

Leader-member exchange as a mediator in the relationship between transformational leadership and organizational commitment in a French context

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Abstract :

The aim of the present study is to propose and to test three models in order to examine the mechanisms through which dimensions of transformational leadership influence different forms of organizational commitment by testing the possible mediating role of leader-member-exchange (LMX) dimensions. A model of antecedents of each of the three components of organizational commitment is developed, where antecedents are dimensions of transformational leadership and leader-member exchange. In the model of affective commitment, the contribution dimension of LMX acts as a consequence, rather than an antecedent of commitment. These findings are important since they may serve as a bind between leadership dimensions and the kind of organizational commitment that each of these dimensions can generate in followers.

Keywords :

Transformational leadership, Organizational commitment, Leader-member exchange, French sample, multidimensional constructs.

Resumé:

Le but de la présente étude est de proposer et de tester trois modèles afin d'examiner les mécanismes par lesquels les dimensions du leadership transformationnel influencent les différentes formes d'engagement organisationnel en testant le possible rôle médiateur du leader-member exchange (LMX). Un modèle d'antécédents de chacune des trois composantes de l'engagement organisationnel est développé, où les antécédents sont des dimensions du leadership transformationnel et du LMX. Dans le modèle de l'engagement affectif, la dimension de LMX (contribution) agit comme une conséquence, plutôt qu'un antécédent d'engagement. Ces résultats sont importants de point de vue qu'ils peuvent servir de liaison entre les différentes dimensions de leadership et le type d'engagement organisationnel que chacun de ces dimensions peut générer en subordonnés.

Mots-clés : leadership transformationnel, engagement organisationnel, échange Leader-membre (LMX), échantillon français, construits multidimensionnels.

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INTRODUCTION

Transformational leadership (TL), Leader-member exchange (LMX), and organizational commitment (OC) are all important factors in ensuring the effectiveness and accomplishment of organizational goals and objectives. By integrating these constructs, the current study provides some exploratory information on how these factors can be related.

TL is the most popular contemporary theory of leadership. The theory was originally introduced by Burns (1978) and Bass (1985) to describe the impact that exceptional leaders

have on subordinates' reactions and to describe the process by which leaders create a connection with followers, attend to their individual needs, and help followers reach their potential. Rafferty and Griffin (2004) identified five dimensions of TL: vision, inspirational communication, supportive leadership, intellectual stimulation and personal recognition. However, our validation of the French version of the TLQ (see Keskes, 2014b) showed that a four dimensions model when deleting inspirational communication is an acceptable measure to be used with our sample (French speaking population). Then in this study, we will use the four dimensions of TL which are: vision, supportive leadership, intellectual stimulation and personal recognition.

OC is defined as a psychological state that binds the individual to the organization (Allen and Meyer, 1990). It is associated with the wish to remain in the company (affective commitment: AC), rational cost-benefit considerations (continuance commitment: CC), and moral obligations (normative commitment NC). Additional work on the dimensions of OC has shown that the CC dimension contains two separable components (Powell and Meyer, 2004; McGee and Ford, 1987); commitment due to a lack of alternative employment opportunities (CCLoAlt) and perceived sacrifice of investments associated with leaving the organization (CCHiSac). Our validation of the French version of the OCQ (see Keskes, 2014b) confirmed that the four dimensions model which consists of AC, CCLoAlt, CCHiSac and NC is an acceptable measure to be used with our sample (French speaking population).

While a great deal of research has studied the link between TL and OC (Clinebell et al., 2013; Joo et al., 2012; Lo et al., 2010; Limsila and Ogunlana, 2008; Rafferty and Griffen, 2004; Avolio et al., 2004; Lee, 2005; Walumbwa et al., 2005), few researches have examined the relationship between these two concepts as multidimensional constructs which therefore prompts further research. Likewise, the mechanisms by which transformational leaders influence their followers have not been studied in a systematic manner (Barroso Castro et al., 2008; Avolio et al., 2004), and several authors have suggested that greater attention should be paid to understand how these influential processes operate in TL (Keskes, 2014; Kark and Shamir, 2002; Conger et al., 2000; Bass, 1998; Yukl, 1999). As there is lack of systematic research in this area, this study will focus on the possible mediating role of LMX in the relationship between dimensions of TL and different forms of OC.

LMX represents a theoretical approach to understand leadership at work (Gerstner and Day, 1997; Graen and Uhl-Bien, 1995; Liden et al., 1997; Schriesheim et al., 1999), and it has evolved into one of the more useful approaches for studying employee-supervisor relationships and how they affect employee outcomes. Liden and Maslyn (1998) developed a multidimensional scale designed to measure subordinate LMX perceptions. This scale proposed four dimensions labeled contribution (e.g., performing work beyond what is specified in the job description), affect (e.g., friendship and liking), loyalty (e.g., loyalty and mutual obligation), and professional respect (e.g., respect for professional capabilities).

