

Social Side of Creativity: Voice Behavior as Moderator of the Relationship between Individual Creativity and Leader-Member-Exchange

Ahmad Adeel Zhang Pengcheng Schlool of management, Huazhong University of Science and Technology, Wuhan, 430074, China

Abstract

In this study we examined relationship between individual creativity of subordinates and Leader Member Exchange (LMX) at organizations. Using multisource data gathering technique we collected data from 40 teams with 293 employees working at different controlling offices of a private software house operates in Pakistan. We integrated creativity, trust and Leader Member Exchange (LMX) literature to understand social side of creativity at organizations. We found that individual creativity is positively related with Leader Member Exchange (LMX) and provided support to creativity literature that creativity as a unique resource of individuals is predictor of quality relationship with formal leaders at organizations. We also provided support to Leader Member Exchange (LMX) literature that individual creativity as a unique competency of subordinates precede Leader Member Exchange (LMX) at organizations. Using interpersonal trust literature we also tested two contingencies: challenging voice and supportive voice on relationship building between individual creativity and Leader Member Exchange (LMX) at organizations. We found that behaviors which promote interpersonal trust also strengthen the relationship between individual creativity and Leader Member Exchange (LMX) at organizations and behaviors which impede interpersonal trust also weaken the relationship between individual creativity and Leader Member Exchange (LMX) at organizations. Implications of the findings and future research directions also discussed.

Keywords: Individual Creativity, Leader Member Exchange (LMX), Voice Behavior, Challenging Voice, Supportive Voice, Interpersonal Trust.

1. Introduction

Survival of contemporary organizations depends on their creative output (DeVanna & Tichy, 1990; Van Gundy, 1987; Mumford & Licuanan, 2004; Liao & Rice, 2010; Rosenbusch, Brinckmann, & Bausch, 2011). Researchers and management scholars showed a strong interest in the field by exploring factors which are linked to creativity, defined as generation of novel and useful ideas (Amabile, 1983; Shalley, 1991). Creativity is not only beneficial for organizations; individuals also take advantages of being creative at organizations. Their unique ability helps them to stand out of the crowd at organizations. Initially focus of the researchers remained with creativity as an individual level trait (see Barron & Harrington, 1981, for a review). But, later on the focus of researchers changed to contextual factors which can affect the individual creative performance (e.g., Oldham & Cummings, 1996; Eisenberger & Armeli, 1997; Shalley& Perry-Smith, 2001). These contextual factors represent social dimensions of creativity. Some researchers proposed that creativity is a social process (Amabile, 1988; Woodman, Sawyer, & Griffin, 1993). Researchers with their empirical findings also supported these social aspects of creativity by investigating role of creative role models (Simonton, 1975, 1984; Zuckerman, 1977), leadership role (Chen, Li & Tang, 2009; Rosing, Frese & Bausch, 2011), customers role (Madjar & Ortiz-Walters, 2008), their social standing among coworkers (Baer, 2010; Obstfeld, 2005; Perry-Smith, 2006; Perry-Smith & Shalley, 2003), and supervisory aspects (Amabile, 1988; Woodman, Sawyer, & Griffin, 1993). However, if creativity is really a social process then an investigation for understanding the development of social relationships at organizations is really important. Overall in creativity literature social side of creativity received less attention from scholars. Although, management scholars did not fully ignore this side of creativity but an explicit effort for understanding the link between creativity of subordinate and quality of relationship with formal leader at organizations has not been made. Such investigation will enhance our understanding that does it takes to be creative for development of quality relations with formal leaders in the highly interactive environments at organizations?

Organizations are social units where work is normally done through interpersonal interactions and relationships (Katz & Kahn, 1978). These workplace relationships are crucial for goal achievements and for effectiveness at organizations (Ferris et al., 2009). One of these important workplace relationships is the relationship with immediate manager or formal leader. Leader member exchange (LMX) explains this dyadic, unique, and beneficial relationship which can yield substantial benefits for the both leaders and subordinates (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012; Gerstner & Day, 1997; Bauer & Green, 1996; Masterson, Lewis, Goldman, & Taylor, 2000; Wayne, Shore, & Liden, 1997). Through this study we will try to unravel the role of creativity in developing quality relationships in mature dyads of already developed teams. We will also



examine some variables which could shape the relationship between creativity and leader member exchange quality. Specifically, in this research we attempt to explore that how individual creativity of subordinates will precede LMX development at organizations and how behaviors which develops interpersonal trust shape these relationships at organizations.

Drawing on previous research on creativity, LMX, and trust, this study will fill three identified gaps in previous literature. First, Benefits of creativity for individuals, groups, and for organizations are well understood in previous literature (e.g., Amabile, 1988; George, 2007; Zhou & Shalley, 2010). What remain inconclusive are the implications of creativity for social aspects at organizations. Social side of creativity received limited attention from the researchers (Simonton, 1975, 1984; Zuckerman, 1977; Perry-Smith & Shalley, 2003) but social aspects as a consequence of creativity received far less attention from the researchers. We will contribute to creativity literature by investigating social side of creativity at organizations. Specifically, relationship development with formal leaders from creative individual side is not investigated in previous literature. Studying this important behavior for development of relationships is important because creativity and relationships are integral parts in contemporary organizations. Also, Competency of subordinates is important predictor of quality LMX development (e.g. Liden & Graen, 1980; Scandura, Graen, & Novak, 1986; Dienesch & Liden, 1986; Bauer & Green, 1996). We will focus on individual creativity as an important predictor of LMX development and expect here that individual creativity of subordinate will precede LMX development. So, studying individual creativity for development of quality relationships with formal leaders is meaningful and catchy.

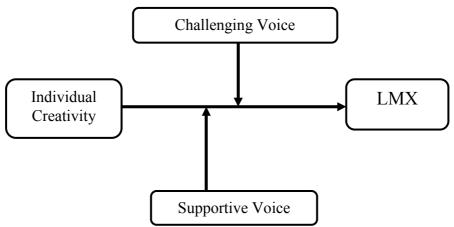


Figure 1: Theoretical Model

Second, Most of the research on leadership is from leaders' perspective (Uhl-Bien et al., 2014). Also, Substantial body of research has investigated the antecedents of quality LMX (e.g., Epitropaki & Martin, 2005; van Breukelen, Schyns, & Le Blanc, 2006) but we still know less on development of quality relationships from followers' side as most of previous research on LMX focused leaders. The main reason of this surge is that leaders exert more power over subordinates, control LMX development (Dienesch & Liden, 1986; Liden et al., 1997), and shapes subordinates' perception and work environment (Lord & Maher, 2002; Nahrgang, Morgeson, & Ilies, 2009; Snodgrass et al., 1998). Although, supervisors are central to determine quality relationships but followers' behaviors and characteristics also influence LMX quality (Dienesch & Liden, 1986; Lapierre, Hackett, & Taggar, 2006; Schyns & von Collani, 2002). So, empirical research is necessary to investigate development of LMX from follower's side. Therefore, leaving traditional ways of investigating leadership which is the leaders' characteristics influence relationships development, we will investigate leadership relations from followers' perspective because in dyadic relationships both parties influence the behavior and reactions of other party (Engle & Lord, 1997; Lord & Maher, 1991). By doing so, we will contribute to LMX literature and it will also clear more dynamic picture of leaders' workplace relations at organizations.

Third, interpersonal trust between subordinates and supervisors is strong predictor to develop and shape quality LMX (Dienesch & Liden, 1986; Graen & Uhl-Bien, 1995; Gomez & Rosen, 2001; Uhl-Bien & Maslyn, 2003; Cropanzano & Mitchell, 2005; Brower et al., 2008). Researchers defined positive expectations as a main premise in interpersonal trust development (Ferrin, Dirks, & Shah, 2006; Menges, Walter, Vogel, & Bruch, 2011; Simons & Peterson, 2000). So, actions and behaviors which are theoretically liked with positive expectations or promote positive expectations at organizations should also promote interpersonal trust in relationships. Voice is a key factor of interpersonal trust with leader (Dirks & Ferrin, 2002; Gillespie & Mann, 2004; Huang, Iun, Liu, & Gong, 2010). We will use challenging voice and supportive voice behaviors of subordinates as sources to interpersonal trust which should shape quality relationship as moderators in our study. Till date only few studies can be found which linked voice of subordinates and LMX (e.g. Van Dyne et al., 2008; Zhang et al., 2015). By doing so, we will contribute to trust literature by strengthening the concept of positive expectations in



development of interpersonal trust in relationships.

