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Leader-LMX and Follower-LMX Impact Similarly on Dyad Exchange as Measured on LMX-7-scale

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Abstract

Research into Leader-Member Exchange (LMX) theory has been well popularised by the researchers of Behavioural Science in recent years, with a multitude of studies investigating many aspects of LMX in organisations. The present article tries to evaluate the agreement between leader's perspective of LMX and subordinates perspective of LMX analysing deep into the researches on LMX-agreement and evaluate it empirically to perceive the Vertical Dyad Linkage (VDL) theory in the light of this mutual agreement. The research encompasses the method of establishing the validity of the relationship and draws a parity of perception of the leader and the subordinate about the dyad while evaluating the quality of LMX and the focus of each on the dyad. Data of a healthcare unit with 154 sample size is used in explaining and establishing the theory by drawing correlations between the ratings done by both the participants of the dyad. The process well explained the theory with a few exceptions while raising a new research question of the exception being related to the size of a workgroup, which can have a future research scope.

Keyword: Leader Member Exchange, VDL, Leader LMX, Follower LMX

Introduction

Leadership is extremely interesting as it is the pathway to organisational development and creation of organisational environment. The LMX Theory dates back to 1975 -76 when Danserau, Graen and Haga made the first description of dyadic relationships in one of their works. The unique feature of LMX is that it emphasizes on the dyadic relationships of leader-member, the building block of the organisation. Most people would agree that good interpersonal relationships enhance the work environment and promote productivity and better customer service (Graen *et al*., 1982; Scandura & Graen, 1984; Wayne *et al*., 1997). Since it has previously been determined (e.g., Cogliser et al., 1999) that perceptual agreement regarding the definitions of good interpersonal relationships like leader-member exchange is important in promoting employee productivity, organisational commitment, job satisfaction, and other employee related organisational outcomes, increasing the likelihood of developing such perceptual agreement could be vital. As people increase their levels of communication, they tend to view one another more positively and as more similar (Hogg, 1992; Sias, 1996). Identifying some of the causes of agreement would enable organisations to train managers to increase and bolster the positive impact of agreement, and thereby improve employee performance. The main concern of the research is to investigate the perspectives of LMX agreement and the correlate between the two hands of the discussed dyad.

The leader-member views of the dyad does not always converge. We shall track the concerns that are making it low or high. Three types of similarities were investigated by Dale (2002), viz. demographic similarity, similarity in work values, and perceived similarity. Social identity theory suggests that the more demographically similar the dyad members are, the more similar they would be in their attitudes, beliefs and perceptions. Because demographically similar individuals are thought to share similar backgrounds and experiences, they are more

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likely to have been treated in a similar fashion, and are more likely to react to situations similarly (Chatman *et al*., 1998). Again, when supervisors and subordinates share similar value systems they tend to perceive the same external stimuli in similar ways and to behave in similar ways (Meglino & Ravlin, 1998). Steiner (1988) and Steiner and Dobbins (1989) found that when there was perceived work value similarity, more extra-contractual relationships were formed, but that subordinate work values were a more significant predictor. The previous studies consistently found perceived similarity to be positively related to the nature of LMX (Liden *et al*., 1993; Liden *et al*., 1997) and, that perceived similarity is more significantly related to LMX than is demographic similarity (Kim & Organ, 1982; Liden *et al*., 1993; Turban & Jones, 1988; Wexley & Pulakos, 1983).

