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ORIGINAL PAPER

Collective Efficacy: Linking Paternalistic Leadership to Organizational Commitment

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Abstract
Based on social cognitive theory, we theorize that collective efficacy plays a mediating role in the relationship between paternalistic leadership and organizational commitment and that this mediating role depends on team cohesion. The empirical results from a study of 238 employees from 52 teams at manufacturing companies show that benevolent leadership and moral leadership, both components of paternalistic leadership, are positively related to organizational commitment and further that collective efficacy mediates the moral leadership–organizational commitment relationship. We did not find a relationship between authoritarian leadership and organizational commitment. Besides, it was found that team cohesion negatively moderates the relationship between moral leadership and collective efficacy and positively moderates the relationship between collective efficacy and organizational commitment. Explanations and directions for future research are discussed.

Keywords Authoritarian leadership · Benevolent leadership · Moral leadership · Paternalistic leadership · Collective efficacy · Organizational commitment

Introduction

Paternalistic leadership is generally regarded as a typical style of leadership in Asian cultures, being deeply rooted in Chinese Confucianism (Cheng et al. 2004; Pellegrini and Scandura 2008; Zhang et al. 2015). It is considered an effective way of influencing employee behavior in Asian contexts. Interest in this leadership style has grown among organizational researchers in the last two decades, prompted by Cheng et al. (2000) depiction of paternalistic leadership's three-dimensional nature: benevolence, authoritarianism, and morality (Chen et al. 2014, 2015; Soylu 2011). A vast majority of the studies on paternalistic leadership have focused on its outcomes (Pellegrini and Scandura 2008). More particularly, one of the important outcomes examined has been organizational commitment (Farh et al. 2006; Pellegrini et al. 2010), which is defined as an individual's psychological bond with an organization (Choi et al. 2015). Although several studies have shed light on the relationship between paternalistic leadership and organizational commitment, these have still had their limitations.

Paternalistic leadership is often studied as a unitary construct, yet its three dimensions might have different influences on behavior. A minority of studies has looked into the effects on organizational commitment of the three dimensions but has found inconsistent results (Farh et al. 2006; Erben and Güneşer 2008; Pellegrini et al. 2010). For example, in compliance Farh et al. (2006) and Erben and Güneşer (2008) found that authoritarianism has no effect on commitment; however, their findings related to benevolent leadership and moral leadership are inconsistent. Farh et al. (2006) found benevolent leadership negatively related to organizational commitment and moral leadership positively related to organizational commitment, while benevolent

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leadership was found positively related to commitment in Erben and Güneşer's (2008) study and with no effect of moral leadership. This suggests that the different elements of paternalistic leadership influence employees in different ways, and under different conditions it might have opposite effects. Until now the potential mediating mechanisms and moderating mechanisms have remained unclear, leaving an understanding of the effects and its conditions of paternalistic leadership unsolved. Understanding the mechanisms through which the dimensions of paternalistic leadership function together with their boundary conditions potentially enhance and deepen our understanding of paternalistic leadership. Hence, to address this gap, the goal of our study is to develop a more comprehensive model linking three dimensions of paternalistic leadership to organizational commitment by investigating specific mediating and moderating mechanisms.

According to previous research on leadership, the beneath psychological mechanisms is the backbone in understanding how leadership style works and functions (Avolio et al. 2004; Wu et al. 2010; Dust et al. 2014; Liao et al. 2016). For example, evidences have shown that transformational leadership could function through collective efficacy to affect group effectiveness (Wu et al. 2010), which implies that collective efficacy is one important way to unveil how leadership functions. A comprehensive understanding of such a mechanism could allow leaders to utilize and adapt in a flexible way their paternalistic leadership style to promote organizational commitments among employees. Therefore, in this study we propose and empirically test collective efficacy as a crucial mechanism for explaining the relationship between paternalistic leadership and employee commitment.

Collective efficacy is an important psychological mechanism because of its pivotal role in connecting people to their environment (Bandura 1986; Zaccaro et al. 1995). It refers to a team's belief in its capability to perform a task (Bandura 1997; Gibson and Earley 2007). According to social cognitive theory, people are products of their environment, but by simultaneously translating their environmental circumstances in different ways, they are also producers of that environment (Bandura 1997). Based on the vital role collective efficacy plays in connecting people to their environment, we expect different dimensions of paternalistic leadership to have different effects on organizational commitment because of how they influence collective efficacy. Under benevolent leadership and under moral leadership, the members of an organization experience a high level of collective efficacy, tending to take a more optimistic view of their goals and putting greater effort into achieving them (Bandura 2000): As a result, they become more committed to their organization. On the other hand, under authoritarian leadership, the members of an organization will experience a lower level of collective efficacy, tending to take a less optimistic view of their goals and putting less effort into achieving them (Bandura 2000). As a consequence, in contrast to members exposed to benevolent leadership and under moral leadership, they become less committed to their organization. Thus, collective efficacy plays a critical role in explaining how paternalistic leadership's three dimensions affect employee commitment to an organization.

Based on previous evidence, we also consider team cohesion as a potential moderator in the current study. Team cohesion has been regarded as an important context variable that affects team processes (Wang and Hwang 2012; Ha and Ha 2015), and it is also found positively associated with collective efficacy (Paskevich et al. 1999) as well as organizational commitment (Ha and Ha 2015). It therefore becomes important to account for how team cohesion moderates the relationship among paternalistic leadership, collective efficacy and organizational commitment.

The current study makes several contributions. First, while research has started to explore the mediating mechanisms of how paternalistic leadership affects organizational commitment (Erben and Güneşer 2008), the psychological mechanism has not attracted enough attention. By examining the role of collective efficacy in linking paternalistic leadership and organizational commitment, this study contributes to unveiling the psychological mechanism beneath. Second, this study also contributes to research on the antecedents of collective efficacy. Previous studies have confirmed that transformational leadership plays an important role in boosting employees' collective belief in their organizational capability (Wu et al. 2010; Wang and Howell 2012). The finding that paternalistic leadership could affect collective efficacy extends the research on antecedents of collective efficacy by enriching the types of leadership. Third, our result related to moral leadership contributes to literature on business ethics (Newman et al. 2017). The fact that only moral aspect of paternalistic leadership could positively affect collective efficacy further highlights the importance of ethical behaviors in boosting collective efficacy. Finally, we also contribute to the research on the conditions under which subordinates react to paternalism. Previous studies related to this topic has been focusing on individual-level contingencies for a long time (Ötken, and Cenkci 2012; Wang and Cheng 2010; Wang et al. 2017). By exploring the role team cohesion plays in the relationship among paternalistic leadership, collective efficacy, and organizational commitment, we offer additional insights into team-level contingencies. The opposite moderating effects team cohesion has on the moral leadership–collective efficacy and the collective efficacy–organizational commitment relationships also suggest that it is necessary to look into team-level conditions.

In this article, we first elaborate on how paternalistic leadership is related to organizational commitment through collective efficacy and second how team cohesion moderates

this mediating path. Then, we report the findings of an empirical study conducted in China and conclude by discussing the implications for future studies.