Recently, there has been a research trend to use LMX quality as a mediator between TL and job performance (Jyoti and Bhau, 2015; Shusha, 2013), leadership styles and workplace outcomes (Avolio et al, 2009). Fisk and Friesen (2012) reported evidence from an empirical study which suggests that the outcomes of TL result from the dyadic relationship between subordinate and his/her leader. Besides, Zou et al (2015) showed the effectiveness of TL on the behavior of followers through the quality of interpersonal relationship.

Thus, this research aims to link the TL and OC and to examine them in the light of LMX by means of a detailed empirical study. Most past research has treated the three variables mentioned above (TL, LMX and OC) as one-dimensional constructs. In the present research, we have conceptualized them as multidimensional constructs. To the authors' knowledge, this is the first empirical study that tests the interaction of TL and LMX on OC in a French context.

1. HYPOTHESIS

1.1. MODEL FOR AC

1.1.1. Intellectual stimulation/vision – AC

A positive and significant relationship between TL and AC has been found in several studies (e.g. Wiza and hlanganipai, 2014; Clinebell et al, 2013; Castro, Periñan & Bueno, 2008; Felfe, Yan & Six, 2008; Metscher, 2005; Walumbwa et al., 2005, 2004; Dvir, Kass & Shamir, 2004; Bono & Judge, 2003; Meyer et al., 2002; W.A. Lowe, 2000; Bycio et al.,1995). Bycio et al. (1995) reported that all the subdimensions of TL are strongly positively associated with AC. In particular, we propose that intellectual stimulation and vision are correlated to AC.

Intellectual stimulation increases followers' abilities to conceptualize, comprehend, and analyze problems and improve quality of solutions (Bass, 1990). Intellectual stimulation may be one way in which leaders indicate to employees that their firm values their contribution, which increases AC to the organization (Rafferty and Griffin, 2004).

Vision is the expression of an idealized picture of the future based around organizational values. One area that clearly requires additional research is the influence of vision on AC (Rafferty and Griffin, 2004).

A recent study conducted by Joo et al. (2012) found a positive relationship between TL and AC. In particular, these authors found that vision articulation and intellectual stimulation were significant predictors of AC. Taking into account the aforementioned findings, we propose that vision and intellectual stimulation will be positively associated with AC.

Hypothesis 1a: There is a positive relationship between intellectual stimulation and AC.

Hypothesis 1b: There is positive relationship between vision and AC.

1.1.2. Mediating role of professional respect

Professional respect is the perception of the degree to which each member of the dyad has built a reputation of work-related activity (e.g., respect for professional capabilities) (Liden and Maslyn, 1998). Leader's reputation among other leaders will act as a resource that a subordinate can utilize while seeking for favour within the organization and may enhance subordinates job satisfaction (Amah, 2010) which would elicit greater AC to the organization (Meyer and Allen, 1997).

It is highly plausible that followers who assess the exchange with their leaders to be high professional respect tend to express greater AC (Lee, 2005).

We argue that professional respect might mediate the relationship between intellectual stimulation, vision and AC. Then, we expect that when leaders use intellectual stimulation with their followers and express an idealized picture of the future, this may increase followers feeling of respect for professional capabilities of their leader which in turn may enhance attachment to the organization (AC). Thus it is expected that:

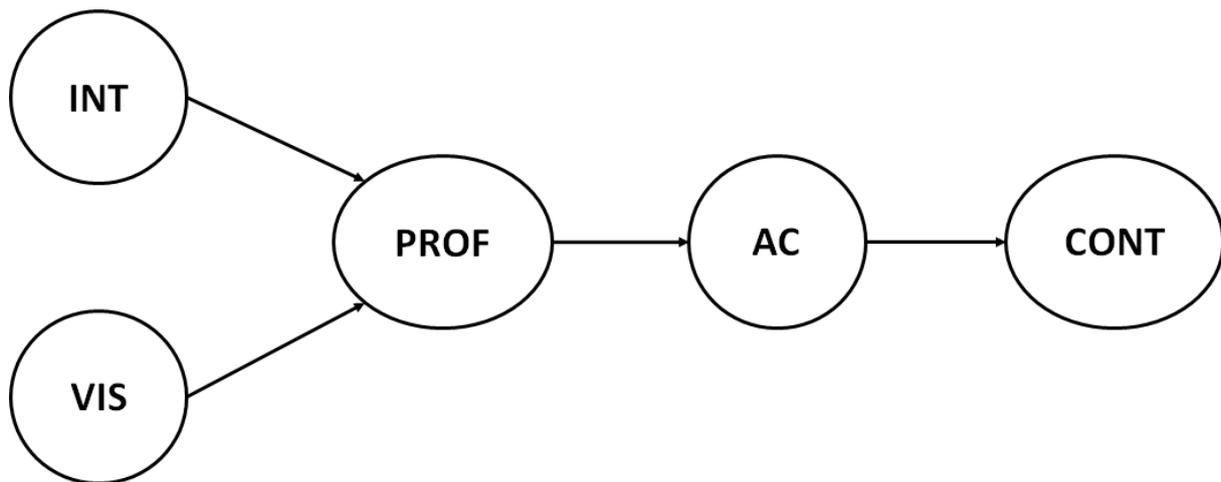
Hypothesis 1c: The subordinate's perception of professional respect mediates the positive relationship between intellectual stimulation, vision and AC (See figure 1).

