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The Effect of Leader–Follower Psychological Capital Congruence on Safety Behavior

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Abstract: This study aims to explore the relationship between leader and follower psychological capital (PC) congruence, intrinsic safety motivation (ISM), and safety behavior (SB). The construction industry is one of the most dangerous industries, and most safety accidents are determined by human behavior. Exploring the factors influencing construction workers' SB is important for improving construction safety. This study collected 242 paired questionnaires from frontline construction workers and crew leaders in China. The SPSS 22.0 software and PROCESS program were used for analysis, the empirical study was conducted using polynomial regression and response surface analysis, and the block variable method was used to test for mediating effects. The findings show that (a) the level of follower SB is determined by the degree of leader–follower PC congruence; (b) when leader–follower PC was congruent, the impact of both high PCs on follower SB was enhanced compared to each low PC; (c) when leader–follower PC was incongruent, the impact of follower PC (FPC) above leader PC (LPC) was better on follower SB compared to FPC below LPC; (d) the relationship between leader–follower PC congruence and follower SB was mediated by ISM. The promotion of SB should focus on the fit between leaders and followers in addition to the PC of the followers themselves. This study contributes to workgroup safety in the construction industry by improving the fit between workgroup leaders and members, promoting ISM, and thus improving their safety performance.

Keywords: leader–follower congruence; psychological capital; safety behavior; construction workers; person–environment fit theory

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1. Introduction

Although the construction industry has made some improvements in safety management, it remains one of the most dangerous industries [1,2]. According to statistics from between 2011 and 2020, an average of 609 safety accidents and about 732 deaths will occur each year in China's housing and municipal construction [3]. According to studies, construction workers' dangerous practices are to blame for more than 88% of safety-related accidents [2]. Therefore, it is important to explore how to motivate employees' safety behaviors (SBs) in terms of individuals in production activities to reduce the occurrence of human-induced accidents.

Psychological capital is a positive psychological state exhibited by individuals during their growth and development [4], and it has received extensive attention from the safety science community as a core construct of positive organizational behavior. It was first hypothesized by Eid et al. [5] that psychological capital may be influenced by leadership factors as well as conveying the influence of safety climate on safety behavior [5]. Later, in the construction industry, scholars verified the role of psychological capital on construction workers' safety behaviors in both aggregate and sub-dimensions [6–9]. Psychological capital serves as a mediator variable to link leader–member exchange and construction worker safety behavior [10]; its role as a moderator variable can alleviate construction workers' safety-related stress [11].

However, there are certain limitations to the existing studies. On the one hand, relevant studies lack the consideration of the role of situational weights and neglect the active role played by leaders in safe work, especially the lack of attention to the leaders' psychological capital (LPC). In China, the work characteristics of the construction industry determine the existence of construction workers in a team situation, and the psychological state of the team leader and other grassroots leaders is a situational factor that workers must face in their work. If workers can handle the relationship with their leaders well, it is also beneficial to reduce safety accidents [2,10], so the role of LPC in safety management cannot be ignored. On the other hand, prior research has mostly ignored leader–follower congruence in PC and instead concentrated on the PC of frontline workers. It is worth noting that person–environment fit theory states that human behavior is not only influenced by both personal characteristics and environmental characteristics, but also by the compatibility of the two fits [12,13]. In other words, employees are motivated and engaged when their needs are aligned with the support provided by their environment [14]. LPC is an environmental characteristic relative to followers, and followers' psychological capital (FPC) is an individual characteristic of their psychology. The degree of leader–follower congruence in positive psychological qualities determines the positive behaviors (e.g., SBs) of followers [15,16]. As a result, we look into the connection between PC and SB from the standpoint of leader–follower fit.

There may be many mediators of leader–follower PC congruence that influence follower SB. Work engagement and communication competence are mediators of PC influencing construction workers' SBs [6,8], yet few studies have focused on the mediator of safety motivation. Safety motivation can be effective in improving employees' SBs, and help safety climates and safety leadership to function in an organization [17–20]. Human motivation can be separated into extrinsic and intrinsic motivation, as claimed by the self-determination hypothesis. Previous studies concerning safety motivation are not deep enough, and even mismatches between theoretical frameworks and measurement tools have occurred. For example, expectancy–value theory focuses on extrinsic motivation influenced by rewards and punishments, while the measurement instrument of Neal et al.'s study is biased towards intrinsic motivation [17,21,22]. This makes the interpretation of the study results confusing. Intrinsic motivation implies passion and satisfaction with the work itself and motivates individuals to adopt the relevant behaviors needed to complete these work tasks [20,23]. When PC stimulates employees' positive behavior, it often plays a mediating role with the intrinsic motivation that also pays attention to inner psychology [24]. Therefore, it is worth considering whether intrinsic safety motivation (ISM) also has a mediating effect between leader–follower PC congruence and SBs.

