Implicit Leadership Theories (ILTs) and Change Behaviors: the Mediating Role of LMX

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Abstract

Capitalizing upon Implicit Leadership Theories (ILTs) and Leader-member exchange (LMX), this research aims to explore the relationship between the congruence of employees' ILTs and those traits of their managers and employees' supportiveness, resistance and behavioral creativity for change. After distributing three questionnaires at three points among teachers, 296 participants completed all three questionnaires. Having conducted some confirmatory factor analyses (CFAs), we utilized Latent Congruence Modeling (LCM) to analyze the final proposed models. The findings showed that the congruence has no direct effects on behavioral change responses. However, LMX can function as a full mediator. LMX has significant relationships with employees' support and resistance for change. Nevertheless, the path coefficient was non-significant for behavioral creativity to change. This study, therefore, extends prevailing follower-centric perspective on leadership and strengthens its essence in organizational change with fundamental socio-cognitive research.

Keywords

Implicit Leadership Theories, change behavior responses, LMX, congruence.

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Introduction

In the 21st century, external environment factors such as increasing competition, customer dissatisfaction, and reduced revenues have rendered a plethora of strategic changes in different types of organizations (e.g., Sonenshein, 2010; Haas et al., 2016). Although these changes are numerous, few of them have succeeded in reaching targets including cost reduction, employee attitude and productivity (Paper & Chang, 2005; Marks, 2006).

Among the variables leading to the failure of organizational change (OC) endeavors, researchers and scholars have emphasized the role of the human element. Organizational change entails support and change–specific self-efficacy (Nguyen, 2016) as enactments to new behaviors to achieve desired changes (Armenakis & Bedeian, 1999). In this vein, a high quality relationship between leaders and followers can facilitate change implementation and lead to more positive change reactions and outcomes (Nguyen, 2016; Arif et al., 2017). The perception of having a supportive leader reduces uncertainty and increases commitment to change (Martin, 2005; Rafferty & Griffin, 2006).

The purpose of the present study is to explore the mechanism through which the difference between employees' ILTs and actual prototypes and anti-prototypes of their supervisors can impact change behaviors via LMX. Accordingly, this research has several contributions. First, based on the comprehensive review by Junker and van Dick (2014), no research has integrated two realms of ILTs and change management. To the best knowledge of the authors, this research is the first to consider ILTs as a predictor of change behavioral responses which can lead to change success. Second, dissecting change behaviors into three dimensions and considering them as the outcomes of ILTs and LMX is unprecedented. This approach can offer a worthwhile contribution to the change literature in organizations. Third, linking ILTs and creativity has received little attention from researchers (Epitropaki et al., 2013). This research tries to consider ILTs as a variable impacting followers' creativity indirectly via LMX during change. Fourth, despite the immense importance of social and cognitive factors influencing change, amazingly enough, only few studies have investigated potential mediators explaining how leadership actually impacts performance in change contexts (Nemanich & Keller, 2007;

Seo et al, 2012).This research introduced LMX as a mediator causing the manifestation of change acceptance when supervisor's traits are congruent with those of leaders.

Theoretical background and hypotheses

ILTs and organizational change behaviors

Based upon Categorization Theory (Rosch, 1978), people are divided into two main groups of leaders and non-leaders (Lord, 1985). Followers judge managers according to the perceived match between employees' ILTs, some structures and cognitively-formed prototypes singling out ideal or typical leaders, on the one hand, and supervisors' characteristics on the other. Researchers have shown that the more followers' ILTs match the characteristics of a supervisor, the more supervisors' decisions are accepted (Lord, 1985; Epitropaki & Martin, 2005).

Organizational change, as an essence of the survival and prosperity of organizations (Carter et al., 2012), imposes difficulties and tensions in sustaining former levels of performance and mediates the adaptation to new job requirements (Kanfer & Ackerman, 1989). In this regard, showing appropriate leadership can attenuate the detrimental effects of tension and facilitate effective performance (Burke, 2002; Bass & Riggio, 2006). Predominantly, organizational change is investigated through a simple lens of "supportiveness to change" in research. However, Seu et al., (2012) showed that not only supportiveness to change but also resistant behaviors and employee creativity influence success during organizational change.

Change supportive behaviors are the actions employees engage in to actively participate in, facilitate, and contribute to a planned change (Kim et al., 2011). Likewise, creative behavior encompasses innovative insights and ideas consistent with the spirit and objectives of change (Heifetz & Laurie, 2001). In contrast, resistance to change is employees' behavior seeking to disrupt, or challenge the prevailing discourses, assumptions, and power relations (Folger & Skarlicki 1999).

Social exchange theory (Blau, 1964) is a robust organizational behavior paradigm (Cropanzano & Mitchell, 2005) to provide justifications for followers' supportiveness to change. In contrast with purely economic exchanges, social exchanges can only cause the feelings of personal obligation, trust and gratitude (Blau, 1964). As a

focal point, social exchange has roots in reciprocity (Gouldner, 1960), which indicates that the reciprocation of good treatment is a foundation for interpersonal relationships. Supervisors' sympathy, compassion, understanding and wisdom (i.e., leaders' prototypes based on Offermann et al. (1994)) can be regarded as leaders' favor and help; therefore, followers may feel indebted to the understanding of the leader, which can provide the preconditions for followers' support. In other words, social exchange theory can be the main pillar of commitment-based HR practices (Neves et al., 2018) and can guarantee employees' support during change.

In organizational change research, change agents are in the center of attention (Neves et al., 2018). Change agents (i.e., leaders) are purported to know what they are doing and whether they are doing it well. Uncertainty, risk and fear from failure are inherent to change. Therefore, organizational change faces the barriers of resistance to change. Based on uncertainty reduction theory (Berger & Calabrese, 1975), individuals try to minimize uncertainty in their relationships with others before any action. This is the outcome of individual's endeavor to "make sense" of the environment. Change agents play critical roles in change. ILTs are used by individuals as a sense making function (Weick, 1995). Based on these points, when leaders behave aligned with the interests of their subordinates and deter from harming them (i.e., they fit their ILTs), employees are more certain, secure and inclined to compensate the treatment through showing loyalty to their organization in which these leaders act as change agents.

The componential theory of organizational creativity (Amabile, 1988) provides support for the importance of leaders' support. This theory states that the perceived work environment impacts individual creativity significantly; it highlights local leader as an important element impacting subordinate's creativity. According to Offermann et al. (1994), a leader is characterized by inspiration and dynamism, both of which influence creativity (Jyoti & Dev, 2015).