Theoretical Background

Leader-member exchange (LMX) theory is a 30 year or more old research field and like most other models, has gone through a few different iterations. Scandura, Graen, & Novak (1986) defined leader-member exchange as a system of components and their relationships, involving both members of a dyad (i.e., one-on-one) in a interdependent patterns of behaviour and sharing common and dependent instrumentalities and producing conceptions of environments, cause maps, and value. With its roots in vertical dyad linkage theory (VDL), the traditional concept is that leaders develop exchange relationships with their subordinates and based upon these relationships a more trusted or close group called *'in-group'* and a rather less-trusted *'out-group'* are developed (Brower, Schoorman, & Tan, 2000). Members within the 'in-group' enjoy a level of mutual trust, respect and liking and receive more information and concern from their leaders. LMX relationships may be influenced by the following three factors: (1) Follower's commitment, trust, respect, and loyalty will influence leaders to show support, delegate more, allow followers more freedom in conducting their work, and promote open communication with followers. (2) Leader's first impressions of a group member's competency play an important role in defining the quality of the relationships. (3) Factors such as tryouts or tests of a new employee may be key determinants of a follower's in-group or out-group status. LMX relationships antecedents include (1) follower attributes, (2) leader and follower perceptions of each other, and (3) situational factors.

Table 1: Concise Format of different Approaches to LMX Dyadic Relations

	Leader Centric	*Relationship Centric*	*Follower Centric*
Leadership	Behaviour and Job Role	Trust, Respect and Mutual obligation that generates influence between parties	Job ownership
Behavioural construct	Establishing and communicating vision inspiring, instilling pride.	Building strong relationships with followers mutual learning and companionship	Empowerment and decentralisation of power
Pros	Leader as rallying point For organisations; common understanding of mission and values; can initiate wholesale change.	Accommodates separate needs of subordinates and explicit requirements of Superiors	Reduces dependences on leader
Cons	Highly dependent on leader; problems if leader changes or is pursuing inappropriate vision.	Time consuming and relevant for long term dyadic relations	Dependant on followers self-initiative, motivation and power
Relevance	Fundamental change; charismatic leader in place; limited diversity among followers.	Continuous improvement of team work, equality in diversity and networking	Promotes task committed followership
Effectiveness	Structured tasks; strong leader position, power; member acceptance of leader.	Favorable for leaders and a medium path get way	Unstructured, week position & power, non-acceptance of leader

LMX Agreement and Controversies

A healthy controversy currently surrounds the question of the measurement and the dimensionality of the LMX construct. This controversy emanates from two primary sources: (1) the continual redefining of the LMX scale in studies over the years, as well as the use of measures altogether different from the original formulation of the measure (Kim & Organ, 1982; Rosse & Kraut, 1983; Heneman, Greenberger, & Anonyuo, 1990 as cited in Keller & Dansereau, 1995), and (2) questions about whether LMX is uni-dimensional or multi-dimensional and what the implications of this are for measurement. In response to the first question, we acknowledge that the measure of LMX has changed over the years. Investigations have used the 2-item (Dansereau, *et al*., 1975), 4-item (Graen & Schiemann, 1978; Liden & Graen, 1980), 5-item (Graen, Liden, & Hoel, 1982), 7-item (Graen, Novak, & Sommerkamp, 1982; Seers & Graen, (1984), 10-item (Ridolphi & Seers, 1984), 12-item (Wakabayashi & Graen, 1984), and 16-item (Wakabayashi, Graen, & Uhl-Bien, 1990; Uhl-Bien *et al*., 1990) LMX scale. This refinement of the measure has occurred from our learning through research and theorising about LMX.

The second area of controversy concerns the dimensionality of LMX. Dienesch and Liden (1986) were the first to raise this issue with their question about LMX's dimensions. In response to this question, Dienesch and Liden (1986) proposed LMX to be multidimensional, and identified that the dimensions are contribution, loyalty, and affect. Following their lead, testing on the dimensionality of LMX and to develop other LMX measures researchers like Dienesch (1985), Schriesheim, Neider, Scandura, and Tepper (1992), Phillips, Duran, and Howell (1993), Liden (1993), Liden and Maslyn (1994) contributed in the field.

