UNIVERSITY OF LEEDS

This is a repository copy of *How a Grateful Leader Trait Can Cultivate Creative Employees: A Dual-Level Leadership Process Model*.

White Rose Research Online URL for this paper:
https://eprints.whiterose.ac.uk/169437/

Version: Accepted Version

Article:
Li, C, Wu, C-H orcid.org/0000-0002-8011-6323, Brown, ME et al. (1 more author) (2022) How a Grateful Leader Trait Can Cultivate Creative Employees: A Dual-Level Leadership Process Model. The Journal of Positive Psychology, 17 (3). pp. 389-399. ISSN 1743-9760

https://doi.org/10.1080/17439760.2021.1871941

© 2021 Informa UK Limited, trading as Taylor & Francis Group. This is an author produced version of a journal article published in The Journal of Positive Psychology. Uploaded in accordance with the publisher's self-archiving policy.

Reuse
Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown
If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

White Rose university consortium
Universities of Leeds, Sheffield & York

eprints@whiterose.ac.uk
https://eprints.whiterose.ac.uk/

How a Grateful Leader Trait Can Cultivate Creative Employees:

A Dual-Level Leadership Process Model

Chenwei Li, Ph.D. (Corresponding author)
Associate Professor of Management
Management Department
Lam Family College of Business
San Francisco State University
1600 Holloway Avenue,
San Francisco, CA 94132
Tel: (+1) 310-429-5083
cwli@sfsu.edu

Chia-Huei Wu, Ph.D.
Leeds University Business School
University of Leeds
Leeds LS6 1AN
chiahuei.wu@gmail.com

Michael E. Brown, Ph.D.
Professor of Management
Department of Management
School of Business
The Pennsylvania State University, Behrend
0281 Jack Burke Res Center
Behrend, Erie, PA, 16563
Meb239@psu.edu

Yuntao Dong, Ph.D.
Associate Professor of Management
Guanghua School of Management
Peking University
5 Yiheyuan Rd
Haidian Qu, China, 100871
yuntao.dong@gsm.pku.edu.cn

How a Grateful Leader Trait Can Cultivate Creative Employees:

A Dual-Level Leadership Process Model

Abstract

Does trait gratitude shape leaders' behavior and thus followers' outcomes? We developed and tested a model linking leader's trait gratitude to ethical leadership and leader-member exchange (LMX), and examine their impacts on followers' felt psychological safety and thus creativity at work. Using multi-wave, multi-source survey data from 295 subordinates and 76 supervisors, we found that leader's trait gratitude was positively associated with ethical leadership at the team level and LMX at the individual (follower) level. In turn, both ethical leadership and LMX contribute to followers' felt psychological safety and ultimately improve creative performance at work. Our study extends gratitude research by examining how trait gratitude can shape leadership influence on followers.

***Keywords*:** trait gratitude; ethical leadership; LMX; psychological safety; employee creativity

Introduction

Gratitude, as an affective trait, is defined as "a generalized tendency to recognize and respond with grateful emotion to the roles of other people's benevolence in the positive experiences and outcomes that one obtains" (McCullough, Emmons, & Tsang, 2002, p. 112). Individuals who possess this trait experience grateful moods and emotions more frequently and intensely (McCullough et al., 2002; McCullough, Tsang, & Emmons, 2004). Trait gratitude has been linked to various positive individual outcomes, such as higher levels of well-being (e.g., Lavelock et al., 2016; Wood, Froh, & Geraghty, 2010), stronger prosociality (e.g., Ma, Tunney, & Ferguson, 2017) and better interpersonal relationships (Gordon, Impett, Kogan, Oveis, & Keltner, 2012). Findings so far suggest that people higher in trait gratitude enjoy better social lives than those lower in trait gratitude.

Although the function of trait gratitude in shaping one's social behavior and relationship has been widely examined, whether and how trait gratitude can also play a role in a leadership process has not been investigated. Does trait gratitude shape leaders' behavior and thus followers' outcomes? As trait gratitude is a moral affective trait that not only strengthens moral sentiment, modeling, and reinforcement (McCullough, Kilpatrick, Emmons, & Larson, 2001) but also facilitates prosociality and relationship building (e.g., Algoe, 2012), we believe that trait gratitude will shape leaders' behavior to uphold ethical standards and principles when

leading the team and help leaders to build positive relationships with followers. In other words, we expect that leaders with different levels of trait gratitude will differ in their leadership behavior and relationships building with followers which then shape their followers' behavior.

In this study, we propose that leaders high in trait gratitude are likely to adopt ethical leadership behaviors to build a collective, ethical environment in the work team as well as to build higher quality of leader-member exchange (LMX) relationships with followers. Their ethical leadership style and the higher quality of LMX relationships with followers will in turn foster employees' psychological safety in the work team (i.e., the belief that taking risk will not lead to personal harm or negative consequences; Liang, Farh, & Farh, 2012), and enhance employees' creativity at work (i.e., engagement in the generation of novel and useful ideas for products, processes, or services) (Amabile, 1997). Figure 1 presents the proposed dual-level process model (i.e., ethical leadership at the team level and LMX relationships with followers at the follower level). Our study extends gratitude research by examining the role of leaders' trait gratitude in shaping leadership process and employee' performance, extending our understanding on how trait gratitude can shape leadership influence on followers.

Insert Figure 1 about here

Leader's trait gratitude and ethical leadership

We first propose that leaders with high trait gratitude are more likely to demonstrate ethical leadership when managing their work team/unit. Ethical leadership is defined as a leader's "demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to employees through two-way communication, reinforcement, and decision-making" (Brown, Trevino, & Harrison, 2005: 120). According to this conceptualization, ethical leaders are both moral as a person and moral as a manager. Moral individuals are honest and trustworthy, care about others, and make principled decisions (Trevino, Hartman & Brown, 2000). Moral managers are role models for ethical conduct, who set and communicate high ethical standards and reinforce them by punishing morally unacceptable actions (Trevino et al., 2000). Ethical leadership is often conceptualized as operating at the unit level via which leaders seek to influence all followers in the unit as a whole. In other words, an ethical leader will demonstrate ethical leadership toward all and not just a few selected followers (Brown & Mitchell, 2010; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Trevino, Brown, & Hartman, 2003).