In addition to elucidating the connection between leader–follower fit in PC and follower SB, this study adds to the prior research on SB by exploring the mediating role of ISM. It also completes the path of the influence of leader–follower PC congruence on SB. Meanwhile, the findings in this paper can provide reference significance for the safety management work of construction industry enterprises. In this study, team leaders and construction workers in the construction industry were taken as the research objects to explore the relationship between the match of psychological capital between team leaders and construction workers and safety behavior, clarify the effective path of team leader safety management, and provide guidance for stimulating employee safety behavior and improving safety management efficiency.

2. Theoretical Background and Research Hypothesis

2.1. Leader and Follower Psychological Capital and Their Fit Conditions

The positive psychological states that people display during their growth and development, as well as their capacity to access psychological resources, are what Luthans and his colleagues, the pioneers of positive organizational behavior, defined as PC. These resources include four core dimensions, self-efficacy, optimism, hope, and resilience, which work synergistically to encourage positive behavior [4]. In particular, self-efficacy is expressed as

individual self-confidence, where employees believe they can accomplish challenging tasks through hard work; optimism is expressed as employees having an optimistic attitude toward things and positive expectations of future results; hope is expressed as employees having clear goals and the motivation to achieve them at work, and taking the initiative to plan the path to achieve them; resilience is expressed as individual stress resistance when employees are in adversity, where they can quickly adjust themselves to escape such a situation.

With individual orientation, psychological capital (PC) can be classified into LPC and FPC according to organizational hierarchy, and both are intangible resources in corporate organizations that can be assessed, developed, and utilized. According to the level of PC, there are four conditions for fitting the LPC and FPC, as shown in Table 1: (1) low LPC and low FPC; (2) high LPC and high FPC; (3) high LPC and low FPC; and (4) low LPC and high FPC. The first two conditions belong to the condition where the leader and the follower are congruent, and the last two conditions belong to the condition where the leader and the follower are not congruent.

Table 1. Fit conditions of leader–follower psychological capital.

Leader–Follower Fit		**FPC**	
		Low	**High**
LPC	low	Congruence (low–low)	Incongruence (LPC < FPC)
	high	Incongruence (LPC > FPC)	Congruence (high–high)

Abbreviations: FPC, follower psychological capital; LPC, leader psychological capital.

2.2. Leader–Follower Congruence in Psychological Capital and Safety Behavior

Neal et al. distinguished two dimensions of SB, safety compliance and safety participation, based on the sub-dimensional logic of job performance into task performance and contextual performance [25]. Safety compliance refers to the behavior of employees who comply with safety rules and regulations and work in a safe manner, such as following standard operating procedures, wearing labor protective gear, and actively maintaining workplace safety. Safety participation refers to the behavior of employees who actively participate in safe work, which is expressed as employees voluntarily acting in addition to organizational safety regulations, reflecting the initiative and conscientiousness of employees to maintain workplace safety, such as taking the initiative to participate in safety training, helping colleagues to identify potential hazards, and participating in the management of safety hazards. In summary, safety behavior (SB) refers to the behavior of employees to protect their safety and achieve the goal of safe production, the implementation of safety compliance and safety participation in their daily work, thereby reducing the occurrence of safety accidents.

Social cognitive theory suggests that human behavior is influenced not only by the environment but also by the individual's psychological state [26]. Psychological capital (PC) as an important psychological factor of a person is bound to positively influence the behavior of a person, while the traits, cognitions, and attitudes of a leader in turn act as environmental factors of the follower to influence the follower's behavior [27]. Furthermore, according to the person–environment fit theory, a personal positive behavior is determined by the fit between the person and the environment, and the higher the degree of congruence of the person–environment fit, the more favorable the positive behavior of the person [12]. Therefore, this study concluded that leader–follower congruence in PC can predict follower SBs.