Using MLQ-5R, Bass and Avolio (1989) demonstrated that leadership prototypes correlate with those of transformational leaders. Based on their research, Bass (1997) claimed that when people conjure up a picture of a prototypical or an ideal leader, transformational leaders are selected. In an international point of view,

the results of GLOBE project also supports this idea and demonstrates that Culturally endorsed Implicit Leadership Theories (CLT) are related to charismatic/transformational leadership (Den Hortog et al., 1999). The findings of the research done by Seo et al. (2012) showed transformational leadership (i.e. the explicit form of ILTs in leaders) influenced supportive, creative and resistant behaviors of employees via positive affect and commitment to change. Hence, it is assumed that the congruence between followers' ILTs and their recognized ILTs for their current supervisors (Congruence[1]) at the time of organizational change can mitigate resistance to change and increase support for it. Hence, it is hypothesized that:

H1: Congruence on prototypes will have a positive effect on support for change (Hypothesis 1a), a negative relationship with behavioral resistance to change (Hypothesis 1b) and a positive relationship with creative behavior for the change (Hypothesis 1c).

H2: Congruence on anti-prototypes will have a negative effect on support for change (Hypothesis 2a), a positive relationship with behavioral resistance to change (Hypothesis 2b) and a negative relationship with creative behavior for the change (Hypothesis 2c).

The mediating role of LMX
Under the conditions of change, it seems essential that followers access adaptive resources including personal support from managers, free-flowing information and reciprocate this relationship in order to fine-tune changes and sustain high levels of effort at work (Weick & Quinn, 1999, Caldwell et al., 2004). This surmises that the quality of relationship between leaders and followers is more than necessity for a successful change.

Based upon Leader-Member Exchange (LMX) theory, supervisors establish close relationships with only a few subordinates with whom they have high-quality dyadic interactions (Graen & Uhl-Bien, 1995; Graen, 2004). This theory distinguishes low-quality and high-quality relationships by specifying the former with rudimentary exchanges falling under the basic employment contract, whereas the latter is

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1. Congruence is used as the word representing "The congruence between followers' ILTs and their recognized ILTs for their current supervisors" in order to shorten the text and abstain from repeating the long phrase.

characterized by liking, loyalty, and professional respect between leaders and employees (Dienesch & Liden, 1986). High quality relationship is partially contingent upon the match between followers' leader schema and how their actual one is (Epitropaki & Martin, 2005' Topakas, 2011; Tram-Quon, 2013).

H3: Congruence on prototypes will affect LMX positively.

H4: Congruence on anti-prototypes will affect LMX negatively.

Transformational leadership as a prototypical leadership has been shown as a behavioral style of leadership having a positive impact on continuous incremental organizational change through a high quality relationship (Carter et al., 2012). In return, high quality relationship boosts positive energy (Kahrobaei & Mortazavi, 2016), trust (Hess, 2010), affective commitment (Epitropaki & Martin, 2005) and reduces uncertainty (Epitropaki & Martin, 2005), which are the necessary predictors of behavioral change response (Seo et al., 2012).

Based on the Theory of Coordination (Quinn & Dutton, 2005), the relationship between interpersonal connections and energy acts as the "interplay of speech acts and energy" (Quinn, 2007, p.79). Highlighting energy can engender senses of belongingness, competence and autonomy. Atwar and Carmeli (2009) posited that LMX can positively be linked to energy, causing a high level of involvement in creative work which is the bare-bones essential of aversion from old ways and developing new approaches (Seo et al., 2012). Moreover, consistent with the Theory of Coordination in the workplace, relational leadership forms positive social exchanges between the leader and follower. According to Dutton (2003), high quality relationship leads to positive emotions including joy and interest, helping individuals boost their capacity to think and act in the moment.

High quality LMX can function as an antidote for resistance to change. Research has already shown that cynicism about organizational change, a major building block of change resistance, is curtailed when leaders show transformational leadership behavior (Bommer et al., 2005). Moreover, it is shown that LMX quality functions as a moderator for the relationship between managerial influence tactics and employee resistance to organizational change (Furst et al., 2008). They postulated that employees' interpretations regarding managerial influence behaviors can strengthen dyadic

relationship between managers and employees. For high quality LMX, ingratiation can be conducive to lower resistance. Alternatively, employees attribute sanctions and legitimization tactics to situational factors, reducing the likelihood of their resistance against change.

To sum up, it is postulated that the matching process of "ideal profile–actual manager" (Epitropaki & Martin, 2005, p. 670) is likely to cause employees to get engaged in the appraisal of their managers' behavior and ultimately make followers be more responsive to change behaviorally via high-quality relationships. Hence, it is hypothesized:

H5: LMX quality will be positively related to employees' support for change (H5a), negatively related to behavioral resistance to change (H5b) and positively to behavioral creativity to change (H5c).

H6: LMX quality mediates the relationship between Congruence and employees' behavioral response to change.

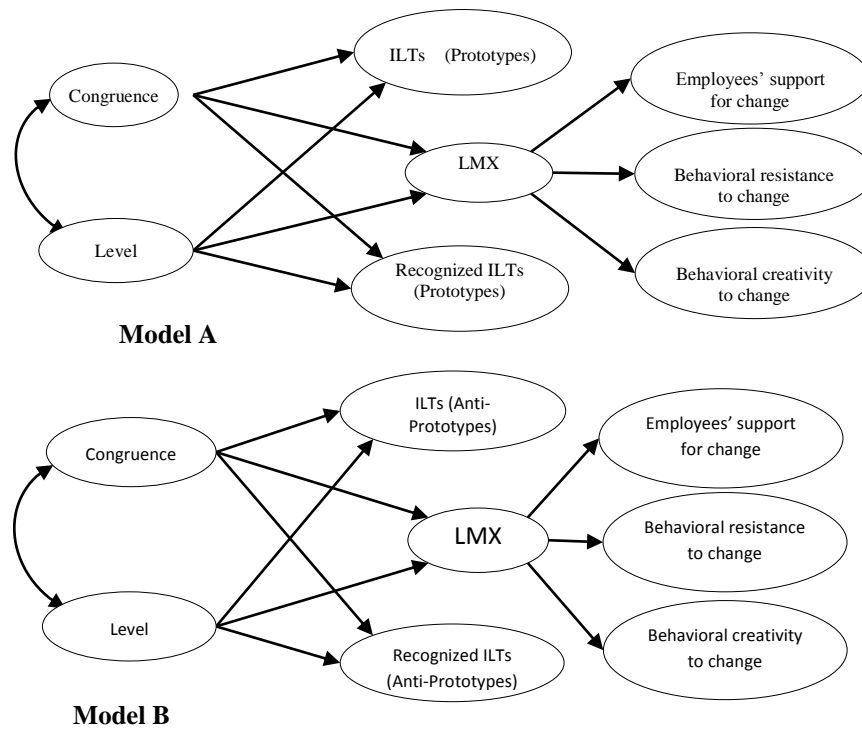The two conceptual models of this study are shown in Fig 1.