Despite early findings (Harris & Schaubroeck, 1988), that suggest extant LMX research predominantly portrayed the idea that relationships are perceived in a similar way by both members of the dyad, Graen and Uhl-Bien (1995) supported that expected agreement between leader and member reports is positive and strong, and used as an index of quality of data. Since studies commonly survey only one party of the dyad, predominately the follower, such assumptions have long been left unchallenged e.g., Gerstner and Day (1997) found only 24 studies which surveyed both perspectives in a total of 84 studies on LMX. More recent studies, however, explicitly focus upon the issue of LMX agreement. Paglis and Green (2002) found a correlation of only 0.19 between both parties' assessment of LMX quality across 127 leader-follower dyads. A meta-analysis by Gerstner and Day (1997) across 24 independent samples with a combined sample size of 3,460 dyads corroborates such findings. They also find a mean sample-weighted correlation of only 0.29, and 0.37 when corrected for unreliability. The most recent meta-analysis by Sin *et al*. (2009) raises similar concerns, finding that overall LMX agreement across 64 samples with a combined sample size of 10,884 dyads was only moderate with $\rho = 0.37$. While some researchers argued that disagreement in ratings of LMX does not warrant conceptual analysis because it merely reflects measurement error (Graen & Uhl-Bien, 1995), a plethora of studies suggests otherwise, that is, despite heterogeneity in LMX assessments from various angles and with various scales, the finding that leaders and followers provide disagreeing accounts of LMX quality still persists (cf. Bernerth, Armenakis, Feild, Giles, & Walker, 2007; Schriesheim, Castro, & Cogliser, 1999). While measurement error is notoriously difficult to rule out as an explanation, there are further conceptual reasons to believe that LMX disagreement is not solely attributable to it. Indeed, Gerstner and Day (1997) argue that disagreement on ratings of LMX quality is a complex issue that is an interesting outcome variable in its own right.

Evidence from further research suggests that LMX quality is likely to translate best into performance when the relationship is experienced similarly, that is, when LMX agreement is high (Atwater & Yammarino, 1992; Bass & Yammarino, 1991; Cogliser, Schriesheim, Scandura, & Gardner, 2009; Wexley, Alexander, Greenawalt, & Couch, 1980). Given these findings, the observation that LMX agreement is often lower than one would expect, despite both parties rating the same relationship, raises an important challenge for LMX theory and research. LMX quality perceptions outline how each party's LMX quality perception is primarily dependent on the perceived contributions of the other party, moderated by perceived own contributions. We then integrate the notion of Implicit Leadership and Followership Theories (ILTs and IFTs) to argue that the currencies of contributions differ between leaders and followers. This dyadic model sets the stage to explain that LMX disagreement can stem from (1) differences in both parties' ILTs as well as both parties' IFTs, but also from (2) differences in perceptions of own and other's behaviour.

Motivation behind Choosing the Study Topic

Many measures have been used to assess the nature of the LMX relationship (Gerstner & Day, 1997), and several prior studies that have assessed LMX from both perspectives used different measures for ascertaining supervisor and subordinate perceptions. Of the over 100 studies of LMX to date, only 15 published studies were found that assessed LMX from both perspectives. Table 2 lists these 15 studies.

Table 2: Studies assessing LMX from both supervisors' and their subordinates' perspectives year wise (Gerstner & Day, 1997)

Sl. No	*Authors*	*Published*
1	Cogliser, Schrieshiem, Scandura, & Neider	1999
2	Dansereau, Cashman & Graen	1973
3	Deluga & Perry	1994
4	Dockery & Steiner	1990
5	Ferris	1985
6	Graen, Liden & Hoel	1982
7	Graen & Schiemann	1978
8	Liden, Wayne & Stilwel	1993
9	Phillips & Bedeian	1994
10	Rosse & Kraut	1983
11	Scandura, Graen & Novak	1986
12	Scandura & Schiresheim	1994
13	Vecchio	1995
14	Wayne & Green	1993
15	Wilhelm, Herd & Steiner	1993

