



# Teammate conscientiousness diversity depletes team cohesion: the mediating effect of intra-team trust and the moderating effect of team coaching

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Accepted: 27 May 2021 / Published online: 29 June 2021

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## Abstract

It has been well documented that employees' conscientiousness positively affects work outcomes. However, few studies have examined the effect of employee conscientiousness differentiation within a team. Drawing on the organizational trust model, this study investigated whether team members' conscientiousness diversity can affect team cohesion by affecting intrateam trust. Using the time-lag design, we tested 912 employees from 114 teams in an insurance enterprise three times. The results show that individual conscientiousness differentiation within a team is negatively correlated with intrateam trust, while intrateam trust is positively correlated with team cohesion. Intrateam trust plays a mediating role between conscientiousness diversity and team cohesion. Moreover, team coaching plays a moderating role between team conscientiousness diversity and intrateam trust. Specifically, the negative effect of team conscientiousness diversity on intrateam trust exists only when team coaching is low.

**Keywords** Conscientiousness · Personality diversity · Team coaching · Intrateam trust · Team cohesion

Conscientiousness, as one dimension of the five-factor model of personality (openness, conscientiousness, extraversion, agreeableness, and emotional stability) (Digman, 1990; Rushton & Irwing, 2008; Vecchione et al., 2017), describes the extent to which a person is achievement-oriented, diligent, dutiful, dependable, deliberating, self-disciplined, and goal-oriented (Rushton & Irwing, 2008). Prior studies have shown that conscientiousness is an ability- and integrity-related trait in the workplace and that it can bring about some positive work outcomes (Brown et al., 2011; Gellatly, 1996; Kramer et al., 2014; Sackett & Wanek, 1996). First, highly conscientious employees are more productive and efficient at work (Gellatly, 1996; Xu et al., 2019). For example, Gellatly (1996) proposed a conscientiousness-performance model and suggested that conscientiousness could enhance individuals' job performance. Second, highly conscientious employees are more dutiful and are higher in integrity and less

likely to engage in counterproductive behavior (Fallon et al., 2000; Miller, 2015; Sackett & Wanek, 1996). In summary, conscientiousness is a significant predictor of employees' job attitudes and outcomes.

Although many studies have shown a positive relationship between conscientiousness (both at the individual and team levels) and work outcomes (Brown et al., 2011; Gellatly, 1996; Sackett & Wanek, 1996), few studies have examined the impact of team conscientiousness differentiation on team outcomes (Hua, 2013). Moreover, it is worth noting that previous studies have shown inconsistent results for effects of team conscientiousness differences on team processes (Gevers & Peeters, 2009; Neuman et al., 1999). For example, Gevers and Peeters (2009) found that team conscientiousness diversity negatively affects employee job satisfaction. However, Neuman et al. (1999) showed that team conscientiousness differences have no impact on team performance. Given these results, more empirical research is needed to explore the effects of conscientiousness diversity within a team. The current study will enrich conscientiousness diversity research by examining the mechanism at play between employees' conscientiousness diversity and team cohesion. We focus on team cohesion because previous studies have found that team cohesion is a vital predictor of individual (such as job satisfaction and performance) and team outcomes (such as team performance) (Mathieu et al., 2015).

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To further understand why team conscientiousness diversity affects team cohesion and when team conscientiousness diversity works, this study will explore the following questions: (1) whether team conscientiousness diversity impairs team cohesion; (2) whether team conscientiousness diversity weakens intrateam trust and thus affects team cohesion; and (3) whether team coaching behavior can moderate the influence of team conscientiousness differences on team cohesion.

## Theory and Hypotheses

### Organizational Trust Model

Mayer et al. (1995) developed an organizational trust model by integrating research from multiple disciplines and differentiating trust from a similar construct. The model presents a definition, antecedents and outcomes of trust. First, according to Mayer et al. (1995), trust is defined as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that party” (Mayer et al., 1995, p. 712).

Second, Mayer et al. (1995) proposed that the attributes of the trustee are crucial in reinforcing interpersonal trust. There are three types of trustee attributes that determine trustworthiness: ability, benevolence, and integrity. “Ability is that group of skills, competencies, and characteristics that enable a party to have influence within some specific domain” (Mayer et al., 1995, p. 717); “benevolence is the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive” (Mayer et al., 1995, p. 718); and “integrity involves the trustor’s perception that the trustee adheres to a set of principles that the trustor finds acceptable” (Mayer et al., 1995, p. 719).