By filling these three identified gaps in previous literature we will contribute to creativity literature by investigating social side of creative individuals at organizations which is a neglected area of creativity (Simonton, 1975, 1984; Zuckerman, 1977; Perry-Smith & Shalley, 2003). We will also contribute to LMX and trust literature by strengthening the concept of competency as a predictor of LMX quality and voice behavior as a way to promote or hinder positive expectations in relationships. We will also contribute to leadership literature by exploring social side of individual's creativity for development of quality relationships with leaders. We will also help practitioners to understand how individual creativity can precede quality LMX development at organizations and what behaviors of creative individuals promote or hinder quality relationship building between supervisors and subordinates.

2. Literature Review and Hypothesis

2.1. Creativity: a fundamental drive

In contemporary dynamic environment, creativity has become a fundamental drive that serves as key factor of organizational effectiveness (Amabile, 1996; Woodman, Sawyer, & Griffin, 1993). Organizations strive to find ways to foster creativity so that they can distinguish themselves from competitors (Zhou & George, 2001; Lev, 2004; Sternberg & Lubart, 1999), defined as generation of novel and useful ideas based on domain knowledge, creativity relevant process, and motivation (Amabile, 1996; Oldham & Cummings, 1996; Shalley & Zhou, 2008; West & Farr, 1990). Individual creativity is base for all levels of creativity at organizations. Due to this reason a large body of research has investigated factors which can promote individual level creativity (e.g. Amabile, 1996; Mueller & Kamdar, 2011). Creative individuals hold a unique identity at their organizations and among their social circles. Creative individuals are competent enough to provide diverse and appropriate solutions to complex or routine problems (Cummings & Oldham, 1997), they exchange their diverse pool of knowledge with their surroundings, they use their diverse knowledge to provide solution to their surroundings and also share this diverse pool with others (Taggar, 2001, 2002). Through their unique competency, they can find unique ways of thinking, and can find new variety of solutions (Tagger, 2001; Zhou, 2003) which helps organizations to creative and maintain their distinctive position in competitive environment. In last several decades, considerable amount of creativity research has identified three main areas; the cognitive process of creative individual; personality and behavior of creative individual; environmental factors which influence creativity. In all of these research streams, the main focus remains with creativity of individuals, their cognitive style and process, their personality and behavior, and environmental factors which can influence their creativity. The reason of this surge in researchers' interest is that creativity became an important determinant of performance, success, and survival for organizations. Creativity as a unique competency is now given more importance (Thompson, 2003) because individual creativity is more valuable than other positive valuable attributes of individuals, as by definition creativity is rare (Amabile, 1996). Valuable resources which are also rare become more valuable and desirable. Rarity can add additional value to a valuable resource as scarcity of something increases its value (Cialdini, 1993). For example, people are attracted and often want to pay a premium value of scarce and valuable resources. Rarity, scarcity, and uniqueness are keys to creativity (Kasof, 1995). Due to their uniqueness in abilities they expect and receive preferential treatment at organizations (Baucus, Norton, Baucus, & Human, 2008; L. Vincent & Kouchaki, 2015) and in return they make distinctive value for their organizations.

2.2. Creativity and social context

Reward system, leadership style, leadership support, and availability of resources are some of the contextual factors which have been proposed to be related with individual creativity (Amabile, Conti, Coon, Lazenby, & Herron, 1996; Glynn, 1996; Tierney, Farmer, & Graen, 1999; Woodman et al., 1993). Also, environmental factors which foster risk taking, competition, and autonomy are also linked with individual creativity (Amabile, 1983; Shalley, Gilson, & Blum, 2000; Woodman et al., 1993). These are some of the factors to show that creativity do have social dimensions. Interpersonal interactions and communications are one of these important workplace social dimensions.

Creativity researchers proposed that ideas and information exchange through interpersonal interactions and communications should enhance creativity (Amabile, 1988, 1996; Kanter, 1988; Woodman et al, 1993) by improving and enhancing domain relevant knowledge and creativity relevant process. Domain relevant knowledge is ability of individuals to learn specific type of knowledge relevant to some specific domain (Amabile, 1996). It is categorized as the depth and breadth of individuals' knowledge about the problem in hand. Domain relevant knowledge needs knowledge of problem in hand, technical and factual knowledge, and deep understanding about the problem (Ruscio et al., 1998). Some researchers proposed that domain relevant knowledge should enhance creativity (Campbell, 1960; Mumiord & Gustafson, 1988; Simonton, 1999) by enhancing the abilities to generate appropriate solutions for problem in hand. Researchers supported these arguments by empirical findings that managers working in production department of an organization and having



knowledge of their market environment produced more creative programs (Andrews & Smith, 1996). So information exchange and communication with others in relevant domain should enhance ways of thinking by enhancing the understanding about some specific area and ultimately should help generation of feasible, novel, and useful ideas.

Creativity relevant process is the flexibility of individuals to provide solutions about some problems by using different cognitive pathways, by giving attention to relevant aspects of task, and following specific pathways to find appropriate solution to some problem (Amabile, 1996: 95). In simple words it is the unique ability of some individuals to generate alternatives by thinking out of the box. Any cognitive approach can be used in search of different perspectives and alternatives on a problem (Amabile, 1983, 1996). Individuals who use heuristics for exploration of new alternatives, have access to diverse alternatives, or ideas which have potential are expected to make valuable connections that could lead to generation of novel and useful ideas (Amabile et al., 1996). Exposure to different and diverse pool of alternatives triggers the use of cognitions that enhance chances to creativity (Kanter, 1988). Individuals have different levels of creativity relevant process, some are naturally high in creativity relevant process, but this creative factor can be enhanced by exposure to external factors, such as trainings (Basadur, Graen, & Green, 1982; Basadur, Wakabayashi, & Graen, 1990), or by coaching (Shalley, 1991, 1995). Communications and interactions with diverse others in or out of the team or organization should enhance the creativity relevant process. Diversity which is relevant to creativity relevant process includes difference in terms of experience, expertise, background, specialization, and formal responsibilities (Amabile et al., 1996; Andrews, 1979; Payne, 1990; Woodman et al., 1993). Individuals working at organizations are exposed to diverse opinions and ideas of different others. So, individuals who have interactions and communications with diverse others are likely to obtain and accumulate their knowledge as diverse opinions of different approaches as contact with others who see world differently will make you see the world likewise (Kanter, 1988: 175).

The importance of interaction and communications with others for higher creativity are supported in many studies. Some researchers while investigating team creativity found that the diversity in teams was positively related with higher level of team creativity (Andrews, 1979; Payne, 1990; Visart, 1979). Outside interactions with professionals are related with increased adoption of innovation (Kimberly & Evanisko, 1981). Enhancement in creativity of marketing campaign is found when interactions are higher with other functional areas of the organizations (Andrews & Smith, 1996). And for communications, researchers also found that group communications are positively related with innovative idea generations (Monge, Cozzens, & Contractor, 1992), and higher innovative performance in R&D teams (Payne, 1990; Visart, 1979).

