

December 2020

Educational leadership, leader-member exchange and teacher self-efficacy

Gabriela Flores

Southwestern University, flores@southwestern.edu

Denver J. Fowler

Southern Connecticut State University, fowlerd3@southernct.edu

Richard A. Posthuma

University of Texas at El Paso, rposthuma@utep.edu

Follow this and additional works at: <https://digitalcommons.usf.edu/jger>



Part of the [Adult and Continuing Education and Teaching Commons](#), [Educational Administration and Supervision Commons](#), [Educational Leadership Commons](#), and the [Elementary Education and Teaching Commons](#)

This Refereed Article is brought to you for free and open access by the M3 Center at the University of South Florida Sarasota-Manatee at Digital Commons @ University of South Florida. It has been accepted for inclusion in Journal of Global Education and Research by an authorized editor of Digital Commons @ University of South Florida. For more information, please contact digitalcommons@usf.edu.

Recommended Citation

Flores, G., Fowler, D. J., & Posthuma, R. A. (2020). Educational leadership, leader-member exchange and teacher self-efficacy. *Journal of Global Education and Research*, 4(2), 140-153. <https://www.doi.org/10.5038/2577-509X.4.2.1040>

Educational leadership, leader-member exchange and teacher self-efficacy

Authors

Corresponding Author

Dr. Denver J. Fowler, Southern Connecticut State University, College of Education, 501 Crescent Street, New Haven, CT 06515

Abstract

The purpose of this article is to examine social cognitive theory and social comparison theory, and how they are integrated to propose that self-efficacy mediates the relationship between leader-member exchange social comparison (LMXSC) and performance. Furthermore, the article supports the need for development and examination of the effects of educational leadership and teacher self-efficacy. That is, to determine if school leadership has an effect on teacher self-efficacy, and if teacher self-efficacy has an effect on student achievement. The preliminary conceptual model developed within the article includes insightful research questions to be considered for impending future studies. The authors hope this line of research will investigate the extent to which teacher self-efficacy is responsible for behavior outcomes associated with LMXSC, as well as the effect school leadership and teacher self-efficacy brings to this process.

Keywords

ethical leadership, social cognitive theory, social comparison theory

Revisions

Submission date: Sep. 18, 2018; 1st Revision: Apr. 22, 2019; 2nd Revision: Sep. 3, 2019; 3rd Revision: Jun. 12, 2020; Acceptance: June 30, 2020

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial 4.0 License](https://creativecommons.org/licenses/by-nc/4.0/)

Educational Leadership, Leader-Member Exchange and Teacher Self-Efficacy

Gabriela Flores¹, Denver J. Fowler², and Richard Posthuma³

Department of Economics and Business
Southwestern University, United States
¹flores@southwestern.edu

College of Education
Southern Connecticut State University, United States
²fowlerd3@southernct.edu

College of Business Administration
The University of Texas at El Paso
³rposthuma@utep.edu

Abstract

The purpose of this article is to examine social cognitive theory and social comparison theory, and how they are integrated to propose that self-efficacy mediates the relationship between leader-member exchange social comparison (LMXSC) and performance. Furthermore, the article supports the need for development and examination of the effects of educational leadership and teacher self-efficacy. That is, to determine if school leadership has an effect on teacher self-efficacy, and if teacher self-efficacy has an effect on student achievement. The preliminary conceptual model developed within the article includes insightful research questions to be considered for impending future studies. The authors hope this line of research will investigate the extent to which teacher self-efficacy is responsible for behavior outcomes associated with LMXSC, as well as the effect school leadership and teacher self-efficacy brings to this process.

Keywords: ethical leadership, social cognitive theory, social comparison theory

Introduction

Leader-member exchange social comparison (LMXSC) is defined as the comparison between one's own leader-member exchange (LMX) with that of a fellow group member (Vidyarathi et al., 2010). The development of LMXSC addressed an important limitation of prior LMX research, namely differences in LMX relationships have an impact on co-workers. LMX is based on the idea of differentiation of leader-member relationships within a group (Dansereau et al., 1975). Little or no research has focused on these within-group differences that lead to social comparison. Utilizing social comparison theory (Festinger, 1954), Vidyarathi et al. (2010) found positive associations between LMXSC and job performance and organizational citizenship behaviors (OCB) above and beyond the effects of LMX.

The present article is conceptual and may be the first to examine the mechanism through which LMXSC relates to performance. Using social cognitive theory (Bandura, 1977), the relationship between LMXSC and performance is examined, as mediated by self-efficacy. The authors argue

that perceived LMXSC influences employee self-efficacy and, in turn, job performance and OCB. Further, the authors explore individual and leadership characteristics that moderate this process, especially as it may relate to LMX in the educational setting. Previous research has linked self-efficacy (Chacon, 2005; Duyar et al., 2013; Goddard, 2002; Ross & Gray, 2006) and job-satisfaction (Currall et al., 2005; Duyar et al., 2013, Judge et al., 2001) to educational outcomes such as student achievement; often considered to be the determinant of a school's success or failure. Building on the extant literature, the authors hope to provide an increased understanding of the individual and leadership aspects affecting this important relationship, especially as it pertains to the educational setting.

Literature Review

Leader-Member Exchange

Since its inception in the mid-1970s, vertical dyad linkage, now called leader-member exchange (LMX), has become an important research area in organizational behavior. This is due, in part, to its unique approach to the study of leadership. Rather than study leaders' individual characteristics, behaviors, and styles, LMX recognizes leadership consists of unique exchange relationships forming between a leader and each of their employees (Dansereau et al., 1975). Because each leader-member relationship is unique and varies in quality (Erdogan & Liden, 2002), LMX studies leadership at the dyad level (Anand et al., 2011). High quality LMX relationships involve more relational exchanges between leaders and members, and consist of greater levels of trust, liking, respect, attention, and support (Erdogan & Liden, 2002; Liden & Graen, 1980). Low quality LMX relationships, on the other hand, consist of primarily transactional exchanges and are categorized as more formal and distant (Liden & Graen, 1980).