First, the congruent fit of leader–follower PC is demonstrated by the fact that leaders and followers share the same psychological characteristics; have common goals, perceptions, and coping strategies at work; and have similar preferences and expectations in

their personal behavioral choices [28,29]. Since leaders and followers have similar social perceptions, the behavioral style of leaders will be more in line with the psychological expectations of followers, and the behavior of followers will be more in line with the behavioral preferences of leaders, which motivates leaders and followers to understand each other and form a good interaction, thus reducing the pressure from leaders felt by followers in the work environment [30]. It has been demonstrated that job stress can cause burnout in construction workers, which is detrimental to maintaining SBs [31]. Job burnout refers to when employees often put themselves in a negative state due to being under high workload pressure for a long period, which manifests itself in absenteeism, turnover intention, and low organizational commitment [32]. In a good interaction between leaders and followers, both job stress and job burnout are reduced, which facilitates the maintenance of followers' SBs. In addition, leaders and followers share the same interpretation of management strategies in the organization and can understand each other at work, while behaving in a way that meets each other's expectations. This allows the follower to devote more attention to safety production without expending too much energy on guessing the leader's intentions at work. And this is exactly in line with the basic idea of person–environment fit theory, which facilitates cooperative communication between individuals and other members of the organizational environment when they have similarities, promoting individual performance [12,13], which also includes safety performance.

Second, the incongruent fit of leader–follower PC is manifested by the fact that leaders and followers have different psychological characteristics and differ in their attitudes (positive or negative) toward work goals and perceptions, resulting in differences in their behavioral choices or even complete opposites [28,29]. Person–environment fit theory states that differences between personal and environmental attributes negatively affect work outcomes [12]. Some studies have proven that the difference in work values between leaders and followers can lead to conflicts in their relationship, and followers can often receive negative feedback from their leaders [33], which undoubtedly increases the environmental stress of followers at work, thus leading to burnout and causing difficulties in maintaining SBs. In addition, when followers face leaders whose attitudes, goals, and perceptions are inconsistent with their work, followers consume additional emotional, energetic, and other psychological resources to cater to the behavioral preferences of the leader, and this catering comes at the expense of the follower's subjective will [12,13]. Undoubtedly, psychological capital (PC) is an important psychological resource for each individual with a certain scarcity and finiteness. When individuals expend too many psychological resources on maintaining relationships with their leaders, there is a corresponding reduction in the psychological resources invested in their work. For example, the investment in compliance with safety norms and participation in safety construction is reduced. As a result of the above analysis, the following reasonable hypothesis is proposed:

Hypothesis 1: *The higher the degree of congruence in leader–follower psychological capital (PC), the higher the level of follower safety behavior (SB).*

When leader–follower PC fits are congruent, there are two types of fit: "high LPC-high FPC" and "low LPC-low FPC". In this study, we will investigate the difference between high and low levels of leader–follower PC on SB under the condition of congruent fit. According to Hypothesis 1, the impact on SB is stronger the higher the leader–follower PC congruence. Our research suggests that when both LPC and FPC are high, the positive impact on SB is stronger than when both are low. The specific analysis is as follows:

First, when both LPC and FPC are high, it promotes communication between leaders and followers at work, and positive emotions are contagious and form a virtuous circle, which is full of self-efficacy and hope [34]. In this good interaction, the leader and the follower support each other, respond with a positive and optimistic attitude, and show a higher level of resilience in case of work difficulties [35]. These psychological advantages positively influence followers to practice SBs.

Second, when both LPC and FPC are low, both leaders and followers have more negative perceptions, goals, and attitudes toward work and adopt a passive and negative approach to work [34]. Followers, on the other hand, are influenced by the PC from low levels of leadership and are more likely to develop negative emotions and view their work negatively and pessimistically, which hinders the generation of SBs in followers. Consequently, the logical hypothesis that follows is suggested.

Hypothesis 2: *When leader–follower psychological capital (PC) is congruent, "high LPC and high FPC" has a stronger positive impact on safety behavior (SB) than "low LPC–low FPC".*

2.3. Leader–Follower Incongruence in Psychological Capital and Safety Behavior

When the leader–follower PC is incongruent, there are two fits: "high LPC and low FPC" and "low LPC and high FPC". This study argues that when the leader–follower PC is incongruent, the FPC is higher than LPC, and the positive effect on SB is stronger. The specific analysis is as follows:

First, when FPC is lower than LPC, leaders with high levels of PC have a positive and optimistic attitude toward work, dare to challenge in the face of difficulties, and hope that their optimistic enthusiasm can infect their followers [28,36]. However, in actual work situations, a leader often leads multiple followers in their work, and it is difficult for the leader's positive psychological emotions to infect each follower. In addition, followers with low levels of PC do not have additional psychological resources to cope with the inconsistent fit with the LPC level. They have a passive and negative attitude toward the work demands made by the leader, so it is difficult to be infected by the positive emotions of the leader in a short time, and this is not conducive to the implementation of SBs of the followers.