Theoretical Background and Hypotheses

Paternalistic Leadership and Organizational Commitment

Paternalistic leadership (PL) is defined as a style that combines strong discipline and authority with fatherly benevolence (Farh and Cheng 2000; Zhang et al. 2015). It has three distinct dimensions, namely authoritarian leadership, benevolent leadership, and moral leadership. Authoritarian leadership refers to a leader's behavior in terms of exerting absolute authority and control over his or her subordinates and requiring unquestionable obedience from those subordinates (Cheng et al. 2004). Benevolent leadership encompasses a leader's holistic and individualized concern for his or her subordinates' well-being in both the work and nonwork domains (Wang and Cheng 2010). Moral leadership represents a leader's behavior in showing superior integrity and personal virtue, self-discipline, and unselfishness (Erben and Güneşer 2008).

As noted earlier, the research linking paternalistic leadership and organizational commitment has failed to simultaneously consider the three dimensions of that commitment (Erben and Güneşer 2008; Pellegrini et al. 2010). Furthermore, the studies on the relationship between paternalistic leadership and organizational commitment are inconsistent. For example, Farh et al. (2006) found authoritarianism to be negatively related to organizational commitment, while benevolence and morality were found to be positively related to team commitment. This is in contrast to Erben and Güneşer's study, which found only benevolent leadership positively related to employees' organizational commitment. In an attempt to get closer to the mechanisms through which paternalistic leadership functions, we investigate a comprehensive model in this study and suggest that each dimension of paternalistic leadership is significantly related to the three types of commitment from subordinates: affective commitment (AC), which reflects employees' emotional attachment to an organization; continuance commitment (CC), which refers to commitment based on the costs and benefits of staying with an organization; and normative commitment (NC), a felt obligation to remain with an organization (Allen and Meyer 1990).

Specifically, we propose that the dimension of authoritarian leadership, which entails *li-wei* (awe- and fear-inspiring behavior), reduces employees' affective commitment, continuance commitment, and normative commitment. Authoritarianism is part of the Confucian value system, which requires lower ranks to obey their superiors (Chen et al. 2014). Under this model, the leadership signals to the employees that they have no right to challenge authority within the company. Given that affective commitment refers to employees' feelings of belonging and sense of attachment to an organization (Demirtas and Akdogan 2015), such compulsive behavior can easily trigger negative feelings, such as fear and anger, that undermine such commitment. Furthermore, the negative emotional feelings aroused by authoritarianism will also increase employees' belief that they would benefit more from leaving the organization than from staying. As pointed out by Allen and Meyer (1990), an individual's tendency to continue engaging in organizational activity is based on his or her recognition of the "cost" of doing so; continuance commitment derives from an employee's perception that the cost of leaving his or her situation is high. Authoritarianism therefore reduces the employees' continuance commitment. In addition, research suggests an employee's perceived norm of reciprocity in a given helping relationship could determine his or her normative commitment (Barron and Chou 2016). Since authoritarianism does not offer the socioemotional benefits needed to initiate reciprocal interrelations (Chen et al. 2014; Schuh et al. 2013), under it, employees tend to only complete the obligations assigned to them and will show no willingness to go beyond the call of duty. Thus, it is reasonable to infer that authoritarian behavior has a negative effect on normative commitment. We therefore propose the following hypothesis:

Hypothesis 1a Authoritarian leadership is negatively related to organizational commitment.

Benevolent leadership, which entails *shi-en* (granting favors), and moral leadership, which entails *shu-de* (setting an example), should both be positively related to affective commitment, continuance commitment, and normative commitment. Benevolent leaders show concern for their employees' personal situation, aiming to build high-quality exchange relationships between leadership and staff (Chan and Mak 2012). Such relationships are conducive to positive feelings among the employees, making them strongly feel they belong to the organization and thereby promoting affective commitment. In addition, when a leader provides sincere support to employees, mentally or materially, it increases their perceived costs of leaving that organization, and the genuine gratitude those subordinates feel will enhance their continuance commitment. Moreover, a good exchange relationship between leadership and staff in organizational settings positively influences the subordinates' sense of responsibility (Agarwal 2014). Thus, the helping behavior the employees receive is positively related to their

normative commitment (Barron and Chou 2016), making them feel obliged to reciprocate. This leads us to the following hypothesis:

Hypothesis 1b Benevolent leadership is positively related to organizational commitment.

Previous studies have suggested that moral leadership influences affective commitment by creating an ethical climate (Demirtas and Akdogan 2015). In setting an example for his or her subordinates, a moral leader acts as a role model, exerting virtuous influence over organizational members. This influence spreads throughout the work environment and shapes the ethical climate, which, in turn, contributes to the staff's affective commitment. Moral leadership also contributes positively to continuance commitment. Moralism increases employees' satisfaction with their leader and enhances their perception of his or her effectiveness (Hassan et al. 2014), since they believe that the leader is not simply acting according to his or her personal whim. This, in turn, reduces the sense of fear among subordinates in an organization. Employees feel more comfortable and are more willing to express their ideas in such a work environment, which also increases their sense of loss should they consider leaving the organization. Finally, a leader's moral behavior also benefits the staff's normative commitment. Fair and honest behavior on the part of leadership positively affects the morality and loyalty among subordinates. Employees will feel a moral obligation to remain with the organization and feel guilty about leaving it. Based on the discussion above, we hypothesize the following:

Hypothesis 1c Moral leadership is positively related to organizational commitment.

Paternalistic Leadership and Collective Efficacy

Collective efficacy represents a team's belief in their joint ability to perform a specific task (Bandura 2000; Lin et al. 2014). Teams with a high level of collective efficacy tend to set high team goals, put more effort into given endeavors, and have a high resilience to adversity (Stajkovic et al. 2009). Empirical studies have confirmed the influential role perceived collective efficacy plays in organizational outcomes (Goddard and Salloum 2012; Kim and Shin 2015; Li et al. 2015). And because of its impact on organizational outcomes, plenty of studies focus on the antecedents of collective efficacy. In particular, the role leadership plays in fostering collective efficacy has been of tremendous interest to scholars for a long time (Jung and Sosik 2002; Srivastava et al. 2006; Wu et al. 2010). Most of the attention, however, has concentrated on the relationship between transformational leadership and collective efficacy—Wu et al. (2010), for example, found that transformational leaders' group-focused leadership, idealized influence, and inspirational motivation contribute positively to collective efficacy. Meanwhile, there has been very little exploration of the relationship between paternalistic leadership and collective efficacy. In this study, we argue that paternalistic leadership can also promote collective efficacy.

According to Bandura (1997), there are four information sources that can increase efficacy: mastery experience, social modeling (also known as vicarious experience), emotional states, and verbal persuasion. Mastery experience and vicarious experience are both related to process knowledge, or how to achieve a task. Emotional states refer to an individual's physical and mental states. And verbal persuasion is about providing encouragement to help someone achieve a task. We discuss below how the three dimensions of paternalistic leadership hinder or promote collective efficacy through these information sources.