2.3. Leader Member Exchange (LMX)

Interactions and communications as an important foundation for social perspective are just ways to understand the role of social interactions and behaviors which affect creativity. However, there is lot more to explore about social interaction for creativity. Social relationships at organizations can be explained in different ways. Employee relationships are integral part of organization life which cannot be established when one end is weak in relationship building while other end is strong, both ends to put efforts for a healthy relation development. Interaction frequency, intensity of emotions, and reciprocity in favors develops a healthy relationship between individuals (Granovetter, 1973). So relationships are healthy when each of these components has higher level and weak when each of these components has lower levels. LMX theory explains one of the important workplace relationships which employees maintain with their supervisors (Yammarino, Dionne, Chun, & Dansereau, 2005). Leader member exchange (LMX) theory has received considerable amount of attention from the researchers in last several decades. Based on vertical dyad linkage (VDL) theory, this theory explains dyadic level relationships between supervisors and subordinates. In these dyadic relationships supervisors are normally formal leaders and subordinates are employees working under supervision of that leader (Graen & Scandura, 1987). There are two main reasons of researchers' interest; First, LMX theory focuses dyadic level relationship building between supervisors and subordinates. Second, LMX describes that supervisor do not make same level of relationships with all of their subordinates they actually make differentiated relationships with subordinates.

LMX development is a temporal process which initially starts in just first few days of interactions (Liden, Wayne, & Stilwell, 1993; Bauer & Green, 1996; Nahrgang, Morgeson, & Ilies, 2009). In early interactions leaders and subordinates are attracted towards each other due to similarity in demographic characteristics (e.g. Dienesch & Liden, 1986; Dulebohn et al., 2012). In later stages both supervisors and subordinates put efforts and invest resources to make and develop LMX. Subordinates invest competency, loyalty, commitment, and efforts, and supervisors invest increased liberty and empowerment at workplaces (Dienesch & Liden, 1986; Liden & Graen. 1980; Scandura & Graen, 1984). Both judge each other for offered value and expected demands, if they find each other beneficial then quality LMX are developed. Thus, because of limited time and resources of both parties in exchange relationships (Green, Anderson, & Shivers, 1996), a distinct LMX starts and shaped with every subordinate of that supervisor. Some of these distinct relationships



are evolved to quality relationships which are characterized by mutual trust and respect, for others it remains to minimum level of employment contract. Competency related characteristics are more dominant in later stages of LMX than demographic characteristics (e.g. Dienesch & Liden, 1986; Graen & Scandura, 1987; Bauer & Green, 1996; Dulebohn et al., 2012). So, the factors which are theoretically linked to competency should precede LMX quality. Therefore, based on creativity and LMX literature we expect here that creativity as a unique competency of individuals will precede relationships development with formal leaders at organizations. Formally:

Hypothesis 1: Individual creativity will be positively related with LMX.

2.4. Voice Behavior and Interpersonal Trust

Trust is base of relationships and an integral part of organizational life. In last several decades researchers intensively found micro level (e.g. Edwards & Cable, 2009; Gulati & Sytch, 2007; Aryee, Budhwar, & Chen, 2002; Colquitt, Scott, & LePine, 2007; Mayer & Gavin, 2005) and macro level (e.g. Gibson & Birkinshaw, 2004; Sonpar, Handelman, & Dastmalchian, 2009; Blatt, 2009; Fryxell, Dooley, & Vryza, 2002; Ireland, Hitt, & Vaidyanath, 2002) outcomes of trust. However, main focus of researchers remained with micro or individual level of trust at organizations (e.g., Lewicki, Tomlinson, & Gillespie, 2006; Kramer, 1999; Mayer, Davis, & Schoorman, 1995; Rousseau, Sitkin, Burt, & Camerer, 1998) because, pervious research conceptualize trust as an individual level phenomena which can be best understood at this level. There are different forms of trust; Interpersonal trust is one of these forms which are different from generalized trust (Goldberg, 1999; Mayer et al., 1995; Yamagishi & Yamagishi, 1994). Interpersonal trust is directed towards specific referent and is a dyadic level activity between two individuals however; generalized trust is always directed towards generalized group of referent. Interpersonal trust between individuals differs with change in referent in interpersonal trust relationship. For example, one employee may have different needs and concerns with leader and other coworkers at organizations thus, differentiation in interpersonal trust relationship is obvious at dyadic level.

Researchers identified two main dimensions of interpersonal trust: positive expectations, which refer to expectations of trustee's intensions and accepting vulnerability, which refer to decision to depend on trustee (Dietz & Den Hartog, 2006; Ferrin, Bligh, & Kohles, 2008; Huff & Kelley, 2003; Kim, Ferrin, Cooper, & Dirks, 2004; Tan, Yang, & Veliyath, 2009). A large number of trust definitions have focused these two dimensions (e.g. Dietz & Den Hartog, 2006; Ferrin, Bligh, & Kohles, 2008; Huff & Kelley, 2003; Kim, Ferrin, Cooper, & Dirks, 2004; Tan, Yang, & Veliyath, 2009). However, considerable number of trust definitions focused on positive expectations of trustee only (e.g., Ferrin, Dirks, & Shah, 2006; Menges, Walter, Vogel, & Bruch, 2011; Simons & Peterson, 2000). Positive and supporting behaviors of trustee are linked with trust development, however, behaviors which spawns concerns of potential loss impedes trust in relationships (e.g., Ozer, Zhen, & Chen, 2011). Likewise, benevolence, support behaviors, voluntary helping, and cooperation are linked with interpersonal trust (Colquitt et al., 2007; Dirks & Ferrin, 2002; Young & Perrewe, 2000; De Jong et al., 2007; Jap, Robertson, & Hamilton, 2011). Ethical conduct and loyalty expectations are also strong predictors of interpersonal trust development (Bews & Rossouw, 2002). And In leader-follower dyadic relationships, individualized support is linked with interpersonal trust development (Hernandez, 2008; Korsgaard et al., 2002).

Voice behavior of employees is a key factor of trust between employees and leaders (Dirks & Ferrin, 2002; Gillespie & Mann, 2004; Huang, Iun, Liu, & Gong, 2010). Voice is an intention to express oneself for change in status quo or to improve current situation at work while suggesting ideas and opinions for improvements in current organizational procedures (LePine & Van Dyne, 1998). These expression of behaviors are normally seen positively at work and linked with positive job attitude (Frese, Teng, & Wijnen, 1999; Spencer, 1986; Van Dyne & LePine, 1998) as these behaviors improves organizational effectiveness by improving organizational procedures (Katz & Kahn, 1978), by identifying new opportunities (Dutton & Ashford, 1993), and by identifying deficiencies in current way of organizational treatment (LePine & Van Dyne, 1998). Employees demonstrate different forms of voice behaviors at organizations and each of these demonstrated behaviors can manifest different reactions from others. A change oriented voice demonstrated by employees which more specifically speaking for destabilizing the current situation by challenging the status quo, organizational policies, and individuals is called challenging voice behavior of employees. This behavior is more personal and direct towards some specific individual. Employee demonstrating this behavior shows explicit disagreement with individual creating or managing some specific organizational policies or practices. This behavior is more direct towards specific individual so can enhance dyadic level conflicts between managers and subordinate expressing it (De Dreu & Weingart, 2003).

There is also another type of voice at organizations which is opposite to challenging voice. This voice is for strengthening, preserving, stabilizing, and supporting current situation, policies, and practices (Van Dyne et al., 2003; Gorden, 1988; Graham, 1991). This type of voice behavior is called supportive voice behavior and is demonstrated by employees' routine involvement in defending, protecting, and supporting managerial decisions (Van Dyne et al., 2003; Gorden, 1988; Graham, 1991). Supportive voice is form of positive voice behaviors which indicates good citizenship (LePine, Erez, & Johnson, 2002), receives differentiated treatment by



supervisors (Van Dyne & LePine, 1998), and is given more respect by supervisors (Fuller et al., 2007). Support behaviors, loyalty expectations, individualize support, and cooperative behaviors promote interpersonal trust (Colquitt et al., 2007; Dirks & Ferrin, 2002; Bews & Rossouw, 2002; Young & Perrewe, 2000; De Jong et al., 2007; Jap, Robertson, & Hamilton, 2011; Hernandez, 2008; Korsgaard et al., 2002). So, based on trust literature we can expect here that challenging voice behaviors should impede interpersonal trust while supportive voice behaviors should promote interpersonal trust in relationships. Therefore, we hypothesize here:

Hypothesis 2: Challenging voice behavior moderates negatively the relationship between Individual creativity and LMX.