Second, when LPC is lower than FPC, leaders with low levels of PC hold negative attitudes in their working lives, choose to avoid facing difficulties, and create a negative emotional environment for their followers. However, followers with high levels of PC are full of psychological resources and tend to show positive psychological states in their working life [28,36], responding to the negative emotional environment pressure provided by the leader with a positive and optimistic attitude, which has a certain offsetting effect on the negative effects of an incongruent leader–follower fit. At the same time, this positive psychological state and stress resilience facilitate followers to maintain SBs and improve safety performance [10].

By comparing the "high LPC and low FPC" and "low LPC and high FPC" fit, it was found that when followers have high levels of PC, they can counteract the negative effects of the environment and thus maintain SBs more easily than in the "high LPC and low FPC" fit. Based on the above analysis, it is reasonable to hypothesize the following:

Hypothesis 3: *When leader–follower psychological capital (PC) is incongruent, "low LPC and high FPC" has a stronger positive impact on safety behavior (SB) than "high LPC and low FPC".*

2.4. Intrinsic Safety Motivation as a Mediator

Safety motivation refers to each employee's willingness to make efforts to meet safe production requirements, and it is the source of motivation for employees to implement SBs, reflecting the degree of importance they attach to safe work [17]. The theory of self-determination divides safety motivation into extrinsic and intrinsic motivation, depending on the degree of self-determination. Intrinsic safety motivation (ISM) refers to people's tendency to adopt SBs because of their interest in safety activities [20,24]. Intrinsic safety motivation (ISM) is a proximal antecedent influencing safety compliance and safety participation [17,25]. Therefore, the present study concluded that followers' ISM has a significant positive relationship with their SB.

Psychological capital (PC), an important positive psychological state, can make leaders or followers interested and hopeful about their work, which will effectively promote the

importance of safe work among organizational members and increase the ISM of followers. In addition, individuals with high PC tend to show more confidence, optimism, hope, and resilience at work. These positive factors help individuals to maintain an optimistic and positive attitude, which motivates them to accomplish the safety goals set by the organization and thus enhance their ISM [4,24,34].

In terms of leader–follower fit, the congruence of leader–follower values has an effective impact on follower compliance with organizational policies and regulations [37]. When the leader–follower PC is a congruent fit, the leader and the follower have the same positive psychological factors, and the follower is influenced by both the LPC and his or her PC to show interest in safe work, which enhances the follower's ISM and thus promotes SB. When the leader–follower PC is an inconsistent fit, the leader and the follower have different attitudes and perceptions about safe work, which makes it difficult to satisfy the follower's psychological needs in interpersonal relationships, inhibits the follower's ISM [22], and hinders the generation of SBs. Accordingly, the following reasonable hypothesis is put forward:

Hypothesis 4: *Intrinsic safety motivation (ISM) mediates the relationship between leader–follower congruence in psychological capital (PC) and follower safety behavior (SB).*

3. Materials and Methods

3.1. Procedure and Sample

This study used a questionnaire survey to collect data, which was distributed following the random-sampling principle. The participants were frontline construction workers from five ongoing projects in China, consisting mainly of grassroots team leaders and team members, and it took about two months to complete the data collection. With permission from project senior leaders, we distributed 300 paired printed questionnaires on-site (leader/follower = 1:1). Specifically, we informed the team leader to bring a team member to the meeting room in batches during the construction crew's lunch break, before the team meeting, or before the regular project meeting to fill out the questionnaire and collect it on the spot after completion. Participants who completed the questionnaire as required received a small gift as a reward. To ensure that leaders and followers were paired one by one, we marked the top-right corner of the printed questionnaire with a pen to assist in matching questionnaires. A paired questionnaire contained PC data provided by the base team leader and PC, ISM, and SB data provided by the team member. The participants volunteered to take part in the questionnaire and could withdraw at any time. The participants were informed that the survey results would only be utilized for academic research and would not have an impact on the evaluation of their performance. After eliminating invalid questionnaires with obvious filling patterns, serious missing information, and unmatched questionnaires, a total of 242 valid paired questionnaires were obtained, with a valid recall rate of 80.7%.