We expect that leader trait gratitude will be positively associated with ethical leadership because it enhances leaders' sensitivity to others' moral actions as well as to the ethical implications of their own decisions, particularly if others may suffer from their (in)action

(McCullough, et al., 2001). Gratitude also enables leaders to act prosocially (Bartlett & DeSteno, 2006; Grant & Gino, 2010; Michie, 2009) and to ensure that they treat all followers fairly (McCullough et al., 2001; McCullough et al., 2004; Tsang, 2006). Thus, the grateful disposition motivates leaders to take ethical action as well as make ethical decisions (Emmons, 2006), avoid destructive interpersonal behaviors (Baron, 1984), and demonstrate concern for others. Finally, gratitude encourages leaders to demonstrate strong moral management by directing employees' attention to and holding them accountable for upholding ethical standards. Overall, we expect grateful leaders to exhibit ethical leadership uniformly toward all followers in the work team. Our theorizing suggests that trait gratitude promotes a consistent way of thinking, feeling, and behaving on the part of the leader when interacting with all followers (regardless of whether they have done something beneficial to the leader). Based on these arguments, we hypothesize:

Hypothesis 1: Leader's trait gratitude is positively related to ethical leadership at the team level.

Leader's trait gratitude and LMX

Leader trait gratitude will also be an important antecedent of high-quality LMX relationships, which are characterized by high levels of emotional support, resource exchange, and interpersonal trust (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012). Specifically, leader gratitude can facilitate the relationship-building process, especially through leader-member

social (as opposed to transactional) exchange (Algoe, 2012; Bartlett, Condon, Cruz, Baumann, & Desteno, 2012; Emmons & Crumpler, 2000; Graen & Uhl-Bein, 1995; Greguras & Ford, 2006). Grateful leaders are particularly effective in developing strong personal relationships with their followers (Algoe, 2012). They show genuine appreciation for the work of their followers, are willing to provide support to individual followers (Algoe, Haidt, & Gable, 2008; Algoe, Kurtz, & Hilaire, 2016), and are generous in giving credit to the followers for their success (Threlfall, 2016). Followers respond positively to the treatment they receive from grateful leaders, showing great respect for and trust in their leader and being willing to work harder because they are acknowledged and appreciated (Algoe et al., 2016; Grant & Wrzesniewski, 2010). The positive interaction between a grateful leader and his or her followers results in a higher quality of social exchange relationship.

The development of high-quality LMX, however, is not solely determined by the leader but also by each follower. LMX assumes that leader-follower relationship quality varies across individual followers (Danserau, Graen, & Haga, 1975; Graen & Uhl-Bein, 1995). The differentiation in LMX relationships results from the role making process, in which the leader and his/her individual followers develop role expectations during initial interactions (Dienesch & Liden, 1986; Graen & Uhl-Bein, 1995). In other words, LMX is a dyadic relationship between a leader and a follower, and the quality of LMX usually varies across different individual

followers. Although we suggest that grateful leaders are more likely to develop high-quality LMX with their followers, the quality of LMX relationships also depends on each follower's contribution to the social exchange process. In recognition of the dyadic nature of LMX, we operationalize LMX at the individual (follower) level rather than at the team level. Taken together, we hypothesize:

Hypothesis 2: Leader's trait gratitude is positively related to high-quality LMX at the individual level.

Ethical Leadership, LMX, and Followers' Psychological Safety

We next propose that ethical leadership and LMX can foster followers' psychological safety. Ethical leadership can foster followers' psychological safety because leaders showing ethical leadership styles are trustworthy, fair, principled, and role models of ethical conduct (Trevino et al., 2000), which make followers more comfortable when taking personal risks. By employing ethical leadership, leaders can assure their followers that they will be treated fairly even if they express different opinions and initiate changes at work. Leaders showing ethical leadership will also regulate individual followers' behavior and correct those that are not ethically accepted. Therefore, followers may perceive that taking risk is not likely to be harmful and lead to undesirable personal outcomes. Previous research has established that the positive relationship between ethical leadership and the development of individual psychological safety

(Men, Fong, Huo, Zhong, Jia, & Luo, 2018).

Hypothesis 3: Ethical leadership is positively related to psychological safety at the individual level.

We also expect high-quality LMX to prompt followers' sense of psychological safety. A follower tends to feel less threatened when the leader is more available and accessible (Edmondson, 2004). Also, a follower who enjoys a strong LMX relationship will feel safe to go beyond his or her job requirements due to feeling valued and supported by their leader and understanding the leader's expectations (Graen & Uhl-Bein, 1995; Henderson, Liden, Glibkowski, & Chaudhry, 2009). Consequently, individual employees who have stronger LMX relationships with their leaders will have a stronger sense of psychological safety.

Hypothesis 4: LMX is positively related to psychological safety at the individual level.

Followers' Psychological Safety and Creativity

Having a sense of psychological safety can contribute to followers' creativity at work because psychological safety acts as a buffer against the potential risks of creativity. Creativity scholars suggested that engaging in creative behavior is not without costs for employees. Employees who pursue creativity may be ignored, ridiculed, or criticized because their ideas are deviant from the commonly accepted ones (Sternberg, 2006), and they may have to sacrifice their routine job performance when developing creative ideas (Mumford, Scott, Gaddis, &

Strange, 2002). All of these can in turn increase their personal stress or even lead to a stalled career for those employees (e.g., Mueller, Melwani, & Goncalo, 2012). When an employee feels safe, he/she is more assured that the potential mistakes and failures associated with creativity will not lead to personal harm. Psychological safety makes the person feel more at ease to tackle difficult problems and propose novel ideas. Prior research has suggested that creative idea generation occurs more often when individuals are free from psychological threats and feel safe in their work environment (e.g., Kark & Carmeli, 2009; Madjar & Ortiz-Walters, 2009). For example, Kark and Carmeli (2009) established a positive relationship between an employee's psychological safety and creative work involvement. Other researchers have suggested that psychological safety encourages people to engage in learning behaviors, which are essential for diverse information search and integration, problem redefinition, and ultimately their potential for generating novel ideas (Baer & Frese, 2003; Edmondson, 1999).