Unfortunately, most of these studies did not assess agreement as to the nature of the LMX relationship by having supervisors and each of their subordinates complete the respective versions of the same measure (e.g., LMX-7 and SLMX-7). Recent research indicates that "… rating judgments are biased because of the contextual effects" (p. 483, Dalal, 2001). These contextual effects include factors such as the type of measure, the number of items, the number of category points, the frame within which one views the stimulus, and the perspective of the individuals responding to the survey. Method variance is also an issue because different measurement methods can demonstrate statistically significant method bias. Additionally, because these measures have all been self-reports, there is the possibility of social desirability bias (Gardner, Cummings, Dunham, & Pierce, 1998). Because it is quite possible that by using different measures, different constructs were gauged, we concluded that a preferred operationalisation of agreement would be that dyad members' perceptions be tapped using the same, or at least parallel, measures. Scandura (1999) asserted that examining multiple perspectives would lead to a fuller understanding of the implications of agreement and disagreement about the types of LMX relationships. She suggested that to understand the implications of perceptual agreement and disagreement more fully, data from both supervisors and subordinates be collected to determine whether perceptions are shared. And, in fact, because correlations between supervisor and subordinate perceptions of LMX have been fairly low, it appears that these perceptions are not, for the most part, shared perceptions. Gerstner and Day's (1997) meta-analysis found a mean sample-weighted correlation of 0.29 (0.37 when corrected for unreliability). The percent of variance explained is 13.7%, and this represents a moderate effect size in meta-analyses. The unexpectedly moderate correlation between dyad member perceptions of the nature of their LMX relationship led Gerstner and Day (1997) to state that "leader-member agreement should be examined as a relevant independent or dependent variable" and that "leader-member LMX agreement is an interesting and potentially valuable outcome variable in its own right" (p. 837). Neither Scandura (1999) nor Gerstner and Day (1997), however, presented arguments as to why agreement was expected or desired. It would seem reasonable to expect lack of agreement because "individuals and managers can have decidedly non-mutual perceptions of the nature of their relations, the exchanges made, and their obligations to each other" (Rousseau, 1997). Gerstner and Day (1997) compared the lack of agreement about the nature of the LMX relationship to the lack of agreement in performance appraisal research found by Harris and Schaubroeck (1988) states that "the low correlation between leader and member LMX is consistent with meta-analytic research on self-supervisor agreement on performance ratings". As indicated by Gerstner and Day (1997), the performance appraisal literature provides evidence of the importance of leader-member agreement. The current state of LMX research on dyad agreement is analogous to the performance appraisal

situation in the early 1980s, when Wexley and colleagues (Pulakos & Wexley, 1983; Wexley, Alexander, Greenwalt, & Couch, 1980; Wexley & Pulakos, 1983) investigated the relationship of actual similarity, perceptual agreement, and performance appraisals in manager-subordinate dyads and decried the dearth of studies that simultaneously examined the perceptions of both parties.

Previous researchers have identified that comparatively new work-groups sharing short span of togetherness may have less agreement and yet another possibility of disagreement may be supervisors inflated rating to glorify the owned dyad. While good communication can be the basis of perpetual agreement, the degree of mutual agreement is directly proportional to the number of interactions.

Research Method

Sampling

LMX studies generally tend to employ either priori or ad-hoc sampling method. We have considered the organisational chart to matched pairs of leaders & members department wise and if required inter-departmental for performing workgroups. The pairs are interviewed in the same time as suggested by forerunners (Liden, Wayne & Stilwell, 1993).

The research encompasses the method of establishing the validity of the relationship and draws a parity of perception of the leader and the subordinate about the dyad while evaluating the quality of LMX and the focus of each other on the dyad. Data of a popular healthcare unit of Kolkata, with 154 sample size is used in explaining and establishing the theory by drawing correlations between the ratings done by both the participants of the dyad.

LMX Scale

To measure this construct, a LMX-7 scale developed by Scandura & Graen (1984) will be used. It is a consolidation 14 questions of Leader-LMX(L-LMX) and Subordinate-LMX (S-LMX) under each subdivision. As this was highly recommended by Graen & Uhl-Bien (1995) and Gerstner & Day (1997), it is preferred in this research.

Statistical Treatment

In order to examine the relationship between LMX-7 scale value of leader and member, mean of the two is taken and correlation analyses is performed with the values obtained group-wise.