Authoritarian leadership negatively affects collective efficacy mainly through arousing negative emotional states. The controlling nature and rigorous autocratic behavior of such leadership may reduce employees' intrinsic motivation for work. Research on authoritarianism has pointed out that it triggers negative emotions such as fear and anger in subordinates (Cheng et al. 2004) and is therefore unlikely to induce the positive emotions that are necessary to cultivate collective efficacy. Under stressful or negative emotional conditions, negative mood states create a negative framework for interpreting information. Such negative emotional arousal generates fear-provoking cognitions (Lindsley et al. 1995), making it difficult for employees to process complex information and causing them to judge their capabilities as being low. Previous studies have also suggested that behavioral controls signal to the employees that they are considered insufficiently capable and unable to self-direct (Chan et al. 2013). As a result, employees will be less likely to form a collective feeling about their capability as a whole. Thus, we propose the following hypothesis:

Hypothesis 2a Authoritarian leadership is negatively related to collective efficacy.

Benevolent leadership contributes to collective efficacy positively, mainly through emotional states and verbal persuasion. With regard to the first aspect, findings show that in response to a leader's *shi-en* behavior, a subordinate will feel grateful and then express that gratitude by repaying the leader's attentiveness (Cheng et al. 2004). Such feelings arouse positive emotions among employees that encourage them to put more effort into their work. Moreover, a benevolent leader will also encourage subordinates when they encounter arduous problems. Such verbal persuasion is regarded as a significant means of strengthening people's

conviction that they possess the capabilities to achieve their goals (Bandura 1997). The potency of the persuasion depends on the credibility, trustworthiness, and expertise of the persuader, though (Goddard and Hoy 2004). Since supervisors are always regarded as having more experience than subordinates, subordinates tend to trust them more than other people. Thus, any positive persuasive feedback they receive will boost their persistence in achieving a task, as well as their level of competence. In sum, we hypothesize the following:

Hypothesis 2b Benevolent leadership is positively related to collective efficacy.

Moral leadership contributes to collective efficacy by creating role models, people who are highly respected and admired and viewed by Chinese employees as possessing the ideal leadership qualities (Niu et al. 2009). Research has found that morality on the part of a supervisor increases subordinates' deference. We believe that the mechanism by which moral leadership behavior affects collective efficacy can be attributed to vicarious experience. Employees' vicarious experience of their leaders helps to enhance their collective efficacy. Vicarious experience is one of the four major sources of efficacy (Bandura 1977). Having a good role model in their leader gives employees greater confidence, and when their role model performs well, it is likely to enhance the sense of efficacy among the people who look up to him or her (Goddard and Hoy 2004). In fact, seeing leaders undertake challenging activities without suffering adverse consequences inspires employees to believe that they, too, have the ability to fulfill even difficult tasks if they put in enough effort. So, the role model performance of leaders relates positively to employees' collective efficacy. Thus, we hypothesize the following:

Hypothesis 2c Moral leadership is positively related to collective efficacy.

Collective Efficacy and Organizational Commitment

Extant literature has already proved that collective efficacy is significantly related to organizational commitment. For instance, Jex and Bliese (1999) found that groups with low levels of collective efficacy had low average levels of organizational commitment. However, the prior research has not elaborated on how collective efficacy affects each of the three dimensions of commitment. We suggest that collective efficacy positively influences all three—affective commitment, continuance commitment, and normative commitment.

First, collective efficacy is beneficial to affective commitment. When there is a high level of collective efficacy, employees tend to offer support to others who are having difficulty finishing their tasks, so as to accomplish their organizational goals collectively (Lent et al. 2006). This may especially include emotional support, which is conducive to affective commitment in an organization. People feel love, caring, and other positive emotional feelings when they receive help from others. Such emotional experiences may lead them to feel emotionally bound to the organization (Rhoades et al. 2001), creating a strong affective commitment.

Second, collective efficacy helps enhance employees' continuance commitment because of the high opportunity cost it creates. Since an efficacy belief affects motivational processes, highly efficacious organizations tend to set higher goals and put more effort into their group endeavor, with employees relying on one another to perform the necessary tasks (Li et al. 2015). The more collective effort they put into performing their tasks, the higher the cost of discontinuing the activity will be for the individual employees (Bandura 2000; Vera et al. 2014). Thus, employees in an organization with a high level of collective efficacy tend to have a high level of continuance commitment due to the immense penalties of making a switch.

Third, collective efficacy boosts employees' normative commitment through social identification. Normative commitment reflects their feelings of obligation to remain with the organization (Vandenberghe et al. 2015), and it is based on identification—specifically, with behavior that is consistent with their goals and values (Meyer et al. 2004). When there is a high level of collective efficacy, members regard themselves as part of the organization and share the same group identity. There is a shared belief that they have the ability to perform any given task. The concrete organizational goals make them feel it is their obligation and responsibility to do the right thing. Thus, they tend to exhibit a higher normative commitment to the organization.

Based on the discussion above, we propose the following hypotheses:

Hypothesis 3 Collective efficacy is positively related to organizational commitment.

Hypothesis 4a Collective efficacy mediates the relationship between authoritarian leadership and organizational commitment.

Hypothesis 4b Collective efficacy mediates the relationship between benevolent leadership and organizational commitment.

Hypothesis 4c Collective efficacy mediates the relationship between moral leadership and organizational commitment.

Team Cohesion as Boundary Condition

We have argued that paternalistic leadership is important for organizational commitment, and that collective efficacy might be the mediator. However, this mediating path might not be universal and might depend on certain team characteristics. Team cohesion is defined as "the degree to which members of the group are attracted to each other" (Shaw 1981, p. 213). Team cohesion has been found to exert an important impact on group processes (Wang and Hwang 2012). Therefore, we investigate the possible moderating effect of team cohesion on the relationship between (1) paternalistic leadership and collective efficacy and (2) collective efficacy and organizational commitment (Fig. 1).

In this study, we propose that team cohesion moderates the relationship between paternalistic leadership and collective efficacy in a mitigating way. First, benevolent leadership and moral leadership provides a collectivity and positive emotions among employees which in turn enhance collective efficacy, but since high collectivity and positive emotions are already present in teams with high cohesion (Lawler et al. 2000), the functionality and effectiveness of benevolent leadership and moral leadership will be less in a team with strong team cohesion.

Second, authoritarian leadership usually ruins such cohesion and arouses negative emotion, but when team cohesion is high the negative effect authoritarian leadership on collective efficacy will be weaker because functionality and effectiveness of authoritarian leadership is mitigated by the team cohesion. Together, we expect the effect of paternalistic leadership on collective efficacy to be mitigated and attenuated when team cohesion is high compared to when team cohesion is low.

Hypothesis 5a Team cohesion attenuates the relationship between paternalistic leadership and collective efficacy.

On the other hand, we expect team cohesion to moderate the relationship between collective efficacy and organizational commitment in an enhancing way. Previous research has shown that team cohesion exerts an important impact on group processes (Wang and Hwang 2012). The tighter the team as an entity, the more likely individual beliefs about their team's abilities could pass between members and create group-level attitudes and behaviors (Lee et al. 2002; Tekleab et al. 2009). Particularly, it may be expected in cohesive teams, where group members are attracted to each, that team members are more prone to turn their collective efficacy into organizational commitment. They use the collective efficacy as a mean to ensure their attractiveness of each other can be satisfied by staying organizationally committed. Therefore, we suggest that a high level of team cohesion will enhance the effect of collective efficacy on organizational commitment.

