic and prosocial motivations facilitates the generation of new ideas, De Dreu et al. (2011) argue that team creativity is a function of team epistemic and prosocial motivations. Collective psychological ownership helps stimulate both epistemic and prosocial motivations (Pierce et al., 2010), suggesting that it should enhance team creativity. Additionally, information elaboration reflects team members' sharing, exchange, and integrated

utilization of information (Homan, Knippenberg, Van Kleef, & De Dreu, 2007) and positively influences team creativity by improving team cognitive levels (Hoever, Van Knippenberg, Van Ginkel, & Barkema, 2012). Given that collective psychological ownership triggers epistemic and prosocial motivations that play important roles in information processing, this study predicts that information elaboration likely mediates the relationship between collective psychological ownership and team creativity.

Furthermore, status promotion criteria may serve as a potential moderating factor. Status promotion criteria refer to the basis on which organizations grant formal status to employees, and the resulting competitive environment stimulates individuals' status competition behaviors (Liu, Deng, Liao, & Long, 2013). Status competition motivation is a self-centered proself motivation focused on occupying status resources. According to MIP-G, proself motivation hinders information elaboration by causing individuals to focus on self-goals (Bechtoldt, De Dreu, Nijstad, & Choi, 2010). Therefore, status promotion criteria likely influence the process through which collective psychological ownership affects team creativity by eliciting status competition.

Based on the above analysis, this study positions itself within the MIP-G framework to empirically explore the mechanism through which collective psychological ownership influences team creativity, with the following objectives: (1) to determine whether collective psychological ownership positively affects team creativity; (2) to reveal the mechanism by which collective psychological ownership influences team creativity through the pathway of information elaboration; and (3) to examine the boundary conditions of collective psychological ownership's effect on team creativity from the perspective of status promotion criteria, focusing specifically on tournament-based and criterion-based promotion standards as suggested by Liu et al. (2013).

1.1 The Relationship Between Collective Psychological Ownership and Team Creativity

Collective psychological ownership is a shared mindset among group members regarding ownership consciousness of a specific target, generated through social interaction and reflecting a "we" and "ours" psychology. Motivationally, it must be based on individuals' social identification motives within the collective, accompanied by one or more of three motives: need for territory, efficacy, and self-identity. In terms of formation paths, it emerges from collective recognition of shared control over the target, shared intimate knowledge of the target, and/or shared investment of different team members' "selves" into the target. Collective psychological ownership differs from team identification, with the former centered on possession and the latter on identity (Pierce et al., 2010).

From the MIP-G perspective, collective psychological ownership likely positively influences team creativity. MIP-G suggests that information processing driven by epistemic and prosocial motivations facilitates team creativity, which refers

to team members' ability to cooperatively generate novel and useful ideas (Wang, Kim, & Lee, 2016). Collective psychological ownership provides situational cues that enhance both epistemic and prosocial motivations. On one hand, the target of collective psychological ownership influences individuals' self-identity and collective honor (Pierce et al., 2010). As an ownership target, inefficient team work not only reduces the team's status in the organization, affecting team identity and collective honor, but may also decrease individual value distribution. Such situational cues likely activate members' sense of ownership, prompting team members to search for new methods to solve work problems or enhance task adaptability, thereby strengthening epistemic motivation. This motivation can increase individuals' creative problem-solving (Schultz & Searleman, 1998) and cognitive complexity and flexibility (Carnevale & Probst, 1998), thereby enhancing creative task performance (Baer & Oldham, 2006). On the other hand, collective psychological ownership originates from individuals' social identification, need for territory, efficacy, and self-identity, creating a close connection between the team and self-worth. This psychological connection easily evokes individuals' sense of responsibility toward team work (Pierce et al., 2010) and further guides prosocial motivation (Van Der Vegt & Bunderson, 2005). This motivation drives team members to engage in more constructive controversy, openly express their ideas, and explore different perspectives (Tjosvold, 1998), thereby enhancing team creativity. Therefore, this study proposes:

H1: Collective psychological ownership positively influences team creativity.

1.2 The Mediating Role of Information Elaboration

Information elaboration is the process through which teams exchange, discuss, and integrate task-related ideas, knowledge, and perspectives (Wang, 2015; Hoover et al., 2012). It likely mediates the relationship between collective psychological ownership and team creativity for several reasons. First, according to MIP-G, the epistemic and prosocial motivations generated by collective psychological ownership benefit information elaboration in two ways: epistemic motivation drives team members to actively collect, process, communicate, and integrate task-related information (De Dreu et al., 2011), while prosocial motivation guides members to process information cooperatively with the mindset of promoting collective success (De Dreu et al., 2011). This collective interest-focused prosocial behavior facilitates information processing under conditions of social interaction and synergy during team information processing. Both motivations thus greatly ensure the efficiency of team information elaboration.