Hypothesis 5: Followers' psychological safety is positively related to their creativity.

Integrated Model of Leader Gratitude and Employee Creativity

Thus far, we have explicated that leaders' trait gratitude influences followers' creativity through serial (two-stage) mediating mechanisms at the unit and the individual level. Consistent with the stance that leaders' traits are not salient to employees unless they are expressed in leaders' behaviors and relationship buildings toward employees (Hughes, Ginnett, & Curphy,

2015), we argued that leaders' trait gratitude facilitates ethical leadership toward all followers as well as high-quality LMX with individual followers, both of which will in turn make employees feel safe to engage in creative behaviors. Taken together, we propose an integrated mediation model with a dual process and two-stage mediators:

Hypothesis 6: Leader gratitude is indirectly related to followers' creativity through the serial mediating effects of ethical leadership (as a shared perception of all followers) and psychological safety.

Hypothesis 7: Leader gratitude is indirectly related to followers' creativity through the serial mediating effects of LMX (as perceived by individual followers) and psychological safety.

Method

Participants and Procedures

The data were collected from a state-owned semiconductor company in China. The Chinese semiconductor industry is highly competitive. Companies in this industry need strong leadership and creativity to remain competitive and continue to thrive. Therefore, this is an appropriate setting to study gratitude, ethical leadership, LMX, and their impacts on employees' creativity.

With the support and help from the Human Resources (HR) department, we collected

data from leaders and their followers at three time points. Collecting data from multiple sources in a multi-wave design (Time 1 – Time 3 series) helped to mitigate the threat of common method bias (Podsakoff, MacKenzie, Podsakoff, 2012). At Time 1, we sent an email invitation to invite all 80 leaders and 400 followers identified by the HR department to participate in the study. The invitation contained a URL link to the survey as well as a unique code that was used to match leaders' and followers' responses to maintain confidentiality. Followers were asked to provide their demographic information (age, gender, and tenure), perceived ethical leadership, LMX, and negative affectivity (a control variable). The leaders were asked to provide demographic information (age, gender, and tenure) and self-report their trait gratitude and negative affectivity (a control variable). We received completed surveys from 327 followers and 76 leaders, resulting in an 82% response rate for followers and a 95% response rate for leaders. At Time 2, about one month later, followers who completed the Time 1 survey were again invited to fill out an online survey that asked for their perception of psychological safety. We obtained 309 completed follower surveys (a 77% response rate). At Time 3, about three months later, leaders of the 309 subordinates who had completed both Time 1 and Time 2 surveys were invited to evaluate their followers' creativity.

After excluding respondents whose leader did not provide complete data on their creativity and whose surveys had too many missing values, our final sample consisted of 295

followers who reported to 76 leaders (approximately 4 subordinates for each supervisor). Among the followers, 66% were male, the average age was 29.7 years old, 93% had a Bachelor or higher degree, and their job tenure was 4.6 years on average. Among the 76 leaders, 66% were male, the average age was 36 years old, 99% had a Bachelor or higher degree, and the average job tenure was 7 years.

Measures

Chinese versions of the psychological safety measure (Liang et al., 2012) and the creativity measure (Farmer, Tierney, & Kung-Mcintyre, 2003) were obtained from the publishers. The remaining measures were translated from English into Chinese, then back translated to English by a panel of bilingual experts, following the translation and back translation procedures advocated by Brislin (1980). Any resulting discrepancies were then discussed and resolved (see Appendix for specific items). All items were rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree) unless indicated otherwise.

Leader trait gratitude. Leader trait gratitude was measured by a six-item scale developed by McCullough et al. (2002). This measure was designed to assess leaders' general tendency of gratitude. A sample item is "If I had to list everything that I felt grateful for, it would be a very long list." Cronbach's alpha for gratitude was 0.75.

Ethical leadership. Ethical leadership was measured using a 10-item scale developed by

Brown and associates (2005) to measure one's perceived ethical behaviors of his/her supervisor. Sample items include "My supervisor conducts his or her personal life in an ethical manner" and "My supervisor disciplines employees who violate ethical standards." Cronbach's alpha for individual-level perceived ethical leadership was .92. To assess the overall pattern of the leadership behaviors displayed to the entire group, we calculated within-group agreement ($R_{wg(j)}$) and two intraclass correlations (ICC1 and ICC2). Following James, Demaree, and Wolf (1984) and Biemann, Cole, and Voelpel (2012), within-group agreement was assessed by computing James et al.'s $R_{wg(j)}$, which is based on uniform null distribution in the expected variance. The mean value of $R_{wg(j)}$ for ethical leadership is .89, which was above the acceptable cut-off point of .70. A one-way analysis of variance was conducted and significant between-groups variance was found for ethical leadership (F (75, 227) = 4.27, $p < 0.001$). Using the results from the variance component analysis, the value of intraclass correlation (ICC1) was .44 and the reliability of group mean (ICC2) was .75 for ethical leadership. The value of ICC2 was higher than the recommended criterion of .70 (Bliese, 2000). All these values were comparable to the median ICC values in prior ethical leadership studies (e.g., Walumbwa & Schaubroeck, 2009; Walumbwa, Mayer, Wang, Wang, Workman, & Christensen, 2011). Therefore, the aggregation of ethical leadership was supported.