Model A

Model B

Fig. 1. Proposed conceptual models

Method

Design and Participants

In order to test the proposed hypotheses, questionnaires were distributed to a sample of English teachers at different branches of an English language institute in three major cities of Iran. The books and methods of teaching changed in this institute which has more than 50 branches all over the country. Consequently, teachers had to adapt themselves to the new system. In this research, we tried to test our hypotheses through data acquired from English language teachers.

In this research context, the relationship between English teachers and branch managers (who have good experience and knowledge of English teaching) likens leader- follower relationship for several reasons. First, the teachers are periodically observed to make sure they teach in accordance with the teaching methodology. This interaction can shape managers' influence on the teachers to reach organizational goals. This is in the heart of leadership definition (Yukl, 2013). Second, some managers are English teachers' colleagues and teach and manage simultaneously. This can increase the interaction between managers and teachers to highlight the leader-member interaction. Third, some authorities are delegated to branch managers to make necessary changes in the branches. Therefore, branch managers can at times break the shell of administration and management and function as leaders.

Three questionnaires were administered to gather data from teachers. These teachers teach basic to advanced level students. They have a wide range of ages with diverse tenures. Some are full-time (teaching for minimum 24 hours a week) and some are part-time. After the acquisition of research department permission, the managers of the branches were informed and the emails of the teachers willing to participate in this research were sent to one of the authors. For this research, we applied convenience sampling, a non- probabilistic method, (Martinez-Mesa et al., 2016) since some teachers were absent or unwilling to take part in this research.

At time 1, which was two months before the initiation of change, the first online questionnaire was distributed in 36 branches to 512 teachers. In total, 422 coded questionnaires were collected with

complete data with a response rate of 82%. One code was assigned to each questionnaire and the participants were asked to write it on the second and third questionnaires they were going to receive. At this stage, they were reassured that all their answers will remain completely confidential. In the first questionnaire, they were asked to rate their implicit leadership theories and the characteristics of their managers according to the same listed traits.

After three weeks, the second questionnaire comprising of LMX items was electronically sent to the email addresses formerly-written on the first questionnaire. After two reminders, 351 complete questionnaires were received after a week. Two months later (approximately a month after change), the last online survey including demographic information and behavioral responses to change questionnaire was sent to those who had completed the second form. Again, they were asked to write down their codes on the questionnaires so that the participants could be anonymously traced.

On the whole, from 351 participants in the two first stages, 296 teachers cooperated during all the three phases, representing 84% of the total participants during approximately five months. 61% percent of the participants were female, and 68% worked full time. Participants' ages were from 19 to 38 years, with a mean of 25 years. Average organizational tenure was approximately 5 years. 16 percent of them had diploma's degree, 59 percent bachelor's degree and the rest had master's degree.

Measures

The questions were originally in English; therefore, they were converted to Persian through an iterate process. In this regard, three bilingual Persian and English scholars were employed. To increase the accuracy of translation, back translation method was applied. First, English questions were translated to Persian and then the outcome was translated back to English by an English-Persian expert to make sure a high degree of accuracy in the translation (Brislin, 1989).

Implicit Leadership Theories (ILTs) and Recognized Implicit Leadership Theories (RILTs). A slightly modified version of the 21-item test was applied to assess teachers' ILTs and their RILTs (Epitropaki and Martin, 2004). On this scale, participants rated items

on 9-point scales (from not at all characteristic to extremely characteristic) depending on whether they thought each of the 21 traits (e.g., "Domineering," "Educated") was the characteristic of an ideal leader and their actual leader, with no additional definition of the term "leader" provided (Offermann et al., 1994). The scale included six dimensions: dedication, intelligence, masculinity, sensitivity, dynamism, and tyranny. Cronbach's alpha indicated acceptable internal reliability in this study for both ILTs and RILTs: prototypes (dedication α=0.81and 0.77; intelligence α=0.89 and 0.84; sensitivity α=0.83 and 0.89; dynamism α=0.83 and 0.85; and anti-prototypes (tyranny α=0.85 and 0.78 and masculinity α=0.84 and 0.89). In the questionnaire, first ILTs were measured and then the respondents were asked to rate their managers according to the same scale. The results of a CFA conducted with the main sample to further evaluate the six-factor plus one second-order factor structure for this measure showed a good fit for both ILTs (χ^2= 15.84 , df= 9; RMSEA= 0.06; CFI= 0.98; TLI=0.97) and RILTs (χ^2= 22.76, df= 9; RMSEA= 0.08; CFI= 0.93; TLI=0.91). Also, independent t-tests demonstrated that mean scores of the respondents for different traits of ILTs and RILTs were not biased by the order of questions.

Behavioral responses to change. In order to measure the three dimensions of change responses, various scales were utilized. Behavioral support was measured by selecting four items from Herscovitch and Meyer's (2002) scale of behavioral support for change. These items were measured through a 5-point scale ranging from 1=strongly disagree to 5=strongly agree to show the degree of engagement in some tasks to support change (e.g., "I've put in a good deal of effort in trying to do what I can to make the change succeed"). The Cronbach's alpha of this scale was 0.88.

Second, in order to measure resistance to change, two questions from Herscovitch and Meyer (2002) were selected. Participants scored the questions through a 5-point Likert scale to show the degree of resisting or sabotaging change initiatives (e.g., "When we have been asked to do new things as a part of the change in the new education system, I have just kept to what I had been doing before the change"; alpha=.79).

Third, the questionnaire developed by Zhou and George (2001) was used to measure creative behavior for change. Six out of 13 items were selected to measure the rate at which the participants suggest novel and creative ideas for the sake of improving change initiations and/or performance. Other questions pertaining to general inclination to be creative are excluded. A sample question is "I have come up with innovative solutions to problems that the changes have brought to my work group." The questions were measured through a 5-point scale (alpha=.87). Having used Confirmatory Factor Analysis (CFA), the authors proved the validity of the three dimensions of behavioral change response factors and demonstrated that these factors construct the proposed second order factor structure (χ^2= 196.82, df= 35, RMSEA= 0.07, CFI= 0.95, TLI= 0.93).