1.1.3. Contribution is a consequence of AC

An employee's level of AC reveals an element of their identification with, and involvement in the organization (Moorman et al., 1993). Employees with high levels of job involvement are likely to put more effort into their jobs and therefore tend to display higher levels of in-role performance (Chughtai, 2008). Employees who feel more affectively attached to the organization are part of the organization because they want to be; hence, one would expect them to be present at work and motivated to perform their best (Meyer and Allen, 1997). Moreover, employees who have a high level of AC are said to exhibit increased levels of extra-role behaviors (Meyer et al., 1989). Therefore, it is plausible that employees with high AC to the organization will be more likely to perform work beyond what is specified in the job description.

Hypothesis 1d: There is a positive relationship between AC and contribution (See figure 1).

Figure 1: Model TL-LMX-AC



1.2. MODEL FOR CCHiSAC

1.2.1. Personal recognition - CCHiSac

The term of “personal recognition” was used to capture the aspect of contingent reward that is conceptually related to TL and it is defined as the provision of rewards such as praise and acknowledgement of effort for achievement of specified goals (Rafferty and Griffin, 2004). Rafferty and Griffin (2004) proposed that when people received recognition for their work then they would feel an increased sense of investment in an organization. Contrary to their expectations, personal recognition was significantly negatively associated with continuance commitment. They explained this unexpected result by considering the additional aspect of

continuance commitment assessed in measures of this construct. That is, these authors have suggested that the continuance commitment scale assesses investments and perceptions of alternative employment options.

We suggest that when leader indicates for his followers that he or she rewards the achievement of specified goals consistent with follower's efforts, the employee may have a sense of fear of losing these rewards if he leaves the organisation. Thus, personal recognition is expected to act as an antecedent of CCHiSac:

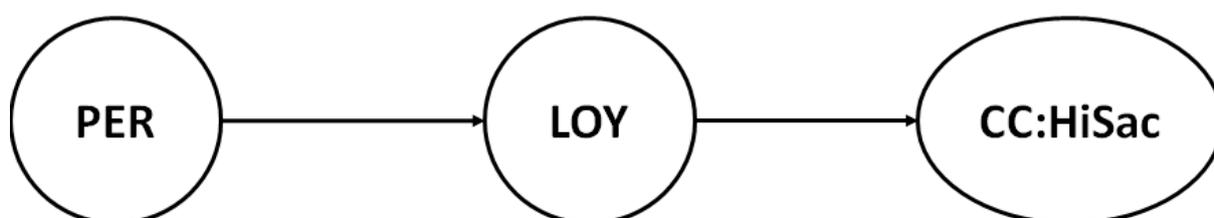
Hypothesis 2a: There is a positive relationship between personal recognition dimension of TL (PER) and CCHiSac.

1.2.2. Mediating role of loyalty

Loyalty is the expression of public support by the leader to his followers. It is essential to a stable relationship between a leader and a member (Leow et Khong, 2009). We suggest that when the leader values individuals' efforts and rewards the achievement of outcomes consistent with the vision through praise and acknowledgment of followers' efforts (Rafferty and Griffin, 2004), the subordinate's perception of loyalty expressed by their leader may increase. This increase of loyalty perception may enhance a sense of fear of losing this loyalty in case of leaving the organization. Then, we propose that the subordinate's perception of loyalty expressed by the leader mediates the positive relationship between personal recognition and CCHiSac.

Hypothesis 2b: The subordinate's perception of loyalty mediates the positive relationship between Personal recognition and CCHiSac (See figure 2).

Figure 2: Model TL-LMX-CC



1.3. MODEL FOR NC

1.3.1. Supportive leadership - NC

Managers who treat each employee as an individual, rather than as a means to an end, reduce turnover rates and increase employees' OC (Cherniss and Goleman, 2003; Peterson, 2004). By identifying with followers' needs, transformational leaders are able to motivate their followers to get more involved in their work, resulting in higher levels of OC (Walumbwa and Lawler, 2003). This view was supported by prior research that showed OC was higher for employees whose leaders were supportive and concerned for their followers' development (Allen and Meyer, 1990, 1996).

Employees are more likely to feel an obligation to return the supportive behaviour in terms of commitment (Shore and Wayne, 1993), which may be explained as the reciprocity theory. Aquino and Bommer (2003) noted that the person who received some benefits from others may indirectly have the tendency to return or feel obligated to return the favour and this interaction is known as positive reciprocity (Caliendo et al, 2012).