Hypothesis Testing

The hypotheses considered for the current study are:

Ho: There is a strong association between the X and Y data series, i.e., LLMX and FLMX series.

H1: There is no association the X and Y data series, i.e., LLMX and FLMX series.

Result

The relationship in the aforesaid organisation is shown in data tables and graphs.

The primary group of the healthcare unit (hospital) is the prime team whose members are leader to other teams. Leader is E1.

Table 3: Data Table 1

Emp. Index	L-LMX	F-LMX	R- value
E1	35	25	
E2	35	32	
E3	14	15	
E4	35	23	
E5	14	17	
E6	21	20	
E7	30	28	
E8	35	32	
E9	14	15	
E10	21	23	
E11	14	17	
E12	21	20	
E13	30	28	
E15	35	25	
E16	14	15	**0.63508**
E17	21	23	
E18	14	17	
E19	21	20	
E20	30	25	
E21	35	32	
E22	35	15	
E23	21	23	
E24	14	17	
E25	21	25	
E26	35	32	
E27	35	15	
E29	21	23	
E30	14	17	
E31	21	25	

Status: The value of R is 0.63508 and the two-tailed value of P is 0.00021. By normal standards, the association between the two variables would be considered statistically significant. And, Ho holds good.

In the 2nd workgroup E5 is the leader.

Table 4: Data Table 2

Emp. Index	L-LMX	F-LMX	R-Value
E5	14	17	
E32	34	32	
E33	34	34	
E34	27	25	
E35	19	19	
E36	27	25	
E37	19	19	
E38	25	25	
E39	34	32	
E40	34	34	
E41	27	25	
E42	19	19	**0.96808**
E43	27	25	
E44	34	32	
E45	34	34	
E46	27	25	
E47	34	32	
E48	34	34	
E49	27	25	
E50	19	19	
E51	34	32	
E52	34	34	
E53	27	25	
E54	19	19	
E55	34	34	
E56	27	25	
E57	19	19	
E58	27	25	
E59	19	19	
E60	25	25	

Status: The value of R is 0.96808 and the two-tailed value of P is 0. By normal standards, the association between the two variables would be considered statistically significant. And, Ho holds good.

In the 3rd workgroup E12 is the leader.

Table 5: Data Table 3

Emp. Index	*L-LMX*	*F-LMX*	*R-Value*
E12	21	20	
E61	34	29	
E62	14	15	
E63	34	29	
E64	27	25	
E65	14	15	
E66	34	29	
E67	14	15	
E68	34	29	
E69	27	25	
E70	34	29	1
E71	14	15	
E72	34	29	
E73	27	25	
E74	34	29	
E75	14	15	
E76	34	29	
E77	27	25	
E78	27	25	
E79	14	15	
E80	34	29	
E81	14	15	

Status: The value of R is 1 and the two-tailed value of P is 0. By normal standards, the association between the two variables would be considered statistically significant. And, here also Ho holds good.

In the 4th workgroup E6 is the leader.

Table 6: Data Table 4

Emp. Index	*L-LMX*	*F-LMX*	*R-Value*
E6	21	20	
E82	31	30	
E83	26	26	
E84	23	20	
E85	13	19	
E86	30	29	
E87	24	25	
E88	23	20	
E89	23	20	
E90	13	19	
E91	30	29	0.98294
E92	24	25	
E93	23	20	
E94	23	20	
E95	13	19	
E96	30	29	
E97	24	25	
E98	23	20	
E99	31	30	
E100	26	26	
E101	23	20	
E102	13	19	
E103	30	29	
E104	24	25	
E105	23	20	
E106	23	20	
E107	13	19	

Status: The value of R is 0.98294 and the two-tailed value of P is 0. By normal standards, the association between the two variables would be considered statistically significant. And, Ho holds good.

In the 5th workgroup E7 is the leader.