Second, information elaboration enhances team creativity. The exchange, sharing, and integration of information expose team members to others' ideas, which not only stimulates individuals' cognitive flexibility and generation of new ideas but also expands the team's knowledge base (Stasser & Birchmeier, 2003), thereby enhancing domain-relevant knowledge (Amabile, 1988; Amabile, 1983) and promoting team creativity.

Finally, from a team cognition perspective, collective psychological ownership likely promotes active team information elaboration by facilitating epistemic and prosocial motivations, while information elaboration improves team knowledge structures and stimulates new ideas, thereby enhancing team creativity. Therefore, collective psychological ownership likely influences team creativity through information elaboration. Accordingly, this study proposes:

H2: Information elaboration mediates the relationship between collective psychological ownership and team creativity.

1.3 The Moderating Role of Status Promotion Criteria

Status promotion criteria refer to the basis on which organizations promote employees' formal status. Tournament-based and criterion-based standards are two commonly adopted types (Liu et al., 2013). Tournament-based promotion criteria are based on "relative ranking" within the social hierarchy structure, where status resources are obtained through "priority ranking" and encourage comparison and competition among employees. In contrast, criterion-based promotion standards rely on predetermined objective criteria set by the organization—anyone who meets these criteria can obtain status resources regardless of how many people qualify—encouraging employees to compete with themselves rather than others. These two criteria can guide individuals' status competition motivation (Liu et al., 2013). Since status competition is a self-centered proself motivation, the more promotion criteria lean toward tournament-based, the stronger the proself motivation elicited; conversely, the more they lean toward criterion-based standards, the less pronounced the proself motivation, as no inevitable competition exists among members.

Status promotion criteria likely moderate the process through which collective psychological ownership affects team creativity via information elaboration by guiding team members' status competition motivation. Specifically, under tournament-based criteria, winners gain not only material benefits but also respect from others, while losers not only forfeit status resources but may also face negative incentives and replacement risks (Aronson, Wilson, & Akert, 2005). Therefore, tournament-based criteria easily elicit self-interested status competition within teams. According to MIP-G, when members possess proself motivation and emphasize rights and personal success, they are more likely to communicate and focus on information related to self-goals, potentially creating group climates and interaction processes characterized by excessive criticism, ridicule, and underestimation (Shin & Zhou, 2007), which hinders information sharing and integration. Consequently, status competition induced by tournament-based criteria likely negatively affects the relationship between collective psychological ownership and information elaboration. Under criterion-based standards, individuals can obtain status benefits as long as they meet organizational reward criteria, shifting focus away from "ranking" in the team hierarchy toward whether their own efforts meet organizational standards. This criterion helps alleviate status competition within teams, thereby positively in-

fluencing information elaboration.

Based on this analysis, we can infer that status promotion criteria influence the relationship between collective psychological ownership and information elaboration. Given that information elaboration likely mediates the relationship between collective psychological ownership and team creativity, this study predicts that status promotion criteria will affect team creativity by altering the information elaboration driven by collective psychological ownership. Accordingly, this study proposes:

H3: Status promotion criteria moderate the indirect relationship between collective psychological ownership and team creativity through information elaboration. Specifically, under tournament-based criteria, the indirect relationship between collective psychological ownership and team creativity via information elaboration will weaken, whereas under criterion-based criteria, this indirect relationship will strengthen.

Based on the above analysis, this study constructs the research model shown in Figure 1 [Figure 1: see original paper].

2.1 Data Collection

To enhance research design rigor, this study adopted a multi-timepoint, multi-source data collection approach. Data were collected from 16 enterprises in Wuhan, Zhengzhou, Guangzhou, and other cities, covering industries including manufacturing, telecommunications, energy, and finance. These industries were selected primarily because they face rapidly changing environments and high innovation pressure. To avoid common method bias, data collection employed a supervisor-subordinate paired survey method. Supervisor questionnaires, completed by team leaders, primarily assessed status promotion criteria. Subordinate questionnaires, completed by regular team members, assessed relationship conflict, collective psychological ownership, information elaboration, team creativity, and demographic information including gender, tenure in current position, and education level. Given that the research topic involves sensitive issues such as status promotion criteria and relationship conflict, ensuring participants' willingness and honesty was crucial. The research team contacted target organizations through various connections, communicated the purpose and significance of the survey to secure cooperation, informed participants of the academic research purpose, anonymity, and other relevant considerations to minimize concerns, and then distributed questionnaires.