Hypothesis 3: Supportive voice behavior moderates positively the relationship between Individual creativity and LMX.

3. Sample and Data Collection

We collected data from teams of a private software house operating in Pakistan. With approval from the management of the company, we selected 40 teams with 294 members already working at different controlling offices of the company. Team members range from 6-9 members per team in our sample. With help of one HR officer, we tagged questionnaire for subordinates and their supervisors with their portal IDs. Subordinates provided their feedback for quality of relationship and voice behavior and supervisors provided their feedback for individual creativity of each employee working under that supervisor. Likert type scales were used to collect data from the participants. We assigned dummy codes to each and every employee and also to the teams for identification. Completed responses of all participants were downloaded and directly emailed to first author of this study by the HR coordinator of data collection process. We received completed survey from 398 members (97% response) and all supervisors of these 40 teams. Our final sample of 293 members consisted of 76.2 % males and 23.8% females; average education of participants was 2.22; average experience with current organization was 7.31 years; average total job experience with companying industry was 9.76 years; and average experience in current teams at current organization was 2.05 years.

Theoretically, new comers of organizations are desirable to investigate relationships at organizations as they are also new to relationships and organizations (Dienesch & Liden, 1986). Demographic characteristics are more dominant in early stage of LMX development and competency related characteristics are vital for quality LMX development (e.g. Dienesch & Liden, 1986; Graen & Scandura, 1987; McAllister, 1995; Bauer & Green, 1996; Lewicki, Tomlinson, & Gillespie, 2006; Dulebohn et al., 2012). As in our study we only investigated competency of subordinate as predictor of quality LMX. So, we selected mature dyadic in already developed teams as our sample of this study. Also, considering the dyadic nature of LMX, we collected data from both sides of dyadic relationship.

3.1. Measures

Individual Creativity: Supervisor's rating is a most common method to measure individual creativity in field studies (George & Zhou, 2001, 2002; Oldham & Cummings, 1996; Scott & Bruce, 1994; Zhou, 2003; Zhou & George, 2001). Following this recommendation, we collected data for individual creativity of each and every employee from the supervisors using a three-item, five point likert type scale (Janssen, 2001). Sample item is "How often does this employee generating original solutions to problems".

Leader-member exchange (LMX) quality: Seven-item, seven point likert type scale is used to measure LMX quality (Liden & Graen, 1980). A sample item is "My supervisor understands my problems and needs". Subordinates provided their feedback for this measure.

Voice Behavior: Six-item, seven-point likert-type scale is used to measure both challenging and supportive voice behavior of employees (Van Dyne & LePine, 1998; Burris, 2012). Sample item for challenging voice behavior of employees is "I give suggestions to my supervisor about how to make this company better, even if others disagree" and sample item for supportive voice behavior of employees is "I speak up and encourage others to get involved in issues that affect this company". Subordinates provided their feedback for this measure. **Control Variables:** Following previous research on LMX (Dienesch & Liden, 1986; Liden et al., 1993; Bauer and Green, 1996), we used several demographic variables as control variables in our study. Gender, education, experience with current company, total experience with companying industry, and experience with current team are used as control variables in our study.

4. Results

Mean, standard deviation, and correlation among all study variables of final eligible sample is shown in table 1. Our selected teams were further nested into departmental units and functional groups, so, use of OLS regression could underestimate standard error. Thus, we used random coefficient regression analysis using Mplus 7.0 to test our model. We selected Mplus because its design explicitly supports multiple and nested group analysis with random coefficients. On recommendations of Hofmann and Gavin (1998), we grand mean centered all the study



variables before any analysis. Results in table 1 shows that LMX is positively related with education (r = 0.010, p < .01), individual creativity (r = 0.032, p < .01), challenging voice (r = 0.301, p < .01), and supportive voice (r = 0.205, p < .01). Intra-class correlation coefficient for LMX was 0.391, individual creativity was 0.501, challenging voice was 0.369, and for supportive voice it was 0.233.

Random coefficient regression results are presented in table 2. Chi-Squared difference test also performed to test nested models and significance of coefficient also checked. Using log-likelihood technique, we performed Satorra-Bentler scaled Chi-Square difference tests to test our nested model as recommended by Muthén and Muthén (1998-2010).

Table 1. Means, Standard Deviation, and Correlation among study variables

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. Gender	0.89	0.32								
2. Education	2.22	0.39	-0.043							
3. Current Org. Experience	7.31	2.80	0.214*	-0.034						
4. Total Job Experience	12. 26	3.91	0.193**	-0.044	0.024**					
5. Member's Team Tenure	3.63	0.63	0.161	-0.091	0.087**	0.013**				
6. Individual Creativity	3.45	0.64	0.350	0.076**	-0.095**	-0.007	-0.091**			
7.Leader Member Exchange (LMX)	4.54	1.54	0.084	0.010**	-0.098	0.104	-0.083	0.032**		
8. Challenging Voice	4.01	1.76	0.070	0.143**	-0.056	0.083*	-0.176	0.032**	0.301**	
9. Supportive Voice	3.89	1.41	0.015	0.109*	0.045	0.097**	-0.023	0.088**	0.205**	0.034**

Note. N=293. Gender was coded as 0 = Female, 1 = Male. Education was coded as 1= College Graduate, 2 = Bachelor Degree, 3=Master Degree, 4=Doctoral Degree. Current Organization's Experience, Current Team Experience, and Total Companying Experience were measured in years.

*p < .05. **p < .01

Table 2.
Random Coefficient Regression Results for the Moderator Analysis with Leader-Member-Exchange as the outcome variable ^a

Predictor	Model1		Model2		Model3		Model4	
	Estimate1	S.E.	Estimate1	S.E.	Estimate1	S.E.	Estimate1	S.E.
ndividual Creativity	0.032*	0.104	0.735**	0.081	-0.078	0.203	0.457*	0.215
Challenging Voice			0.923**	0.109			0.627**	0.112
Supportive Voice					-0.086	0.107	-0.095	0.092
ndividual Creativity X Challenging Voice			-0.108**	0.095			-0.179**	0.047
Individual Creativity X Supportive Voice					0.092**	0.027	0.072**	0.025
Δχ2 (Δdf)	109.94(5)**		160.93(6)**		134.30(7)**		187.18(9)**	
R ²	0.28		0.31		0.	.28	0.37	

Note. N=293. $\Delta \chi$ 2 refers to Satorra-Bentler scaled chi-square difference test Muthén and Muthén (1998-2010). Δ df is change in degree of freedom. R^2 is degree of reduction in error variance (Snijders, 2011). *p < .05. **p < .01^a Coefficients of all control variables are excluded from the table.

There are 4 models in this table. In model 1, we entered all control variables of this study along with individual creativity and LMX. In model 2, we entered one interaction term representing moderating effect of challenging voice on the relationship between individual creativity and LMX. In model 3, we entered another interaction term representing moderating effect of supportive voice on the relationship between individual creativity and LMX. And finally, in model 4, we entered both interaction terms representing challenging and supportive voice behaviors along with individual creativity and LMX to test our full model. In model 1, individual creativity was positive predictor of LMX and significance of coefficient provided partial support for our first hypothesis of this study. In model 2, individual creativity and challenging voice both were positive predictors of LMX however, the interaction term representing challenging voice showed negative significance coefficient indicating moderating effect of challenging voice behavior on the relationship between individual creativity and LMX and provided partial support to our second hypothesis. In model 3, only the interaction term representing moderating effect of supportive voice showed positive significant coefficient indicating moderating effect of supportive voice behavior on the relationship between individual creativity and LMX and provided partial support to our third hypothesis. Finally in model 4, we entered individual creativity, LMX, and both interaction terms representing moderating effect of challenging voice and supportive voice behaviors to test our full model. Individual creativity showed positive significant coefficients and provided full support to our first hypothesis. Interaction term representing challenging voice showed negative significant coefficient indicating moderating effect of challenging voice behavior on relationship between individual creativity and LMX and provided full support to our second hypothesis. This moderating effect is also shown in figure 2, the relationship between individual creativity and LMX is negative in presence of high challenging voice behavior and the relationship between individual creativity and LMX is positive in presence of low challenging voice behavior. Finally, interaction term representing supportive voice showed positive significant coefficient indicating moderating effect of supportive voice behavior on relationship between individual creativity and LMX and



provided full support to our third hypothesis. All predictions in this study are supported by empirical findings.