Gouldner (1960) suggested that the reciprocity norm implies two minimal demands: (1) people should help those who have helped them and (2) people should not harm those who have helped them. That is to say, when leaders express concern for followers, take account of their individual needs, direct their behavior toward the satisfaction of subordinates' needs and preferences and create a friendly and psychologically supportive work environment, the employee may feel compelled to reciprocate with loyalty and commitment that derive from morality and value-driven principles based on reciprocity norms and socialization practices (Meyer and Herscovitch, 2001). This reasoning allows formulating the following hypothesis:

Hypothesis 3a: There is a positive relationship between the supportive leadership (SUP) and normative commitment (NC).

1.3.2. Mediating role of affect

Supporting is similar to individualized consideration in TL theory (O'Donnell et al., 2012) and was explicitly mentioned in the early LMX literature as a type of behaviour that fosters a high exchange relationship (Graen and Cashman, 1975). A positive relationship between the amount of supporting behavior used by a manager and LMX was found in Yukl et al. (2009).

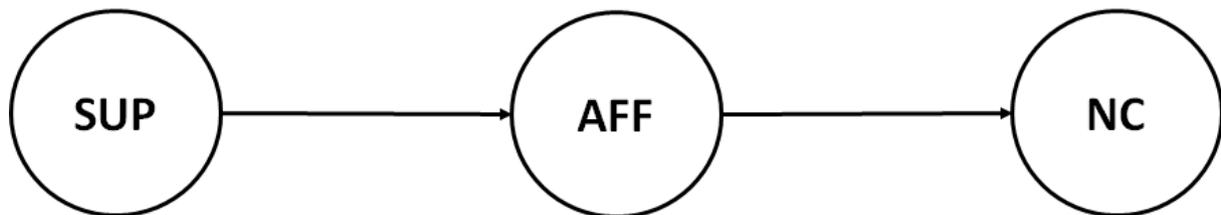
A transformational leader's consideration for followers as individuals and the time spent coaching them to develop their capabilities creates meaningful exchanges between them. Such interactions not only reduce the physical distance (Howell and Hall-Merenda, 1999) but also

the status barrier between leader and followers. Individualized consideration has the effect of creating a warmer and friendlier atmosphere in the workplace (Lee, 2005). With such transformational behaviours, the followers' affect for their leader are likely to be enhanced. From another side, it is found that exchanges between leaders and followers marked by high levels of affect relate positively to NC (Lee, 2005).

However, we expect that when leaders create strong relationship with his followers, responds to the needs of each individual for achievement and growth. This recognition of needs and desires enhance the interpersonal attraction (liking, friendship) which in turn increases employee feelings of responsibility to the organization.

Hypothesis 3b: Affect mediates the relationship between Supportive leadership and employee NC (See figure 3).

Figure 3: Model TL-LMX-NC



2. METHOD

2.1. SAMPLE AND DATA COLLECTION

Participants in this study are 427 senior executive French employees with a university degree and 2 years of experience in their current organization. Participants were contacted through a service company specialized in the data collection.

The questionnaire included questions regarding demographic variables of gender, age, educational level, labor sector, number of employees in the company and number of years in the current company. Statistics about these variables are presented in the table A.1 (see Appendix)

The questionnaire design consist of two main sections. The first section included the demographic variables and the second section incorporates TLQ, LMX and OCQ. Items were measured on a seven-point Likert-type scale on which respondents were asked to indicate the extent of their agreement with each item (1 = strongly disagree, 7 = strongly agree).

2.2. MEASURES

2.2.1. Transformational leadership

TL was assessed by four leadership sub-dimensions scale that were given by Rafferty and Griffin (2004) and translated into French by the authors of this study. The sub-dimensions were based on vision, intellectual stimulation, supportive leadership and personal recognition. Each sub-dimension scale comprised three items and responses ranged from 1 to 7. These scales had values of Cronbach's alpha of 0.94, 0.89, 0.93 and 0.95 respectively (see Keskes, 2014b).

An example item for vision was "Mon chef a une vision claire où nous nous dirigeons". An example item for intellectual stimulation was "Mon chef me stimule à réfléchir aux vieux problèmes avec de nouvelles perspectives". An example item for supportive leadership was "Mon chef se comporte d'une manière gentille envers mes besoins personnels" and finally an example item for personal recognition was "Mon chef me félicite quand je fais un travail qui est au-dessus de l'attendu".

2.2.2. Organizational commitment

OC was measured using the complete scales proposed by Meyer et al. (1993) taking into account the modifications proposed by Powell and Meyer (2004) and McGee and Ford (1987). To assess the affective and the normative commitments, six items reported by Meyer et al. (1993) were adopted for each dimension. To assess CCLoAlt and CCHiSac, three and six items reported by Powell and Meyer (2004) were used. These scales were translated into French by the authors and responses ranged from 1 to 7. These scales had an alpha of 0.95, 0.92, 0.83 and 0.90 respectively (Keskes, 2014b).

An example item for AC was "Je serais très heureux(se) de passer le reste de ma carrière dans cette organisation". An example item for NC was "J'ai un certain sentiment d'obligation de continuer à travailler dans cette organisation". An example item for CCLoAlt was "La raison pour laquelle je continue à travailler dans cette organisation est le manque d'opportunités ailleurs" and finally an example item for CCHiSac was "Personnellement, je crois que le coût de quitter cette organisation est beaucoup plus important que les avantages".