The survey was conducted in two phases. In Phase 1, team leaders completed assessments of promotion criteria, while their matched subordinates completed assessments of collective psychological ownership and relationship conflict. This phase involved distributing 110 questionnaires to team leaders of knowledge-based work teams and 810 to their subordinates. After matching and integrating returned questionnaires, 99 valid leader questionnaires and 690 valid subordinate questionnaires were obtained, representing response rates of 90.0%

and 85.2%, respectively. Four weeks later, in Phase 2, team members completed assessments of information elaboration and team creativity. Based on the valid subordinate questionnaires from Phase 1, 690 questionnaires were distributed to the 99 teams' members. After matching and integration, 658 valid questionnaires were ultimately obtained, including 91 leader questionnaires and 567 member questionnaires. Among team members, 330 (58.2%) were male and 237 (41.8%) were female. Age distribution was: under 20 years (14, 2.5%), 21-30 years (367, 64.7%), 31-40 years (142, 25.0%), 41-50 years (41, 7.3%), and over 50 years (3, 0.5%). Education levels were: below technical secondary school (49, 8.6%), junior college (141, 24.9%), undergraduate (304, 53.6%), master' s (68, 12.0%), and doctoral (5, 0.9%). Team tenure was: less than 1 year (21, 3.7%), 1-3 years (432, 76.2%), 4-6 years (85, 15.0%), and 7-10 years (21, 3.7%).

2.2 Research Instruments

All scales and experimental scenarios used in this study were either adopted from established foreign scales or revised based on them. To avoid semantic confusion affecting response quality, all foreign scales underwent translation-back-translation procedures until consensus was reached, followed by review and revision by human resources experts before finalization.

Collective Psychological Ownership: This study selected two items with the highest factor loadings from Dyne and Pierce' s (2004) individual-level organizational psychological ownership scale, adapting them to assess members' collective ownership consciousness of team work. The adapted items were "The work in our team is collectively owned by us members" and "We feel that the work in our team belongs to us members collectively."

Team Creativity: Adopted from Farh, Lee, and Farh (2010), this 4-item scale includes typical items such as "Our team' s work outcomes are innovative."

Information Elaboration: Adopted from Kearney, Gebert, and Voelpel (2009), this 4-item scale includes typical items such as "Our team members openly share their knowledge to compensate for each other' s deficiencies."

Status Promotion Criteria: Following Liu et al.' s (2013) measurement method, team leaders evaluated status conferral criteria in two steps. First, leaders reported status symbols attended to in the team, such as position, authority, title, benefits, and influence, selecting from a randomized list or adding symbols not listed. Second, leaders rated the conferral criteria for these status symbols on a 7-point Likert scale, where 1 represented "The organization sets no 硬性标准 (hard criteria) but only promotion ratios, or 虽有硬性标准 (although hard criteria exist) they serve only as one reference for ratio division," and 7 represented "The organization confers status symbols based on predetermined objective criteria—anyone meeting the criteria obtains the corresponding status symbol regardless of how many qualify (except for positions)." Scores closer to 1 indicate stronger implementation of tournament-based standards, while scores closer to 7 indicate stronger implementation of criterion-based standards.

Control Variables: Average team tenure and team size may both influence team creativity (Shin et al., 2007). Relationship conflict contains negative emotional components such as aversion and anger, which hinder information sharing and social interaction among team members (Madrid, Totterdell, Niven, & Barros, 2016), adversely affecting team creativity. Therefore, this study controlled for these factors. Relationship conflict was measured using Bendersky and Hays' (2012) 3-item scale, with typical items such as "Our team frequently experiences interpersonal tension unrelated to work."

All scales except team tenure and team size used a 7-point Likert scale (1 = "strongly disagree," 7 = "strongly agree"), with higher values indicating greater agreement.

3.1 Common Source Variance Analysis

For the four variables completed by employees, Harman's test was conducted through exploratory factor analysis. All items for collective psychological ownership, information elaboration, relationship conflict, and team creativity were analyzed together. The unrotated first factor explained 32.7% of variance, while the four-factor cumulative explanation reached 72.1%. Although the unrotated first factor explained the most variance, it did not exceed half of the explained variance, indicating that common source variance was controlled within a relatively ideal range.

3.2 Reliability and Validity Tests

Confirmatory factor analysis (CFA) was first conducted on variables in the model (excluding status promotion criteria). Results showed excellent fit for the four-factor model (relationship conflict, collective psychological ownership, information elaboration, and team creativity) ($\chi^2 = 96.40$; $df = 57$; $\chi^2/df = 1.69$; $GFI = 0.97$; $CFI = 0.99$; $RMSEA = 0.04$). Table 2 shows that all expected variables' average variance extracted (AVE) exceeded 0.50 and composite reliability (CR) exceeded 0.70, indicating that more than half of observed variance was explained by the hypothesized structure, meeting Hair, Anderson, Tatham, and Black's (1998) criteria and demonstrating good internal consistency and reliability.