LMX. Leader-member exchange (LMX) was measured with a seven-item scale developed

by Scandura, Graen, & Novak (1986) to assess the quality of the relationship between team members and their leaders. An example item is "I usually know where I stand with my immediate supervisor." The Cronbach alpha for LMX was .89.

Psychological safety. Individual-level psychological safety was measured using Liang et al.'s (2012) 5-item scale. This scale was developed in Chinese. Sample items include "In my work unit, I can express my true feelings regarding my job" and "In my work unit, I can freely express my thoughts." Cronbach's alpha for perceived psychological safety was .71.

Employee creativity. Creativity was measured using a supervisor-rated four-item scale developed by Farmer et al. (2003). This scale was originally developed in Chinese to assess individuals' creativity level in the workplace. Sample items are "tries new ideas or methods first" and "seeks new ideas and ways to solve problems." Cronbach's alpha for creativity was .76.

Control variables. We controlled supervisors' demographics (i.e., age, gender and position level) and negative affectivity (Watson, Clark, & Tellegen, 1988) for the relationship between leader trait gratitude and ethical leadership as well as the relationship between leader trait gratitude and LMX. These variables have been suggested to influence subordinates' perception of supervisors' leadership behaviors (Mayer et al., 2009; Podsakoff et al., 2012). Negative affectivity was measured using a seven-item scale developed by Watson et al. (1988). A sample item is "Have you felt you just couldn't get going?" Items were rated on a 5-point

scale ranging from 1 (never) to 5 (always). Cronbach's alpha for negative affectivity was .90 in the leader sample. For the relationship among ethical leadership, LMX, psychological safety, and employee creativity, we controlled for followers' demographics (age, gender, and tenure) and negative affectivity because these variables have been found to affect employee creativity (Anderson, Potočnik, & Zhou, 2014). Cronbach's alpha for negative affectivity was .89 for the subordinates.

Analytical Strategy

As we asked leaders to rate multiple followers' creativity, our sample had a multilevel structure. Therefore, we employed a multilevel integrated path-analytic model to take into account the nested nature of the data and test for the mediation and moderation effects using MPLUS 6.1 (Muthen & Muthen, 1998-2015). In comparison to the piecemeal approach, this integrated approach does not require multiple stages of analysis and generates estimates that are less biased (Edwards & Lambert, 2007; Preacher, Zhang, & Zyphur, 2011). In addition, because the traditional resampling method (e.g., bootstrapping) cannot be applied to multilevel models and the sampling distribution of the indirect effect is skewed, especially in small samples, we used a Monte Carlo simulation procedure to test the conditional indirect effects (Preacher & Selig, 2012; Preacher, Zyphur, & Zhang, 2010).

Results

Descriptive Statistics and Correlations

Table 1 presents means, standard deviations, internal consistency reliabilities, and intercorrelations of all variables. Results showed that leaders' trait gratitude was positively related to ethical leadership ($r = .42$, $p < .01$) and LMX ($r = .29$, $p < .01$). Ethical leadership ($r = .48$, $p < .01$) and LMX ($r = .44$, $p < .01$) were then positively correlated with followers' psychological safety. As expected, psychological safety was positively related to followers' creativity ($r = .30$, $p < .01$).

Insert Table 1 about here

Testing Main Effects and Mediation Effects

To test the hypothesized main and mediation effects, we first estimated a mediation model that specified the effect of trait gratitude on ethical leadership and LMX as well as the effect of ethical leadership and LMX on employee creativity through psychological safety. We also controlled for the direct effect of trait gratitude on creativity. In addition, relevant control variables were included at each stage of analysis. The unstandardized coefficient estimates for the model are summarized in Table 2.

Insert Table 2 about here

Results show that the data fit this cross-level baseline mode well ($\chi 2$ (42) = 292.13, RMSEA = .05, CFI = .94, SRMR (within) = .01, SRMR (between) = 0.08). After controlling for leaders' gender, age, position level, and negative affectivity, leader trait gratitude had a significant positive relationship with ethical leadership at the unit level (γ = .34, p < .001), supporting Hypothesis 1. We also found that leader trait gratitude was positively related to individual-level LMX (γ = .30, p < .01). Therefore, Hypothesis 2 was supported. Hypothesis 3 predicted that ethical leadership was positively related to employees' psychological safety. As shown in Table 2, after controlling for followers' age, gender, and negative affectivity, there was a positive relationship between ethical leadership and individual-level psychological safety (γ = .46, p < .001), supporting Hypothesis 3. LMX was positively related to psychological safety (γ = .16, p < .05). Therefore, Hypothesis 4 received support. Finally, employees' psychological safety was positively related to leader ratings of employee creativity (γ = .21, p < .05), supporting Hypothesis 5.

A Monte Carlo mediation analysis revealed that the indirect relationship between leader trait gratitude and creativity through ethical leadership and psychological safety was significant (indirect effect = 0.033; SE = 0.018; 95% Confidence Interval = [0.005, 0.074]). Therefore,

Hypothesis 6 was supported. Finally, the Monte Carlo mediation analysis revealed that the indirect relationship between leader trait gratitude and creativity through LMX and psychological safety was significant (indirect effect = 0.011; SE = 0.009; 95% Confidence Interval = [0.001, 0.032]). Hypothesis 7 was supported.

Discussion

We hypothesized and tested a multi-source, multi-stage model that explains how leader trait gratitude contributes to followers' creativity. We found that leaders high in trait gratitude were more likely to demonstrate ethical leadership toward their work team and establish individualized high-quality LMX relationships, which, in turn, fostered individuals' psychological safety and ultimately, employee creativity.