In the sample of leaders, the gender was all male; 34.3% were aged 36 to 45 and 30.8% were aged 46 or older; 35.2% had education at middle school or below and 28.9% had a high-school education. In the sample of followers, the gender was predominantly male, accounting for 93.0%; those aged 26 to 35 accounted for 28.1% and those aged 36 to 45 accounted for 37.2%; those with education at middle school or below accounted for 37.6% and those with a high-school education accounted for 31.0%; and the dyadic tenure was mainly concentrated at 4 to 8 years, accounting for 49.2%.

3.2. Measures

The questionnaire was based on items from well-established measurement instruments, and the original English items were translated into Chinese by professional translators. All items were scored on a 5-point Likert scale, from "1" to "5" for "strongly disagree" to "strongly agree", respectively. Cronbach's α served as an illustration of the reliability of the scale.

3.2.1. Psychological Capital

The Psychological Capital Questionnaire (PCQ) by Luthans et al. [38] was used, with 24 items (α_L = 0.937, α_F = 0.943), including 4 dimensions of self-efficacy (α_L = 0.888, α_F = 0.880), optimism (α_L = 0.883, α_F = 0.899), hope (α_L = 0.890, α_F = 0.902), and resilience (α_L = 0.893, α_F = 0.852), with 6 items per dimension. In this study, both LPC and FPC were measured using this questionnaire.

3.2.2. Intrinsic Safety Motivation

The safety motivation questionnaire by Neal et al. [17] was used, with 3 items (α = 0.853). In this study, this scale was used to measure the intrinsic safety motivation of followers [17,21].

3.2.3. Safety Behavior

The safety behavior questionnaire by Neal et al. [17] was used, with 6 items (α = 0.841), including 2 dimensions of safety compliance (α = 0.842) and safety participation (α = 0.852), and 3 items for each dimension.

3.2.4. Control Variables

Based on previous research on leader–follower fit [39], the gender similarity, age similarity, education similarity, and dyadic tenure of leaders and followers were used as control variables for the study. The gender variables were dummy variables. The remaining variables were categorical. The differences between leaders and followers in terms of their gender, age, and education are represented by the absolute value of the difference in corresponding scores.

3.3. Data Processing

In the study, SPSS 22.0 was used to perform the operations of reliability testing, descriptive statistics, and correlation analysis in turn. Then, polynomial regression [40,41] was used to test Hypotheses 1, 2, and 3. A response surface analysis [42] was used to further present the results of the hypothesis testing. The model equation is as follows:

$$SB = b0 + b1(FPC) + b2(LPC) + b3(FPC^2) + b4(FPC \times LPC) + b5(LPC^2) + e$$

where b0 is the intercept term, b1 to b5 are the regression coefficients of each term, and e is the error term. The formula is in a simplified form and does not include control variables. Before calculating the quadratic terms (FPC^2, FPC × LPC, LPC^2), LPC and FPC were centered with the view of a more convenient interpretation of the results [43]. The slope, curvature, and lateral shift of the response surface along the incongruence line (LPC = −FPC) were used to test Hypotheses 1 and 3. The slope, curvature, and regional values on both sides of the line for the response surface along the congruence line (LPC = FPC) were used to test Hypothesis 2. The block variable method [44] was used to test Hypothesis 4. The block variable method is a mediation-effect test method used for polynomial regression. The coefficients of the polynomial regression were multiplied with the original data and summed to form the block variable as the independent variable. The PROCESS program of SPSS 22.0 was used to test the mediating effects, and the bootstrap method was used to estimate the 95% corrected confidence intervals. In general, the commonly used confidence level is 95%, which ensures that the samples' statistical values fall within two standard error ranges of the population parameter values.

4. Results

4.1. Descriptive Statistics and Correlation Analysis

The means, standard deviations, and correlation coefficients of the scales are summarized in Table 2. According to Table 2, FPC was positively correlated with ISM (r = 0.426, $p < 0.001$) and SB (r = 0.277, $p < 0.001$); LPC was positively correlated with ISM (r = 0.223,

$p < 0.001$) and SB (r = 0.196, $p < 0.01$); and ISM was positively correlated with SB (r = 0.593, $p < 0.001$). The results of the correlation analysis were consistent with expectations and provided a basis for hypothesis testing.