LMX has drawn much attention due to the numerous positive outcomes associated with high LMX, including employee commitment (Basu & Graen, 1997), OCB (Deluga, 1998), job satisfaction (Epitropaki & Martin, 1999) and performance (Fernandez & Vecchio, 1997) to name a few. In the mid-1990s, researchers turned their attention to antecedents of LMX. Many studies examined the effect of leader-member similarities on LMX; most finding a positive relationship. Consistent with the similarity-attraction paradigm (Byrne, 1971), demographic similarities between leaders and members, including age, race, gender and tenure were found to increase LMX (Basu & Green, 1995; Epitropaki & Martin, 1999; Pelled & Xin, 2000). Several studies have drawn similar conclusions regarding deeper level similarities, including competence (Kim & Organ, 1982), personality traits (Bauer & Green, 1996), attitudes (Basu & Green, 1995; Phillips & Bedeian, 1994), values (Ashkanasy & O'Connor, 1997) and cognitive style (Allinson et al., 2001).

Leader-Member Exchange and Relative Leader-Member Exchange

While the dyad relationship is the central tenet of LMX theory, researchers have certainly recognized the importance of studying the effect of the dyad within the context of a work group. Relative LMX (RLMX), developed by Henderson et al., (2008), measured members' RLMX by dividing individual LMX by a group average. This was a critical step in the evolution of LMX in that it expanded the microscopic view of a dyad by taking into account the context in which dyads exist. RLMX was shown to positively relate to in-role performance and OCB through psychological contract fulfillment (Henderson et al., 2008).

In 2010, Vidyarathi et al. made another important step in furthering LMX theory by viewing the LMX differentiation that naturally occurs in work groups through the lens of Festinger's (1954) social comparison theory. Instead of algebraically calculating RLMX as previously completed, the authors capture each member's subjective assessment of their LMX as compared to those of others in their work group. The authors found LMXSC explains job performance and citizenship behaviors above and beyond the effects of LMX and RLMX. The impact of LMXSC lies in its measure of employee perception, which has been shown to be a stronger predictor of individual behavior than reality (Robbins & Judge, 2013). LMXSC is thus more directly related to organizational outcomes than LMX, which examines dyads in isolation, or RLMX, which is an algebraic measure comparing an individual's LMX with the group average.

Self-Efficacy

Self-efficacy is also a measure of perception. It is defined as an individual's belief in their own ability to perform the tasks necessary to deal with situations that may arise in their lives (Bandura, 1982). Self-efficacy determines an individual's coping behavior along with the amount and sustainability of effort they will direct toward a task, despite any obstacles they may encounter (Bandura, 1977).

Empirical support has been found between self-efficacy and positive behavioral outcomes in organizations (Bandura, 1988; Wood & Bandura, 1989), including adaptability (Hill et al., 1987; Saks, 1995), idea generation (Gist, 1989) and performance (Eden & Zuk, 1995; Wood et al., 1990). In their meta-analysis, Stajkovic and Luthans (1998) find a strong and positive relation between self-efficacy and performance.

Educational Leadership and Teacher-Self Efficacy

In the education setting, individuals often differentiate between such leaders as either being transformational (high quality LMX relationships) or transactional (low quality LMX relationships). By all accounts, transactional leadership tends to be more aligned with authoritarian, hierarchical style of leadership, whereas transformational leadership tends to a more democratic and collaborative type of leadership (Burgess, 2002; Bass, 1990). In a study by Fowler & Johnson (2014), it was determined school leaders with stronger ethical leadership perspectives led school districts with higher student achievement. This leads to the question: How might ethical school leadership affect teacher self-efficacy? The authors contend an ethical school leader who maintains high quality LMX relationships with the very teachers they lead, will in turn support higher self-efficacy among those teachers. Thus, the teachers will have higher job satisfaction and better job performance. Duyar et al., (2013) wrote "teachers' self-efficacy beliefs determine their capacity to influence different student variables such as student motivation, identification, and performance" (p. 24). As previously reported, research has linked self-efficacy (Chacon, 2005; Duyar et al., 2013; Goddard, 2002; Ross & Gray, 2006) and job-satisfaction (Currall et al., 2005; Duyar et al. 2013, Judge et al., 2001) to educational outcomes such as student achievement. Student achievement often determines the success (or failure) of a school building and/or district.