LMX. We measured LMX by using the LMX 7 scale from Graen and Uhl-Bien (1995). Meta-analytical evidence has indicated that, in comparison with other available scales, this scale has the best psychometric properties as well as the highest relationships with outcome variables (Gerstner & Day, 1997). A sample question is "How well does your supervisor understand your problems and needs?" Participants replied through using a 5-point Likert-type scale (1 =not a bit to 5 =a great deal). Cronbach's α was .89.

Control variables. In this study, several variables affecting the results systematically were controlled. Research has shown that more experienced employees are bound to react to organizational change more unfavorably (e.g., van Dam, Oreg, & Schyns, 2007). Moreover, since participants were from different institutes and experienced change differently, two items were considered as control variables in this research. Change significance, showing respondent's perception of change significance to the organization, was measured through a 7-Likert scale (1= minor, 7=extremely major). Furthermore, change impact, indicating the impact of change on job performance, non-work life and organizational climate, was measured through a 7-Likert scale (1=large negative effect, 7=large positive effect). The alpha coefficient was .85.

Data analysis

In order to analyze data and test the hypothesized model, structural equation modeling (SEM) was applied to test hypotheses. The data were analyzed by the IBM SPSS Amos 22 software (Aurbackle, 2013). The robust method of maximum-likelihood estimation was used, because it is based upon a testing approach that takes non-normality into consideration, too (Hu, Bentler, & Kano, 1992; Byrne, 1994). Before testing the hypothesized structural models, a two-stage analysis proposed by Anderson and Gerbing (1988) was carried out. In this analysis, the measurement model was estimated through measuring latent constructs, inter-correlations and factor loadings. Following different researchers such as Williams and Hazer (1986), Joreskog and Sorborn (1986) and Moorman (1991), in this study, multiple and single indicators were both used to represent the latent variables.

To test the structural model, we employed Latent Congruence Modeling (LCM). In this research, the authors tried to find the effects of the gap between followers' ILTs and their ratings for their supervisors on change behavioral responses via LMX. Drawing on recent debates about congruence assessment (Edwards, 2009; Cheung, 2009), LCM is a technique having the capacity to partial out measurement error, in which first order latent factors are modeled (with error associated with indicators) and then second order factors model the level (mean) and congruence (difference) of these latent factors (Chueng, 2009).

To elaborate on the selection of LCM method, in this research, two variables of ILTs for a typical leader and the current leader should be considered. Receiving higher scores on the scale of ILTs does not necessarily mean that the current supervisor is judged as a typical one. As an example, one may believe that having dress sense is sufficient for a typical leader; as a result, the current supervisor who wears very expensive and high quality clothes may not receive more credit for wearing such clothes. Hence, for each trait, one score is for the typical leader and one for the current supervisor, and the gap between these scores is the determiner of how much current supervisor is judged as a typical leader.

Table 1. **Means, standard deviations, ranges, zero-order correlations, and reliabilities of major study variables**

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1.Age	42	6.12	-											
2.Gender	1.58	0.49	0.02	-										
3.Tenure	12	3.78	0.87**	0.01	-									
4.Change significance	3.12	1.46	0.13	0.12	0.02									
5.Change impact	2.81	0.93	0.21**	0.11	-0.15	0.83**								
6.ILTs (Prototypes)	8.23	1.01	0.10	0.02	0.01	0.01	0.02							
7. ILTs (Anti-prototypes)	2.56	1.35	0.08	0.05	0.10	0.10	-0.10	-0.22**						
8. Recognized ILTs (Prototypes)	6.36	1.54	0.03	0.01	0.02	0.08	0.03	0.31**	-0.03					
9. Recognized ILTs (Anti-prototypes)	4.59	1.87	0.01	0.03	0.01	0.01	-0.01	-0.14**	0.33**	0.20**				
10. Leader-member exchange	3.88	0.91	-0.06	0.12	0.01	0.02	0.02	0.34**	-0.08	0.68**	-0.29**			
11. Employee support for change	3.21	0.88	0.02	0.02	-0.03	-0.28**	0.02	0.25**	-0.20**	0.42**	0.81**	0.40**		
12. Behavioral resistance to change	2.02	0.92	0.33**	-0.01	0.02	0.03	0.01	0.20**	0.24**	-0.38**	0.25**	-0.39**	-0.37**	
13. Behavioral creativity to change	3.45	0.78	0.21**	0.03	0.02	0.18*	0.21**	0.19**	-0.14**	0.38**	0.27**	0.12**	0.62**	-0.43**

** p<0.01, ** p<0.001

Results

In table 1, means, standard deviations, zero-order correlations, and reliabilities of major study variables are shown.

Measurement models. Some confirmatory factor analyses were conducted in order to examine whether the data lent support to the assumption that latent variables were separate. The results revealed that the proposed models fit the data well (For model A: χ^2 (309, N=296) = 440.05; RMSEA= 0.06; CFI= 0.96; TLI= 0.92, for model B: χ^2 (215, N=296) = 264.12; RMSEA= 0.07; CFI= 0.96; TLI= 0.95). According to data-fitness rules, CFI and TLI were both more than 0.9, the normed chi-square measure (χ^2/df) falls in the range of 1 and 5 (Schumacker & Lomax, 1998) and the RMSEA value was in the acceptable range of 0.05 and 0.08 (Browne & Cudeck, 1989). Therefore, both models indicated good data fitness. Furthermore, the tested models showed all factor loadings and factor covariances were significant (ranged from 0.79 to 0.94, with t values ranging from 6.45 to 12.71 supporting convergent validity).

In order to assess discriminant validity, the confidence intervals (±2σ) were tested for the correlation estimates between two constructs to check if it contains 1.00. The results demonstrated that 1.00 was not within the confidence interval ranges.

Structural model. In order to test the effects of match between ILTs and recognized ILTs on LMX and change behavior response, Latent Congruence Modeling (LCM; Cheung, 2009) was conducted. LCM is a method emanating from Structural Equation Modeling, which has the capability to test the predictors of both absolute Level (i.e. mean) and difference (i.e. congruence) between two construct measures at the same time. LCM has some distinctive positive points in comparison with previously applied techniques to measure the effects of congruence. First, it controls and estimates measurement errors; second, it has the ability to assess measurement equivalence of the congruence components; third, it has the capability to analyze several congruence constructs and different functions (dependent variables, mediators or outcomes). Last but not least, this technique can examine the antecedents and outcomes of both congruence and its components.