Table 2. Correlation analysis and validity analysis.

Variable	1	2	3	4	5	6	7	8
1.Gender similarity								
2.Age similarity	−0.035							
3.Education similarity	0.013	0.087						
4.Dyadic tenure	−0.026	0.086	−0.121					
5.FPC	0.006	−0.051	−0.086	0.035	(0.756)			
6.LPC	0.021	0.037	0.065	0.078	0.283 ***	(0.799)		
7.ISM	−0.018	0.070	−0.002	0.015	0.426 ***	0.223 ***	(0.758)	
8.SB	0.011	0.003	−0.079	−0.041	0.534 ***	0.196 **	0.593 ***	(0.820)
Mean	0.070	1.062	1.132	1.830	3.682	3.734	3.713	3.711
Standard Deviation	0.256	0.943	0.915	0.694	0.705	0.709	1.044	0.842
CR					0.842	0.876	0.860	0.730
AVE					0.572	0.639	0.575	0.672

Note: Sample size = 242. ** $p < 0.01$; *** $p < 0.001$. The number in "( )" is the square root of AVE. Abbreviations: FPC, follower psychological capital; LPC, leader psychological capital; ISM, intrinsic safety motivation; SB, safety behavior; CR, construct reliability; AVE, average variance extracted.

In order to verify the convergent validity and discriminant validity of the scale for the four latent variables, LPC, FPC, ISM, and SB, we performed a confirmatory factor analysis. The analysis's findings are presented in Table 2. First, the construct reliability (CR) values of each variable were greater than 0.6, and the average variance extracted (AVE) values of each variable were greater than 0.5, indicating that each measured variable had good convergent validity. Second, the square roots of the AVE were all greater than the correlation coefficients between the variables, indicating a good discriminant validity of the variables.

4.2. Hypothesis Testing

To test Hypotheses 1, 2, and 3, polynomial regression and response surface analyses were employed. As shown in Table 3, the regression equation had a significant joint effect (F = 3.448, $p < 0.05$) from Model 1 to Model 2 with the addition of three quadratic terms (FPC^2, FPC × LPC, LPC^2). The curvature of the response surface along the incongruence line (LPC = −FPC) was significantly negative (curvature = −0.646, $p < 0.01$). This shows that the level of follower SB increases as leader–follower PC congruence increases. The results are consistent with the response surface in Figure 1, and Hypothesis 1 is supported.

The slope of the response surface along the congruence line (LPC = FPC) was significantly positive (slope = 1.127, $p < 0.01$) and the curvature was significantly negative (curvature = −0.357, $p < 0.01$), which could not be directly determined. Therefore, we compared the level of SB at two points on the LPC = FPC line representing "high FPC and high LPC" and "low FPC and low LPC", and constructed confidence intervals to determine whether they were significantly different [41,45]. SBhigh (1.415, 1.415) = 4.217 was significantly greater than SBlow (0.001, 0.001) = 3.338, and the 95% confidence interval (0.654, 1.106) of the difference did not contain 0. This indicates that high levels of both LPC and FPC are more likely to promote SB than low levels of both. The results were consistent with the response surface in Figure 1, and Hypothesis 2 was supported.

Table 3. Polynomial regression results for safety behavior.

Variable	Safety Behavior	
	Model 1	**Model 2**
Intercept (b_0)	3.415 ***	3.520 ***
Gender similarity	0.030	0.049
Age similarity	0.035	0.033
Education similarity	−0.046	−0.050
Dyadic tenure	−0.089	−0.090
FPC (b_1)	0.619 ***	0.869 ***
LPC (b_2)	0.068	0.258
FPC^2 (b_3)		−0.267 *
FPC × LPC (b_4)		0.144
LPC^2 (b_5)		−0.235 *
F for the three quadratic terms		3.448 *
Congruence line (LPC = FPC)		
Slope ($b_1 + b_2$)		1.127 **
Curvature ($b_3 + b_4 + b_5$)		−0.357 **
Incongruence line (LPC = −FPC)		
Slope ($b_1 - b_2$)		0.612 **
Curvature ($b_3 - b_4 + b_5$)		−0.646 **

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Abbreviations: FPC, follower psychological capital; LPC, leader psychological capital.