Table 7: Data Table 5

Emp. Index	*L-LMX*	*F-LMX*	*R-Value*
E7	36	30	0.99275
E108	25	28	
E109	22	23	
E110	20	25	
E111	33	31	
E112	17	12	
E113	12	13	
E114	14	15	
E115	29	27	
E116	18	15	
E117	21	23	
E118	15	19	
E119	17	12	
E120	12	13	
E121	14	15	
E122	29	27	
E123	18	15	
E124	23	24	
E125	19	19	
E126	17	12	
E127	12	13	
E128	14	15	
E129	29	27	
E130	18	15	
E131	23	24	
E132	15	19	

Status: The value of R is 0.99275 and the two-tailed value of P is 0. By normal standards, the association between the two variables would be considered statistically significant. Ho holds good here.

In the 6th workgroup E117 is the leader.

Table 8: Data Table 6

Emp. Index	*L-LMX*	*F-LMX*	*R-Value*
E117	21	23	1
E133	14	20	
E 134	31	30	
E135	21	23	
E136	21	23	
E137	14	20	
E138	31	30	
E139	21	23	
E 140	14	20	

Status: The value of R is 1 and the two-tailed value of P is 0. By normal standards, the association between the two variables would be considered statistically significant. And, Ho can be accepted here.

In the 7th workgroup E125 is the leader.

Table 9: Data Table 7

Emp. Index	*L-LMX*	*F-LMX*	*R-Value*
E125	19	19	0.5
E141	32	33	
E142	17	29	
E143	19	19	
E144	32	33	
E145	17	29	
E146	19	19	
E147	32	33	
E148	19	19	
E149	19	19	
E150	32	33	
E151	17	29	

Status: The value of R is 0.52381 and the two-tailed value of P is 0.08047. By normal standards, the association between the two variables would be considered statistically of poor significance. And, Ho is still accepted allowing the variation.

In the 8th workgroup E31 is the leader.

Table 10: Data Table 8

Emp. Index	*L-LMX*	*F-LMX*	*R-Value*
E31	21	25	0.3
E152	32	33	
E153	17	29	
E154	21	21	

Status: The value of R is 0.31623 and the two-tailed value of P is 0.68377. By normal standards, the association between the two variables would not be considered statistically significant. And, Ho can be rejected here.

Findings

The study highlights the following findings:

- Correlation between follower (F-LMX) and leader (L-LMX) scores was found to be significant and the range is indicated to lie between 0.5 to 1. 5 groups out of 8 groups indicated a strong positive correlation of about 0.9 and in 2 groups the correlation indicated was medium ranging between 0.6 and 0.5. However, one group failed to show statistically significant correlation. The 8th workgroup recorded a correlation of 0.3 which can be explained by the small size of the group.
- When FLMX is showing positivity the L-LMX is doing the same and vice versa.
- The agreement between leader and member reports is positive and strong and used as index of quality of data, barring the last case.
- LMX disagreement can stem from (1) differences in both parties' implicit theories, and from (2) differences in perceptions of own and other's behaviour. Thus, if perceived behaviour translates into perceived contributions, the second refers to people's estimations of how much is exchanged and thus governs the magnitude of perceived contributions.

Conclusion

To summarise, our paper, illustrates the complexity of the processes underlying leaders' and followers' assessments of their LMX relationship, and invites fuller integration of research on LMX. Thus, outlining the many LMX agreements and disagreements, we hope to have opened the doors towards researches on LMX dyad to unveil the divergent LMX findings regarding leaders and followers, and also between leaders and followers themselves so that they will engage in a dialogue to understand each other's perspectives better and even initiate trainings to make it even best.

Implications

These findings have significant theoretical and practical implications. A better understanding of the LMX construct may lead to improved supervisor/subordinate relationships and hence to improved organisational outcomes. Policy makers and practitioners can gain substantially by understanding the impact good relationship has on the outcome expected by using the relationship of L-LMX and F-LMX research. Commonly, it focuses on follower perceptions only. However, LMX essentially reflects the relationship between leaders and followers; we believe that future research should concentrate on investigating:

- What are the sources of disagreement?
- Or, what it takes to and pay appropriate heed to it in the assessment of LMX quality?
- And, even what can be done to improve this dyadic relation?

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