Theory and Propositions

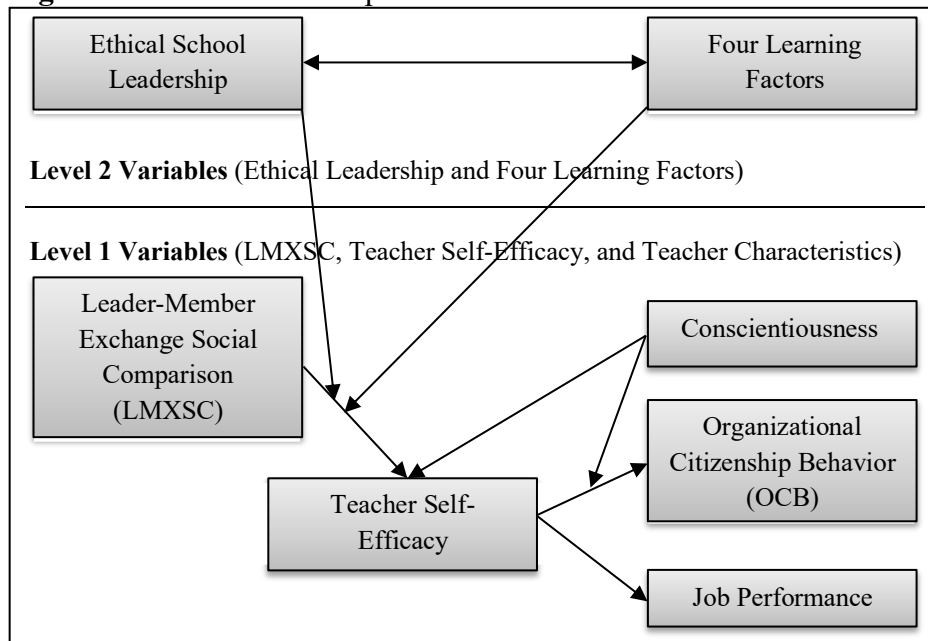
Self-Efficacy and Social Cognitive Theory

Self-efficacy is the central construct of social cognitive theory (Bandura, 1986), which states that people learn by observing others. Bandura (1977) describes four factors influencing self-efficacy: (a) enactive attainment; (b) vicarious experience; (c) social persuasion; and (d) physiological states. Enactive attainment refers to the experience or attainment of mastery, and is especially influential because it is based on direct experience. Successfully completing a task or project, once thought of as difficult, increases employees' confidence in their abilities. Vicarious experience refers to the process of learning that takes place by observing others. That is, individuals who see others succeed at a difficult task, may in fact gain confidence they can achieve the same level of performance. Social persuasion is the encouragement or discouragement the individual receives from others. Finally, physiological states, or emotional arousal, are reactions individuals have toward situations. These emotional states can influence an individual's belief in their abilities. High emotional arousal typically hinders performance and, with it, self-efficacy (Bandura, 1977).

Ethical School Leadership, Social Cognitive Theory, and Teacher Self-efficacy

In the educational setting, with regards to social cognitive theory, we contend all four factors influencing self-efficacy can be supported by ethical school leadership. For example, great school leaders are also great delegators. That is, great school leaders have the ability to identify individuals (such as teachers) who are capable of completing assigned tasks (often based on their skill set). This would be an excellent example of how school leaders can support enactive attainment amongst their teaching staff. A school leader can support the vicarious experience by being a life-long learner, and thus, leading by example. In addition, school leaders can affect social persuasion by creating a positive school climate and culture that supports encouragement by all for all. Finally, school leaders can influence physiological states felt by teachers by exercising poise and remaining calm even in situations that can be extremely stressful. We believe such leadership that supports social cognitive theory will lead to teachers who have a strong sense of self-efficacy, thus, affecting their students. Research continues to show students are more highly motivated, are more likely to participate in classroom activities, achieve at higher rates, and exhibit self-efficacy themselves, when teachers have a higher level of self-efficacy (Duyar et al., 2013; Goddard, 2002; Ross & Gray, 2006).

Using social cognitive theory and social comparison theory, the authors argue self-efficacy is the mechanism through which LMXSC impacts behavioral outcomes. Furthermore, the authors propose a preliminary model that explains how ethical school leadership and teacher characteristics impact this process. Figure 1 illustrates the proposed model using a hierarchical linear framework.

Figure 1. Ethical Leadership and Teacher Characteristics

Propositions

Below the authors have provided six propositions. Included with each proposition is the authors contentions as they relate to each. The authors hope these propositions will lead to and support future research in this arena, not only as it pertains to the education setting, but also within any setting where a LMX and self-efficacy exists. For the model presented, the authors have purposely utilized language specific to that of the education setting; however, the authors hope this model will support research to be conducted across a myriad of workplace settings, not just within the education setting. Furthermore, one might quite simply substitute *CEO* for the term *Ethical School Leadership* and *employee* for the term *teacher*. Nonetheless, the authors believe you will better understand how each could lend to the extant research and literature in the educational setting, especially as it pertains to school leadership and teacher self-efficacy.

Self-Efficacy as a Mediator Between LMXSC and Job Performance

Individuals have a natural tendency to evaluate their relative standing in comparison to those around them (Wood, 1996). Social comparison theory (Festinger, 1954) states that enhancing self-evaluation accuracy is the primary reason individuals compare themselves to others in their social group. Comparison with others who are similar regarding the ability or opinion in question (Festinger, 1954) provides the most accurate information. For this reason, one's co-workers are a common comparison group in which to draw self-evaluations. Leader-member exchange social comparison (LMXSC) is based on an individual's observation of their leader's relationships with each of his or her group members (Vidyarthi et al., 2010). These comparisons are constantly being made with information received through observed behaviors and conversations, or through second-hand information received from others as well as the environment (Wood, 1996). In general, employees who believe they have higher LMX than their group members will feel confident they possess the skills necessary to perform well, because they have their leader's support and trust

(Darley, 2001; Gerstner & Day, 1997; Suls et al., 2002). The comparisons made by high LMXSC individuals toward their co-workers will often result in what Hakmiller (1966) termed downward comparison, which typically results in a positive self-image (Lyubomirsky & Ross, 1997). Similarly, an individual who perceives their LMX to be lower than that of their peers, will most often engage in upward comparison, which has been shown to decrease self-evaluation and, with it, self-efficacy (Maslach, 1993). Integrating social comparison theory and social cognitive theory, we argue the comparison employees naturally make between their own LMX and others' in their work group, impacts self-evaluation and thus self-efficacy through the cognitive learning factor of social persuasion.