5. Discussion

Social relationship perspective of creativity at organizations studied in this paper which highlighted social side of creativity at organizations. Good relationships with formal leaders can yield substantial benefits for both subordinates and for the leaders (Gerstner & Day, 1997; Wayne, Shore, & Liden, 1997; Masterson, Lewis, Goldman, & Taylor, 2000; Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012). Relationship with formal leaders is one of the relations which creative individuals maintain at organizations. In this study we specifically proposed that individual creativity will precede quality relationship development with formal leaders at organizations by investigating social side of this valuable rare resource of individuals. As proposed we found that individual creativity is positively related with LMX at organizations. As expected, we also found that challenging voice negatively however; supportive voice positively moderated the relationship between individual creativity and LMX at organizations.

We integrated creativity, LMX, and trust literature to understand individual creativity of subordinates for development of LMX and voice behavior of subordinates for shaping this relationship. Although, leaders holds central position and plays vital role in development of quality LMX at organizations but followers' characteristics also influence the development of quality LMX at organizations. Through this study we found support for this argument that followers' characteristics also predict quality relationships with leaders at organizations (Dienesch & Liden, 1986; Lapierre, Hackett, & Taggar, 2006; Schyns & von Collani, 2002). Consistent with LMX literature, our results revealed that individual creativity is related with LMX indicating that competency of subordinates is related with development of quality LMX in later stages of relationship building between supervisors and subordinates.

We also investigated role of voice behavior for shaping relationship between individual creativity of subordinates and LMX. Voice promotes or hinders interpersonal trust between subordinates and supervisors and shape relationships. Challenging voice behavior of subordinates negatively moderate the relationship between individual creativity and LMX, however, supportive voice behavior of subordinates positively moderates the relationship between individual creativity and LMX. Our results revealed that if competency is coupled with supportive voice then it strengthens the quality LMX however, if competency is coupled with challenging voice then it impedes the quality LMX at organizations.

5.1. Theoretical contribution

Through this study we found and provided general support to creativity, LMX, and trust literature and made some theoretical contributions. Through this study we contributed to creativity literature by investigating social relationship development with formal leaders of creative individuals. We linked rare and valuable competency of individuals with desirable workplace relationships at organizations, supporting the LMX literature by investigating social relationship perspective of creativity. Creativity is generally liked with development of inter employee conflicts at organizations (Cummings & Oldham, 1997; Janssen, 2003). We investigated creativity of individual as a source of relationship development between subordinates and supervisors. Through this study we found that creativity is not always linked with conflicts at organizations. Creativity as a unique competency of individuals is a predictor of quality LMX at organizations.

Also, our findings generally support the LMX development that in later stage of LMX relationships competency related factors more dominantly shape relationships at organizations (e.g. Bauer & Green, 1996). Individual behaviors and characteristics are related to LMX developments and are also related to development of trust in relationships. Although, these arguments existed in previous literature but we bring these arguments together in a single model. Individual creativity proved to be an important predictor of LMX quality at organizations. Coupled with previous findings (e.g. Bauer & Green, 1996), our results suggests that competency should be considered a pivotal variable in LMX development. We also advanced LMX literature by strengthening the concept that followers' characteristics predict LMX at organizations.



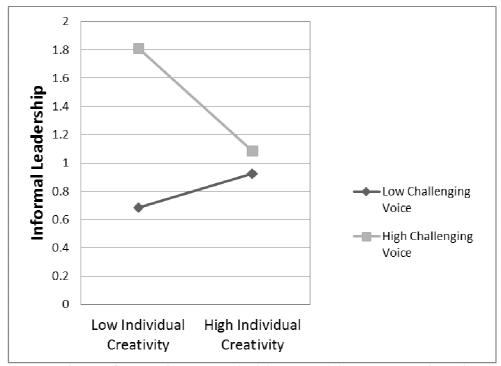


Figure 2: Plot of Interaction between individual creativity and challenging voice

In early stage of LMX development demographic characteristics are more dominant and in later stages trust and competency related characteristics predict and shape LMX quality at organizations (e.g. Dienesch & Liden, 1986; Graen & Scandura, 1987; Bauer & Green, 1996; Dulebohn et al., 2012). In line with this theory, as hypothesized, we found that individual creativity predict LMX quality at organizations. Also as expected, we found that subordinates' challenging voice behavior negatively moderate the relationship between individual creativity and LMX, and supportive voice behavior positively moderates the relationship between individual creativity and LMX. Indicating that supportive voice behaviors promote trust while challenging voice behaviors impedes trust in relationships. These empirical findings supporting interpersonal trust development literature that behaviors which demonstrate positive expectations, personalized support, benevolence, supportive behaviors, and loyalty expectations promotes interpersonal trust in relationships (Colquitt et al., 2007; Dirks & Ferrin, 2002; Bews & Rossouw, 2002; Young & Perrewe, 2000; De Jong et al., 2007; Jap, Robertson, & Hamilton, 2011; Hernandez, 2008; Korsgaard et al., 2002). Also, consistent with previous studies on voice, we found that type of voice behavior predicts managerial response for that focal employee (Burris, 2012). So, quality of relationships with formal leader depends on the type of voice exhibited by focal employee at organizations. All of the predictions made in this study are supported by our results which are theoretically significant and meaningful.

Followers' characteristics are necessary to investigate in leadership research so that dynamic nature of leader-follower relationships can be explained as most of leadership research is from leaders' perspective (Uhl-Bien et al., 2014). So, following these recommendations we also contributed to leadership literature by investigating followers' characteristics for development of relationships at organizations as in dyadic relationships both parties influence the behavior of other (Engle & Lord, 1997; Lord & Maher, 1991). We investigated subordinates as a source of relationship development at organizations. Our results revealed that individuals who are creative face it easy to develop quality relationships with their formal leaders. However, their supportive or challenging voice behaviors shape these relationships at organizations by promoting or impeding trust in relationships.

5.2. Practical Implications

Different aspects of leadership have been investigated but most of previous research on leadership is on student teams or teams which were specifically composed for research and for some specific time period in experimental environments (Hogan, Curphy, & Hogan, 1994; Wheelan & Johnston, 1996). Leadership research lacks findings from real life teams (e.g., Vecchio, 2002). Also, creativity is rarely studied for relationship building at organizations. So till date we know less about the real life relationships of supervisors with their subordinates specifically when subordinate is a creative individual. So, understanding the relationship of creative subordinate and supervisor in real life teams is significant and critical. Although, researchers replicate the actual work environment for their research but in reality things are entirely different with real life teams as compared with student teams or the teams composed in controlled environment. Real life team compositions are different, they



perform real and variety of tasks, their relationships are based on real factors, group life spans are large, and their relationships are affected by real life factors at organizations. Research on real life employees will help researchers and practitioners to understand that what factors actually promote relationships at organizations.

Creativity and social interactions are important parts of organizations. Organizations rely on creative output of their employees (Amabile, 1988; George, 2007; Zhou & Shalley, 2010; Zhou & Shalley, 2010). Social interactions improve performance of creative individuals. These arguments existed in creativity literature. We made an effort to support social side of creative individual by investigating development of social relationships with formal leader at organizations. Organizations are social units consists of different nodes, each node represent some individual or group of individuals. Each and every link from one node to another one represents a relationship at organizations. In this study we investigated one to one relationship link between creative individual and his/her supervisor. Our empirical findings will help academia and practitioners to closely understand the dynamic nature of relationships which creative individuals maintain with their formal leaders at organizations. Our results revealed that creativity of subordinate is a strong predictor of quality relationship at organizations. Voice behavior of creative subordinate can shape this relationship by promoting or impeding trust in relationship. Supportive voice behavior of creative individual will promote interpersonal trust and will strengthen his/her relationships with formal leaders. However, challenging voice behavior of creative individual will impedes trust and will weaken his relationship with formal leaders. Relationships of creative individuals with their formal leaders will depend on the behavior they show through their voice at organizations. Our results can also be explained in other way that when individual creativity of subordinates is coupled with supportive voice it promote trust and develops relationship and when individual creativity of subordinates is coupled with challenging voice behavior then it promotes threat and impedes relationships. So, creative individuals who want to maintain quality relationships with their supervisors are advised to show more cooperative behavior through their supportive voice and less challenging voice behavior at organizations.