Theoretical and Practical Implications

To the best of our knowledge, our study provides the first evidence of the indirect influence of leader trait gratitude on employee creativity and thus adds to the emerging literature documenting the positive effect of gratitude. Thus far, research on gratitude has focused on the intrapersonal benefits of gratitude. For example, previous research found that grateful people tended to report higher levels of well-being (e.g., Chen & Wu, 2014; Wood et al., 2010), higher quality in their relationships (Algoe et al., 2008; Gordon et al., 2012), and more frequent engagement in prosocial behaviors (Bartlett et al., 2012; Bartlett & DeSteno, 2006; Grant &

Wrzesniewski, 2010). Complementing these studies, our findings reveal that gratitude helps leaders unleash employees' potential for creativity that benefits a third party such as the work teams, and not just the leader or follower. Overall, our results point to a social influence function of gratitude and suggest that future researchers should examine other consequences of gratitude that go beyond the benefactor-recipient relationship (Fehr, Fulmer, Awtrey, & Miller, 2017). For example, given that leader trait gratitude is related to ethical leadership, which has been shown to have important implications in the workplace (Ng & Feldman, 2015), our results suggest that leader trait gratitude might have other indirect effects on other important outcomes in the workplace, especially those from an ethical perspective, such as whistleblowing or workplace deviance, which can be examined in the future.

Our study also extends gratitude research in the workplace. Although several studies have discussed (e.g., Fehr et al., 2017) or examined the role of gratitude in shaping workplace behavior (e.g., Cain, Cairo, Duffy, Meli, Rye, & Worthington, 2019; Ford, Wang, Jin & Eisenberger, 2018; Michie, 2009; Spence, Brown, Keeping & Lian, 2014), the impact of gratitude in organizations has not been thoroughly studied. Our study is unique in that we focus on leaders' trait gratitude and how this dispositional gratitude can shape their behaviors in the leading process and exert positive influences on employee outcomes such as creativity. Moreover, our study extends gratitude research to the team context, a context that has been rarely

investigated to date. Gratitude in organizations is crucial because it shapes team environment and plays an important role in enhancing team members' productivity and performance (Edmondson, 2002). Our study provides some initial evidence that leaders' trait gratitude can impact their way of leading a team and its individual members and promote psychological safety among employees. To further understand how gratitude can play a role in the work setting, more studies should be done to unpack alternative mechanisms through which gratitude can play a role in driving, shaping and facilitating organizational operations at different levels (i.e., individual employees, supervisor-subordinate dyads, teams or organizations) (e.g., Fehr et al., 2017; Müceldili, Erdil, Akgün, Keskin, 2015).

By taking into account the influence of leaders' gratitude, our study adds to the creativity literature and enriches the antecedent equation of employee creativity. Hughes and associates (2018) pointed out in their review that prior creativity research has mostly focused on the impact of leader styles such as transformational leadership (e.g., Detert & Burris, 2007) on creativity and paid little attention to leader personality and traits. They suggested that future research on leadership and creativity should "supplement or move beyond the focus on leader styles to explore the effects of leader characteristics such as traits" (p. 564). Our study responds to their call by showing that a leader's affective trait—gratitude—was significantly associated with follower creativity. As such, in contrast to the conventional focus on leaders' capability and

styles in driving employees' creativity (Anderson et al., 2014; Hughes, Lee, Tian, Newman, & Legood, 2018), our study helps identify that leaders with trait gratitude can spark employees' creativity. Moreover, our study takes one step further by examining the impact of leader moral traits on followers' creativity through ethical leadership and LMX (a dual leadership process), and followers' enhanced psychological safety. This integrative model allows us to examine the nuanced aspects of leadership on follower creativity.

To the leadership study, our study provides an integrative leader trait-behavior model and informs who (grateful leaders) can facilitate employees' creativity, how to achieve this goal (i.e., ethical leadership and LMX), and why it works (i.e., psychological safety). Although leadership has been recognized as a cross-level phenomenon that can be directed at the unit as a whole or at individual followers in the unit (e.g., Chen & Kanfer, 2006), prior research has not offered an integrative trait-behavior model (an approach that considers both leader traits and behaviors; DeRue, Nahrgang, Wellman, & Humphrey, 2011) to examine these forces simultaneously. We strengthen the integrative trait-behavior approach by simultaneously examining a moral trait (leader gratitude), a moral style of leadership (ethical leadership), and leader-follower relationship quality (LMX) as predictors for employees' psychological safety and creativity. This is an important distinction from the previous research because leader traits have yet to be fully integrated with leadership behaviors when studying the impact of leadership on employee

outcomes (DeRue et al., 2011; Meuser, Gardner, Dinh, Hu, Liden, & Lord, 2016). In addition, our study expands the integrative trait-behavior approach to leadership in a multi-wave, multi-stage, cross-level framework. While the integrative trait-behavior approach emphasizes the importance of considering leaders' traits and behavior at the same time, we suggest the need to examine the leader's impact at both the team and the individual levels so as to fully understand the trait-behavior leadership process. This extension helps delineate how leaders' traits can influence different leadership processes.

Our study offers two practical implications. First, the positive relationships between leader trait gratitude, ethical leadership, and LMX have implications for human resource management and leadership development. When identifying or selecting future leaders, organizations might look for candidates who are high in trait gratitude, as they have the predisposition to develop into ethical leaders and can foster high-quality LMX with individual followers, which foster their creativity. Second, organizations might consider gratitude training as part of their leadership development efforts. Although we conceptualized gratitude as a personality trait (which assumes it is relatively stable and immutable), positive psychology research has suggested that gratitude can also be a skill that can be learned (Martinuzzi & Freeman, 2009). Regardless of the assumption one makes about the malleability of gratitude, we believe it is beneficial to encourage leaders and followers to demonstrate gratitude in the

workplace. Our research shows that grateful leaders help followers to flourish in that followers who work for grateful leaders are more likely to perceive their leaders as ethical, enjoy high quality leader-member relationships, and ultimately feel safe to engage in creative behaviors.