Proposition 1. LMXSC is positively related to teacher self-efficacy

As self-efficacy increases, the authors predict job performance and OCB will also increase. Individuals with high self-efficacy tend to set high personal goals for themselves, which result in higher engagement at work and better performance overall (Stajkovic, 2006), further increasing self-efficacy (Salanova et al., 2011). High self-efficacy has also been associated with increased creativity (Tierney & Farmer, 2011) and persistence (Bandura, 1997), as well as increased motivation and effort in response to negative feedback (Bandura & Cervone, 1986). Hu and Liden (2013) found that self-efficacy gained through high RLMX is positively related to in-role performance, OCB, and job satisfaction. Many other studies have found a positive association between self-efficacy and performance (Bandura & Locke, 2003; Walumbwa et al., 2008; Walumbwa et al., 2011), including a meta-analysis (Stajkovic & Luthans, 1998). Thus, we propose self-efficacy is positively related to performance measures.

Proposition 2. Teacher self-efficacy is positively related to job performance

Bandura (1977) discovered self-efficacy did in fact have a positive effect on job performance. Essentially, research conducted by Bandura (1977, 1982) supports an employee, who has the opportunity to experience some level of success on given tasks, will eventually build and have a greater sense of self-efficacy leading to better job performance. Thus, the authors contend leaders, who have a clear understanding of self-efficacy as well as what factors contribute to building self-efficacy within their employees, will have employees performing at higher levels at the workplace.

Proposition 3. Teacher self-efficacy is positively related to organizational citizenship behavior

Research by Basu and Graen (1997) and Deluga (1998) support this notion that, when LMX does in fact exist in the workplace, teacher self-efficacy rises. This leads to a stronger employee commitment holistically that results in stronger OCB, which “deal with the actions and behaviors that are not required by workers. They are not critical to the job, but benefit the team and encourage even greater organizational functioning and efficiency” (Status Net, 2019, para. 2). The authors predict this correlation will be found between teacher self-efficacy and organizational citizenship behavior.

Ethical Leadership, LMXSC and Self-Efficacy

“Ethical leadership within any given organization has connections to constructs in a nomological network” (Fowler, 2014, p. 31). The nomological network is “a representation of a construct, its observable manifestation, and the relationship between the two” (Avolio, et al., 2009, p. 424).

Thus, it is known that ethical leadership can be a predictor of employee impact on organizational outcomes (Brown, et al., 2005; Fowler, 2014; Fowler & Johnson, 2014). “Ethical leadership is related to consideration behavior, honesty, truth in leadership, interactional fairness, socialized charismatic leadership (as measured by the idealized influence dimension of transformational leadership), and abusive supervision” (Oforchukwu, 2011, p. 29). Using social cognition theory, the authors examine how credible and ethical leaders play an important role in strengthening self-efficacy in their employees (Bandura, 1991) through the four influencing factors discussed earlier: (1) enactive attainment; (2) vicarious modeling; (3) social persuasion; and (4) physiological states. First, ethical leaders do not only care about the work their employees do, but also about their development (Zhu et al., 2004). Ethical leaders are more likely to encourage employee growth through projects, special assignments, training, and mentoring. Learning new skills and successfully participating in projects that encourage growth lead to increased employee self-efficacy through enactive attainment. Secondly, ethical leaders demonstrate moral behavior to employees through actions, relationships, communication, and reinforcement (Brown et al., 2005). Through vicarious experience, leaders help increase autonomy in employees by modeling ethical and strategic decision-making (Walumbwa et al., 2011). Next, ethical leaders increase employee self-efficacy and motivation through social persuasion. This is accomplished by clearly communicating to employees how their efforts contribute to organizational goals (De Hoogh & Den Hartog, 2008), and by providing constructive feedback (Brown et al., 2005). Feedback received from an ethical leader is credible (Brown et al., 2005) and leads to further growth, thereby increasing self-efficacy. Lastly, all the prior examples lead to an increase in employee self-efficacy through physiological states. As employees grow professionally under ethical leaders, and become more confident they can succeed in new and challenging situations, physiological states such as anxiety and stress will be reduced, which allows for greater self-efficacy (Walumbwa et al., 2011).

Employees form evaluative judgments regarding their leader’s ethics. These perceptions are based on personal experience with the leader; on observations of that leader’s decisions, actions, and interactions with others; and on secondary information regarding the leader. The authors argue having an ethical leader strengthens the positive relationship between LMXSC and self-efficacy, because employees realize the quality of their relationship with an ethical leader is based on a fair assessment of their capabilities, and can therefore be used by the employee as an accurate means of self-evaluation. An employee who enjoys a high quality relationship with an ethical leader can have confidence their relationship is based on his or her capabilities, whereas high LMX from an unethical leader is most likely sheer favoritism based on empty assessments having nothing to do with the employee’s abilities.

Even when LMXSC is low, the authors posit the presence of an ethical leader will increase the LMXSC/self-efficacy relationship through each of the four learning factors of: (a) enactive attainment; (b) vicarious modeling; (c) social persuasion; and (d) physiological states. On the other hand, if a leader is considered unethical, LMXSC, whether high or low will have a weaker impact on self-efficacy. Consistent with social cognitive theory, employees’ perception of ethical leadership promotes self-efficacy in employees.