The four-factor CFA results showed excellent overall model fit, with all loadings exceeding 0.50 and significant t-values ($t > 1.96$, $p < 0.05$). AVE values all exceeded 0.50. According to Steenkamp and van Trijp's (1991) criteria, the scales demonstrate good convergent validity. Additionally, Table 2 shows the four-factor measurement model has good fit and is superior to other nested models, indicating good discriminant validity among variables.

Overall, both model fit and reliability/validity reached ideal levels, indicating reliable measurement and good structural properties suitable for subsequent data analysis.

Table 1 Confirmatory Factor Analysis Results 1

Item	Factor Loading
Our team frequently experiences interpersonal tension unrelated to work	RC
When working together, our team members easily become irritable	RC
Our team frequently has emotional conflicts between individuals	RC
Our team members openly share their knowledge to compensate for each other' s deficiencies	EI
Our team members carefully examine various viewpoints to generate optimal solutions	EI
Our team carefully considers the unique information provided by each person	EI
The ideas and solutions generated by our team are much better than those proposed by individuals	EI
Our team' s work outcomes are innovative	TC
Our team produces many original and practical work outcomes	TC

Item	Factor Loading
Our team' s outputs demonstrate our ability to creatively apply existing resources and information	TC
Our team has proposed many creative solutions to problems	TC
The work in our team is collectively owned by us members	CPO
We feel that the work in our team belongs to us members collectively	CPO

Note: RC = Relationship Conflict, LB = Learning Behavior, CPO = Collective Psychological Ownership, EI = Information Elaboration, TC = Team Creativity (same below).

Table 2 Confirmatory Factor Analysis Results 2

Model	χ^2/df	RMSEA
Four-factor model (RC, EI, TC, CPO)	1.69	0.04
Three-factor model (RC+CPO, EI, TC)	-	-
Three-factor model (RC, EI+CPO, TC)	-	-
Three-factor model (RC, EI, CPO+TC)	-	-
Two-factor model (CPO+RC+EI, TC)	-	-
Two-factor model (EI, RC+CPO+TC)	-	-
One-factor model (RC+CPO+EI+TC)	-	-

3.3 Data Aggregation Tests

This study involves team-level analysis, requiring aggregation of individual member measurements to the team level. James, Demaree, and Wolf' s (1984) Rwg index was used to test within-group consistency, while ICC(1) and ICC(2) tested between-group heterogeneity to determine whether individual data were suitable for aggregation. Results in Table 4 show that Rwg (mean) and Rwg (median) for relationship conflict, team learning, collective psychological ownership, information elaboration, and team creativity all exceeded 0.70 and were relatively

high. The Rwg coefficient represents within-team member consistency, indicating good within-group consistency for these five variables. ICC1 and ICC2 represent between-group variance and reliability of group means, respectively. Table 4 shows ICC1 values for these variables ranged between 0.1-0.5, indicating appropriate between-group differences. However, ICC2 values for team creativity, team learning, and information elaboration were below 0.7, likely due to the relatively small number of surveyed groups. Overall, the Rwg, ICC1, and ICC2 values for these variables were relatively ideal and suitable for aggregation to the team level.

Table 3 Team-Level Variable Aggregation Test Results

Variable	Rwg Median	Rwg Mean
Team Creativity	-	-
Collective Psychological Ownership	-	-
Information Elaboration	-	-

3.4 Descriptive Statistics and Correlation Coefficients

Table 4 presents means, standard deviations, and correlation coefficients for major variables. The table shows correlation coefficients between collective psychological ownership and information elaboration ($r = 0.49, p < 0.01$) and team creativity ($r = 0.36, p < 0.01$), indicating positive relationships. The correlation between information elaboration and team creativity was 0.43 ($p < 0.01$), also showing a positive relationship. These results provide preliminary support for the study's hypotheses.

Table 4 Descriptive Statistical Analysis Results

Variable	1	2	3	4	5	6	7
1. Relationship Conflict	-						
2. Collective Psychological Ownership	-0.34**	-					
3. Information Elaboration	-0.21*	0.49**	-				
4. Team Creativity	0.22*	-0.24*	0.36**	0.43**	-		

*Note: Values are standardized regression coefficients. $p < 0.05$, ** $p < 0.01$.*

3.5 Main Effects Test

H1 proposed that collective psychological ownership positively affects team creativity. Hierarchical regression analysis was used, with results shown in Model M2 of Table 5. After entering control variables, only relationship conflict showed a significant regression coefficient on team creativity. On this basis, collective psychological ownership and status promotion criteria were added,

revealing a significant positive regression coefficient of collective psychological ownership on team creativity ($b = 0.16$, $p < 0.01$) with statistically significant ΔR^2 . This indicates that collective psychological ownership has a significant positive effect on team creativity, supporting H1.