Limitations and Future Research Directions

Our work has several limitations. First, we did not measure all of the variables at each time point. Even though we collected data from different sources at three time points, we cannot conclusively determine the causal relationships among our research variables. For example, we cannot rule out the possibility that employee creativity contributes to leaders' gratitude at work. Longitudinal studies are thus needed to determine the potentially dynamic and reciprocal nature of the leader gratitude – employee creativity relationship. Also, it is possible that leaders with high levels of trait gratitude may see their followers as more creative due to the tendency to view others positively (e.g., Wood et al., 2010). Therefore, we recommend researchers to obtain objective measures of creativity or creativity ratings from other sources such as coworkers to address this issue and complement our study.

Second, although we do not expect our findings to be unique to any specific culture, our use of the Chinese sample may cast some doubt on the generalizability of our findings to other cultures. In addition, as our study is the first one examining the link between leaders' trait gratitude and employee creativity, more studies are needed to cross-validate our findings using

samples drawn from different cultures.

Third, in this study we focused on leadership processes that can promote employee creativity as elicited by leaders' trait gratitude. However, there could be other mechanisms to explain the connection between gratitude and creativity. For example, because gratitude is by definition a moral emotion, leaders who are prone to feeling and expressing grateful emotions may also elicit employees' grateful emotions via a contagion process. Thus, employee gratitude could motivate employees to give back to their work unit or organization through creative or other behaviors (Grant & Wrzesnieswski, 2010). Alternatively, leader gratitude may trigger stronger employee identification with or commitment to the leader and organization, such that employees are willing to go above and beyond by engaging in creative behaviors. Future researchers should explore other social influence processes and different employee outcomes to learn more about the role of leaders' gratitude in shaping employees' creativity.

Conclusion

In developing and testing a cross-level model, we found that leaders' trait gratitude promoted employee creativity through a dual process of leadership influences and enhanced individual psychological safety. Our results offer new insights and have multiple implications for the future research in the gratitude, leadership, and creativity literatures, and suggest that leaders and organizations can effectively motivate employees' creative behaviors through their trait

gratitude and the display of ethical leadership as well as the development of high-quality LMX. Overall, this study provides evidence of the social influence function of gratitude in the workplace and offers new answers to the important questions of who (grateful leaders) fosters employees' creativity, how they do it (ethical leadership and LMX), and why it works (psychological safety).

REFERENCES

Algoe, S. B. 2012. Find, remind, and bind: The functions of gratitude in everyday relationships. *Social and Personality Psychology Compass*, 6: 455-469.

Algoe, S. B., Haidt, J., & Gable, S. L. 2008. Beyond reciprocity: Gratitude and relationships in everyday life. *Emotion*, 8: 425-429.

Algoe, S. B., Kurtz, L. E., & Hilaire, N. M. 2016. Putting the "you" in "thank you": Examining other-praising behavior as the active relational ingredient in expressed gratitude. *Social Psychological and Personality Science*, 7: 658-666.

Amabile, T. M. 1997. Motivating creativity in organizations: On doing what you love and loving what you do. *California Management Review*, 40: 39-58.

Anderson, N., Potočnik, K., & Zhou, J. 2014. Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of*

Management, 40: 1297-1333.

Baer, M., & Frese, M. 2003. Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior*, 24: 45-68.

Baron, R. A. 1984. Reducing organizational conflict: An incompatible response approach. *Journal of Applied Psychology*, 69: 272-279.

Bartlett, M. Y., Condon, P., Cruz, J., Baumann, J., & Desteno, D. 2012. Gratitude: Prompting behaviours that build relationships. *Cognition & Emotion*, 26: 2-13.

Bartlett, M. Y., & DeSteno, D. 2006. Gratitude and prosocial behavior: Helping when it costs you. *Psychological Science*, 17: 319-325.

Biemann, T., Cole, M. S., & Voelpel, S. 2012. Within-group agreement: On the use (and misuse) of R_{WG} and $R_{WG\,(J)}$ in leadership research and some best practice guidelines. *Leadership Quarterly*, 23: 66-80.

Bliese, P. D. 2000. Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations:* 349-381. San Francisco, CA: Jossey-Bass.

Brislin, R. 1980. Translation and content analysis of oral and written materials. In H. C. Triandos & J. W. Berry, *Handbook of Cross-Cultural Psychology:* 389-444. Boston, MA: Allyn &

Bacon.

Brown, M. E., & Mitchell, M. S. 2010. Ethical and unethical leadership: Exploring new avenues for future research. *Business Ethics Quarterly*, 20: 583-616.

Brown, M. E., Trevino, L. K., & Harrison, D. A. 2005. Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97: 117-134.

Cain, I. H., Cairo, A., Duffy, M., Meli, L., Rye, M. S., & Worthington, E. L. 2019. Measuring gratitude at work. *The Journal of Positive Psychology*, 14:440-451.

Chen, A. S. Y., & Hou, Y. H. 2016. The effects of ethical leadership, voice behavior and climates for innovation on creativity: A moderated mediation examination. *The Leadership Quarterly*, 27: 1-13.

Chen, G., & Kanfer, R. 2006. Toward a systems theory of motivated behavior in work teams. *Research in Organizational Behavior*, 27: 223-267.

Chen, L. H. & Wu, C.-H. 2014. Gratitude enhances change of athlete's self-esteem: The moderating role of trust in coach. *Journal of Applied Sport Psychology*, 26: 349-362.

Dansereau Jr, F., Graen, G., & Haga, W. J. 1975. A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, 13: 46-78.

DeRue, D. S., Nahrgang, J. D., Wellman, N. E. D., & Humphrey, S. E. 2011. Trait and behavioral theories of leadership: An integration and meta-analytic test of their relative validity. *Personnel Psychology*, 64: 7-52.

Detert, J. R., & Burris, E. R. 2007. Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal*, 50: 869-884.

Dienesch, R. M., & Liden, R. C. 1986. Leader-member exchange model of leadership: A critique and further development. *Academy of Management Review*, 11: 618-634.

Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. 2012. A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of Management*, 38: 1715-1759.