Third, the model asserts that contextual factors such as the balance of power in a relationship or managers’ actions are indispensable for formulating trust. Moreover, contextual factors can influence the relationship between trustees’ attributes and interpersonal trust (Mayer et al., 1995). Finally, the model contends that trust could result in risk-taking—i.e., behaviors that open the trustor up to the possibility of loss—which the authors refer to as ‘risk-taking in a relationship.’

Drawing on this model, this study examines whether team conscientiousness diversity influences team cohesion by influencing intrateam trust. We also explore whether team coaching behavior moderates the relationship between intrateam conscientiousness differences and intrateam trust. We introduce the model and derive our assumptions below.

### Team Conscientiousness Differentiation and Team Cohesion

Team cohesion is defined as “the total field of forces which act on members to remain in the group” (Festinger, 1950, p. 164). Team cohesion is necessary to a team’s existence and plays a vital role in developing a team’s potential (Mathieu et al., 2015; Nellen et al., 2019; Wise, 2014). Previous studies show that team cohesion positively impacts various work-related outcomes, such as employee job satisfaction and team performance (Tekleab et al., 2016; Urien et al., 2017). Given the critical role of team cohesion in organizations, scholars and practitioners have investigated factors related to team cohesion. Research shows that intrateam characteristics, such as intrateam diversity, could affect team cohesion (Chiniara & Bentein, 2018). For example, Liang et al. (2015) found that team gender diversity is negatively correlated with team cohesion. However, previous studies have focused less on employee job-related personality diversity and team cohesion. As conscientiousness is positively correlated with individual work behavior patterns and performance, we infer that team conscientiousness differentiation may affect team cohesion.

Employee conscientiousness differences convey salient social cues in the workplace. People high in conscientiousness exhibit more efficient and orderly behaviors at work (Brown et al., 2011). In contrast, people low in conscientiousness tend to be less organized and disciplined (Hua, 2013). Moreover, according to the team process literature, team conscientiousness diversity may impair team cohesion in two ways: through task and interpersonal processes (Montoya & Horton, 2013; Salancik & Pfeffer, 1978).

First, team conscientiousness diversity may have a detrimental effect on team task processes. Highly conscientious members tend to work “urgently,” while less conscientious members tend to work “leisurely.” Different work patterns are prone to conflict when they are found within the same project. For example, highly conscientious employees tend to finish tasks as soon as possible, while less conscientious employees tend to work slowly. Such differences easily generate contradictions, which lead to low team cohesion. Second, individual conscientiousness differences may weaken interpersonal processes. The similarity-attraction perspective suggests that similar people are more likely to obtain positive feedback and recognition from each other (Montoya & Horton, 2013; Salancik & Pfeffer, 1978). When employees obtain dissimilar information regarding conscientiousness within a team, it is difficult for them to recognize their partners. Therefore, team conscientiousness differentiation can reduce team cohesion. We thus propose the following hypothesis.

Hypothesis 1: Team conscientiousness diversity is negatively correlated with team cohesion.

## Team Conscientiousness Diversity and Intra-team Trust

According to the trust model, trustees' ability, benevolence, and integrity are the predominant determinants of trust (Mayer et al., 1995). Likewise, during team processes, teammates' ability, benevolence, and integrity are crucial factors in reinforcing intrateam trust. Based on the trust model and conscientiousness-related research, we believe that differentiation in team conscientiousness can reduce intrateam trust for the following reasons.

First, highly conscientious employees are more productive and tend to be more competent at work. Conversely, less conscientious individuals tend to be less efficient. According to the trust model developed by Mayer et al. (1995), when team members differ considerably in workability, high-ability members may be less likely to trust those low-ability members because of their lesser contributions to the team. In contrast, team members are more likely to trust and help each other when their capacity is relatively similar. Likewise, employees with high levels of conscientiousness may be perceived as being high in integrity, while those with low levels of conscientiousness may be perceived as being low in integrity (Sackett & Wanek, 1996). Therefore, differentiation in integrity may lead to a decrease in intrateam trust (Mayer et al., 1995).