Table 5 Hierarchical Regression Analysis: Main Effects and Moderation Effects

Step	Variable	Team Creativity	Information Elaboration
Step 1: Control Variables		4.67***	4.87***
Step 2: Main Effects	Collective Psychological Ownership	0.16**	0.25***
	Status Promotion Criteria	0.10*	0.13**
Step 3: Interaction	Status Promotion Criteria \times Collective Psychological Ownership	0.12*	0.12*

Note: Values are standardized regression coefficients. $p < 0.05$, $p < 0.01$, $p < 0.001$.

3.6 Mediation Effect Test

This study used the bootstrapping method with 5,000 resamples via PROCESS software to test mediation. Results in Table 6 show that information elaboration mediated the relationship between collective psychological ownership and team creativity (Boot 95% CI = [0.0053, 0.2728]). Model M7 shows that after adding information elaboration, its effect on team creativity was significant ($b = 0.25$, Boot 95% CI = [0.0168, 0.4853]), while collective psychological ownership remained significantly positively related to team creativity ($b = 0.25$, Boot 95% CI = [0.0256, 0.4678]), indicating partial mediation. This supports H2.

Table 6 Mediation Effect Analysis Results

Path	b	Boot 95% CI
Control Variables → Information Elaboration	0.38***	[0.0520, 0.3939]
Control Variables → Team Creativity	0.26***	[0.0069, 0.3948]
Collective Psychological Ownership → Information Elaboration	0.41***	[0.2323, 0.5959]
Collective Psychological Ownership → Team Creativity	0.25**	[0.0256, 0.4678]
Information Elaboration → Team Creativity	0.25**	[0.0168, 0.4853]
Indirect Effect: CPO → EI → TC	-	[0.0053, 0.2728]

Note: (1) *b* values are unstandardized regression coefficients; (2) Bootstrap samples = 5,000.

3.7 Moderation Effect Test

To test the moderating effect of status promotion criteria on the indirect relationship “collective psychological ownership → information elaboration → team creativity,” this study added the interaction term between collective psychological ownership and status promotion criteria to the main effects model. Model M4 in Table 5 shows that collective psychological ownership significantly positively affected information elaboration ($b = 0.25$, $p < 0.001$, with significant ΔR^2). Model M5 shows that the interaction term significantly predicted information elaboration ($b = 0.12$, $p < 0.05$, with significant ΔR^2), indicating that status promotion criteria significantly moderate the relationship between collective psychological ownership and information elaboration. Additionally, simple slope tests in Figure 2 [Figure 2: see original paper] show $t = 10.95$ ($p < 0.001$) under tournament-based criteria and $t = -2.24$ ($p < 0.01$) under criterion-based criteria, further supporting the moderating effect.

Table 7 Conditional Indirect Effects

Status Promotion Criteria Level	Indirect Effect: CPO → EI → TC	Boot 95% CI
High (Criterion-based)	-	[-0.0167, 0.7463]
Low (Tournament-based)	-	[-0.0595, 0.4798]

Note: High/low levels refer to one standard deviation above/below the mean.

To further verify the moderation of the indirect relationship, bootstrapping with 5,000 resamples via PROCESS software was conducted. Results (Table 7) show that under high levels of status promotion criteria (criterion-based), the indirect effect was not significant (Boot 95% CI = [-0.0167, 0.7463]), and similarly not significant under low levels (tournament-based) (Boot 95% CI = [-0.0595, 0.4798]). Thus, the hypothesized moderating effect of status promotion criteria on the indirect relationship was not supported, and H3 was not validated.

4.1 Conclusions and Discussion

Through empirical examination of the mechanism through which collective psychological ownership affects team creativity, this study validates most hypotheses and yields several important findings:

First, collective psychological ownership positively affects team creativity. MIP-G suggests that epistemic and prosocial motivations drive team members to invest in cognitive processing, thereby enhancing team creativity. From this perspective, collective psychological ownership promotes team creativity primarily by triggering two types of motivation: on one hand, “collective psychological possession” of team work facilitates self-value realization—poor team work performance affects team reputation, identity, and income distribution, stimulating individuals to actively collect and organize relevant information to solve work problems, thereby strengthening epistemic motivation. On the other hand, the close connection between the target of collective psychological ownership (team work) and individual self-worth easily evokes individuals’ sense of responsibility toward the collective, triggering prosocial motivation. Both motivations ensure effective cognitive processing in teams, which is crucial for enhancing team creativity.