Hypothesis 5b Team cohesion positively moderates the relationship between collective efficacy and organizational commitment.

Methods

Participants and Procedures

We collected data from teams at manufacturing companies in China. Most of the teams were selected from the Jiangsu and Fujian provinces. Our contacts with local government and local companies helped us gain access to the teams, which all consisted of two or more employees. We sent out surveys and asked the leaders and individual employees of each team to complete their own questionnaire.

In the end, we received feedback from 56 teams, which contains 54 leader surveys and 258 employee surveys. We excluded two leaders and two employees from the analysis because they did not meet the requirement of employee

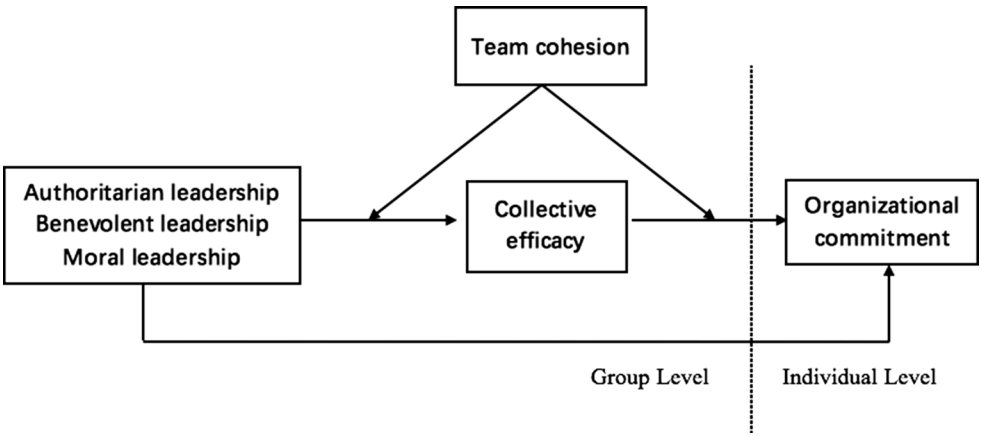

Fig. 1 Theoretical model

members. We also excluded another two teams (18 questionnaires) because their leaders had not filled out the questionnaires. Therefore, the final usable sample consisted of 52 leaders and 238 employees. The average number of participants per team was 4.58 (SD = 2.23), with a range of 2–16 participants per team. Among the employees, 47% were male and 53% were female; approximately 43% had a college diploma or higher degree. Among the leaders, 71% were male and 29% female, and 50% had a college diploma or higher degree. The leaders' average team tenure was 7.7 years.

Measures

The paternalistic leadership scale was originally written in Chinese. The collective efficacy and organizational commitment scales were translated from English into Chinese and back-translated into English to ensure the precise meaning of the items in the scales. All survey items in the questionnaire were measured on a six-point, Likert-type scale ranging from 1 = strongly disagree to 6 = strongly agree, with higher values indicating greater amounts. The reason we chose a six-point instead of a seven-point scale was because Chinese respondents are more likely to choose a central point that might not necessarily reflect their real judgment (Chen et al. 2014; Chiu and Yang 1987). To reduce common method bias, we relied on multi-source measurement strategy. Team-level control variables and team cohesion were reported by the team leaders, while other variables were obtained from the employees as an individual measure or average team measure.

Paternalistic leadership Paternalistic leadership was measured using the 28 items developed by Cheng et al. (2004). Nine items were used to measure authoritarian leadership (e.g., "My leader asks me to obey his/her instructions completely"), 11 items were used to measure benevolent leadership (e.g., "My leader devotes all his/her energy to taking care of me"), and eight items were used to measure moral leadership (e.g., "My leader employs people according to their virtues and does not envy others"). The Cronbach alphas of the subscales were 0.89, 0.94, and 0.94, respectively.

Collective efficacy Seven items generated from previous studies were used to measure collective efficacy (Edmondson 1999; Lent et al. 2006). The items included such statements as "This team can achieve its task without requiring us to put in unreasonable time or effort"; "Our team members assist members who are having difficulty with certain task"; and "Our team members can adapt to changes in group tasks or goals." The Cronbach alpha of the scale was 0.93.

Team cohesion Team cohesion was measured with six items developed by Bollen and Hoyle (1990). Three of them assess the sense of belonging (e.g., "I feel a sense of belonging to our team") and three of them assess the feeling of morale (e.g., "Our team is the one of the best teams"). In this study, we focused on the generalized concept instead of focusing on each dimension. The Cronbach alpha of the scale was 0.87.

Organizational commitment Organizational commitment was measured using the 18 items developed by Allen and Meyer (1990). Eight items were used to measure affective commitment (e.g., "I would be very happy to spend the rest of my career with this organization"); five items were used to measure continuance commitment (e.g., "It would be very hard for me to leave my organization right now, even if I wanted to"); and five items were used to measure normative commitment (e.g., "I think that people these days move from company to company too often"). The Cronbach alpha of the scale was 0.97, and the subscales' Cronbach alpha were 0.94, 0.92, and 0.91, respectively.

Control variables Information on both the leaders' and team members' age, gender, education level, and team tenure were collected, since previous studies have shown that these factors have an impact on commitment (Walumbwa et al. 2004). We also required team members to report their income, because it might be an antecedent of their continuance commitment. Since including a control variable that is uncorrelated with the dependent variable in regression analysis reduces power (Becker 2005), we conserved power in the current study by first computing the correlation coefficients between the dependent variables and all the potential control variables at different levels. Only the variables that were related to the dependent variables were considered control variables in the subsequent test (Wang and Howell 2012).

Aggregation Tests

To justify the aggregation of team-level variables (i.e., the paternalistic leadership dimensions and collective efficacy), we checked their validity. We computed r_{wg} values for these variables and obtained median values of 0.81 for authoritarian leadership, 0.81 for benevolent leadership, 0.92 for moral leadership, and 0.95 for collective efficacy. These r_{wg} were all above the acceptable value of 0.70. We also obtained the following ICC(1) and ICC(2) values: authoritarian leadership, 0.14 and 0.43; benevolent leadership, 0.22 and 0.56; moral leadership, 0.20 and 0.53; collective efficacy, 0.08 and 0.28. Though some of these values were slightly below the recommended levels, they were comparable to the median values reported in previous research (Liao and Chuang 2004; Schneider et al. 1998). Thus, we concluded that aggregation was justified for these variables.

Common Method Variance Tests

As our study relied on self-reported data, we recognized the potential for common method variance and took several steps to minimize the effects (Richardson et al. 2009). As recommended by Conway and Lance (2010), we took both procedural remedies and post hoc statistical remedies. Procedural remedies were taken at the data collection stage. We promised participants their answers to be anonymous, assured them that there are no right or wrong answers and required that they should answer questions as honestly as possible (Podsakoff et al. 2003). As mentioned above, we also used difference sources for our measures to reduce common method bias. Specifically, we obtained our information for the various variables from both employees in the team and team leaders.