Second, the similar-attraction effect suggests that similarity is more likely to induce positive feelings and lead to attraction and kindness, while dissimilarity is associated with anxiety and confusion—feelings that lead to repulsion (Montoya & Horton, 2013). Thus, we believe that differentiation in team members' conscientiousness will reduce intrateam benevolence and weaken intrateam trust (Ajzen, 1974; Mayer et al., 1995). Specifically, employees with high and low levels of conscientiousness have different work patterns that are more likely to cause conflict, reducing exchanges of kindness and benevolence between teammates and thus impairing intrateam trust (Hua, 2013; Jasielska, 2018). In summary, according to the team trust model and team process literature (Ilgen et al., 2005; Mayer et al., 1995), when conscientiousness varies significantly within a team, diversity will reduce intrateam trust among team members. We thus propose the following hypothesis.

Hypothesis 2: Team conscientiousness diversity is negatively correlated with intrateam trust.

### Intrateam Trust and Team Cohesion

According to the trust model and team process literature, trust among team members can promote relationships between team members and strengthen cohesion

within a team (Farmer et al., 2014; Mayer et al., 1995; Woolley & Fishbach, 2017). Specifically, from the emotional aspect of trust, high levels of trust mean that team members are more willing to support each other and deliver more friendly social information (Butler, 2016; Salancik & Pfeffer, 1978). These cues can promote more positive emotional exchanges between team members and build and improve team cohesion. In addition, from the cognitive aspect of trust, when members believe in their team members' competitiveness, they are more willing to cooperate with their partners and have more confidence in their teams. Indeed, empirical research has found that trust within a team can promote team cohesion (Bandura et al., 2019; Kao et al., 2019). Therefore, intrateam trust may be positively correlated with team cohesion. We thus propose the following hypothesis.

Hypothesis 3: Intrateam trust is positively correlated with team cohesion.

### Mediating Role of Intrateam Trust between Team Conscientiousness and Team Cohesion

Based on our first three hypotheses and the trust model, team conscientiousness diversity may directly affect team cohesion and indirectly promote team cohesion by enhancing intrateam trust. First, for ability and integrity, less conscientiousness may denote low levels of competence and less reliability (Brown et al., 2011). Thus, in team-work task processes, highly conscientious employees will be suspicious of less conscientious employees' contributions to a team. Therefore, differences in levels of conscientiousness will weaken trust within a team. Second, for benevolence, the similarity-attraction effect indicates that similar individuals are more likely to have favorable impressions of each other and trust each other, while differences will reduce trust (Montoya & Horton, 2013; Woolley & Fishbach, 2017). Therefore, differences in conscientiousness within a team can erode intrateam trust.

Furthermore, when a team's trust level is low, members are unwilling to help each other, and low trust may even trigger internal rejection behaviors, which will damage the team's cohesion (Bandura et al., 2019). Therefore, we believe that team trust plays a mediating role between team conscientiousness differentiation and team cohesion. We thus propose the following hypothesis.

Hypothesis 4: Intrateam trust plays a mediating role between the relationship between team conscientiousness diversity and team cohesion.

### Moderating Role of Team Coaching between Team Conscientiousness and Intrateam Trust

According to the trust model, the link between trustee attributes (e.g., ability, integrity, and benevolence) and interpersonal trust may be affected by the given context (Mayer et al., 1995). Thus, following this framework, we explore the marginal effect of context between team conscientiousness diversity and intrateam trust. Moreover, previous empirical studies have shown inconsistent effects of conscientiousness diversity on team processes (Liang et al., 2015; Tekleab et al., 2016; Tekleab & Quigley, 2014). Some studies have found that team conscientiousness diversity poses a threat to team processes, while other studies show that team conscientiousness diversity does not affect team processes. For example, Liang et al. (2015) found that team conscientiousness diversity is negatively correlated with team cohesion and team cooperation. However, Tekleab and Quigley (2014) found that team conscientiousness diversity does not affect team viability. Thus, we expect to only find this negative effect in certain contexts. Previous literature has found that leaders’ behaviors influence the effects of intrateam diversity. For example, Kearney and Gebert (2009) showed that transformational leadership reduces the negative impact of team age diversity on team performance and promotes the positive impact of team nationality diversity on team performance. In our study, we explore the moderating role of team coaching in the relationship between team conscientiousness and intrateam trust.