Edmondson, A. 1999. Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44: 350-383.

Edmondson, A. C., 2002. The local and variegated nature of learning in organizations: a group level perspective. Organization Science, 13: 128-146.

Edmondson, A. C. 2004. Learning from failure in health care: Frequent opportunities, pervasive barriers. *Quality and Safety in Health Care*, *13*(suppl 2): ii3-ii9.

Edwards, J. R., & Lambert, L. S. 2007. Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. Psycholo*gical Methods*, 12: 1-

22.

Emmons, R. A. 2006. *Does gratitude motivate moral action?* Paper presented at the Notre Dame Symposium on Character and Moral Personality, University of Notre Dame, IN.

Emmons, R. A., & Crumpler, C. A. 2000. Gratitude as a human strength: Appraising the evidence. *Journal of Social and Clinical Psychology*, *19*: 56-69.

Farmer, S. M., Tierney, P., & Kung-Mcintyre, K. 2003. Employee creativity in Taiwan: An application of role identity theory. *Academy of management Journal*, *46*: 618-630.

Fehr, R., Fulmer, A., Awtrey, E., & Miller, J. A. 2017. The grateful workplace: A multilevel model of gratitude in organizations. *The Academy of Management Review*, 42: 361-381.

Ford, M. T., Wang, Y., Jin, J., & Eisenberger, R. 2018. Chronic and episodic anger and gratitude toward the organization: Relationships with organizational and supervisor supportiveness and extrarole behavior. *Journal of occupational health psychology*, *23:* 175-187.

Gordon, A. M., Impett, E. A., Kogan, A., Oveis, C., & Keltner, D. 2012. To have and to hold: Gratitude promotes relationship maintenance in intimate bonds. *Journal of Personality and Social Psychology,* 103: 257-274.

Graen, G. B., & Uhl-Bien, M. 1995. Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-

level multi-domain perspective. *The Leadership Quarterly*, 6: 219-247.

Grant, A. M., & Gino, F. 2010. A little thanks goes a long way: Explaining why gratitude expressions motivate prosocial behavior. *Journal of Personality and Social Psychology*, 98: 946-955.

Grant, A. M., & Wrzesniewski, A. 2010. I won't let you down… or will I? Core self-evaluations, other-orientation, anticipated guilt and gratitude, and job performance. *Journal of Applied Psychology*, 95: 108-121.

Greguras, G. J., & Ford, J. M. 2006. An examination of the multidimensionality of supervisor and subordinate perceptions of leader-member exchange. *Journal of Occupational and Organizational Psychology*, 79: 433-465.

Henderson, D. J., Liden, R. C., Glibkowski, B. C., & Chaudhry, A. 2009. LMX differentiation: A multilevel review and examination of its antecedents and outcomes. *The Leadership Quarterly*, 20: 517-534.

Hughes, R. L., Ginnett, R. C., & Curphy, R. C. 2015. *Leadership: Enhancing the lessons of experience.* Chicago, IL: Irwin.

Hughes, D. J., Lee, A., Tian, A. W., Newman, A., & Legood, A. 2018. Leadership, creativity, and innovation: A critical review and practical recommendations. *The Leadership Quarterly*, *29*: 549-569.

James, L. R., Demaree, R. G., & Wolf, G. 1984. Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69: 85-98.

Kark, R., & Carmeli, A. 2009. Alive and creating: The mediating role of vitality and aliveness in the relationship between psychological safety and creative work involvement. *Journal of Organizational Behavior*, 30: 785-804.

Lavelock, C. R., Griffin, B. J., Worthington, E. L., Benotsch, E. G., Lin, Y., Greer, C. L., . . .Hook, J. N. 2016. A qualitative review and integrative model of gratitude and physical health. *Journal of Psychology and Theology*, 44: 55-86

Liang, J., Farh, C. I., & Farh, J. L. 2012. Psychological antecedents of promotive and prohibitive voice: A two-wave examination. *Academy of Management Journal*, 55: 71-92.

Madjar, N., & Ortiz-Walters, R. 2009. Trust in supervisors and trust in customers: Their independent, relative, and joint effects on employee performance and creativity. *Human Performance*, *22*: 128-142.

Martinuzzi, B., & Freeman, M. A. 2009. *The leader as a mensch: Become the kind of person others want to follow*. San Francisco, CA: Six Seconds Emotional Intelligence Press.

Mayer, D. M., Kuenzi, M., Greenbaum, R., Bardes, M., & Salvador, R. 2009. How low does ethical leadership flow? Test of a trickle-down model. *Organizational Behavior and Human Decision Processes*, 108:1-13.

McCullough, M. E., Emmons, R. A., & Tsang, J.-A. 2002. The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82: 112-127.

McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. 2001. Is gratitude a moral affect? *Psychological Bulletin*, 127: 249-266.

McCullough, M. E., Tsang, Jo-Ann, & Emmons, R. A. 2004. Gratitude in intermediate affective terrain: Links of grateful moods to individual differences and daily emotional experience. *Journal of Personality and Social Psychology*, 86: 295-309.

Men, C., Fong, P. S., Huo, W., Zhong, J., Jia, R., & Luo, J. 2018. Ethical leadership and knowledge hiding: A moderated mediation model of psychological safety and mastery climate. *Journal of Business Ethics*, 1-12.

Meuser, J. D., Gardner, W. L., Dinh, J. E., Hu, J., Liden, R. C., & Lord, R. G. 2016. A network analysis of leadership theory: The infancy of integration. *Journal of Management*, 42: 1374-1403.

Michie, S. 2009. Pride and gratitude: How positive emotions influence the prosocial behaviors of organizational leaders. *Journal of Leadership & Organizational Studies*, 15: 393-403.

Müceldili, B., Erdil, O., Akgün, A. E., & Keskin, H. 2015. Collective gratitude: Positive organizational scholarship perspective. *International Business Research*, *8*: 92 - 102.