2.2.3. Leader-member exchange

Liden and Maslyn (1998) multi-dimensional model of LMX scale, comprising 12 items, was used to measure the quality of relationship between respondents and their superiors. The scale

incorporates the dimensions of affect, loyalty, contribution and professional respect, with each dimension consisting of three items. These scales were translated into French by the authors and had an alpha of 0.95, 0.92, 0.87, and 0.92 respectively.

The respondents were asked to rate the statements on a seven-point scale 1 to 7. An example item for affect "J'aime mon chef en tant que personne". An example item for loyalty "Mon chef me défend auprès de son supérieur même s'il ne connaît pas tous les faits du problème". An example item for contribution "Je fais du travail pour mon chef qui dépasse ma description d'emploi" and finally, an example item for professional respect "Je suis impressionné(e) par les connaissances et les compétences de mon chef".

3. RESULTS

For the statistical computing, several packages of R (Lavaan and psych mainly) have been used. The calculations are made according to the calculation method of M-plus software. Reliability and EFA are carried out with functions of the psych (Revelle, 2014), and CFA with lavaan (Rosseel, 2012).

The test procedure of the proposed models is based on Structural Equation Models (SEM). SEM consists of a structural model representing the relationship between the latent variables of interest, and measurement models representing the relationship between the latent variables and their manifest or observable indicators. SEM is very flexible, because it deals not only with a single simple or multiple linear regression, but with a system of regression equations.

3.1. DESCRIPTIVE STATISTICS

Pearson's correlation coefficient was used to examine the relationship between dimensions of TL, LMX and OC. The results of Pearson's correlation coefficient as well as the means and the standard deviations, are presented in Table 1). All dimensions of TL have been found to correlate with all dimensions of LMX and with the three forms of OC (AC, NC and CCHiSac). All of the correlations among the constructs indicated significant positive relationships ($p < 0.001$). CCLoAlt revealed no significant relationship to either dimension of TL or dimension of LMX. CCLoAlt shows only a significant positive correlation to CONT ($r = 0.10$, $p < 0.05$) and to NC ($r = 0.17$, $p < 0.001$).

Table 1: Results of Pearson's correlation coefficient, means and standard deviations.

	mean	sd	1	2	3	4	5	6	7	8	9	10	11	11
1. INT	4.13	1.43												
2. PER	4.53	1.59	0.67***											
3. VIS	4.57	1.42	0.73***	0.62***										
4. SUP	4.23	1.48	0.65***	0.80***	0.61***									
5. AFF	4.23	1.59	0.66***	0.75***	0.59***	0.86***								
6. PROF	4.28	1.48	0.71***	0.66***	0.66***	0.70***	0.79***							
7. LOY	4.25	1.52	0.63***	0.73***	0.61***	0.83***	0.84***	0.75***						
8. CONT	4.40	1.41	0.56***	0.63***	0.50***	0.69***	0.73***	0.69***	0.73***					
9. AC	4.34	1.43	0.60***	0.65***	0.55***	0.66***	0.68***	0.67***	0.66***	0.69***				
10. CCHiSac	4.59	1.22	0.32***	0.33***	0.31***	0.36***	0.32***	0.33***	0.36***	0.35***	0.50***			
11. CCLoAlt	4.39	1.46	0.05	-0.04	-0.04	0.02	0.00	0.04	0.04	0.10*	0.00	0.41***		
12. NC	4.08	1.38	0.60***	0.50***	0.49***	0.54***	0.57***	0.57***	0.55***	0.58***	0.73***	0.59***	0.17***	

3.2. HYPOTHESIS TESTS

To test the direct hypothesis, the significance of the beta parameters in the structural models is used. Intellectual stimulation and vision displayed a positive relationship with AC ($\beta=0.669$, $p < 0.001$ and $\beta =0.215$, $p < 0.05$ therefore hypothesis 1a and hypothesis 1b are supported).

It is found a significant positive relationship between AC and contribution ($\beta =1.134$, $p < 0.001$, therefore hypothesis 1d is supported). Personal recognition displayed a positive relationship with CCHiSac ($\beta =0.351$, $p < 0.001$, therefore, hypothesis 2a is supported). Supportive leadership displayed a positive relationship with NC ($\beta=0.676$, $p < 0.001$: Hypothesis 3a is supported).

The mediation hypothesis 1c, 2b and 3b were tested through a series of nested model method. The results obtained by the nested method for the models of AC, CCHiSac and NC are presented in Table 2.

For AC, model 1 which is our baseline model, represents a fully mediating model. We specified paths from INT and VIS to PROF and from PROF to AC. This model does not have direct paths from INT and VIS to AC. As Table 2 shows, all fit indexes showed a good fit ($\chi^2= 331.92$, $df= 128$; $RMSEA =0.06$; $CFI=0.97$; $TLI= 0.97$). Against our baseline model, we tested three nested models. In model 2, we added to a direct path from INT to AC in order to test whether PROF acts as a partial mediator in the relationship between INT and AC.