In Latent Congruence Modeling (LCM), two higher order factors of "the mean (level) and difference (congruence) of two interdependent component measures" are generated (Cheung, 2009. p.8). Accordingly, Cheung (2009) specified the factor Level as the mean of Y1 (Recognized ILTs) and Y2 (ILTs) and operationalized it as a latent factor having fixed factor loadings of 1 on Y1 and Y2. Congruence is operationalized as the difference between Y1 and Y2 and is modeled as a latent factor with fixed factor loadings of -0.5 on Y1 and 0.5 on Y2.

Utilizing the strategy offered by Bollen (1989) and Kelloway (1998), after acquiring fitness indices of the fully mediated structural model, a series of nested models was tested (from the least restricted one to more restricted models). First, for the proposed models, fully mediated models were tested (Models A and B). In the next step, three paths were added from the congruence to change behavior variables to form the partially mediating model (Models 1A and 1B). Then in Models 1A and 1B, all paths to LMX were constrained to zero (Models 2A and 2B). In this model, the mediating factor was omitted. According to the past research, (e.g., Epitropaki and Martin, 2005), a
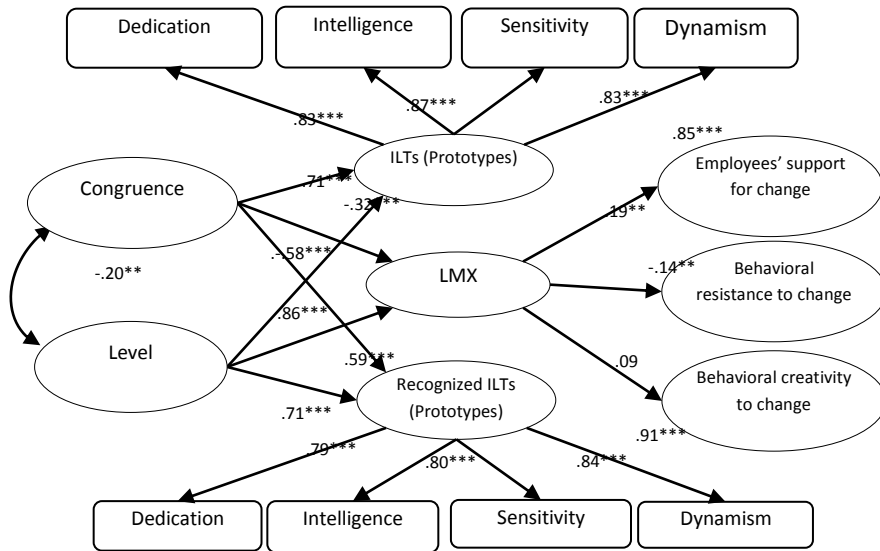
poor data-fit was expected. Fourth, the paths from LMX in models 1A & 1B outcome variables were restricted to zero (Model 3A and 3B). Finally, the null models with all variables of the latent factors restricted to 1.00 (Fried et al., 1996; Models 4A and 4B) were tested. Fit indices for the hypothesized and alternative models are presented in Table 2.

Table 2 demonstrates fit indices for nested models and their comparisons with the hypothesized model. Furthermore, the table shows that the differences between chi-squares of the hypothesized models and the nested models are significant. It is shown that the hypothesized models fit data best and are also significantly better than all alternative models tested. Therefore, the fully mediated models were the fittest to the data and further explanations to test the hypotheses were based on these models (Model A and Model B). The results of the path analyses are discussed below. All the significant paths from the results of our analyses are summarized in Fig 2 for Model A and Model B.
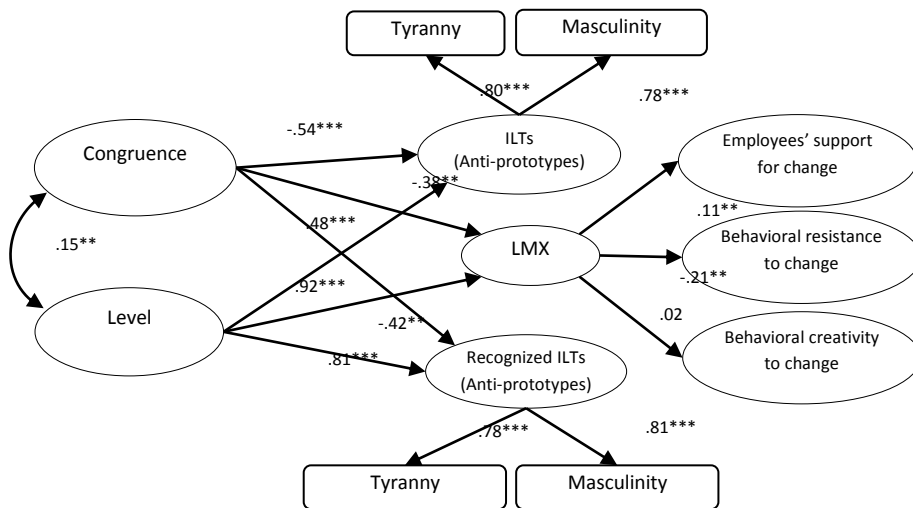
Models A and B illustrate more accurate depictions of the impacts of the congruence between employees' ILTs and the recognized ILTs for their supervisors on LMX and organizational change behavior.

Table 2. Fit indices for nested model and their comparisons with hypothesized model

Model	χ^2	df	χ^2/df	$\Delta\chi^2$	CFI	TLI	RMSEA
Hypothesized model							
Model A	779.10	318	2.45	-	0.92	0.91	0.07
Model B	535.36	224	2.39	-	0.93	0.92	0.06
Alternative models							
Model 1A	1093.05	315	3.47	313.95**	0.86	0.85	0.11
Model 1B	733.72	221	3.32	198.36**	0.89	0.86	0.13
Model 2A	1271.17	317	4.01	492.07**	0.84	0.82	0.13
Model 2B	876.90	222	3.95	341.54**	0.85	0.84	0.15
Model 3A	1459.20	320	4.56	680.10**	0.82	0.80	0.14
Model 3B	943.04	224	4.21	341.54**	0.83	0.80	0.15
Model 4A	3507.78	323	10.86	2728.68**	0.65	0.62	0.31
Model 4B	2136.77	229	9.33	1601.41**	0.52	0.48	0.26

Model A

Model B

Fig. 2. Maximum-likelihood path coefficient for the hypothesized models.
LMX: leader–member exchange. **p <.01 ***p <.00*1.*

Before explaining the results, there is an important point to consider. In the proposed models, the word "Congruence" is interpreted as the amount of difference between ILTs and the recognized ILTs. In other words, this difference is the discrepancy between the mentioned variables. Therefore, in the presentation of the relationships, the word discrepancy seems to be more logical for further analysis.