Mueller, J. S., Goncalo, J., & Kamdar, D. (2011). Recognizing creative leadership: Can creative idea expression negatively relate to perceptions of leadership potential? *Journal of Experimental Social Psychology*, 47: 494-498.

Mumford, M. D., Scott, G. M., Gaddis, B., & Strange, J. M. (2002). Leading creative people: orchestrating expertise and relationships. *The Leadership Quarterly*, 13: 705-750.

Muthén, L. K., & Muthén, B. O. (1998). 2010. *Mplus user's guide*（6th ed.). Los Angeles, CA: Muthén & Muthén.

Ng, T. W., & Feldman, D. C. 2015. Ethical leadership: Meta-analytic evidence of criterion-related and incremental validity. *Journal of Applied Psychology*, 100: 948-965.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. 2012. Source of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63: 539-569.

Preacher, K. J., & Selig, J. P. 2012. Advantages of Monte Carlo confidence intervals for indirect effects. *Communication Methods and Measures*, 6: 77-98.

Preacher, K. J., Zhang, Z., & Zyphur, M. J. 2011. Alternative methods for assessing mediation in multilevel data: The advantages of multilevel SEM. *Structural Equation Modeling*, 18: 161-182.

Preacher, K. J., Zyphur, M. J., & Zhang, Z. 2010. A general multilevel SEM framework for

assessing multilevel mediation. *Psychological Methods*, 15: 209-233.

Scandura, T. A., Graen, G. B., & Novak, M. A. 1986. When managers decide not to decide autocratically: An investigation of leader-member exchange and decision influence. *Journal of Applied Psychology*, 71: 579-584.

Sternberg, R. J. (2006). The nature of creativity. *Creativity Research Journal*, 18: 87-98

Threlfall, D. 2016. Gratitude: The leader's most underused but powerful tool. Retrieved from https://www.teamgantt.com/blog/gratitude-the-leaders-most-underused-but-powerful-tools

Treviño, L. K., Brown, M., & Hartman, L. P. 2003. A qualitative investigation of perceived executive ethical leadership: Perceptions from inside and outside the executive suite. *Human Relations*, 56:5-37.

Treviño, L. K., Hartman, L. P., & Brown, M. 2000. Moral person and moral manager: How executives develop a reputation for ethical leadership. *California Management Review*, 42:128-142.

Tsang, J. 2006. Gratitude and prosocial behavior: An experimental test of gratitude. *Cognition and Emotion*, 20: 138-148.

Walumbwa, F. O., Mayer, D. M., Wang, P., Wang, H., Workman, K., & Christensen, A. L. 2011. Linking ethical leadership to employee performance: The role of leader-member exchange, self-efficacy, and organizational identification. *Organizational Behavior &*

Human Decision Processes, 115: 204-213.

Walumbwa, F. O., & Schaubroeck, J. 2009. Leader personality traits and employee voice behavior: Mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology*, 94: 1275-1286.

Watson, D., Clark, L. A., & Tellegen, A. 1988. Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology,* 54: 1063-1070.

Wood, A. M., Froh, J. J., & Geraghty, A. W. 2010. Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review*, 30: 890-905.

Table 1

Means, Standard Deviations, and Correlations

Variables	**Mean**	**S.D.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1. Leader Gratitude	5.10	.95	(.75)											
2. Ethical Leadership	5.17	.81	.42**	(.92)										
3. LMX	5.06	1.08	.29**	.68**	(.89)									
4. Psychological Safety	4.72	.90	.20**	.48**	.44**	(.71)								
5. Employee Creativity	4.60	.98	.28**	.33**	.27**	.30**	(.76)							
6. Supervisor Age	38.06	6.81	.03	.37**	.23**	.14*	.09	--						
7. Supervisor Gender	1.33	.47	-.10	-.26**	-.13**	-.10	-.01	-.17**	--					
8. Supervisor Position	2.47	.53	-.22**	-.48**	-.32**	-.19**	-.14*	-.56**	.07	--				
9. Supervisor NA	1.96	.63	.03	-.17**	-.11	-.12**	.03	-.11	.15*	.10	(.90)			
10. Subordinate Age	29.72	5.41	.13*	.15*	.04	.11	-.02	.10	-.07	-.14*	-.05	--		
11. Subordinate Gender	1.34	.47	.05	-.01	.01	.12*	.06	-.11	.02	.11	.03	.02	--	
12. Subordinate NA	2.06	.74	-.25**	-.47**	-.43**	-.33**	-.18**	-.18**	.10	.23**	.28**	.00	.02	(.89)

N = 295. Cronbach's alpha coefficients are on the diagonal in parentheses. Gender: 1 = "male," 2 = "female." Position Level: 1 = "top level managers," 2 = "middle level managers," 3 = "team leaders," and 4 = "employees". LMX = leader member exchange; NA = negative affectivity.

* $p < .05$, ** $p < .01$.

Table 2
Unstandardized Coefficients of the Model for Testing Main Effects and Mediation Effects

	Ethical Leadership		**LMX**		**Psychological Safety**		**Employee Creativity**	
Predictor	***Estimate***	***S. E.***	***Estimate***	***S. E.***	***Estimate***	***S. E.***	***Estimate***	***S. E.***
Supervisor Age	.01	.01						
Supervisor Gender	-.18*	.08						
Supervisor Position Level	-.12	.11						
Supervisor Negative Affectivity	-.08	.06						
Subordinate Age			.00	.01	.01	.01	-.02	.01
Subordinate Gender			.08	.12	.24*	.09	.06	.13
Subordinate Negative Affectivity			-.18	.18	-.14*	.07	.05	.09
Leader Gratitude	.34***	.08	.30**	.10				
Ethical Leadership					.46***	.11		
Leader-Member Exchange (LMX)					.16*	.07		
Psychological Safety							.21*	.09

$N = 295$.
* $p < .05$, ** $p < .01$, *** $p < .001$.