Proposition 4. Employees' perceptions of ethical leadership moderate the relationship between LMXSC and self-efficacy such that it strengthens the positive relationship

The authors believe employees' perceptions of leaders in any organization, within any setting, in part, will be based on their perceptions of whether or not the leader exhibits ethical leadership. The authors contend this employee perception of ethical leadership will lead to higher levels of self-efficacy for the employee. When leaders model ethical conduct in all aspects of their job, including leadership traits such as moral behavior, strategic decision-making, communication, etc., employees perceive the ethical leader as credible which leads to employee growth and increases self-efficacy (Brown et al., 2005; De Hoogh & Den Hartog, 2008; Walumbwa, et al., 2011). Again, the authors argue having an ethical leader in any organization strengthens the positive relationship between LMXSC and self-efficacy, because employees realize the quality of their relationship with an ethical leader is based on a fair assessment of their capabilities, and can therefore be used by the employee as an accurate means of self-evaluation.

Conscientiousness as a Moderator Between Self-Efficacy and Behavioral Outcomes

While self-efficacy has been found to have a strong positive effect on work performance, in their meta-analysis, Stajkovic and Luthans (1998) found task complexity negatively moderates the relationship between self-efficacy and performance. The authors make several recommendations to increase performance in task-complex environments, including, defining tasks and role expectations clearly, increasing training, and providing constructive feedback (Stajkovic & Luthans, 1998). As discussed in the previous section, many of these suggestions are practiced by ethical leaders. The effect of task complexity in the relationship between self-efficacy and performance is outside the scope of this study, however, the mitigating effects of task complexity on this relationship underscores the need for a moderator that increases the positive effect of self-efficacy on performance in various job and organizational contexts. For this, the authors turn to conscientiousness.

Conscientiousness is one of five basic dimensions of human personality that make up the Big Five model (Judge et al., 1997). "The five broad personality traits described by the theory are extraversion (also often spelled extroversion), agreeableness, openness, conscientiousness, and neuroticism" (Cherry, 2019, para. 1). Conscientiousness was chosen for the current study because it is the trait that best depicts an individual's orientation toward task matters (Costa & McCrae, 1992; Tepper et al., 2001), which, as mentioned earlier, was one of the weaknesses found in the self-efficacy performance relationship. Additionally, in a comparison of Big Five personality scales, Zillig et al. (2002) find conscientiousness, across all measures, impacts behavior more than any of the other four traits.

Conscientiousness impacts behavior through motivational tendencies and reliability (Martocchio & Judge, 1997). Motivation accounts for the intensity, the direction, and the persistence of effort toward attaining a goal. Reliability refers to the trustworthiness and dependability conscientious employees bring to their jobs. Conscientious employees are hard workers who are efficient, persistent and dedicated (Mount et al., 1994). While high-efficacy is the belief one can perform well, conscientiousness is associated with the manifestation of those beliefs (Mischel & Schoda, 1995). Someone with many years of experience performing a job may have high self-efficacy, but lack the drive or dedication to perform to their full potential. Conscientious employees set difficult

goals for themselves and exert the effort required to meet those goals; they plan and are organized, which helps them perform efficiently (Judge et al., 2007). Their dedication to their own personal goals, as well as to the goals of the organization, increases the tendency to help fellow coworkers through OCB.

Proposition 5. Employee conscientiousness moderates the relationship between self-efficacy and performance such that it increases the positive relationship

As previously reported, conscientiousness impacts behavior through motivational tendencies and reliability (Martocchio & Judge, 1997). Thus, the authors argue employee conscientiousness moderates the relationship between both self-efficacy and performance. The authors contend conscientious employees are motivated and goal oriented, leading to higher levels of self-efficacy and performance levels, and in the process, are perceived as reliable by organizational leaders and coworkers.

Proposition 6. Employee conscientiousness moderates the relationship between self-efficacy and OCB such that it may increase the positive relationship

Judge et al., (2007) found conscientious employees tend to set high-level goals for themselves and often exhibit the necessary efforts to complete such goals. The authors contend conscientious employees plan ahead and tend to be organized, both of which helps them perform efficiently. This dedication to both their personal and professional goals, increases their tendency to help coworkers through OCB. Thus, the authors believe employee conscientiousness may lead to higher levels of self-efficacy and OCB supported by such characteristics as previously mentioned including employees who are goal oriented, organized, plan ahead, and performance efficiently.

Methods

Proposed Measurement of Constructs in This Model

In order to help guide and facilitate future research on this model, the authors propose specific measures of the constructs provided therein. Those proposed measures are provided and explained below. In addition, the authors propose specific questions as it applies to the proposed methods and research.

Leader-Member Exchange Social Comparison (LMXSC)

Employee's perception of LMXSC can be measured using a 6-item scale used in Erdogan (2003) and later in Vidyarthi et al. (2010). Scale items include, "I have a better relationship with my manager than most others in my work group," "When my manager cannot make it to an important meeting, it is likely that s/he will ask me to fill in," "Relative to the others in my work group, I receive more support from my manager," "The working relationship I have with my manager is more effective than the relationships most members of my group have with my manager," "My manager is more loyal to me compared to my coworkers," and "My manager enjoys my company more than he/she enjoys the company of other group members" (Vidyarthi et al., 2010, p. 853). This scale was validated most recently by Vidyarthi et al. (2010), showing high reliability ($\alpha = .86$).

Self-Efficacy

Spreitzer's (1995) 3-item scale can be used to measure self-efficacy. Originally established by Jones (1986), Spreitzer modified the items to ask about employee self-efficacy in their current roles, rather than in a new role. Scale items include "I am confident about my ability to do my job," "I am self-assured about my capabilities to perform my work activities," and "I have mastered the skills necessary for my job" (Spreitzer, 1995, p. 1465).