Model 3 was also identical to model 1, except for the addition of a direct path from VIS to AC in order to test if there is a partial mediation of PROF in the relationship between VIS and AC. In our third nested model, model 4, we added to two direct paths from both INT and VIS to AC. Model 1 is therefore nested within models 2, 3, and 4. As Table 2 shows, the

differences between chi-squares were significant for models 2, 3, or 4 compared with model 1 ($\Delta\chi^2 = 6.72$, $p < 0.01$; $\Delta\chi^2 = 4.31$, $p < 0.01$ and $\Delta\chi^2 = 7.29$, $p < 0.05$ respectively). However in model 2, the differences between chi-squares is the more significant. These results suggest that model 2 best fitted our data. We concluded then, that there is full mediation of PROF between VIS and AC and partial mediation of PROF between INT and AC.

Table 2: Comparison of Structural Equation Models.

	χ^2	df	$\Delta\chi^2$	RMSEA	CFI	TLI
Model of AC						
1. INT+VIS→PROF→AC→CONT	331.92	128		0.06	0.97	0.97
2. INT+VIS→PROF→AC→CONT and INT→AC	325.19	127	6.72	0.06	0.97	0.97
3. INT+VIS→PROF→AC→CONT and VIS→AC	327.60	127	4.31	0.06	0.97	0.97
4. INT+VIS→PROF→AC→CONT and INT+VIS→AC	324.62	126	7.29	0.06	0.97	0.97
Model of CCHiSac						
1. PER→LOY→CCHiSac	114.22	49		0.05	0.98	0.98
2. PER→LOY→CCHiSac and PER→CCHiSac	113.77	48	0.45	0.05	0.98	0.98
Model of NC						
1. SUP→AFF→NC	126.49	46		0.06	0.98	0.98
2. SUP→AFF→NC and SUP→NC	126.24	45	0.25	0.06	0.98	0.98

For CCHiSac, model 1 which is our baseline model, represents a fully mediating model. We specified paths from PER to LOY and from LOY to CCHiSac. This model does not have direct paths from PER to CCHiSac. As Table 2 shows, all fit indexes showed a good fit ($\chi^2 = 114.219$ df = 49; RMSEA = 0.056; CFI = 0.98; TLI = 0.98). Against our baseline model, we tested a nested model. In model 2, we added to a direct path from PER to CCHiSac. As Table \ref{tt1}, the difference between chi-squares were not significant for model 2 compared with model 1. These results suggested that model 1 best fitted our data. Therefore, we concluded that affect fully mediated the relationship between personal recognition and CCHiSac.

For NC, model 1 which is our baseline model, represents a fully mediating model. We specified paths from SUP to AFF and from AFF to NC. This model does not have direct paths

from SUP to NC. As Table 2 shows, all fit indexes showed a good fit ($\chi^2 = 126.495$; $df = 46$; $RMSEA = 0.064$; $CFI = 0.98$; $TLI = 0.98$). Against our baseline model, we tested a nested model. In model 2, we added to a direct path from SUP to NC. The difference between chi-squares were not significant for model 1 compared with models 2. These results suggested that model 1 best fitted our data. Therefore, we concluded that affect fully mediated the relationship between supportive leadership and NC.

4. GENERAL DISCUSSION

The aim of this study is to examine the mechanisms through which dimensions of TL influence different forms of OC by testing the possible mediating role of leader-member exchange (LMX) dimensions. Three models are proposed (the results are reported in figures 4, 5 and 6). In the empirical study, 427 senior executives from French organizations have participated to rate the questionnaire.

Figure 4: Results of Structural Equation Modeling on the Mediating effect of PROF