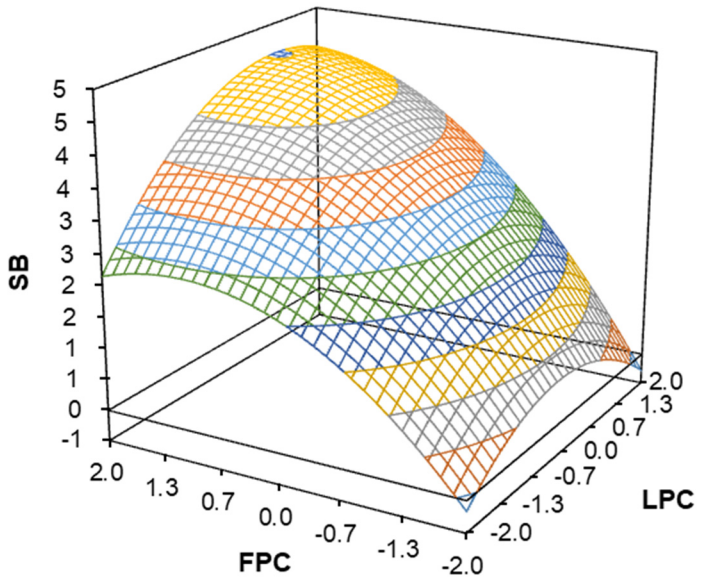

Figure 1. Response surface analysis of safety behavior (based on Model 2).

The slope and curvature (slope = 0.612, $p < 0.01$; curvature = −0.646, $p < 0.01$) of the response surface along the LPC = −FPC line were significant and could not be directly determined. Therefore, we calculated the amount of lateral shift ((b1 − b2)/[2 × (b3 − b4 + b5)]) along the LPC = −FPC line [46]. The lateral shift was significantly positive (lateral shift = 0.473, 95% confidence interval (0.092, 2.467) does not contain 0). Furthermore, as shown in Figure 1, an increasing level of SB can be found from point (FPC = −2, LPC = 2) to point (FPC = 2, LPC = −2). Hypothesis 3 is supported.

We calculated the block variable based on the coefficients predicting SB and tested for mediating effects using the PROCESS macro. As shown in Table 4, the direct effect of the block variable on the mediator was significant (β = 1.075, $p < 0.001$). In other words, the direct effect of leader–follower congruence in PC on ISM was significant. This direct effect coefficient was multiplied by the regression coefficient of ISM (β = 0.340, $p < 0.001$) to obtain an indirect effect coefficient of 0.365 ($p < 0.01$) with a 95% confidence interval (0.237, 0.502) not containing 0. Therefore, Hypothesis 4 was supported.

Table 4. Results of the test for indirect effects of intrinsic safety motivation.

Variable	ISM	Safety Behavior
Constant	3.215 ***	2.429 ***
Gender similarity	−0.047	0.066
Age similarity	0.098	0.000
Education similarity	0.024	−0.058
Dyadic tenure	−0.017	−0.085
Block variable	1.075 ***	0.636 ***
ISM		0.340 ***
Indirect coefficient of (in)congruence via ISM		0.365 **
95% confidence interval for the indirect coefficient		[0.237, 0.502]

Note: ** $p < 0.01$; *** $p < 0.001$. Abbreviations: ISM, intrinsic safety motivation.

5. Discussion

5.1. Theoretical Implications

First, the perspective of leader–follower fit is used as an entry point to construct a binary fit model that extends the scholarly knowledge of the relationship between PC and SB. Previous empirical studies have found that leadership contextual factors [5,47] and follower characteristics [6,8] predict follower SBs. These studies reveal the separate influential roles of leaders and followers, but ignore the mechanisms by which leaders and followers jointly influence (leader–follower congruence) SBs, to the detriment of identifying potential factors that enhance SBs. Our study found that the SB of followers depends on the degree of leader–follower PC congruence. This is in line with He et al.'s study that concluded that the quality of leader–follower interaction facilitates the production of SBs [10]. However, we break the limitations of past research perspectives by expanding our research horizon to the leader–follower dichotomy match, bridging the gap between existing studies that have a single one-sided discussion of LPC and FPC.