Team coaching is defined as an effective managerial practice that helps team members learn and become effective (DeRue et al., 2010; Ellinger & Bostrom, 1999; Pelaez Zuberbuhler et al., 2021). Team coaching has three main characteristics: guidance, facilitation, and inspiration (Heslin et al., 2006). Guidance refers to the provision of clear performance expectations and constructive feedback regarding performance outcomes. Facilitation involves helping employees analyze and explore ways to solve problems and enhance their efficiency. Inspiration involves challenging employees to realize and develop their potential (Heslin et al., 2006). These characteristics of coaching behavior can directly enhance employees’ efficiency and performance.

There are two reasons why we believe that coaching behavior buffers the negative impact of team conscientiousness diversity on intrateam trust. First, team coaching can help less conscientious employees improve their work efficiency and performance

and close the gap between themselves as highly conscientious employees (Ellinger & Bostrom, 1999; Hackman & Wageman, 2005). Thus, employees high in conscientiousness are more likely to trust employees with less conscientiousness in a context with strong levels of team coaching. Second, team coaching focuses on the performance of an entire team. Therefore, team leaders coordinate a team’s conflicts, formulate work plans and goals suited to a whole team, reduce team conflict, and improve team trust. Therefore, team coaching behavior can weaken the influence of team conscientiousness differences on team trust. We thus propose the following hypothesis.

Hypothesis 5: Team coaching behavior plays a moderating role between team conscientiousness diversity and intrateam trust, such that as coaching increases the negative relationship between team conscientiousness diversity and team trust weakens.

### Integrated Model

To integrate the above relationships, we propose a moderated mediation model in which team coaching moderates the indirect relationship between team conscientiousness diversity and team cohesion. When levels of team coaching are high, team conscientiousness diversity will not influence intrateam trust or indirectly influence team cohesion. When levels of team coaching are low, team conscientiousness diversity will negatively affect intrateam trust and subsequently team creativity.

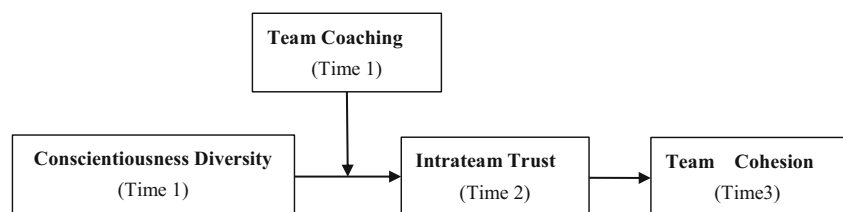
Hypothesis 6: Team coaching moderates the indirect relationship between team conscientiousness diversity and team cohesion through intrateam trust, such that as coaching increases the negative indirect relationships weakens (Fig. 1).

### Methods

#### Participants and Procedure

Subjects were recruited from the sales department of a large insurance enterprise. The survey was conducted three times

Fig. 1 Conceptual Framework Model of the Current Research



with one-month intervals between each survey. After each test, the subjects could receive US\$1.5 as a reward. We eliminated teams with fewer than 3 people (Bhave et al., 2010; Glomb & Liao, 2003). We retained the responses from 912 (63.62%) employees across 114 teams as valid data (the smallest team consisted of 3 members, and the largest team consisted of 24 members). Of the 912 employees, 453 were male (49.67%), and 459 were female (50.33%). The average age of the participants was 23.82 years ( $SD = 3.27$ ). The average tenure of the participants was 7.15 months ( $SD = 8.41$ ). A total of 36.8% of the participants had a senior high school degree, 42.0% of the participants had a professional college degree, and 12.1% of the participants had a university degree.

## Measurement

### Conscientiousness Diversity

Conscientiousness was measured at Time 1 with the 8-item short form of the five-factor inventory (Saucier, 1994). Responses were given on a 7-point Likert scale ranging from 1 = totally inappropriate to 7 = totally appropriate. A Cronbach's alpha value of 0.75 was measured at the individual level.

### Team Coaching

Team coaching was measured at Time 1 with the 10-item coaching scale (Heslin et al., 2006). Responses were given on a 7-point Likert scale ranging from 1 = totally disagree to 7 = totally agree. A Cronbach's alpha value of 0.97 was measured at the individual level.

### Intrateam Trust

Intrateam trust was measured at Time2 with the 7-item team trust scale (McAllister, 1995; Tsai & Ghoshal, 1998). Responses were given on a 7-point Likert scale ranging from 1 = totally disagree to 7 = totally agree. A Cronbach's alpha value of 0.96 was measured at the individual level.