Job Performance

Following Vidyarthi et al. (2010), we recommend using a 4-item scale to measure job performance. Two of the items were developed by Tsui (1984) and two by Wayne et al., (1997). Scale items were modified for simplification. The modified items include, "Overall, this employee performs his/her job the way I like it performed," "If I had it my way, I would not change the manner in which this employee performs his/her job," "Overall, this employee has been effectively fulfilling his/her roles and responsibilities," and "This employee's overall level of performance is excellent" (Wayne et al., 1997, pp. 94-95).

Organizational Citizenship

A 10-item scale developed by Moorman and Blakely (1995), and used by Vidyarthi et al. (2010), is used to assess OCB. This scale proposed is recommended because it measures citizenship behaviors directed toward coworkers (interpersonal helping) as well as those directed toward the organization (loyal boosterism). Items on the scale include, "This employee goes out of his/her way to help co-workers with work-related problems" and "This employee defends the organization when other employees criticize it" (Vidyarthi, et al., 2010, p. 853).

Ethical Leadership

To measure ethical leadership, the authors suggest Brown et al.'s (2005) 10-item Ethical Leadership Scale (ELS). Sample items include, "My manager listens to what employees have to say," "My manager disciplines employees who violate ethical standards," and "My manager has the best interests of employees in mind" (Brown et al., 2005, p. 125). Employee ratings will be averaged, by work group, to create a group-level perception of ethical leadership. In a study by Fowler and Johnson (2014), in which the ELS was used, it was conveyed "the ELS reported to be a reliable scale that provides a comprehensive and rigorous assessment of an individual's perspective as it relates to their ethical leadership perspectives" (p. 77). Internal reliability for the ELS, as measured by Cronbach's Alpha ($\alpha = .92$).

Conscientiousness

To measure conscientiousness, the authors propose utilizing the mini-International Personality Item Pool (mini-IPIP) scale developed by Donnellan et al., (2006). The authors developed this scale as a shortened version of Goldberg's (1999) 50-item IPIP-Five Factor Model. The authors recommend this scale in order to avoid errors that can arise when respondents become irritated or bored while completing longer scales (Donnellan et al., 2006; Schmidt et al., 2003). The mini-IPIP scale is a 20-item measure, consisting of four items per personality trait, each with α of, or significantly greater than, .6. Reverse-coded items were modified so that a higher average score

resulted in a greater level of conscientiousness. The items measuring conscientiousness include, “I get chores done right away,” “I put things back in their proper place,” “I like order,” and “I keep things orderly” (Donnellan et al., 2006, p. 203).

Conclusions and Theoretical Implications

These proposed models have the potential to contribute to current theory in several ways. First, the models aim to extend LMX theory by providing support for self-efficacy as a mechanism to explain the relationship between LMXSC and behavior outcomes. Secondly, by evaluating the effect of ethical leadership on the relationship between LMXSC and self-efficacy, the proposed studies have the potential to show how critical employee perceptions of leaders are to achieving positive outcomes from LMX. Finally, by introducing conscientiousness as a moderator between self-efficacy and performance outcomes, the authors hope to enhance the robustness of this relationship in the workplace, be it within the educational setting or elsewhere.

This suggested research also has the potential to lead to several implications related to school leadership. First, it may provide a better understanding of the importance of promoting self-efficacy in teachers. It might also highlight the benefits of ethical school leadership, by proposing that, when teachers perceive their school leaders as ethical, they are more likely to internalize their leader’s assessments. Additionally, ethical leadership could have the potential to improve teacher self-efficacy, along with performance and OCB in all teachers, not only those who enjoy high LMXSC relationships with their school leaders. In addition, it may be the potential research could contribute to capacity-building for educational leaders, which may in turn positively impact teachers and students within the PK-12 educational setting.

Finally, schools may benefit from providing school leaders with ethical training that incorporates building teacher self-efficacy. By arguing that conscientiousness positively moderates the relationship between self-efficacy and teacher outcomes, this may support an innovative way to improve hiring decisions, especially as it relates to school leaders throughout the nation and around the globe.

References

- Allinson, C. W., Armstrong, S. J., & Hayes, J. (2001). The effects of cognitive style on leader-member exchange: A study of manager-subordinate dyads. *Journal of Occupational and Organizational Psychology*, 74(2), 201-220.
- Anand, S., Hu, J., Liden, R. C., & Vidyarthi, P. R. (2011). Leader-member exchange: Recent research findings and prospects for the future. In A. Bryman, D. Collison, K. Grint, B. Jackson, & M. Uhl-Bien (Eds.), *The Sage handbook of leadership* (pp.311- 325). Sage
- Ashkanasy, N. M., & O’Connor, C. (1997). Value congruence in leader-member exchange. *The Journal of Social Psychology*, 137(5), 647-662.
- Avolio, B., Walumbwa, F., & Weber, T. (2009). Leadership: Current theories, research, and future directions. *The Annual Review of Psychology*, 60, 421-449
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147.
- Bandura, A. (1986). Social foundations of thought and action. *Prentice-Hall*
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50(2), 248-287.