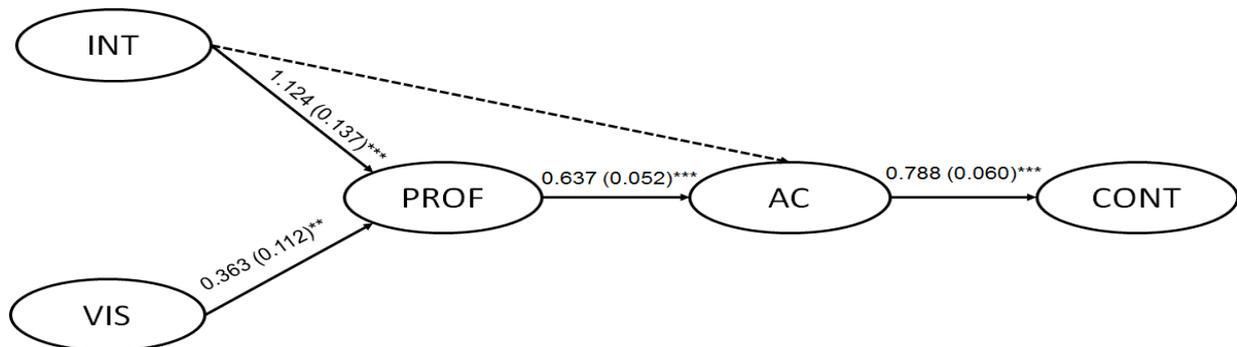


Figure 5: Results of Structural Equation Modeling on the Mediating effect of LOY



Figure 6: Results of Structural Equation Modeling on the Mediating effect of AFF



For the descriptive statistics, Pearson's correlation coefficient was used to examine the relationship between dimensions of TL, dimensions of LMX and different forms of OC. It has been found that all dimensions of TL correlate well with the three forms of OC (AC, NC and CCHiSac). However, CCLoAlt revealed no significant relationship to either dimension of TL. This result may be explained by the fact that the perceptions of job alternatives outside the organization should not be related to any leadership behavior (Korek et al., 2010), including TL. It has also been found that all dimensions of TL correlate well with all dimensions of LMX. This result is consistent with previous studies (Asgari et al., 2008; Wang et al., 2005; Basu and Green, 1997; Deluga, 1992; Howell and Hall-Merenda, 1999). Moreover, all dimensions of LMX have been found to correlate with the three forms of OC (AC, NC and CCHiSac). This result is in agreement with some previous research which found that a relational context is an important factor to OC (Joo, 2010; Khong, 2009; Bhal and Ansari, 2007; Hung et al., 2004). CCLoAlt show only a correlation to CONT. This results is on line with Hung et al. (2004) which found that contribution had positive impact on CC. The correlation between CCLoAlt and CONT may be explained as: an employee which has a commitment to the organization related to a lack of alternatives employment opportunities may perform work beyond that is specified in his job description in order to not lose his current work.

With regard to the dimensionality of CC, it has been found that the two subcomponents, CCHiSac and CCLoAlt, are correlated ($r=0.41$). This finding is in agreement with the results reported previously by McGee and Ford (1987) and Meyer et al. (2002). It has also been found that CCHiSac and CCLoAlt displayed different relationship with all dimensions of LMX and all dimensions of TL (see table 1) which further support their distinctiveness. This result support some previous studies which confirmed that the CC dimension contains two separable components (Vandenberghe et al., 2007; Bentein et al., 2005; Powell and Meyer, 2004; Meyer et al., 1990; McGee and Ford, 1987).

All the proposed direct relations are supported. Intellectual stimulation and vision displayed a positive relationship with AC ($\beta=0.669$, $p < 0.001$ and $\beta =0.215$, $p < 0.05$ therefore hypothesis 1a and hypothesis 1b are supported). These relationships were supported in the study of Joo et al. (2012). The positive relationship between AC and intellectual stimulation was also supported in the study of Rafferty and Griffin (2004) that suggested that intellectual stimulation may be one way in which leaders indicate to employees that their firm values their contribution. These employees may feel valued when they are encouraged to actively engage in a firm which increases AC to the organization.

It is found a significant positive relationship between AC and contribution ($\beta =1.134$, $p < 0.001$ therefore hypothesis 1d is supported). This result is on line with previous studies which stated that employees with high levels of job involvement are likely to put more effort into their jobs, tend to display higher levels of in-role performance and are motivated to perform their best (Chughtai, 2008; Meyer and Allen, 1997).

In our first model proposed, two "dimensions" of LMX (professional respect and contribution) behave differently. The dimension of professional respect is upstream of affective commitment and behaving as antecedent while the dimension of contribution is downstream of affective commitment behaving as a consequence of the later. So, they cannot belong to the same variable (LMX). Then, it can be supposed that contribution does not form a part of the LMX concept Therefore, we propose to revise the dimensionality of LMX.

Personal recognition displayed a positive relationship with CCHiSac ($\beta =0.351$, $p < 0.001$ therefore, hypothesis 2a is supported). This result is in accordance with the suggestion of Rafferty and Griffin (2004) that stated that when people receive recognition for their work, they would feel an increased sense of investment in that organization. However, when considering the two subdimensions of CC in this study, this finding may explain the unexpected result found by Rafferty and Griffin (2004) in which personal recognition was significantly negatively associated to CC.

Supportive leadership displayed a positive relationship with NC ($\beta=0.676$, $p < 0.001$: Hypothesis 3a is supported). This result implies that the person who receive some benefits from others may feel obligated to return the favour by NC (Aquino and Bommer, 2003).

The mediation hypothesis are tested using a series of nested model method. This method showed results which supported our hypothesis.

Partial mediation of PROF is found in the relationship between INT and AC (Hypothesis 1c is supported). This may be explained by the fact that when leader use intellectual stimulation behaviour, he directly and indirectly affects AC via PROF. Full mediation of PROF is found in the relationship between VIS and AC (hypothesis 1c is supported). Full mediation of LOY is found in the relationship between PER and CCHiSac (hypothesis 2b is supported) and full mediation of AFF is found in the relationship between SUP and NC (hypothesis 3b is supported). In other words, VIS, PER and SUP does not have a direct effect on AC, CCHiSac and NC respectively when PROF, LOY and AFF are controlled respectively. According to these results, dimensions of LMX (PROF, LOY and AFF) serves as a critical explanatory variables in the relationship between certain dimensions of TL (VIS, PER and SUP) and different forms of OC (AC, CCHiSac and NC).