### Team Cohesion

Team cohesion was measured at Time 3 with the 9-item team cohesiveness scale (Wendt et al., 2009). Responses were given on a 7-point Likert scale ranging from 1 = very low to 7 = very high. A Cronbach's alpha value of 0.98 was measured at the individual level.

### Control Variables

Team size was examined as a control variable because larger teams have the potential for more heterogeneity (Bliese &

Halverson, 1996; Lin & Li, 2020), and size may influence team cohesion. In addition, we controlled for team tenure since this may influence intrateam trust and team cohesion (Koopmann et al., 2016). As average team scores on diversity measures can be confounded with team standard deviations (Bedeian & Mossholder, 2016; Mohammed & Angell, 2004), team means for conscientiousness were also included as a control variable.

## Common Method Bias

We used a time-lag design (one month interval between each test) to control common method bias (CMB) in the research procedure (Podsakoff et al., 2012). However, since all variables were collected through the self-rated survey questionnaires, CMB could not be completely eliminated. Thus, we conducted Harman's single factor test to examine the level of CMB involved in our study (Podsakoff et al., 2003). We entered all of variables into an exploratory factor analysis (using unrotated principal components factor analysis and principal component analysis with varimax rotation). The analyses show showed that there are multiple factors with eigenvalues of  $>1.0$  rather than a single factor. Furthermore, the most significant factor accounts for 11.65% of the variance, suggesting that common method variance is likely not an influential factor in the current study.

## Analysis Method

We used ordinary least squares (OLS) regressions to test Hypothesis 1 and Hypothesis 2, and used the PROCESS Macros developed by Hayes (2014) (which is based on bootstrap sampling and ordinary least squares estimation) to test Hypothesis 3 to Hypothesis 6. SPSS20.0 was used for all analyses.

## Results

### Data Aggregation

Before aggregating the responses, we calculated  $r_{wg}$  scores (James et al., 1984) and intraclass correlation coefficients, ICC(1), and ICC(2) (Biemann et al., 2012; James et al., 1984; Shrout & Fleiss, 1979). The average values of  $r_{wg}$  score for conscientiousness, team coaching behavior, intrateam trust, and team cohesion are 0.82, 0.93, 0.92, and 0.85, respectively. The ICC(1) values for conscientiousness, team coaching behavior, intrateam trust, and team cohesion are 0.11, 0.27, 0.12, and 0.17, respectively. The ICC(2) for conscientiousness, team coaching behavior, intrateam trust, and team cohesion are 0.54, 0.75, 0.53, and 0.63, respectively. In this study, all variables reached the cutoff values of  $r_{wg}$ , ICC(1), and ICC(2) (Bliese, 2000; LeBreton & Senter,



2008). Therefore, we aggregated conscientiousness, team coaching behavior, intrateam trust, and team cohesion to the team level as team-level variables. We calculated the standard deviation of conscientiousness as team conscientiousness differentiation.

### Descriptive and Correlation Analysis

The descriptive statistics and correlation analysis for all variables are shown in Table 1. Conscientiousness differentiation within a team was negatively correlated with intrateam trust, and intrateam trust was positively correlated with team cohesion. Team coaching was positively correlated with intrateam trust and team cohesion. Team size was positively correlated with team cohesion, and the team conscientiousness mean value was positively correlated with team cohesion.

### Hypothesis Test

We used a general linear regression to test our Hypothesis 1 and Hypothesis 2. To test Hypothesis 1, we first entered team size, team tenure, and team conscientiousness as controls (as shown in Table 2). Second, we entered team size, team tenure, team conscientiousness and team conscientiousness differentiation as independent variables. After controlling for team size, team tenure, and team conscientiousness, team conscientiousness differentiation was found to be negatively correlated with team cohesion ( $B = -0.11, SE = 0.03, p < 0.001$ ), and the changing R square was measured as 0.02. Thus, Hypothesis 1 was supported.

To test Hypothesis 2, we first entered team size, team tenure, and team conscientiousness as controls. Second, we used team size, team tenure, team conscientiousness and team conscientiousness differentiation as independent variables (as shown in Table 3). After controlling for team size, team tenure, and team conscientiousness, team conscientiousness differentiation was negatively correlated with intrateam trust ( $B = -0.32, SE = 0.06, p < 0.001$ ), and the changing R square was recorded as 0.04. Thus, Hypothesis 2 was supported.