6. Limitations and future research

Although through our empirical findings we provided valuable information for both academia and practitioners. But this research is also not free from limitations. First, although, we have theoretical reason to expect that individual creativity will precede the LMX but we also know that LMX is a temporal process which develops over time after several successful interactions between supervisor and subordinate (e.g. Bauer & Green, 1996). So, keeping in view the temporal nature of LMX a longitudinal study is necessary to completely understand the true nature of relationship development between supervisors and subordinates. Future research should explore this relationship by separating data collection for individual creativity and LMX at different points in time.

Second, as per our requirements, in our study we investigated LMX using mature teams and already developed dyads. But new organization members are desirable to investigate LMX at organizations because they are new to organization and relationships (Dienesch & Liden, 1986). So, we again recommend a longitudinal study which is required to completely understand how demographic characteristics bring creative individual close to their manager and then how due to their creativity quality relationships are shaped at organizations.

Third, we collected data from the teams at one point in time. This restricts our chance to check that whether any change in dyads between times have any effect on relationship between employee's creativity and leader relations. Further research should investigate collecting data from the dyads whose supervisors changed between times. This type of research will clear more dynamic picture of the relationship between employee's competency and formal leader's relations.

Finally, future research of different industry other than financial institutions will clear more dynamic picture of relationship building between creative individual and formal leaders. This kind of research will clear our understanding that whether relationship building between creative individual and formal leaders is same in other industries or not. Also, we tested interpersonal trust as a moderator in our study; future research should use different frameworks like OCB, network positions, impression management, etc. to test relationship between creativity and LMX and also how these relationships are shaped in presence of these variables. We used individual creativity as a measure of competency at organizations, future research should use other aspects to competency for LMX development so that a clear and more dynamic picture of LMX based on followers' characteristics come out.

7. Conclusion

Through this study, we extended creativity literature by exploring most desirable social relationships at organization: the relationships with formal leaders. We have also shown that Followers' characteristics related to competency predict quality relationships at organizations. Individual creativity of subordinate will precede the LMX at organizations. However, behavioral choices of subordinates which promote interpersonal trust also plays vital role in shaping relationship between individual creativity and LMX. Challenging voice behavior impedes interpersonal trust and relationships building between creative individual and formal leader. However,



supportive voice behavior of subordinate develops interpersonal trust and promotes relationship building between creative individual and formal leaders. Our findings indicate that, creative individuals can develop beneficial quality relationships with their supervisors if they show more supportive behavior and less challenging behavior through their voice at organizations. Further research in trust and threat of competency in relationships will be a fruitful area.

References

- Amabile, T. (1996). Creativity in context: Westview press.
- Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of personality and social psychology*, 45(2), 357.
- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior*, 10(1), 123-167.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of management journal*, 39(5), 1154-1184.
- Andrews, F. M. (1979). Scientific productivity: The effectiveness of research groups in six countries.
- Andrews, J., & Smith, D. C. (1996). In search of the marketing imagination: Factors affecting the creativity of marketing programs for mature products. *Journal of Marketing Research*, 174-187.
- Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior*, 23(3), 267-285.
- Baer, M. (2010). The strength-of-weak-ties perspective on creativity: a comprehensive examination and extension. *Journal of Applied psychology*, 95(3), 592.
- Barron, F., & Harrington, D. M. (1981). Creativity, intelligence, and personality. *Annual review of psychology*, 32(1), 439-476.
- Basadur, M., Graen, G. B., & Green, S. G. (1982). Training in creative problem solving: Effects on ideation and problem finding and solving in an industrial research organization. *Organizational Behavior and Human Performance*, 30(1), 41-70.
- Basadur, M., Wakabayashi, M., & Graen, G. B. (1990). Individual problem solving styles and attitudes toward divergent thinking before and after training. *Creativity Research Journal*, *3*(1), 22-32.
- Baucus, M. S., Norton Jr, W. I., Baucus, D. A., & Human, S. E. (2008). Fostering creativity and innovation without encouraging unethical behavior. *Journal of Business Ethics*, 81(1), 97-115.
- Bauer, T. N., & Green, S. G. (1996). Development of leader-member exchange: A longitudinal test. *Academy of management journal*, 39(6), 1538-1567.
- Bews, N. F., & Rossouw, G. J. (2002). A role for business ethics in facilitating trustworthiness. *Journal of Business Ethics*, 39(4), 377-390.
- Blatt, R. (2009). Tough love: How communal schemas and contracting practices build relational capital in entrepreneurial teams. *Academy of management review*, 34(3), 533-551.
- Brower, H. H., Lester, S. W., Korsgaard, M. A., & Dineen, B. R. (2008). A closer look at trust between managers and subordinates: Understanding the effects of both trusting and being trusted on subordinate outcomes. *Journal of Management*.
- Burris, E. R. (2012). The risks and rewards of speaking up: Managerial responses to employee voice. *Academy of management journal*, 55(4), 851-875.
- Campbell, D. T. (1960). Blind variation and selective retentions in creative thought as in other knowledge processes. *Psychological review*, 67(6), 380.
- Chen, C.-H. V., Li, H.-H., & Tang, Y.-Y. (2009). Transformational leadership and creativity: exploring the mediating effects of creative thinking and intrinsic motivation. *International Journal of Management and Enterprise Development*, 6(2), 198-211.
- Cialdini, R. B. (1993). Influence: The psychology of persuasion. New York: Morrow.
- Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: a meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied psychology*, 92(4), 909.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900.
- Cummings, A., & Oldham, G. R. (1997). Enhancing creativity: Managing work contexts for the high potential employee. *California Management Review*, 40(1), 22.
- De Dreu, C. K., & Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction: a meta-analysis. *Journal of Applied psychology*, 88(4), 741.
- De Jong, S. B., Van der Vegt, G. S., & Molleman, E. (2007). The relationships among asymmetry in task dependence, perceived helping behavior, and trust. *Journal of Applied psychology*, 92(6), 1625.