Second, information elaboration partially mediates the relationship between collective psychological ownership and team creativity. Information elaboration involves exchanging, discussing, and integrating task-related ideas, knowledge, and perspectives—a process requiring both epistemic motivation and particularly prosocial motivation. During team information elaboration, prosocial motivation directs individuals to process information in ways that realize collective value, such as sharing information and collaboratively integrating team information, creating a “1+1>2” effect. Collective psychological ownership of team

work, due to its interest relevance and social identification foundation, easily triggers both epistemic and prosocial motivations, thus positively influencing information elaboration. Simultaneously, information elaboration plays an important role in enhancing team creativity. The innovation process is essentially an information processing process that depends on how teams re-represent and process existing information through creative association and integration (Lin, Bai, & Lin, 2014). Koestler (1964) noted that any creative act results from associating two or more seemingly unrelated concepts cognitively to generate new ideas. Information elaboration provides favorable conditions for different perspectives and ideas to collide and merge, thereby enhancing team creativity (Van Knippenberg, De Dreu, & Homan, 2004; Ni, Xiang, & Yao, 2016; Jiang & Yang, 2016). This also aligns with the componential theory of creativity.

Third, status promotion criteria moderate the relationship between collective psychological ownership and information elaboration. Specifically, tournament-based criteria weaken this relationship, while criterion-based criteria strengthen it. Status promotion criteria primarily motivate employees by guiding status competition motivation (Liu et al., 2013). Tournament-based criteria drive relative status competition behaviors such as information hiding (Bendersky et al., 2012), challenging others' status (Porath, Overbeck, & Pearson, 2008), performance cheating, and obstructing opponents (Charness, Masclet, & Villeval, 2014). These competitive interactions hinder information sharing, discussion, and integration (Baer, Leenders, Oldham, & Vadera, 2010). As a proself motivation, status competition negatively affects information processing according to MIP-G. Criterion-based criteria encourage self-competition, focusing individuals on whether their own efforts meet organizational standards, making relative "ranking" in the hierarchy meaningless. Under this standard, cooperation and interaction to meet organizational performance requirements become rational choices, largely eliminating relative status competition motivation and reducing its inhibitory effect on information elaboration. This conclusion also aligns with trait activation theory, which suggests that individuals' perception of situations moderates how personal characteristics affect behavior (Tett & Burnett, 2003). Since tournament-based criteria create substantial competitive pressure, they activate team members' competitiveness during information processing, prompting strategic information use for status enhancement, which negatively affects team information elaboration. Criterion-based criteria reduce relative competitive pressure and emphasize cooperative interaction to meet organizational performance needs, offsetting the negative impact of status competition on team information processing.

However, the hypothesis regarding status promotion criteria' s moderation of the indirect relationship was not supported. This may be because the effect is constrained by other situational factors, such as task interdependence. From a social cognition perspective, task interdependence creates mutual dependence among team members during task execution, and cooperation can enhance individual adaptability to team tasks. This cognition likely promotes social interaction and communication among team members, benefiting team creativity

and statistically offsetting the competitive effects of status promotion criteria on team creativity. This may explain the inconsistent results.

Fourth, “amotivation” fundamentally inhibits the driving force of team cognitive processing. Regression results show that under tournament-based criteria, team information elaboration is higher, while Figure 2 shows that when both prosocial and proself motivations are low (i.e., low collective psychological ownership under criterion-based promotion), team information processing efficiency is lowest. Thus, proself motivation does not always hinder team cognitive processing; amotivation (absence of social and epistemic motivation) is the fundamental obstacle. Although proself motivation negatively affects team information processing (De Dreu et al., 2008), it can also promote individuals’ search, encoding, and retrieval of information beneficial to self-goals (De Dreu et al., 2008), which has some positive significance for improving overall team information processing efficiency. Additionally, structural interdependence in real teams (such as goal and task interdependence) promotes alignment between individual and team goals (Courtright, Thurgood, Greg, & Pierotti, 2015), easily evoking prosocial behaviors that play positive roles in information processing. Considering the potential positive effects of proself motivation and team interdependence, proself motivation does not always hinder team information processing. However, under amotivation, team members lose the drive for cognitive investment, fundamentally inhibiting team cognitive processing.

4.2 Theoretical Contributions

This research extends existing literature in several ways:

First, it introduces collective psychological ownership into empirical research and provides empirical evidence for its positive effects on information elaboration and team creativity. In the psychological ownership domain, existing research has focused on individual-level empirical examination of psychological ownership’ s effects on organizational commitment, helping behavior, and job satisfaction (Dyne et al., 2004; Peng & Pierce, 2015; Mayhew, Ashkanasy, Bramble, & Gardner, 2007). However, no studies have empirically explored collective psychological ownership’ s effects at the team level. This study is the first to validate its positive effects on information elaboration and team creativity.

Second, it extends psychological ownership theory. Research on psychological ownership theory has mainly addressed motivational foundations, formation paths, influencing factors, and mechanisms of individual and collective psychological ownership, but no scholars have empirically examined collective psychological ownership’ s impact on team information processing—a determinant of team effectiveness. This study confirms that collective psychological ownership positively influences team information elaboration.