To test Hypothesis 3, we entered team size, team tenure, team conscientiousness, team conscientiousness differentiation, and intrateam trust as independent variables (as shown in Table 3). After controlling for team size, team tenure, and team conscientiousness, intrateam trust was positively correlated with team cohesion ( $B = 0.14, SE = 0.02, p < 0.001$ ). Thus, Hypothesis 3 was supported.

To test Hypothesis 4, we conducted PROCESS Macros Model “4” to test our mediation hypothesis. The results showed that the direct effect of team conscientiousness diversity on team cohesion was valued at  $-0.07$ , and the 95% bootstrap confidence interval (CI) was  $[-0.12, -0.01]$ . The indirect effect of team conscientiousness diversity through intrateam trust on team cohesion was  $-0.05$ , and the 95% bootstrap confidence interval was  $[-0.07, -0.03]$ . Thus, Hypothesis 4 was supported.

To test Hypothesis 5, we tested team coaching’s moderating effect on the relationship between team conscientiousness diversity and intrateam trust (as shown in Table 4). After controlling for team size, team tenure, and team conscientiousness, the interaction term of team conscientiousness diversity and team coaching was found to be positively correlated with intrateam trust ( $B = 0.84, SE = 0.07, p < 0.001$ ). As presented in Fig. 2, simple slope tests confirmed that the relationship between team conscientiousness diversity and intrateam trust was significant and negative when levels or team coaching were low ( $B = -0.97, SE = 0.07, p < 0.001$ ) but was not significant when levels of team coaching were high ( $B = -0.06, SE = 0.07, p = 0.37$ ). Thus, Hypothesis 5 was supported.

To test Hypothesis 6, we conducted PROCESS Macros Model “7” to test our integrated model hypothesis. The results showed that when levels of team coaching are low, the indirect effect of team conscientiousness diversity on team cohesion via intrateam trust was significant (estimate =  $-0.13, 95\% CI = [-0.18, -0.11]$ ). When levels of team coaching are high, the indirect effect of team conscientiousness diversity on team cohesion via intrateam trust was not significant (estimate =  $-0.01, 95\% CI = [-0.02, 0.01]$ ). Thus, Hypothesis 6 was supported.

**Table 1** Descriptive and Correlations

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1.Team size	10.48	5.15	–					
2.Team tenure	7.14	4.03	0.04	–				
3.Conscientiousness <i>M</i>	5.21	0.49	0.23***	0.01	–			
4.Conscientiousness <i>SD</i>	0.90	0.27	0.14***	–0.05	0.15***	–		
5.Team Coaching	6.22	0.54	0.17***	–0.09	0.46***	0.36***	–	
6.Intrateam trust	5.81	0.49	–0.03	0.03	0.17***	–0.15***	0.30***	–
7.Team cohesion	5.78	0.26	0.37***	–0.02	0.15***	–0.05	0.16***	0.27***

*N* = 912

\*\*\*  $p < 0.001$

**Table 2** The Regression of Team Conscientiousness on Team Cohesion

Variable	Team cohesion		Team cohesion	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Constant	5.41***	0.08	5.37***	0.09
Team size	0.02	0.01	0.02***	0.01
Team tenure	0.01	0.01	0.01	0.01
Conscientiousness <i>M</i>	0.04*	0.02	0.04*	0.02
Conscientiousness <i>SD</i>			-0.11***	0.03
Intrateam trust				
<i>F</i>	50.59***		41.78***	
<i>R</i> <sup>2</sup>	0.14		0.16	
$\Delta R^2$			0.02	

*N* = 912. Unstandardized regression coefficients are reported

\* *p* < 0.05. \*\*\* *p* < 0.001

## Discussion

The current study examines the relationship between individual conscientiousness differences within a team and team cohesion. We found that individual conscientiousness differences damage team cohesion, possibly because individual differences in conscientiousness impair trust within a team and weaken team cohesion. Our findings further enrich individual personality differences and team process studies and have some critical implications for both theory and practice.