- Devanna, M. A., & Tichy, N. (1990). Creating the competitive organization of the 21st century: The boundaryless corporation. *Human resource management*, 29(4), 455-471.
- Dienesch, R. M., & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development. *Academy of management review*, 11(3), 618-634.
- Dietz, G., & Hartog, D. N. D. (2006). Measuring trust inside organisations. Personnel Review, 35(5), 557-588.
- Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: meta-analytic findings and implications for research and practice. *Journal of Applied psychology*, 87(4), 611.
- 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(6), 1715-1759.
- Dutton, J. E., & Ashford, S. J. (1993). Selling issues to top management. *Academy of management review, 18*(3), 397-428.
- Dyne, L. V., Ang, S., & Botero, I. C. (2003). Conceptualizing Employee Silence and Employee Voice as Multidimensional Constructs*. *Journal of Management Studies*, 40(6), 1359-1392.
- Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of Applied psychology*, 94(3), 654.
- Eisenberger, R., & Armeli, S. (1997). Can salient reward increase creative performance without reducing intrinsic creative interest? *Journal of personality and social psychology*, 72(3), 652.
- Engle, E. M., & Lord, R. G. (1997). Implicit theories, self-schemas, and leader-member exchange. *Academy of management journal*, 40(4), 988-1010.
- Epitropaki, O., & Martin, R. (2005). From ideal to real: a longitudinal study of the role of implicit leadership theories on leader-member exchanges and employee outcomes. *Journal of Applied psychology*, 90(4), 659.
- Ferrin, D. L., Bligh, M. C., & Kohles, J. C. (2008). It takes two to tango: An interdependence analysis of the spiraling of perceived trustworthiness and cooperation in interpersonal and intergroup relationships. *Organizational behavior and human decision processes*, 107(2), 161-178.
- Ferrin, D. L., Dirks, K. T., & Shah, P. P. (2006). Direct and indirect effects of third-party relationships on interpersonal trust. *Journal of Applied psychology*, 91(4), 870.
- Ferris, G. R., Liden, R. C., Munyon, T. P., Summers, J. K., Basik, K. J., & Buckley, M. R. (2009). Relationships at work: Toward a multidimensional conceptualization of dyadic work relationships. *Journal of Management*.
- Frese, M., Teng, E., & Wijnen, C. J. (1999). Helping to improve suggestion systems: Predictors of making suggestions in companies. *Journal of Organizational Behavior*, 20(7), 1139-1155.
- Fryxell, G. E., Dooley, R. S., & Vryza, M. (2002). After the ink dries: the interaction of trust and control in US based international joint ventures. *Journal of Management Studies*, *39*(6), 865-886.
- Fuller, J. B., Barnett, T., Hester, K., Relyea, C., & Frey, L. (2007). An exploratory examination of voice behavior from an impression management perspective. *Journal of Managerial Issues*, 134-151.
- George, J. M. (2007). 9 Creativity in Organizations. The academy of management annals, 1(1), 439-477.
- George, J. M., & Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: an interactional approach. *Journal of Applied psychology*, 86(3), 513.
- George, J. M., & Zhou, J. (2002). Understanding when bad moods foster creativity and good ones don't: the role of context and clarity of feelings. *Journal of Applied psychology, 87*(4), 687.
- 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.
- Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of management journal*, 47(2), 209-226.
- Gillespie, N. A., & Mann, L. (2004). Transformational leadership and shared values: The building blocks of trust. *Journal of Managerial Psychology*, *19*(6), 588-607.
- Glynn, M. A. (1996). Innovative genius: A framework for relating individual and organizational intelligences to innovation. *Academy of management review*, 21(4), 1081-1111.
- Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. *Personality psychology in Europe*, 7, 7-28.
- Gómez, C., & Rosen, B. (2001). The leader-member exchange as a link between managerial trust and employee empowerment. *Group & Organization Management*, 26(1), 53-69.
- Gorden, W. I. (1988). Range of employee voice. Employee Responsibilities and Rights Journal, 1(4), 283-299.
- Graen, G. B., & Scandura, T. A. (1987). Toward a psychology of dyadic organizing. *Research in organizational behavior*.
- 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(2), 219-247.
- Graham, J. W. (1991). An essay on organizational citizenship behavior. *Employee Responsibilities and Rights Journal*, 4(4), 249-270.
- Granovetter, M. S. (1973). The strength of weak ties. American journal of sociology, 1360-1380.
- Green, S., Anderson, S., & Shivers, S. (1996). An examination of organizational constraints on leader-member exchange. *Organizational behavior and human decision processes*, 66, 203-214.
- Gulati, R., & Sytch, M. (2007). Dependence asymmetry and joint dependence in interorganizational relationships: Effects of embeddedness on a manufacturer's performance in procurement relationships. *Administrative science quarterly*, 52(1), 32-69.
- Hernandez, M. (2008). Promoting stewardship behavior in organizations: A leadership model. *Journal of Business Ethics*, 80(1), 121-128.
- Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management*, 24(5), 623-641.
- Hogan, R., Curphy, G. J., & Hogan, J. (1994). What we know about leadership: Effectiveness and personality. *American psychologist*, 49(6), 493.
- Huang, X., Iun, J., Liu, A., & Gong, Y. (2010). Does participative leadership enhance work performance by inducing empowerment or trust? The differential effects on managerial and non managerial subordinates. *Journal of Organizational Behavior*, 31(1), 122-143.
- Huff, L., & Kelley, L. (2003). Levels of organizational trust in individualist versus collectivist societies: A seven-nation study. *Organization Science*, 14(1), 81-90.
- Ireland, R. D., Hitt, M. A., & Vaidyanath, D. (2002). Alliance management as a source of competitive advantage. *Journal of Management*, 28(3), 413-446.
- Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co workers. *Journal of Occupational and Organizational Psychology*, 76(3), 347-364.
- Jap, S., Robertson, D. C., & Hamilton, R. (2011). The dark side of rapport: Agent misbehavior face-to-face and online. *Management Science*, 57(9), 1610-1622.
- Kasof, J. (1995). Explaining creativity: The attributional perspective. *Creativity Research Journal*, 8(4), 311-366. Katz, D., & Kahn, R. L. (1978). The social psychology of organizations.
- Kim, P. H., Ferrin, D. L., Cooper, C. D., & Dirks, K. T. (2004). Removing the shadow of suspicion: the effects of apology versus denial for repairing competence-versus integrity-based trust violations. *Journal of Applied psychology*, 89(1), 104.
- Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of management journal*, 24(4), 689-713.
- Kramer, R. M. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual review of psychology*, *50*(1), 569-598.
- Krosgaard, M. A., Brodt, S. E., & Whitener, E. M. (2002). Trust in the face of conflict: the role of managerial trustworthy behavior and organizational context. *Journal of Applied psychology*, 87(2), 312.
- Lapierre, L. M., & Hackett, R. D. (2007). Trait conscientiousness, leader member exchange, job satisfaction and organizational citizenship behaviour: A test of an integrative model. *Journal of Occupational and Organizational Psychology*, 80(3), 539-554.
- Lapierre, L. M., Hackett, R. D., & Taggar, S. (2006). A test of the links between family interference with work, job enrichment and leader–member exchange. *Applied Psychology*, 55(4), 489-511.
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: a critical review and meta-analysis. *Journal of Applied psychology*, 87(1), 52.
- LePine, J. A., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of Applied psychology*, 83(6), 853.
- Lev, B. (2004). Sharpening the intangibles edge. *Harvard business review*, 6, 109-116.
- Lewicki, R. J., Tomlinson, E. C., & Gillespie, N. (2006). Models of interpersonal trust development: Theoretical approaches, empirical evidence, and future directions. *Journal of Management*, 32(6), 991-1022.
- Liao, T.-S., & Rice, J. (2010). Innovation investments, market engagement and financial performance: A study among Australian manufacturing SMEs. *Research Policy*, *39*(1), 117-125.
- Liden, R. C., & Graen, G. (1980). Generalizability of the vertical dyad linkage model of leadership. *Academy of management journal*, 23(3), 451-465.
- Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader-member exchange theory: The past and potential for the future. *Research in personnel and human resources management, 15*, 47-120.
- Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early development of leader-member exchanges. *Journal of Applied psychology*, 78(4), 662.
- Lord, R. G., & Maher, K. J. (2002). Leadership and information processing: Linking perceptions and