These results supported previous studies which stated that LMX represents a theoretical approach to understand leadership at work (Dorothea Wahyu Ariani, 2012; Gerstner and Day, 1997; Graen and Uhl-Bien, 1995; Liden et al., 1997; Schriesheim et al., 1999), and it has evolved into one of the more useful approaches for studying employee-supervisor relationships and how they affect employee outcomes (Rosen et al., 2011). In this study, LMX is found as an important factor when analyzing the relationship between TL and OC. As LMX relationships are developed through a series of interactions or exchanges between leaders and followers, immediate supervisors are critical in enhancing the LMX relationship because of their proximity to employees (Walumbwa et al., 2011). Specifically, transformational leaders who express an idealized picture of the future, use their power to help members to solve problems at work, values individuals' efforts, support members' actions, and consider members' needs, evoke positive evaluations of LMX quality in members (Scandura and Graen, 1984). Based on the norm of reciprocity (Gouldner, 1960), LMX theory suggests that positive evaluations of LMX quality engender positive work behaviors and attitudes by members (Liden et al., 1997). Following from social exchange theory (Blau, 1964) and in line with the norm of reciprocity (Gouldner, 1960; Cropanzano and Mitchell, 2005), high LMX employees, in receiving something of value, feel themselves to be more valuable for the organization and thus feel obligated to reciprocate by offering organizationally desired contributions such as commitment to the organization.

5. CONCLUSION AND FUTURE RESEARCH

In this work, by examining the role of LMX as a mediator between TL and OC, the mechanisms through which dimensions of TL influence different forms of OC has been studied.

From the results of the models presented in this study, we can confirm that:

- TL, LMX and OC are multidimensional concepts which is in accordance with the results found in some previous studies such as Rafferty and Griffin (2004), Liden and Maslyn (1998) and Meyer et al. (1993), respectively.
- To find precise results, it is useful when treating CC, to differentiate between its two dimensions which are: commitment due to a lack of alternative employment opportunities (CCLoAlt) and perceived sacrifice of investments associated with leaving the organization (CCHiSac). This result is in agreement with that of Powell and Meyer (2004) and McGee and Ford (1987).
- The definition of two models with different antecedents for affective and normative commitment contributes to confirm that they are two distinct dimensions of OC. These findings confirm that affective and normative commitment are not identical constructs despite the fact that the correlation between these two dimensions is often quite strong in the literature (Allen and Meyer, 1990; Meyer et al., 2002).
- The 3 dimensions of LMX (PROF, LOY and AFF) serve as a critical explanatory variables in the relationship between certain dimensions of TL (VIS, PER and SUP) and different forms of OC (AC, CCHiSac and NC). This result is on line with that of Lee (2005) which found that LMX quality mediates the relationship between leadership and OC. This result confirms that a relational context is an important factor for OC (Joo et al., 2012).
- Differently from the others three dimensions of LMX that play a role of mediator between dimensions of TL and dimensions of OC, contribution appears as a consequence of AC. Consequently, it can be confirmed that contribution does not form a part of the LMX concept. We suggest that contribution is similar to altruism dimension of organizational citizenship behaviour which is defined by Smith et al. (1983) as a behaviour targeted specifically at helping individuals. Thus, we propose to revise the dimensionality of LMX in future works

Like all studies of this type, the present work may have some limitations. The same respondents rated TL, LMX and OC which may yield possible common source bias in the results. As the dyadic relationship between leaders and followers was the main interest, managers may also be asked to respond the questionnaire in future works. Longitudinal designs are needed in future research to extend our findings. Additional research adapting a longitudinal design in which both predictor and criterion variables are measured over time would provide interesting insights into the direction of relationships. Future research may also include heterogeneous and larger samples that allow broader generalization of the results. Likewise, the translated scales could also be used in other French-speaking societies.

APPENDIX

Table A.1: Statistics about demographic variables of the sample

Demographic variables	Categories	Frequency	Percentage
Gender	Male	220	51.5
	Female	207	48.5
Age	21-30 years old	48	11.2
	31-40 years old	129	30.2
	41-50 years old	134	31.4
	≥ 51 years old	116	27.2
Educational level	Licence	202	47.3
	Master	86	20.1
	Engineer	113	26.5
	Doctorate	26	6.1
Labor sector	Industry, Energy and Construction	52	12.2
	Computers and telecommunications	51	11.9
	Services and Education	153	35.8
	Trade and artisans	34	8.0
	Agriculture, hunting, forestry and fishing	6	1.4
	Others labor sector	131	30.7
Number of employees in the company	Less than 50	110	25.8
	Between 50 and 150	58	13.6
	More than 50	259	60.6
Number of years in the current company	01-05	128	30.0
	06-10	95	22.2
	11-15	71	16.6
	16-20	49	11.5
	> 21	84	19.7

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