## Theoretical and Practical Implications

First, this research adds to the growing team process literature and expands the nomological net by examining levels of team

**Table 3** The Mediating Effect of Intrateam Trust in The Relationship Between Team Conscientiousness and Team Cohesion

Variable	Intrateam trust		Intrateam trust		Team cohesion	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Constant	4.88***	0.17	5.04***	0.17	4.74***	0.11
Team size	-0.01	0.01	-0.01	0.01	0.02***	0.01
Team tenure	0.01	0.01	0.01	0.01	0.01	0.01
Conscientiousness <i>M</i>	0.19***	0.03	0.21***	0.03	0.01	0.02
Conscientiousness <i>SD</i>			-0.32***	0.06	-0.07***	0.03
Team Coaching						
Intrateam trust					0.14*	0.02
<i>F</i>	11.27***		15.75***		52.53***	
<i>R</i> <sup>2</sup>	0.03		0.07		0.23	
$\Delta R^2$			0.04			

*N* = 912. Unstandardized regression coefficients are reported

\* *p* < 0.05. \*\*\* *p* < 0.001

cohesion due to conscientiousness differences within a team. Our findings offer support for the effect of team members' conscientiousness differentiation on team processes. That is, individual conscientiousness differentiation within a team can impact intrateam trust and team cohesion. Specifically, differentiation in individuals' conscientiousness leads to diversity in abilities and integrity levels within a team. Moreover, individual differences tend to lead to disagreements and interpersonal conflicts, which reduce interpersonal benevolence (Mohammed & Angell, 2004). Therefore, conscientiousness diversity within a team will impair intrateam trust (Hua, 2013; Woolley & Fishbach, 2017). In summary, during team processes, team members' diversity can have some negative effects, such that teammates' diversity in conscientiousness personality traits will reduce team cohesion.

Second, we contribute to team diversity research by finding a boundary condition between team conscientiousness diversity and intrateam trust. Our findings show that team coaching behavior moderates the relationship between team conscientiousness diversity and intrateam trust. This finding is consistent with the trust model's argument that a given context may interact with trustees' attributes to influence interpersonal trust (Mayer et al., 1995). In particular, when levels of team coaching are high, team conscientiousness diversity does not affect intrateam trust. When levels of team coaching are low, team conscientiousness diversity negatively affects intrateam trust. Although previous research has explored the impact of team conscientiousness diversity on team processes, the results are still mixed (Hua, 2013; Koopmann et al., 2016; Liang et al., 2015). This study examines the boundary conditions of the effects of team conscientiousness diversity on team processes, which helps elucidate when team conscientiousness diversity works. In other words, when there is considerable diversity within a team, especially in terms of ability-related trait diversity, leaders' intervention and coaching may mitigate the adverse effects of team differences.

Third, this research contributes to interpersonal trust research by expanding the trust literature to the team level. Few studies have focused on the effect of work-related personality diversity on intrateam trust. We found that differences in conscientiousness within a team may damage team members' trust because it is easy for considerably different individuals to misunderstand each other (Farmer et al., 2014; Tekleab et al., 2016). Conscientiousness differentiation may also affect employees' trust in team efficacy because conscientiousness may have been used as an indicator of competence and integrity. Thus, team members high in conscientiousness may treat those low in conscientiousness as having less trustworthy qualities that may damage team performance (Brown et al., 2011; Mayer et al., 1995). This finding also extends the trust model to the team process research field; that is, in team processes, personality differences within a team will reduce intrateam trust (Mayer et al., 1995).

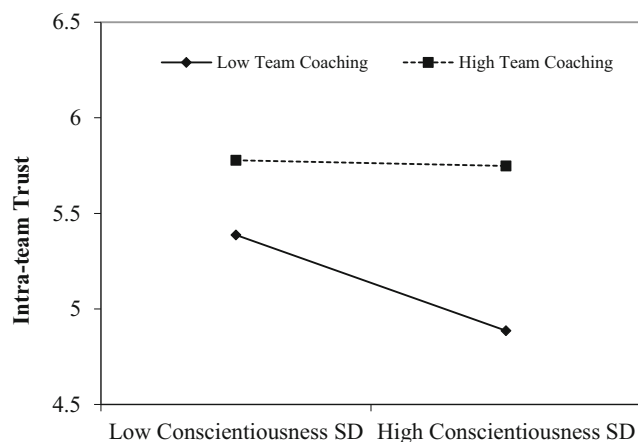
**Table 4** Regression Results for the Moderating Effect of Team Coaching Between Team Conscientiousness and Intra-team Trust