Hypotheses 1a and 1c predict that Congruence on prototypes have positive effects on support for change and creative behavior and hypothesis 1b postulates that the congruence on prototypes has a negative relationship with behavioral resistance to change. Considering the path coefficients in Fig 2 (Model A), there is no direct significant path from Congruence to employees' behavioral responses to change. Therefore, hypotheses 1a, 1b and 1c are all rejected. This is in line with the findings of previous research showing that the level of congruence per se does not directly impact job attitudes such as job satisfaction, affective commitment and well-being (Epitropaki and Martin, 2005; Topakas, 2011).

The second hypothesis demonstrates that Congruence on anti-prototypes will have negative, positive and positive relationships with support for change, behavioral resistance to change and creative behavior for change, respectively. The results and Fig 2 show that the relationship between Congruence and behavioral responses is indirect and is through LMX. Consequently, hypotheses 2a, 2b and 2c are all repudiated.

The third and fourth hypotheses predict that Congruence on prototypes and anti-prototypes are positively and negatively connected to LMX. Fig 2 suggests that prototype and anti- prototype differences are both negatively and significantly related to LMX (-.32, $p < .001$; -.38, $p < .01$); thus, Hypotheses 3 and 4 are both supported. Furthermore, LMX was the strong predictor of two change behavior responses due to the positive and significant standardized path coefficients between LMX and support and resistance for change for both prototypes (.19, $p<.01$ and -.14, $p<.01$, respectively) and anti-prototypes (.11, $p<.01$ and -.21, $p<.01$, respectively). Hence, Hypotheses 5a and 5c were supported. However, the relationship between LMX and behavioral creativity to change was not significant

for both prototypes and anti- prototypes; therefore, Hypothesis 5b was rejected. Based on Fig 2, Hypothesis 6 was confirmed.

Discussion

This study can contribute in several ways. First, based on recent reviews of Implicit Leadership Theories (ILTs) (e.g., Epitropaki et al., 2013; Junker & van Dick, 2014), no research is done to explore the impact of the congruence between followers' ILTs and their supervisors' characteristics on change behaviors. Second, this is one of the few studies considering the latency of employees' schemas about leaders (i.e. Implicit Leadership Theories) and their explicit behaviors as some essential change behaviors for the success of strategic changes. Third, this study tries to unearth the social cognitive mechanism followers employ to perceive leadership, which contributes to the literature of organizational change. In other words, this research considers followers as one of the important building blocks of fulfilling tasks during organizational change. Fourth, Several studies considered reactions to change in various organizations with varied types, structures, and even sectors (e.g., Fedor et al., 2006). The differences between organizations may not give accurate results related to each organization. This study gives us the opportunity to study change in an educational context.

Finally, although some research has shown the effects of leadership styles and organizational change (e.g., Xu et al., 2017; Yang et al., 2017), to the best knowledge of the authors and reviews (e.g., Junker and Dick, 2014), ILTs, as very important cognitive reservoirs, are not considered as the antecedents of change behavior responses yet. Noteworthy, nowadays the frequency and amount of communication between supervisors and employees have decreased and an employee may see and interact with the supervisor or top management for few times during a year. Consequently, employees form some schemas to judge about their managers without making any effort to prove or refute those mental structures. This, indeed, underscores ILTs in work context, especially during change. This research tries to address the link between cognition and behavior during change. There are several points to discuss based on the results.

First, the congruence between a leader and current managers'

prototypes and anti-prototypes is not directly related to behavioral change responses. It demonstrates that in change contexts having a leader-like manager per se cannot provoke employees emotionally and cognitively to welcome change. In this regard, the quality of relationship between leader and follower can have an overarching impact to give the followers a sense of supportiveness and reduce their resistance towards change. This result is in line with the research in the field of LMX showing that meaning-making, a construct pertaining to sense-making, has positive contributions to LMX relationship in time of change (van den Heuvel et al., 2013). Leadership provides employees with sensegiving as a source of change coping, where employees form a positive attitude towards change process (Kraft et al., 2018). This accentuates the notion that ILTs are used for sensegiving (Weick, 1995), which is both about cognition and behavior.

Second, in line with the insight drawn from previous research (Epitropaki & Martin, 2004; Topakas, 2011), this research proves that the more employees witness the attributes of a prototypical leader in their actual leader, the better the quality of the relationship between the leader and follower will be. In change context, the congruence between leader-type and real managers' attributes is deemed particularly important, since despite all the uncertainty change may cause, LMX can play a central role to provide an appropriate foundation on which change can occur.

Thirdly, the results showed that the quality of relationship between leader and follower can cause the supportiveness of followers. LMX determined the level of emotional support and exchange of precious resources between supervisors and their subordinates (Liden et al., 2008). Based on the social exchange theory (Blau, 1964), relationships high in LMX are defined by high levels of mutual trust, respect and obligation (Nie and Lamsa, 2013). Moreover, change supportiveness can manifest itself in OCB behavior which has already shown to be the result of strong LMX relationship (Dulebohn et al., 2012).

Fourth, in terms of change resistance, the results showed that LMX quality is negatively related to change. This finding is corroborated by prior research (Alharabi et al., 2016), which was conducted in Saudi Arabian organizations. Despite all the disadvantages of change

resistance in organizations, those employees feeling high LMX quality receive more information and opportunities for cooperation, build more trust in management and consequently reported less change resistance. This finding is consistent with the general idea that the interpersonal relationships as a characteristic of work environment must bolster and reinforce a climate which is conducive to effective and enduring change. Our findings also demonstrated that the cognitive structure of ILTs provides a measurement stick to define the quality of supervisors' leadership which functions as the antecedent of LMX quality and in return LMX instills the strength of development climate. As such, this study substantiates Tierney's (1999) hypothesis that LMX and a change-oriented climate are germane to employee's reactions to definite organizational change.