For statistical remedies, we did Harman's single-factor test. As our sample size does not meet the requirement that it should be ten times the observed variables for factor analysis (Nunnally 1967, p. 355), confirmatory factor analysis (CFA) is not suitable in the current study to examine the common method variance. The split sample analysis strategy (Ostroff et al. 2002) is also not adopted as it requires large sample sizes and a larger number of employees per group (Hsiung 2012; Shin 2012). This left us with the Harman's single-factor test that despite its limitations is the best option in our case. The result showed the first factor explained 39.24% of the variances far below the 50% threshold suggesting that the common method variance is not a serious threat to the study.

Analytic Strategy

In our hypothesis testing, the organizational commitment was regarded as individual-level variables based on the definition of each concept, whereas the three leadership dimensions, collective efficacy, and team cohesion were treated as group-level variables. Due to the multilevel nature of the data in this research, we tested Hypotheses 1a, 1b, 1c, 3, 4a, 4b, 4c and 5b using hierarchical linear modeling (HLM). Since the independent variables and dependent variables of Hypotheses 2a, 2b, 2c and 5a were at group level, we used ordinary least squares (OLS) regression to test them. To further test the mediation effects, we adopted a bias-corrected bootstrap method, which has been confirmed as one of the best new mediation analysis methods for testing multilevel mediation effects (Pituch and Stapleton 2008; Zhang et al. 2009). Bootstrapping is considered appropriate for overcoming the shortcomings of the Sobel test, specifically, as related to the assumption of a normal distribution of the coefficients of mediation effect which could result in high Type I error rates (Vandenberghe et al. 2014).

Analysis Results

Descriptive Analysis

Table 1 presents the descriptive statistics and correlations. Organizational commitment was significantly related to team tenure and leader education. Collective efficacy was significantly related to employees' education, team tenure, and leader age. The correlations among the variables studied in the current research were all significantly related to each other. To conserve power, we only included control variables that were both related to collective efficacy and organizational commitment.

Test of Direct and Mediation Effects

Hypotheses 1a, 1b, and 1c predicted relationships between different leadership dimensions (team-level variables) and organizational commitments (individual-level variables). As a necessary precondition, we first calculated the amount of variance in the dimensions of organizational commitment within and between teams (null model). As shown in Model 1 of Table 2, for organizational commitment, the ICC(1) was 0.17, indicating that 17% of the variance in organizational commitment resided between teams and 83% within teams. A Chi-square test confirmed that variance between teams was significant. The results shown in Model 2 of Table 2 suggest that benevolent leadership and moral leadership made significant contributions to organizational commitment ($\beta_B = 0.36$, $p < 0.01$; $\beta_M = 0.43$, $p < 0.01$), while authoritarian leadership had no significant impact on organizational commitment. Thus, Hypotheses 1b and 1c were fully supported, while Hypothesis 1a was not.

Hypotheses 2a, 2b, and 2c predicted relationships between the three dimensions of paternalistic leadership and collective efficacy. Since all of them were team-level variables, we used OLS regression to test the relationships. The results in Model 1 of Table 3 show that only moral leadership made significant contributions to collective efficacy ($\beta = 0.27$, $p < 0.05$). Thus, Hypothesis 2c was supported, but Hypotheses 2a and 2b were not confirmed, which also indicates that our Hypotheses 4a and 4b failed to be confirmed.

Hypothesis 3 predicted that collective efficacy is positively related to employees' organizational commitment. As indicated in Model 3 of Table 2, collective efficacy significantly predicted organizational commitment ($\beta = 0.54$, $p < 0.01$). The decreased and marginal significant impact of moral leadership on organizational commitment shows that collective efficacy mediates the relationship between moral leadership and organizational commitment. Thus, Hypotheses 3 and 4c were confirmed.

Table 1 Descriptive statistics and correlation

Variables	Mean	SD	1	2	3	4	5	6	7
1. Employee gender	1.529	0.500	1.000						
2. Employee age	1.714	0.802	− 0.042	1.000					
3. Employee education	2.958	1.136	− 0.094	− 0.263***	1.000				
4. Employee income	1.815	0.649	− 0.256***	0.141*	0.110	1.000			
5. Employee team tenure	5.164	5.549	0.038	0.315***	− 0.054	0.178**	1.000		
6. Leader gender	1.307	0.462	0.317***	0.089	− 0.225***	0.007	0.105	1.000	
7. Leader age	2.399	0.898	− 0.059	0.253***	0.149*	0.048	− 0.047	− 0.174**	1.000
8. Leader education	3.193	1.175	− 0.153*	− 0.044	0.623***	0.064	− 0.028	− 0.218***	0.011
9. Leader team tenure	7.429	6.815	0.121	0.093	− 0.004	0.042	0.296***	0.226***	0.226***
10. Team size	5.185	1.512	− 0.063	− 0.165*	0.078	− 0.034	− 0.116	− 0.124	− 0.480***
11. Authoritarian leadership	3.904	0.528	− 0.023	− 0.022	− 0.340***	0.018	− 0.019	0.075	− 0.066
12. Benevolent leadership	4.325	0.569	− 0.067	− 0.085	− 0.066	− 0.009	0.032	0.124	− 0.030
13. Moral leadership	4.975	0.461	− 0.099	0.019	0.068	− 0.118	0.070	− 0.123	0.103
14. Collective efficacy	5.130	0.343	− 0.062	0.031	0.172**	− 0.007	0.215***	− 0.066	0.244***
15. Team cohesion	5.315	0.617	0.045	0.207**	0.066	0.095	0.143*	0.084	0.249***
16. Organizational commitment	4.765	0.789	0.007	0.104	− 0.060	0.037	0.160*	0.077	− 0.020
	8	9	10	11	12	13	14	15	16
8. Leader education	1.000								
9. Leader team tenure	− 0.189**	1.000							
10. Team size	0.094	− 0.163*	1.000						
11. Authoritarian leadership	− 0.442***	0.031	− 0.068	1.000					
12. Benevolent leadership	− 0.199**	− 0.060	0.108	0.446***	1.000				
13. Moral leadership	− 0.058	0.150*	0.070	0.219***	0.644***	1.000			
14. Collective efficacy	− 0.013	0.090	− 0.181**	0.225***	0.473***	0.573***	1.000		
15. Team cohesion	0.062	0.198**	− 0.434***	0.123	− 0.029	− 0.072	0.326***	1.000	
16. Organizational commitment	− 0.138*	0.086	0.021	0.258***	0.467***	0.434***	0.438***	0.074	1.000

Individual level $n = 238$; team level $n = 52$

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Two-tailed test

To further test Hypothesis 4c (the mediation hypothesis), we performed the bootstrap test. We bootstrapped 1000 samples to obtain a 95% bias-corrected confidence interval for the mediation effect found above. The results presented in Table 4 show that the indirect effect of moral leadership on organizational commitment via collective efficacy was significantly positive (ab = 0.139, 95% CI = [0.029, 0.342]). The results again support Hypothesis 4c. To test the robustness of the mediating results, we conducted dimension-specific tests to assess the impact on different dimensions of organizational commitment (Tables 4, 5). Overall, the results were all consistent with the results derived from generalized construct (affective commitment, ab = 0.16, 95% CI = [0.04, 0.388]; continuance commitment, ab = 0.127, 95% CI = [0.008, 0.355]; normative commitment, ab = 0.125, 95% CI = [0.017, 0.351]). The only noticeable difference was that the relationship between moral leadership and commitment is fully mediated by collective efficacy when considering commitment as a generalized construct; while in the dimension-specific tests, the moral leadership–continuance commitment and the moral leadership–normative commitment relationships were also fully mediated by collective efficacy, the relationship between moral leadership and affective commitment was only partially mediated by collective efficacy (see direct effects in Table 4). Overall, the results were all consistent with the results derived from generalized construct.