Third, it reveals the mechanism of collective psychological ownership from the MIP-G perspective, providing a new perspective for explaining its effectiveness. Psychological ownership research has primarily explored its effects at the

individual level based on ownership effect, social exchange theory, and social identification theory (Dyne et al., 2004; Mayhew et al., 2007; Peng et al., 2015), without examining collective psychological ownership's mechanisms at the team level through MIP-G. This study empirically explores the mechanism through which collective psychological ownership affects team creativity from this theoretical perspective, offering new avenues for psychological ownership research and extending MIP-G research at the team level.

Fourth, it validates the mediating role of information elaboration, more specifically answering "why collective psychological ownership consciousness leads to different team creativity levels." These findings add explanatory perspectives on team creativity from the collective psychological ownership angle and enrich research in team creativity and information elaboration.

Fifth, grounded in the MIP-G framework, it examines the effect of collective psychological ownership on information elaboration from the perspective of status promotion criteria. Results show that status competition motivation as a proself motivation negatively affects active team information processing, deepening understanding of status promotion criteria/status competition motivation and MIP-G in organizations. Additionally, this study explores the effect of amotivation on cognitive processing, finding that compared to proself motivation, amotivation is the fundamental cause hindering team cognitive processing. This discovery further enriches motivated information processing theory.

4.3 Research Limitations and Future Directions

This study has several limitations. First, measurement of team creativity may be biased due to social desirability, potentially compromising precision. Second, although common method bias was controlled to a relatively ideal extent through multi-timepoint and multi-source data collection, it was not completely eliminated. Third, this study only explored collective psychological ownership's mechanisms at the team level. As a team-level psychological factor, collective psychological ownership may also affect individual-level outcomes. Future research could examine its cross-level effects on individual behaviors such as organizational citizenship behavior. Finally, future research could investigate situational factors affecting the relationship between collective psychological ownership and team creativity, such as task interdependence, providing more contingency management insights for practice.

References

- Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology*, 45(2), 357-376.
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior*, 10, 123-167.

- Aronson, E., Wilson, T. D., & Akert, R. M. (2005). *Social psychology* (5th ed.). Prentice-Hall.
- Baer, M., Leenders, R., Oldham, G. R., & Vadera, A. K. (2010). Win or lose the battle for creativity: The power and perils of intergroup competition. *Academy of Management Journal*, 53(4), 827-845.
- Baer, M., & Oldham, G. R. (2006). The curvilinear relation between experienced creative time pressure and creativity: Moderating effects of openness to experience and support for creativity. *Journal of Applied Psychology*, 91(4), 963-970.
- Bechtoldt, M. N., De Dreu, C., Nijstad, B. A., & Choi, H. S. (2010). Motivated information processing, social tuning, and group creativity. *Journal of Personality and Social Psychology*, 99(4), 622-637.
- Bendersky, C., & Hays, N. A. (2012). Status conflict in groups. *Organization Science*, 23(2), 323-340.
- Carnevale, P. J. D., & Probst, T. M. (1998). Social values and social conflict in creative problem solving and categorization. *Journal of Personality and Social Psychology*, 74(5), 1300-1309.
- Charness, G., Masclot, D., & Villeval, M. C. (2014). The dark side of competition for status. *Management Science*, 60(1), 38-55.
- Courtright, S. H., Thurgood, G. R., Greg, L., & Pierotti, S. A. J. (2015). Structural interdependence in teams: An integrative framework and meta-analysis. *Journal of Applied Psychology*, 100(6), 1825-1846.
- Dawkins, S., Tian, A. W., Newman, A., & Martin, A. (2017). Psychological ownership: A review and research agenda. *Journal of Organizational Behavior*, 38(2), 163-183.
- De Dreu, C. K. W. (2003). Time pressure and closing of the mind in negotiation. *Organizational Behavior and Human Decision Processes*, 91(2), 280-295.
- De Dreu, C. K. W. (2007). Cooperative outcome interdependence, task reflexivity, and team effectiveness: A motivated information processing perspective. *Journal of Applied Psychology*, 92(3), 628-638.
- De Dreu, C., Nijstad, B. A., Bechtoldt, M. N., & Baas, M. (2011). Group creativity and innovation: A motivated information processing perspective. *Psychology of Aesthetics, Creativity, and the Arts*, 5(1), 81-89.
- De Dreu, C., Nijstad, B. A., & Van Knippenberg, D. (2008). Motivated information processing in group judgment and decision making. *Personality and Social Psychology Review*, 12(1), 22-49.
- Dyne, L. V., & Pierce, J. L. (2004). Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *Journal of Organizational Behavior*, 25(4), 439-460.