Second, this study extends the antecedent research on SB. On the one hand, the literature on SB has not focused enough on LPC, and the mechanism of the influence of LPC and follower SB is unclear. On the other hand, focusing only on FPC cannot reveal the effects of LPC and FPC differences on follower SB. Therefore, this study examined the influential role of LPC and explored the effects of four fits of PC between the two on follower SB through the leader–follower binary interaction. We discovered that FPC is crucial in this matching process, whereas LPC might be more of a supporting role and provide further support for earlier research [6,8,10]. The present study fills a research gap by revealing the incongruent effects of leader–follower PC, which not only broadens the scholarly understanding of the effects of different situational roles in PC fit, but also contributes to the study of antecedents of SB from the perspective of leader–follower binary matching.

Finally, a new mechanism of action of leader–follower PC fit influencing follower SB is revealed from the perspective of ISM. When studying the intermediate variables of PC influencing SB, the focus has often been on job engagement, communication competence, and cynicism [6–8], neglecting ISM, which reflects an individual's psychological willingness

to be safe. Intrinsic safety motivation (ISM), in turn, is a key factor reflecting workers' SBs [17,25,47]. Our findings demonstrate that leader–follower PC congruence indirectly influences SB by altering ISM, which is consistent with the idea that safety motivation supports the role of leadership management factors [20,47]. The difference is that our study considers both leaders and followers and considers the combined effect when they are congruent or incongruent. By focusing on followers' willingness and motivation during their interactions with leaders, this study not only fills the gaps in existing research but also expands the research field of internal safety motivation as a mediating variable.

5.2. Managerial Implications

First, efforts are made to achieve consistency in leader–follower PC to promote safe worker behavior. On the one hand, companies introduce PC tests when recruiting leaders or workers with high levels of PC. On the other, leaders and workers with similar levels of PC are placed in a work team when forming a construction crew. Smooth communication mechanisms can also be established [6,10] to reduce the cost of communication and interaction between leaders and workers and promote the congruence of leader–follower PC.

Second, it is important to focus on the development of FPC. Followers' psychological capital (FPC) plays a decisive role in fitting with LPC, but the situation where both leaders and followers have congruent and high PC often rarely occurs in reality. Therefore, in the case of an incongruent leader–follower fit, more attention should be paid to the development of FPC, and followers can be consciously guided to build high levels of PC during safety training and safety meetings [7]. At the same time, leaders should actively lead followers with high PC to participate in safe work, actively accept safety suggestions from followers, improve work practices, and improve safety performance.

Finally, focusing on the intrinsic needs of the follower increases the follower's ISM. The satisfaction of intrinsic needs can increase the level of self-determination, which leads to ISM [22]. Thus, companies can regulate safety motivation and thus control SB by satisfying workers' intrinsic needs on time. In addition, companies should focus on developing followers' interest in safe working so that they can generate satisfaction and pleasure in safe working and consciously choose to follow safety rules and perform SBs.

5.3. Limitations

First, the consequences of this study solely mirror the correlation between leader–follower PC congruence and ISM and SBs, and do not infer that it is always the PC match that motivates followers' SBs. This is due to the fact that a cross-section research design was used to gather the data. As a result, it is recommended that future studies on the causal association between leader–follower PC fit and SB adopt an experimental technique or a longitudinal research design.

Second, this study only explored the mediating role of ISM in the process of leader–follower PC fit on follower SB, and the intermediate process of this effect could be enriched in the future based on other theoretical perspectives. For example, signaling theory states that when the psychological state of the follower is closer to that of the leader, the follower is more likely to accurately predict and understand the signaling information conveyed by the leader and to know the leader's preferences, improving the psychological safety of the subordinate [15]. Therefore, the new mechanism of action can be explored from the perspective of psychological safety in future research.

Finally, this study is deficient in the exploration of boundary conditions and lacks the introduction of moderating variables. SBs are influenced not only by leader and follower factors, but also by organizational factors, job tasks, and the environment [48]. In other words, whether leader–follower PC congruence can be more effective in promoting SBs also needs to consider the cues provided by the context. The moderating role of variables such as the safety climate [49] and leadership [50] in leader–follower PC congruence affecting SB can be examined in future studies.

6. Conclusions

Based on person–environment fit theory, a model was constructed to reveal how different combinations of LPC and FPC affect follower SB. This study showed that the higher the degree of leader–follower PC congruence, the higher the level of follower SB. In the process of leader–follower interaction, FPC plays a decisive role in influencing SB, while LPC is more of a supporting role. In addition, workers' ISM plays a mediating role between leader–follower PC congruence and SB.

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