Hypotheses 5a and 5b predicted the moderating role of team cohesion. The results in Model 2 of Table 3 show that only the relationship between moral leadership and collective efficacy was negatively moderated by team cohesion ($\beta = -0.39$, $p < 0.05$). Thus, Hypothesis 5a was partially supported. We plotted the interaction in Fig. 2. It shows the relationship between moral leadership and collective efficacy is weaker when their team cohesion is high rather than when it is low, which confirms our conjecture that the functionality

Table 2 Hierarchical linear modeling results for generalized organizational commitment

Variable	The mediating effect			The moderating effect	
	M1 (OC): NULL	M2 (OC)	M3 (OC)	M4 (OC)	M5 (OC)
Level 1					
Intercept	4.75	0.61	− 0.66	− 0.23	− 0.84
Employee education		0.00	− 0.03	− 0.04	− 0.04
Employee team tenure		0.02*	0.01	0.01	0.01
Level 2					
Leader education		− 0.03	− 0.02	− 0.05	− 0.02
Leader age		− 0.02	− 0.06	− 0.06	− 0.05
Authoritarian leadership		0.12	0.06		0.03
Benevolent leadership		0.36**	0.32**		0.30**
Moral leadership		0.43**	0.26^{+}		0.26^{+}
Collective efficacy			0.54**	1.13***	0.59**
Team cohesion				− 0.08	0.02
Interaction effects					
Collective efficacy × team cohesion				0.54*	0.36

Individual level $n = 238$; Team level $n = 52$

$^{+}p < 0.1$; $*p < 0.05$; $**p < 0.01$; $***p < 0.001$

Table 3 Results of ordinary least squares (OLS) regression predicting collective efficacy

Variables	M1 (collective efficacy)			M2 (collective efficacy)		
	β	SD	95% conf. interval	β	SD	95% conf. interval
Constant	2.53***	0.46	[1.614 3.450]	2.07***	0.50	[1.052 3.077]
Education (average)	0.11^{+}	0.06	[− 0.007 0.220]	0.15**	0.05	[0.039 0.252]
Team tenure (average)	0.02*	0.01	[0.002 0.035]	0.01	0.01	[− 0.003 0.029]
Leader education	− 0.04	0.05	[− 0.130 0.056]	− 0.08^{+}	0.04	[− 0.165 0.011]
Leader age	0.07^{+}	0.04	[− 0.014 0.159]	0.06	0.04	[− 0.025 0.137]
Authoritarian leadership	0.12	0.08	[− 0.039 0.272]	0.08	0.08	[− 0.071 0.238]
Benevolent leadership	0.07	0.09	[− 0.103 0.251]	0.07	0.08	[− 0.096 0.230]
Moral leadership	0.27*	0.10	[0.067 0.475]	0.30**	0.10	[0.098 0.495]
Team cohesion				0.11^{+}	0.06	[− 0.017 0.230]
Interaction effects						
Authoritarian leadership × team cohesion				0.15	0.12	[− 0.088 0.389]
Benevolent leadership × team cohesion				0.25	0.16	[− 0.080 0.577]
Moral leadership × team cohesion				− 0.39*	0.17	[− 0.733 − 0.048]
R^2	0.53			0.65		
ΔR^2	0.46			0.56		
F	7.20***			6.84***		

Education and team tenure are calculated as the average level of each team. Team level $n = 52$

$^{+}p < 0.1$; $*p < 0.05$; $**p < 0.01$; $***p < 0.001$

and effectiveness of moral leadership is reduced in a team with strong team cohesion.

As shown in Model 4 of Table 2 (without paternalistic leadership), the interaction of collective efficacy and team cohesion was positively significant ($b = 0.54$, $p < 0.05$); while in Model 5 of Table 2 (with three dimensions of paternalistic leadership), the interaction of collective efficacy and team cohesion was not significant. Together, Hypothesis 5b was partially supported. We presented a graph of the interaction in Fig. 3. As Fig. 3 illustrates, the relationship between collective efficacy and organizational commitment is stronger when their team cohesion is high rather than when it is low.

In sum, the regression results support the mediating effect of collective efficacy in the relationship between

Table 4 Bootstrapped indirect effect results—the effect of moral leadership on commitment via collective efficacy

Model	Coefficient	Boot SE	LL 95% CI	UL 95% CI
ML-CE-OC				
Indirect effect	0.139	0.079	0.029	0.342
Direct effect	0.272	0.140	− 0.035	0.513
Robustness tests				
ML-CE-AC				
Indirect effect	0.160	0.082	0.040	0.388
Direct effect	0.300	0.130	0.007	0.519
ML-CE-CC				
Indirect effect	0.127	0.085	0.008	0.355
Direct effect	0.287	0.160	− 0.029	0.576
ML-CE-NC				
Indirect effect	0.125	0.081	0.017	0.351
Direct effect	0.212	0.169	− 0.176	0.501

Bias-corrected confidence intervals are reported. $n = 52$. Bootstrap sample size = 1000

CI confidence interval, *LL* lower limit, *UL* upper limit

leader morality and organizational commitment. Meanwhile, the results suggest that authoritarianism does not impact collective efficacy or organizational commitment and that benevolence does affect organizational commitment, but not through collective efficacy. Furthermore, team cohesion had opposite moderating effects on the moral leadership–collective efficacy and the collective efficacy–organizational commitment relationships.

Discussion

This study analyzed how paternalistic leadership influences employees' organizational commitment through their sense of collective efficacy. The results showed that two dimensions of paternalistic leadership—namely benevolent leadership and moral leadership—had a positive effect on organizational commitment, while the remaining dimension—authoritarian leadership—was not found to be related to commitment in the current study. One possible reason for why authoritarianism does not affect commitment might be that it remains as a dominant form of leadership in China due to the prevalence of Confucianism (Zhang et al. 2015; Cheng et al. 2004); therefore, one cannot escape authoritarian governance by changing organizations. This is supported by the ICC(1) for authoritarian leadership (0.14), which showed that the between variance among teams was small compared to the two other dimensions of leadership (0.22 and 0.20).