Last but not least, the findings did not show any significant relationship between LMX and creative behavior response in this research. Prior research has determined that the relationship between LMX and employees' creativity is contingent upon different mediating variables. For instance, Xu et al. (2017) found that the relationship between LMX and employee creativity is mediated by employee thriving at workplace. In a different study, Volmer et al. (2012) pointed out that the results of research exploring this relationship have been mixed and under minimal job autonomy conditions, LMX does not correlate with creative work environment. This implies that LMX quality, the predictor of numerous positive outcomes (Martin et al., 2016), does not suffice if a job design has constraints. The testimony of this aberrant result can be the lack of autonomy in the educational system of the research context, because all decisions are made centrally in the main branch and there are some observers to control the quality of the change. Thus, this lack of autonomy may not help boost employees' creativity. Furthermore, Iran's culture is characterized by high power distance. This feature can hamper autonomy and the fear from the top supervisor boils down to a decrease in psychological safety which can block information sharing as an ingredient of creativity. Therefore, based on the culture and job design, the relationship between LMX and creative work behavior during change was not significant.

Limitations and future research directions

There are some inherent limitations in the design and findings of this study, which should be considered for further interpretations. First, the data are collected based on self-report method. Therefore, common method bias (CMB) may potentially affect the results. In this regard, the authors adopted temporally lagged design. The independent, mediating and dependent variables were collected at three different points of time. Thus, the effects of CMB are of no great concern. Second, our data are cross-sectional; hence, no causality can be inferred. In the future, controlled experiments can provide a more solid foundation to infer whether the relationships between ILTs, LMX and change behaviors are one-directional. Third, no study has considered the relationship between ILTs and change behavior responses. Therefore, other potential mechanisms may link the dependent and independent variables. For example, based on attachment theory (Bowlby, 1982), attachment styles can be influential on the relationship between ILTs and change behaviors. Moreover, positive affect as well as perceived organizational support are bound to be influential mediators.

Conclusion

This study illuminated that the cognitive structure of ILTs can function as a gauge with which supervisors are judged to activate positive and deactivate negative behavioral responses during change. In this regard, LMX bridges the cognitive process and behavioral inclination to change. Specifically, high quality LMX can function as the mediator between the congruence of ILTs for current supervisor and a leader, on the one hand, and change behavior responses-supportiveness, resistance, and creative involvement, on the other hand. LMX fully mediates this relationship and employees' change supportiveness and change resistance are significantly influenced by LMX. Nevertheless, employees' creativity during change is not significantly affected by LMX neither for prototype nor anti-prototype congruence.

References

Alharbi, A. M., Armstrong, S. J., & Hoyland, T. (2016). The influence of leader-member exchange on resistance to organizational change. In *Proceedings of the Eighth Saudi Students Conference in the UK* (pp. 77-92).

Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior*, *10*(1), 123-167.

Armenakis, A. A., & Bedeian, A. G. (1999). Organizational change: A review of theory and research in the 1990s. *Journal of Management, 25*, 293–315.

Attaran M. (2004). Exploring the relationship between information technology and business process reengineering. *Information & Management, 41*(5), 585–596.

Atwater, L., & Carmeli, A. (2009). Leader–member exchange, feelings of energy, and involvement in creative work. *The Leadership Quarterly, 20*(3), 264-275.

Bass B, Riggio RE. (2006).*Transformational leadership*. Mahwah, NJ: Erlbaum.

Bauer, T.N., Erdogan, B., Liden, R.C., & Wayne, S.J. (2006). A longitudinal study of the moderating role of extraversion: Leader–member exchange, performance, and turnover during new executive development. *Journal of Applied Psychology, 91*, 298–310.

Berger, C. R., & Calabrese, R. J. (1974). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human communication research*, *1*(2), 99-112.

Blau, P. (1964). *Exchange and power in social life*. New York, NY: Wiley. Bluedorn, A. C., & Denhardt, R. B. (1988). Time and organizations. *Journal of Management*, *14*, 299–320.

Blau, P. M. (1964). *Exchange and power in social life*. Transaction Publishers.

Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American journal of Orthopsychiatry*, *52*(4), 664.

Burke, R. J. (2002). *Organizational change: Theory and practice*. Thousand Oaks: CA: Sage.

Caldwell, S. D., Herold, D. M., & Fedor, D. B. (2004). Toward an understanding of the relationships among organizational change, individual differences, and changes in person–environment fit: A cross-level study. *Journal of Applied Psychology, 89*, 868–882.

Carter, M. Z., Armenakis, A. A., Feild, H. S., & Mossholder, K. W. (2013). Transformational leadership, relationship quality, and employee performance during continuous incremental organizational change. *Journal of Organizational Behavior*, *34*(7), 942-958.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management*, *31*(6), 874-900.

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

Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of management*, *38*(6), 1715-1759.

Dutton, J. E. (2003). *Energize your workplace: How to build and sustain high-quality relationships at work.* San Francisco, CA: Jossey-Bass.

Engle, E. M., & Lord, R. G. (1997). Implicit theories, self-schemas, and leader–member exchange. *Academy of Management Journal, 40*, 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), 659–676.

Epitropaki, O., Sy, T., Martin, R., Tram-Quon, S., & Topakas, A. (2013). Implicit leadership and followership theories "in the wild": Taking stock of information-processing approaches to leadership and followership in organizational settings. *The Leadership Quarterly*, *24*(6), 858-881.

Fedor, D. B. (1991). Recipient responses to performance feedback: A proposed model and its implications. *Research in Personnel and Human Resources Management, 9*, 73–120.

Fedor, D. B., Caldwell, S., & Herold, D. M. (2006). The effects of organizational changes on employee commitment: A multilevel investigation. *Personnel Psychology*, *59*(1), 1-29.

Fiske, S. T., & Taylor, S. E. (1991). *Social cognition* (2nd Ed.)New York: McGraw-Hill.

Folger, R., & Skarlicki, D. P. (1999). Unfairness and resistance to change: Hardship as mistreatment. *Journal of organizational change management*, *12*(1), 35-50.

Furst, S. A., & Cable, D. M. (2008). Employee resistance to organizational change: managerial influence tactics and leader-member exchange. *Journal of Applied Psychology, 93*(2), 453-462.

Galambos, J. A., Abelson, R. P., & Black, J. B. (1986). *Knowledge structures*. Hillsdale, NJ: Lawrence Erlbaum.

Gerstner, C.R., & Day, D.V. (1997). Meta-analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82*, 827– 844.

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American sociological review*, 161-178.

Graen, G.B. (2004). *New frontiers of leadership, LMX leadership: The series*. Greenwich, CT: Information Age.