- Bandura, A., & Cervone, D. (1986). Differential engagement of self-reactive influences in cognitive motivation. *Organizational Behavior and Human Decision Processes*, 38(1), 92-113.
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology*, 88(1), 87-99.
- Bass, B. (1990). *Bass & Stogdill's handbook of leadership*. The Free Press.
- Basu, R., & Green, S. G. (1995). Subordinate performance, leader-subordinate compatibility, and exchange quality in leader-member dyads: A field study. *Journal of Applied Social Psychology*, 25(1), 77-92.
- Basu, R., & Green, S. G. (1997). Leader-member exchange and transformational leadership: An empirical examination of innovative behaviors in leader-member dyads. *Journal of Applied Social Psychology*, 27(6), 477-499.
- Bauer, T. N., & Green, S. G. (1996). Development of leader-member exchange: A longitudinal test. *Academy of Management Journal*, 39(6), 1538-1567.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97(2), 117-134.
- Burgess, L. (2002). *Transformational or transactional: A comparative study of the leadership style preferences of superintendents and school board presidents in Ohio* (Publication No. 3062147). [Doctoral dissertation, Ohio University]. ProQuest Dissertations & Theses Global.
- Byrne, D. E. (1971). *The attraction paradigm* (11th ed.). Academic Press.
- Cherry, K. (2019). *The big five personality traits*. <https://www.verywellmind.com/the-big-five-personality-dimensions-2795422#:~:text=The%20five%20broad%20personality%20traits,openness%2C%20conscientiousness%2C%20and%20neuroticism.&text=As%20a%20result%2C%20the%20five,the%20building%20blocks%20of%20personality>
- Chacon, C. T. (2005). Teachers' perceived efficacy among English as a foreign language teachers in middle schools in Venezuela. *Teaching and Teacher Education*, 21(3), 257-272.
- Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, 13(6), 653-665.
- Currall, S. C., Towler, A. J., Judge, T., & Kohn, L. (2005). Pay satisfaction and organizational outcomes. *Personnel Psychology*, 58(3), 613-640.
- Dansereau, 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(1), 46-78.
- Darley, J. (2001). Social comparison motives in ongoing groups. In M. A. Hogg, & R. S. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 334-351). Blackwell.
- De Hoogh, A. H., & Den Hartog, D. N. (2008). Ethical and despotic leadership, relationships with leader's social responsibility, top management team effectiveness and subordinates' optimism: A multi-method study. *The Leadership Quarterly*, 19(3), 297-311.
- Deluga, R. J. (1998). Leader-member exchange quality and effectiveness ratings the role of subordinate-supervisor conscientiousness similarity. *Group & Organization Management*, 23(2), 189-216.
- Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The mini-IPIP scales: Tiny-yet-effective measures of the big five factors of personality. *Psychological Assessment*, 18(2), 192-203.
- Duyar, I., Gumus, S., & Bellibas, M. S. (2013). Multilevel analysis of teacher work attitudes: The influence of principal leadership and teacher collaboration. *International Journal of Educational Management*, 27(7), 700-719.
- Eden, D., & Zuk, Y. (1995). Seasickness as a self-fulfilling prophecy: Raising self-efficacy to boost performance at sea. *Journal of Applied Psychology*, 80(5), 628-635.
- Epitropaki, O., & Martin, R. (1999). The impact of relational demography on the quality of leader-member exchanges and employees' work attitudes and well-being. *Journal of Occupational and Organizational Psychology*, 72(2), 237-240.
- Erdogan B., & Liden R. C. (2002). Social exchanges in the workplace: A review of recent developments and future research directions in leader-member exchange theory. In L. L. Neider, & C. A. Schriesheim (Eds.), *Leadership* (pp. 65-114). Information Age.
- Erdogan, B. (2003). Antecedents and consequences of justice perceptions in performance appraisals. *Human Resource Management Review*, 12(4), 555-578.

- Fernandez, C. F., & Vecchio, R. P. (1997). Situational leadership theory revisited: A test of an across-jobs perspective. *The Leadership Quarterly*, 8(1), 67-84.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117-140.
- Fowler, D. (2014). *An investigation of ethical leadership perspectives among Ohio school district superintendents* [Doctoral dissertation, Ohio University]. Ohio LINK ETD Center. https://etd.ohiolink.edu/!etd.send_file?accession=ohiou1395067372&disposition=inline
- Fowler, D., & Johnson, J. (2014). An investigation of ethical leadership perspectives among Ohio school district superintendents. *Education Leadership Review of Doctoral Research*, 1(2), 96-112.
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82(6), 827-844.
- Gist, M. E. (1989). The influence of training method on self-efficacy and idea generation among managers. *Personnel Psychology*, 42(4), 787-805
- Goddard, R. D. (2002). Collective efficacy and school organization: A multilevel analysis of teacher influence in schools. *Theory and Research in Educational Administration*, 1, 169-184.
- Hakmiller, K. L. (1966). Threat as a determinant of downward comparison. *Journal of Experimental Social Psychology*, 1, 32-39.
- Henderson, D. J., Wayne, S. J., Shore, L. M., Bommer, W. H., & Tetrick, L. E. (2008). Leader-member exchange, differentiation, and psychological contract fulfillment: A multilevel examination. *Journal of Applied Psychology*, 93(6), 1208-1219.
- Hill, C. A. (1987). Affiliation motivation: People who need people... but in different ways. *Journal of Personality & Social Psychology*, 52(5), 1008-1018
- Hu, J., & Liden, R. C. (2013). Relative leader-member exchange within team contexts: How and when social comparison impacts individual effectiveness. *Personnel Psychology*, 66(1), 127-172.
- Jones, G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustments to organizations. *Academy of Management Journal*, 29(2), 262-279.
- Judge, T. A., Jackson, C. L., Shaw, J. C., Scott, B. A., & Rich, B. L. (2007). Self-efficacy and work-related performance: The integral role of individual differences. *Journal of Applied Psychology*, 92(1), 107-127.
- Judge, T. A., Martocchio, J. J., & Thoresen, C. J. (1997). Five-factor model of personality and employee absence. *Journal of Applied Psychology*, 82(5), 745-755.
- Judge, T. A., Thoresen, C. J., Bono, J. E. & Patton, G. K. (2001). The job satisfaction-job performance relationship: a qualitative and quantitative review. *Psychological Bulletin*, 127(3), 376-407.
- Kim, K. I., & Organ, D. W. (1982). Determinants of leader-subordinate exchange relationships. *Group & Organization Management*, 7(1), 77-89.
- Liden, R. C., & Graen, G. (1980). Generalizability of the vertical dyad linkage model of leadership. *Academy of Management Journal*, 23(3), 451-465.
- Lyubomirsky, S., & Ross, L. (1997). Hedonic consequences of social comparison: A contrast of happy and unhappy people. *Journal of Personality and Social Psychology*, 73(6), 1141-1157.
- Martocchio, J. J., & Judge, T. A. (1997). Relationship between conscientiousness and learning in employee training: Mediating influences of self-deception and self-efficacy. *Journal of Applied Psychology*, 82(5), 764-773.
- Maslach, C. (1993). Burnout: A multidimensional perspective. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 19-32). Taylor & Francis.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102(2), 246.
- Moorman, R. H., & Blakely, G. L. (1995). Individualism-collectivism as an individual difference predictor of organizational citizenship behavior. *Journal of Organizational Behavior*, 16(2), 127-142.
- Mount, M. K., Barrick, M. R., & Strauss, J. P. (1994). Validity of observer ratings of the big five personality factors. *Journal of Applied Psychology*, 79(2), 272-280.
- Oforchukwu, J. (2011). *Perspectives on leadership: A synthesis of types and theories*. Author House.
- Pelled, L. H., & Xin, K. R. (2000). Relational demography and relationship quality in two cultures. *Organization Studies*, 21(6), 1077-1094.
- Phillips, A. S., & Bedeian, A. G. (1994). Leader-follower exchange quality: The role of personal and interpersonal attributes. *Academy of Management Journal*, 37(4), 990-1001.
- Robbins, S. P., & Judge, T. (2013) *Organizational behavior* (13th ed.). Prentice Hall.
- Ross, J. A., & Gray, P. (2006). Transformational leadership and teacher commitment to organizational values: The mediating effects of collective teacher efficacy. *School Effectiveness and School Improvement*, 17(2), 179-199.