- performance: Routledge.
- Madjar, N., & Ortiz Walters, R. (2008). Customers as contributors and reliable evaluators of creativity in the service industry. *Journal of Organizational Behavior*, 29(7), 949-966.
- Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of management journal*, 43(4), 738-748.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of management review*, 20(3), 709-734.
- Mayer, R. C., & Gavin, M. B. (2005). Trust in management and performance: who minds the shop while the employees watch the boss? *Academy of management journal*, 48(5), 874-888.
- Menges, J. I., Walter, F., Vogel, B., & Bruch, H. (2011). Transformational leadership climate: Performance linkages, mechanisms, and boundary conditions at the organizational level. *The leadership quarterly*, 22(5), 893-909.
- Monge, P. R., Cozzens, M. D., & Contractor, N. S. (1992). Communication and motivational predictors of the dynamics of organizational innovation. *Organization Science*, 3(2), 250-274.
- Moss Kanter, R. (1988). When a thousand flowers bloom: Structural, collective and social conditions for innovation in organization. Research in Organizational Behavior, eds. Staw BM and Cummings LL, 10.
- Mueller, J. S., & Kamdar, D. (2011). Why seeking help from teammates is a blessing and a curse: a theory of help seeking and individual creativity in team contexts. *Journal of Applied psychology*, 96(2), 263.
- Mumford, M. D., & Gustafson, S. B. (1988). Creativity syndrome: Integration, application, and innovation. *Psychological bulletin*, 103(1), 27.
- Mumford, M. D., & Licuanan, B. (2004). Leading for innovation: Conclusions, issues, and directions. *The leadership quarterly*, 15(1), 163-171.
- Muthén, L. K., & Muthén, B. O. (2010). 1998–2010 Mplus user's guide. Muthén and Muthén.
- Nahrgang, J. D., Morgeson, F. P., & Ilies, R. (2009). The development of leader–member exchanges: Exploring how personality and performance influence leader and member relationships over time. *Organizational behavior and human decision processes*, 108(2), 256-266.
- Obstfeld, D. (2005). Social networks, the tertius iungens orientation, and involvement in innovation. *Administrative science quarterly*, 50(1), 100-130.
- Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of management journal*, 39(3), 607-634.
- Özer, Ö., Zheng, Y., & Chen, K.-Y. (2011). Trust in forecast information sharing. *Management Science*, 57(6), 1111-1137.
- Payne, R. (1990). The effectiveness of research teams: A review: John Wiley & Sons.
- Perry-Smith, J. E. (2006). Social yet creative: The role of social relationships in facilitating individual creativity. *Academy of management journal*, 49(1), 85-101.
- Perry-Smith, J. E., & Shalley, C. E. (2003). The social side of creativity: A static and dynamic social network perspective. *Academy of management review*, 28(1), 89-106.
- Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of business Venturing*, 26(4), 441-457.
- Rosing, K., Frese, M., & Bausch, A. (2011). Explaining the heterogeneity of the leadership-innovation relationship: Ambidextrous leadership. *The leadership quarterly*, 22(5), 956-974.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of management review*, 23(3), 393-404.
- Ruscio, J., Whitney, D. M., & Amabile, T. M. (1998). Looking inside the fishbowl of creativity: Verbal and behavioral predictors of creative performance. *Creativity Research Journal*, 11(3), 243-263.
- 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(4), 579.
- Schyns, B., & von Collani, G. (2002). A new occupational self-efficacy scale and its relation to personality constructs and organizational variables. *European Journal of Work and Organizational Psychology*, 11(2), 219-241.
- Shalley, C. E. (1991). Effects of productivity goals, creativity goals, and personal discretion on individual creativity. *Journal of Applied psychology*, 76(2), 179.
- Shalley, C. E. (1995). Effects of coaction, expected evaluation, and goal setting on creativity and productivity. *Academy of management journal*, 38(2), 483-503.
- Shalley, C. E., Gilson, L. L., & Blum, T. C. (2000). Matching creativity requirements and the work environment: Effects on satisfaction and intentions to leave. *Academy of management journal*, 43(2), 215-223.



- Shalley, C. E., & Perry-Smith, J. E. (2001). Effects of social-psychological factors on creative performance: The role of informational and controlling expected evaluation and modeling experience. *Organizational behavior and human decision processes*, 84(1), 1-22.
- Shalley, C. E., & Zhou, J. (2008). Organizational creativity research: A historical overview. *Handbook of*, 1.
- Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: the pivotal role of intragroup trust. *Journal of Applied psychology*, 85(1), 102.
- Simonton, D. K. (1975). Sociocultural context of individual creativity: a transhistorical time-series analysis. *Journal of personality and social psychology*, 32(6), 1119.
- Simonton, D. K. (1984). Artistic creativity and interpersonal relationships across and within generations. *Journal of personality and social psychology*, 46(6), 1273.
- Simonton, D. K. (1999). Origins of genius: Darwinian perspectives on creativity: Oxford University Press.
- Snijders, T. A. (2011). Multilevel analysis: Springer.
- Snodgrass, S. E., Hecht, M. A., & Ploutz-Snyder, R. (1998). Interpersonal sensitivity: expressivity or perceptivity? *Journal of personality and social psychology*, 74(1), 238.
- Sonpar, K., Handelman, J. M., & Dastmalchian, A. (2009). Implementing New Institutional Logics in Pioneering Organizations: The Burden of Justifying Ethical Appropriateness and rustworthiness. *Journal of Business Ethics*, 90(3), 345-359.
- Spencer, D. G. (1986). Employee voice and employee retention. *Academy of management journal*, 29(3), 488-502.
- Sternberg, R. J., & Lubart, T. I. (1999). The concept of creativity: Prospects and paradigms. *Handbook of creativity*, 1, 3-15.
- Taggar, S. (2001). Group composition, creative synergy, and group performance. *The Journal of Creative Behavior*.
- Taggar, S. (2002). Individual creativity and group ability to utilize individual creative resources: A multilevel model. *Academy of management journal*, 45(2), 315-330.
- Tan, J., Yang, J., & Veliyath, R. (2009). Particularistic and system trust among small and medium enterprises: A comparative study in China's transition economy. *Journal of business Venturing*, 24(6), 544-557.
- Thompson, L. (2003). Improving the creativity of organizational work groups. *The Academy of Management Executive*, 17(1), 96-109.
- Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, *52*(3), 591-620.
- Uhl-Bien, M., & Maslyn, J. M. (2003). Reciprocity in manager-subordinate relationships: Components, configurations, and outcomes. *Journal of Management*, 29(4), 511-532.
- Uhl-Bien, M., Riggio, R. E., Lowe, K. B., & Carsten, M. K. (2014). Followership theory: A review and research agenda. *The leadership quarterly*, 25(1), 83-104.
- Van Breukelen, W., Schyns, B., & Le Blanc, P. (2006). Leader-member exchange theory and research: Accomplishments and future challenges. *Leadership*, 2(3), 295-316.
- Van Dyne, L., Kamdar, D., & Joireman, J. (2008). In-role perceptions buffer the negative impact of low LMX on helping and enhance the positive impact of high LMX on voice. *Journal of Applied psychology*, 93(6), 1195.
- Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of management journal*, 41(1), 108-119.
- Van Gundy, A. (1987). Organizational creativity and innovation. Frontiers of creativity research, 358, 379.
- Vecchio, R. P. (2002). Leadership and gender advantage. *The leadership quarterly*, 13(6), 643-671.
- Vincent, L., & Kouchaki, M. (2015). Creative, Rare, Entitled, and Dishonest: How Commonality of Creativity in One's Group Decreases an Individual's Entitlement and Dishonesty. *Academy of management journal*, amj. 2014.1109.
- Visart, N. (1979). Communication between and within research units. Scientific productivity, 223, 251.
- 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.
- West, M. A., & Farr, J. L. (1990). Innovation and creativity at work: Psychology and organizational strategies: Chichester, England: Wiley.
- Wheelan, S. A., & Johnston, F. (1996). The role of informal member leaders in a system containing formal leaders. *Small group research*, 27(1), 33-55.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of management review*, 18(2), 293-321.
- Yamagishi, T., & Yamagishi, M. (1994). Trust and commitment in the United States and Japan. *Motivation and emotion*, 18(2), 129-166.
- Yammarino, F. J., Dionne, S. D., Chun, J. U., & Dansereau, F. (2005). Leadership and levels of analysis: A



- state-of-the-science review. The leadership quarterly, 16(6), 879-919.
- Young, A. M., & Perrewe, P. L. (2000). What did you expect? An examination of career-related support and social support among mentors and protégés. *Journal of Management*, 26(4), 611-632.
- Zhang, Y., Huai, M.-y., & Xie, Y.-h. (2015). Paternalistic leadership and employee voice in China: A dual process model. *The leadership quarterly*, 26(1), 25-36.
- Zhou, J. (2003). When the presence of creative coworkers is related to creativity: role of supervisor close monitoring, developmental feedback, and creative personality. *Journal of Applied psychology*, 88(3), 413.
- Zhou, J. (2008). Promoting creativity through feedback. Handbook of organizational creativity, 125-145.
- Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of management journal*, 44(4), 682-696.
- Zuckerman, H. (1977). Scientific elite: Nobel laureates in the United States: Transaction Publishers.