Graen, G.B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader–member exchange (LMX) theory over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, 6*, 219–247.

Hess, C. E. (2010). *Trust in Leadership: The Role of Implicit Leadership Theory Congruence*. (Doctoral Dissertation). U.S.: North Carolina State University.

Hobfall, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist*, *44*(3), 513- 524.

Junker, N. M., & van Dick, R. (2014). Implicit theories in organizational settings: A systematic review and research agenda of implicit leadership and followership theories. *The Leadership Quarterly*, *25*(6), 1154-1173.

Jyoti, J., & Dev, M. (2015). The impact of transformational leadership on employee creativity: the role of learning orientation. *Journal of Asia Business Studies*, *9*(1), 78-98.

Kanfer, R., & Ackerman, P. L. (1989). Motivation and cognitive abilities: An integrative/aptitude–treatment interaction approach to skill acquisition. *Journal of Applied Psychology, 74*, 657–690.

Kim, T. G., Hornung, S., & Rousseau, D. M. (2011). Change-supportive employee behavior: Antecedents and the moderating role of time. *Journal of Management*, *37*(6), 1664-1693.

Kraft, A., Sparr, J. L., & Peus, C. (2018). Giving and making sense about change: The back and forth between leaders and employees. *Journal of Business and Psychology*, *33*(1), 71-87.

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*, 47–119.

Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The leadership quarterly*, *19*(2), 161-177.

Lord, R. G. (1985). An information processing approach to social perceptions, leadership perceptions and behavioral measurement in organizational settings. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 7, pp. 85–128). Greenwich, CT: JAI Press.

Lord, R. G., & Emrich, C. (2001). Thinking outside the box by looking inside the box: Extending the cognitive revolution of leadership research. *The Leadership Quarterly, 11*, 551–579.

Lord, R. G., & Maher, K. J. (1991). *Leadership and information processing: Linking perceptions and performance*. Boston, MA: Unwin Hyman.

Lord, R. G., & Maher, K. J. (1993). *Leadership and information processing: Linking perceptions and performance*. London: Routledge.

Marks ML. (2006). Workplace recovery after mergers, acquisitions, and downsizing: Facilitating individual adaptation to major organizational transformations. *Organizational Dynamics, 35*, 384–398.

Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2016). Leader–Member exchange (LMX) and performance: A Meta-Analytic review. *Personnel Psychology*, *69*(1), 67-121.

Martínez-Mesa, J., González-Chica, D. A., Duquia, R. P., Bonamigo, R. R., & Bastos, J. L. (2016). Sampling: how to select participants in my research study?. *Anais brasileiros de dermatologia*, *91*(3), 326-330.

Neves, P., Almeida, P., & Velez, M. J. (2018). Reducing intentions to resist future change: Combined effects of commitment-based HR practices and ethical leadership. *Human Resource Management*, *57*(1), 249-261.

Nie, D., & Lämsä, A. M. (2015). The leader–member exchange theory in the Chinese context and the ethical challenge of guanxi. *Journal of Business Ethics*, *128*(4), 851-861.

Offermann, L. R., Kennedy Jr, J. K., & Wirtz, P. W. (1994). Implicit leadership theories: Content, structure, and generalizability. *The Leadership Quarterly*, *5*(1), 43-58.

Oreg, S. (2006). Personality, context and resistance to organizational change. *European Journal of Work and Organizational Psychology, 15*, 73–101.

Paper D, Chang R. (2005). The state of business process reengineering: A search for success factors. *Total Quality Management, 16*, 121–133.

Quinn, R. W. (2007). Energizing others in work connections. In Jane E. Dutton, & Belle Rose Ragins (Eds.), *Exploring positive relationships at work: Building a theoretical and research foundation* (pp. 73−90). Mahwah, NJ: Lawrence Erlbaum Associates.

Quinn, R. W., & Dutton, J. E. (2005). Coordination as energy-in-conversation. *Academy of Management Review, 30*(1), 36−57.

SEO, M. G., Taylor, M. S., Hill, N. S., Zhang, X., Tesluk, P. E., & Lorinkova, N. M. (2012). The role of affect and leadership during organizational change. *Personnel Psychology, 65*(1), 121-165.

Shin, J., Taylor, M. S., & Seo, M. G. (2012). Resources for change: The relationships of organizational inducements and psychological resilience to employees' attitudes and behaviors toward organizational change. *Academy of Management journal*, *55*(3), 727-748.

Sonenshein, S. (2010). We're changing—or are we? Untangling the role of progressive, regressive, and stability narratives during strategic change implementation. *Academy of Management Journal, 53*, 477–512.

Stanley, D.J., Meyer, J.P., & Topolnytsky, L. (2005). Employee cynicism and resistance to organizational change. *Journal of Business and Psychology, 19*, 429 – 459.

Tierney, P. (1999). Work relations as a precursor to a psychological climate for change: The role of work group supervisors and peers. *Journal of Organizational Change Management, 12*, 120–133.

Topakas, A. (2011). *Measurement of implicit leadership theories and their effect on leadership processes and outcomes*. (Doctoral Dissertation). U.K.: Aston University.

Tram-Quon, S. (2013). *An implicit measure of followership using the Implicit Association Test (IAT)*. Unpublished Manuscript.

Van Dam, K., Oreg, S., & Schyns, B. (2008). Daily work contexts and resistance to organisational change: The role of leader–member exchange, development climate, and change process characteristics. *Applied Psychology, 57*(2), 313-334.

van den Heuvel, M., Demerouti, E., Bakker, A. B., & Schaufeli, W. B. (2013). Adapting to change: The value of change information and meaning-making. *Journal of Vocational Behavior*, *83*(1), 11-21.

Volmer, J., Spurk, D., & Niessen, C. (2012). Leader–member exchange (LMX), job autonomy, and creative work involvement. *The Leadership Quarterly*, *23*(3), 456-465.

Weick, K. E. (1995). *Sensemaking in organizations* (Vol. 3). Sage.

Weick, K. E., & Quinn, R. E. (1999). Organizational change and development. *Annual Review of Psychology, 50*, 361–386.

Xu, B. D., Zhao, S. K., Li, C. R., & Lin, C. J. (2017). Authentic leadership and employee creativity: testing the multilevel mediation model. *Leadership & Organization Development Journal*, *38*(3), 482-498.

Yang, J., Liu, H., & Gu, J. (2017). A multi-level study of servant leadership on creativity: The roles of self-efficacy and power distance. *Leadership & Organization Development Journal*, *38*(5), 610-629.