More importantly, the results showed that collective efficacy played an important mediating role between moral leadership and organizational commitment, while it was not significantly related to authoritarian leadership or benevolent leadership in this study. Specifically, collective efficacy fully mediated the relationship between moral leadership and organizational commitment. Such results indicate that moral leadership affects employees' commitment mainly through their beliefs about their joint ability. In other words, if managers act in a selfless and trustworthy manner, it will create a high level of collective belief, which in turn, will result in a higher level of commitment from employees. Our study thus emphasizes the importance of leaders behaving morally and ethically, since morality enhances subordinates'

Table 5 Hierarchical linear modeling results for three dimensions of organizational commitment (robustness tests)

Variables	Affective commitment		Continuance commitment		Normative commitment	
	M1	M2	M3	M4	M5	M6
Level 1						
Intercept	0.79	− 0.62	0.88	− 0.28	0.07	− 1.06
Employee education	0.01	− 0.02	− 0.03	− 0.06	0.02	− 0.01
Employee team tenure	0.02^{+}	0.01	0.02*	0.01	0.02^{+}	0.01
Level 2						
Leader education	− 0.03	− 0.03	− 0.04	− 0.04	− 0.00	− 0.00
Leader age	− 0.04	− 0.09^{+}	0.01	− 0.03	− 0.00	− 0.04
Authoritarian leadership	0.12	0.06	0.06	0.01	0.18	0.13
Benevolent leadership	0.28*	0.22*	0.38**	0.33**	0.48**	0.44**
Moral leadership	0.48**	0.30*	0.43**	0.27^{+}	0.34*	0.20
Collective efficacy		0.60**		0.50*		0.46*

Individual level $n = 238$; Team level $n = 52$

$^{+}p < 0.1$; $*p < 0.05$; $**p < 0.01$; $***p < 0.001$

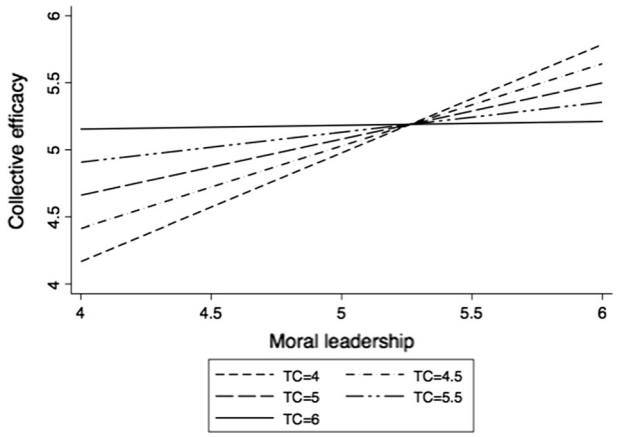

Fig. 2 Moderating effect of team cohesion (TC) on the relationship of moral leadership with collective efficacy

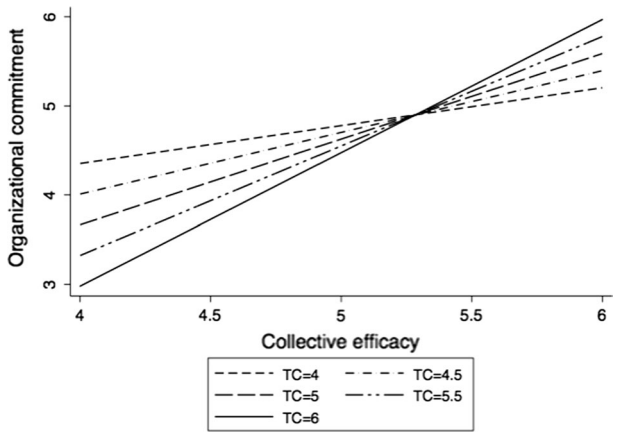

Fig. 3 Moderating effect of team cohesion (TC) on the relationship of collective efficacy with organizational commitment

perceived collective efficacy and eventually promotes their commitment to the organization.

The findings also highlight the importance of business ethics by showing that only moral leadership could affect collective efficacy. Indeed, moral leadership is important to encourage ethical behaviors as it helps to set the ethical tone and shape the behavior of all employees in the teams (Gini 1997; Newman et al. 2017). The positive relationship between moral leadership and collective efficacy in the current study implicitly suggests that ethics might play a vital role in their judgment about teams' joint ability. We believe this finding offers managers a motivation to behave ethical if they want to have a high level of collective efficacy in their teams. Further empirical study could also work on the relationship between ethics and collective efficacy.

In our study, we also found opposite moderating effects of team cohesion on the moral leadership–collective efficacy and the collective efficacy–organizational commitment relationships. Our results suggest team cohesion negatively moderated the relationship between moral leadership and collective efficacy, but positively moderated the relationship between collective efficacy and organizational commitment. These two opposite moderating effects also imply that there might be a threshold value of team cohesion that brings the most effective relationships among moral leadership, collective efficacy, and organizational commitment. Future research could explore such threshold value.

Theoretical Implications

Overall, this study enters into dialogue with previous research on the relationship between paternalistic leadership and commitment. Our research adds evidence to the argument that there is weak or negligible relationship between authoritarian leadership and organizational commitment. The research on this topic to date has been inconclusive, arguing either that authoritarianism has negligible relationship with organizational commitment (Cheng et al. 2002) or that authoritarianism correlates negatively with team members' commitment (Farh et al. 2006). Although our results do not address the issue specifically, our study supports the "negligible relationship" argument and the call for further research to strengthen our understanding of when, and under which conditions, the authoritarian component of paternalistic leadership impacts commitment (Chan et al. 2013).

Generally speaking, this study contributes to the existing literature in several ways. First, the study shows that collective efficacy is an important mediating mechanism for the relationship between paternalistic leadership and organizational commitment, complementing previous findings. Although studies do exist that focus on the mechanisms between paternalistic leadership and organizational commitment (Erben and Güneşer 2008; Ashforth et al. 2008), the question of what the underlying processes and mechanisms are by which paternalistic leaders assert their influence over employees and ultimately influence their commitment has not been fully explored. Our research contributes to the existing literature on commitment by integrating collective efficacy theory and introducing collective efficacy as an important mechanism for explaining the relationship between paternalistic leadership and employees' organizational commitment. In their study, Erben and Güneşer (2008) found that an ethical climate mediates the relationship between benevolent leadership and affective commitment. Inspired by the study conducted by Wu et al. (2010) that collective efficacy is one of the mechanisms of how transformational leadership functions, we suggest that collective efficacy mediates the relationship between moral leadership and organizational commitment. Combined with previous research, our findings imply that the relationship between

paternalism and organizational commitment is rather complicated, with benevolent leadership functioning through the ethical climate, moral leadership functioning through collective efficacy, and authoritarian leadership functioning only under certain conditions not yet identified.

Second, our study also contributes to research on the antecedents of collective efficacy. Previous studies have shown that leadership plays an important role in boosting employees' collective belief in their organizational capability. However, most of the attention has focused on transformational leadership (Wang and Howell 2012; Wu et al. 2010) or other leadership styles; seldom have researchers recognized the importance of paternalistic leadership, which is a typical leadership style in Asian countries. Our results highlight the importance of moral leadership in increasing the level of collective efficacy. In fact, transformational leadership and charismatic leadership also have an ethical or moral component. For example, idealized influence in transformational leadership means that leaders are the "role models for followers to emulate" (Brown et al. 2005, p118). Combined with previous findings that show transformational leadership also helps boost collective efficacy, it is reasonable to infer that the moral component in leadership might be the core factor exerting influence on collective efficacy.