Variable	Intra-team trust		Intra-team trust		Intra-team trust	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Constant	4.86**	0.17	5.59***	0.18	5.46***	0.16
Team size	−0.01*	0.01	−0.01*	0.01	−0.02***	0.01
Team tenure	0.01	0.01	0.01	0.01	0.01***	0.01
Conscientiousness <i>M</i>	0.19***	0.03	0.05	0.03	0.07*	0.03
Conscientiousness <i>SD</i>			−0.54***	0.06	−0.52***	−0.52
Team Coaching			0.36***	0.03	0.59***	0.04
Conscientiousness <i>SD</i> * Team Coaching					0.84***	0.07
<i>F</i>	11.54***		38.37***		64.77***	
<i>R</i> <sup>2</sup>	0.03		0.18		0.30	
Δ <i>R</i> <sup>2</sup>			0.15		0.12	

*N* = 912. Unstandardized regression coefficients are reported. Conscientiousness *SD* and Team Coaching are grand-mean centered

\* *p* < 0.05. \*\*\* *p* < 0.001

Finally, we contribute to the literature on team processes. We found that intrateam trust is positively correlated with team cohesion. This finding supports previous research on trust and cohesion, suggesting that trust creates an essential bond between people and promotes interpersonal attraction (Bandura et al., 2019; Birx et al., 2011). In teamwork, trust between team members is indispensable because it will affect the team’s task and interpersonal processes. For example, individual-team trust can positively influence employees’ behavior, such as through knowledge sharing or helping behavior (Kao et al., 2019). For team cohesion, intrateam trust can enhance employees’ confidence in their team members’ abilities, facilitate better cooperation in tasks, and promote cohesion. Additionally, interpersonal trust promotes mutual helping, supporting, and caring behaviors among team members, resulting in a greater sense of belonging within a team and improving team cohesion.



**Fig. 2** The moderating role of team coaching behavior in relationship between team conscientiousness diversity and intra-team trust

Our findings also have significant practical implications. First, leaders should pay attention to team members’ conscientiousness and differences in conscientiousness. For example, managers should take conscientiousness as a vital selection indicator when building a team to ensure that team members’ conscientiousness is relatively high. Second, a leader should intervene in a team with staff with poor ability in a timely manner to help them improve their competency. In summary, a leader should always have insight into team dynamics and continuously adjust teams’ operational status in a timely manner.

**Limitations and Future Research**

As the first limitation of this study, we did not examine the effect of team conscientiousness on team performance. Previous literature has shown that conscientiousness is an important ability- or performance-related personality trait (Brown et al., 2011; Gellatly, 1996). However, due to the limitations of samples and corporate confidentiality rules, this study did not examine the impact of intrateam conscientiousness differences on team performance. Instead, we examined the impact of team conscientiousness diversity on another performance-related variable, team cohesion. Future research can investigate the relationship between team conscientiousness and team performance as well as mechanisms to compensate for this deficiency.

Second, we only examined the influence of differences in performance-related personality (conscientiousness) on team cohesion. Although other personality traits (such as agreeableness and openness) do not directly affect work performance and work efficiency, their differences may affect a team’s extra-role interactions and indirectly affect team processes.



Future studies can thus explore the influence of other personality differences on team processes.

Third, although this study examined the mediating effect of intrateam trust between conscientiousness differences within a team and team cohesion, conscientiousness diversity may also affect team cohesion through other psychological constructs. Therefore, future studies can further investigate the mechanisms through which individual differences affect team processes.

Finally, this study examined the mechanisms by which team conscientiousness diversity affects team cohesion. However, the mechanism by which team conscientiousness diversity affects team performance remains unclear. The relationships and mechanisms involved between team conscientiousness diversity and team performance can be further investigated in the future.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s12144-021-01946-7>.

**Funding** This work is supported by National Natural Science Foundation of China (NSFC) grant #31971013 and Beijing Well-being Foundation grant #0020344 to Prof. Lei Wang.

**Data Availability** Data has been available upon request.

## Declarations

**Ethical Statement** This study was approved by the Institutional Review Board of School of Psychological and Cognitive Sciences at Peking University.

**Conflict Statement** On behalf of all authors, the corresponding author states that there is no conflict of interest.

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