- Farh, J. L., Lee, C., & Farh, C. I. C. (2010). Task conflict and team creativity: A question of how much and when. *Journal of Applied Psychology*, 95(6), 1173-1180.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis* (5th ed.). Prentice Hall.
- Hinsz, V. B., Tindale, R. S., & Vollrath, D. A. (1997). The emerging conceptualization of groups as information processors. *Psychological Bulletin*, 121(1), 43-64.
- Hoever, I. J., Van Knippenberg, D., Van Ginkel, W. P., & Barkema, H. G. (2012). Fostering team creativity: Perspective taking as key to unlocking diversity's potential. *Journal of Applied Psychology*, 97(5), 982-996.
- Homan, A. C., van Knippenberg, D., Van Kleef, G. A., & De Dreu, C. K. W. (2007). Bridging faultlines by valuing diversity: Diversity beliefs, information elaboration, and performance in diverse work groups. *Journal of Applied Psychology*, 92(5), 1189-1199.
- James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69(1), 85-98.
- Jiang, J., & Yang, B. Y. (2016). Perspective taking, task reflexivity and team creativity: The moderating role of leaders' critical thinking. *Nankai Business Review*, 19(6), 27-35.
- Kearney, E., Gebert, D., & Voelpel, S. C. (2009). When and how diversity benefits teams: The importance of team members' need for cognition. *Academy of Management Journal*, 52(3), 581-598.
- Koestler, A. (1964). *The act of creation*. New York: Macmillan.
- Lin, X. M., Bai, X. W., & Lin, L. (2014). Effects of similarity and accuracy indices of shared mental models on team creativity. *Acta Psychologica Sinica*, 46(11), 1734-1747.
- Liu, Z. Q., Deng, C. J., Liao, J. Q., & Long, L. R. (2013). Status-striving motivation, criteria for status promotion and employees' innovative behavior choice. *China Industrial Economics*, 10, 83-95.
- Madrid, H. P., Totterdell, P., Niven, K., & Barros, E. (2016). Leader affective presence and innovation in teams. *Journal of Applied Psychology*, 101(5), 673-686.
- Mayhew, M. G., Ashkanasy, N. M., Bramble, T., & Gardner, J. A. (2007). Study of the antecedents and consequences of psychological ownership in organizational settings. *The Journal of Social Psychology*, 147(5), 477-500.
- Ni, X. D., Xiang, X. X., & Yao, C. X. (2016). Balance of team diversity' effects on team creativity. *Acta Psychologica Sinica*, 48(5), 556-565.

- Peng, H., & Pierce, J. (2015). Job- and organization-based psychological ownership: Relationship and outcomes. *Journal of Managerial Psychology*, 30(2), 151-168.
- Pierce, J. L., & Jussila, I. (2010). Collective psychological ownership within the work and organizational context: Construct introduction and elaboration. *Journal of Organizational Behavior*, 31(6), 810-834.
- Porath, C. L., Overbeck, J. R., & Pearson, C. M. (2008). Picking up the gauntlet: How individuals respond to status challenges. *Journal of Applied Psychology*, 38(7), 1945-1980.
- Schultz, P. W., & Searleman, A. (1998). Personal need for structure, the einstellung task, and the effects of stress. *Personality and Individual Differences*, 24(3), 305-310.
- Shin, S. J., & Zhou, J. (2007). When is educational specialization heterogeneity related to creativity in research and development teams? Transformational leadership as a moderator. *Journal of Applied Psychology*, 92(6), 1709-1721.
- Stasser, G., & Birchmeier, Z. (2003). Group creativity and collective choice. In P. B. Paulus & B. A. Nijstad (Eds.), *Group creativity: Innovation through collaboration* (pp. 85-109).
- Steenkamp, J. B. E. M., & van Trijp, H. C. M. (1991). The use of LISREL in validating marketing constructs. *International Journal of Research in Marketing*, 8(4), 283-299.
- Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, 88(3), 500-517.
- Tjosvold, D. (1998). Cooperative and competitive goal approach to conflict: Accomplishments and challenges. *Applied Psychology: An International Review*, 47(3), 285-342.
- Van Der Vegt, G. S., & Bunderson, J. S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal*, 48(3), 532-547.
- Van Knippenberg, D., De Dreu, C. K. W., & Homan, A. C. (2004). Work group diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology*, 89(6), 1008-1022.
- Wang, S. (2015). Emotional intelligence, information elaboration, and performance: The moderating role of informational diversity. *Small Group Research*, 46(3), 324-351.
- Wang, X. H., Kim, T. Y., & Lee, D. R. (2016). Cognitive diversity and team creativity: Effects of team intrinsic motivation and leadership. *Journal of Business Research*, 69(9), 3231-3239.

Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv – Machine translation. Verify with original.