Third, our study adds to the literature on business ethics (Newman et al. 2017) by showing it is the moral aspect of leadership that impacts individual-level organizational commitment through a team-level mechanism of collective efficacy, expanding the dominating focus in business ethics on individuals as unit of analysis to a cross-level focus involving individuals in teams. Also, our study strengthens the importance of moral leadership by pointing out that it is the only component that can affect collective efficacy. Previous studies have also noticed the importance of leaders' ethical behavior (Demirtas, and Akdogan 2015; Newman et al. 2014), however, they did not focus on the relationship between moral leadership and collective efficacy. Our study adds to previous viewpoint by suggesting that moral leadership could improve subordinates' collective belief about their ability, which highlights the importance of ethics in enhancing team members' beliefs about their teams' capability.

Finally, with the consideration of team cohesion as a moderator, this article also contributes to the research on team-level moderators of how subordinates react to paternalism. A number of studies have examined the key contingencies that can affect the functions of paternalism. But most of them considered the individual differences among members on variables such as trust (Ötken, and Cenkci 2012), role identity (Wang and Cheng 2010) and perceived job security (Wang et al. 2017). Following the call by Pellegrini and Scandura (2008), recently some studies have started to focus on team-level moderators like power distance climate (Schaubroeck et al. 2017). Our study thus enriches the research on team-level moderators by suggesting the role team cohesion plays in the relationship among moral leadership, collective efficacy, and organizational commitment.

Specifically, research on team cohesion has traditionally emphasized the positive consequences of it such as increased individual attitude (Wech et al. 1998; Onag and Tepeci 2014). Consistent with previous studies that team cohesion is beneficial to certain positive outcomes (Wech et al. 1998; Onag and Tepeci 2014), we found that collective efficacy has a stronger impact on employees' commitment when team cohesion is high. However, the findings also reveal negative consequences of team cohesion: It attenuates the positive effect moral leadership has on collective efficacy. This extends the recent finding that team cohesion also has a dark side (Wise 2014) by highlighting the substitution effect it could bring. A too cohesive team might result in team members spending more time in building internal ties, getting more information and help from team members instead of receiving guidance from team leaders. This substitution effect eventually reduces the effect moral leadership has on employees' perceived collective efficacy.

Managerial Implications

The results show that the three dimensions of paternalistic leadership do not function equally. In accordance with previous findings, authoritarianism may be the least useful leadership behavior for predicting commitment (Chen et al. 2014). The results suggest that leaders should emphasize benevolence and morality over authoritarianism if they wish to improve their subordinates' commitment to the organization. In our robustness test (Table 5), it also seems as if benevolent leadership and moral leadership influence commitment differently depending on the type of commitment. While, they seem to have an equal impact on continuance commitment, moral leadership is apparently more powerful in promoting affective commitment and benevolent leadership more powerful in promoting normative commitment.

Based on the findings, we surmise the following managerial implications. The first concerns selecting leaders. To enhance employee commitment, organizations should select leaders with high integrity, who will provide their subordinates with care, protection, and guidance. These are the behaviors most conducive to enhancing employee commitment to their organization. To boost the perceived collective efficacy in organizations, greater attention should be paid to moral leadership, rather than benevolent leadership; training courses should be offered to improve the moral virtues of the supervisor and to guide them how to act in an ethical manner and serve as role models for their subordinates.

Second, since collective efficacy helps enhance employee commitment, its importance should be embedded in efforts

to secure organizational commitment. Human resource management could design routines to help improve collective efficacy. There are four information sources that promote a perceived sense of collective efficacy: mastery experience, vicarious experience, verbal persuasion, and affective states. A managerial practice aimed at improving collective efficacy could be developed based on these four information sources.

Third, the negative moderating role of team cohesion in relationship between moral leadership and collective efficacy suggests that moral leadership could be an alternative to enhance collective efficacy when team cohesion is low. In particular, for those newly founded teams that have low team cohesion at the beginning, exerting moral leadership could be an ideal way to improve team members' joint belief about their teams' capabilities.

Limitations and Future Research

While the current study provides several contributions to the extant literature, its limitations should be noted. First, since we collected data related to the three concepts at the same time, the causality among them might be questionable. Our causality in the model relies more on a theoretical than an empirical foundation. As pointed out by Kim et al. (2016), p. 277), "the mechanism movement in the social sciences is primarily concerned with the nature of explanations, not about causality or methods for establishing it." We developed our hypotheses theoretically based on previous findings and theories related to the variables researched in the current paper. Meanwhile, a subjective explanation also makes it reasonable to suggest a mutual relationship between employee commitment and collective efficacy. Thus, we believe further longitudinal research is needed to shed light on the dynamics and causality of these relationships.

Second, we recognize that our findings may not be generalizable to high-tech firms and foreign companies. The findings in this paper are based on manufacturing samples. High-tech firms in China might have a different leadership climate. Research has indicated that the high-tech and manufacturing industries differ in terms of business environment (Chen and Wu 2007). Compared to manufacturing, high-tech firms tend to be characterized by high-speed innovation, which is generally considered to be an outcome of transformational leadership (Elenkov and Manev 2005; Jaiswal and Dhar 2015). It is therefore logical to infer that the leadership style of high-tech firms in China might combine paternalistic and transformational features, since the leaders of these firms are more likely to employ individuals with a higher education who are more open-minded and cosmopolitan. Meanwhile, foreign companies have a different company culture than Chinese companies, but in order to communicate with the Chinese market, most of them choose local people to manage their branches in China. In such a context, those managers might also adopt a combination style of paternalistic leadership and transformational leadership. Further study is needed to examine how paternalistic leadership coexists with transformational leadership and other styles of leadership in joint ventures.

Finally, the fact that our research context was restricted to a single culture prevents us from testing the causative influence of that context. Today, the overlap between the different findings on the relationship between paternalistic leadership and organizational commitment under different contexts suggests that culture may be an important factor influencing the relationship. However, in their recent meta-analysis looking into the relationships between leadership, commitment, and culture, Jackson et al. (2013) unfortunately did not include paternalistic leadership, which our study has verified as being positively related to commitment. More work is needed in the future to gain a deeper understanding of the cultural dependence of these relationships. Future research should also include samples from multiple cultures to explore how different cultural values, such as power distance and rationalism, influence the responses to paternalistic leadership.

Conclusion

Today, paternalistic leadership is still an exciting area for research. Different research results indicate that much more remains to be done to unveil the essence of this leadership style. Our study illustrates that collective efficacy is an important mechanism in explaining why moral leadership generates such high levels of organizational commitment, and interestingly, the findings also reveals both negative and positive consequences of team cohesion. Thus, our model helps explain the interplay of paternalistic leadership, collective efficacy, organizational commitment, and team cohesion. We hope that it prompts further research into the effects of the three different dimensions of paternalistic leadership and the different mechanisms through which they work.

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Compliance with Ethical Standards

Conflict of interest Author Ying Chen declares that she has no conflict of interest. Author Xiaohu Zhou declares that he has no conflict of interest. Author Kim Klyver declares that he has no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Appendix

Collective efficacy

1. This team can achieve its task without requiring us to put in unreasonable time or effort.
2. Our team members assist members who are having difficulty with certain tasks.
3. Our team members can adapt to changes in group tasks or goals.
4. Our team has the professional skill to perform certain tasks.
5. Compared to other teams, our team has better competency.
6. Our team could overcome many challenges.
7. Our team could commit to high goals.

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