- Saks, A. M. (1995). Longitudinal field investigation of the moderating and mediating effects of self-efficacy on the relationship between training and newcomer adjustment. *Journal of Applied Psychology, 80*(2), 211–225.
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2011). “Yes, I can, I feel good, and I just do it!” on gain cycles and spirals of efficacy beliefs, affect, and engagement. *Applied Psychology, 60*(2), 255-285.
- Schmidt, F. L., Le, H., & Ilies, R. (2003). Beyond alpha: An empirical examination of the effects of different sources of measurement error on reliability estimates for measures of individual-differences constructs. *Psychological Methods, 8*(2), 206-224.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*(5), 1442-1465.
- Stajkovic, A. D. (2006). Development of a core confidence-higher order construct. *Journal of Applied Psychology, 91*(6), 1208-1224.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin, 124*(2), 240.
- Status Net. (2019). *What is organizational citizenship behavior?* <https://status.net/articles/what-is-organizational-citizenship-behavior-ocb-types-examples/>
- Suls, J., Martin, R., & Wheeler, L. (2002). Social comparison: Why, with whom, and with what effect? *Current Directions in Psychological Science, 11*(5), 159-163.
- Tepper, B. J., Duffy, M. K., & Shaw, J. D. (2001). Personality moderators of the relationship between abusive supervision and subordinates’ resistance. *Journal of Applied Psychology, 86*(5), 974-983.
- Tierney, P., & Farmer, S. M. (2011). Creative self-efficacy development and creative performance over time. *Journal of Applied Psychology, 96*(2), 277-293.
- Tsui, A. S. (1984). A role set analysis of managerial reputation. *Organizational Behavior and Human Performance, 34*(1), 64-96.
- Vidyarathi, P. R., Liden, R. C., Anand, S., Erdogan, B., & Ghosh, S. (2010). Where do I stand? Examining the effects of leader–member exchange social comparison on employee work behaviors. *Journal of Applied Psychology, 95*(5), 849-861.
- Walumbwa, F. O., Avolio, B. J., & Zhu, W. (2008). How transformational leadership weaves its influence on individual job performance: The role of identification and efficacy beliefs. *Personnel Psychology, 61*(4), 793-825.
- Walumbwa, F. O., Mayer, D. M., Wang, P., Wang, H., Workman, K., & Christensen, A. L. (2011). Linking ethical leadership to employee performance: The roles of leader–member exchange, self-efficacy, and organizational identification. *Organizational Behavior and Human Decision Processes, 115*(2), 204-213.
- Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal, 40*(1), 82-111.
- Wood, J. V. (1996). What is social comparison and how should we study it? *Personality and Social Psychology Bulletin, 22*(5), 520-537.
- Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and decision making. *Journal of Personality and Social Psychology, 56*(3), 407-415.
- Wood, R., Bandura, A., & Bailey, T. (1990). Mechanisms governing organizational performance in complex decision-making environments. *Organizational Behavior and Human Decision Processes, 46*(2), 181-201.
- Zhu, W., May, D. R., & Avolio, B. J. (2004). The impact of ethical leadership behavior on employee outcomes: The roles of psychological empowerment and authenticity. *Journal of Leadership & Organizational Studies, 11*(1), 16-26.
- Zillig, L. M. P., Hemenover, S. H., & Dienstbier, R. A. (2002). What do we assess when we assess a Big 5 trait? A content analysis of the affective, behavioral, and cognitive processes represented in Big 5 personality inventories. *Personality and Social Psychology Bulletin, 28*(6), 847-858.