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Comparing Antecedents and Consequences of Leader-Member Exchange in a German  
Working Context to Findings in the US

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Running head: LEADERSHIP, LMX, PERFORMANCE

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Abstract

This paper gives an overview of several studies focussing on antecedents and consequences of Leader-Member Exchange (LMX) in a German working context and compares these results to results from prior studies in the US. The German results indicate that relationship tenure is not related to LMX. However, span of supervision is shown to be relevant in the followers' evaluation of LMX. With respect to the consequences of LMX, results indicate that delegation as well as commitment and occupational self-efficacy are positively related to LMX. Some of the results differ from US results, namely, antecedents are related to LMX to a lower degree in Germany and consequences to a higher degree. Based on these results, future research should take into account the country in which the LMX data is collected in order to be able to make more precise statements about the respective relationships.

Keywords: Leadership, LMX, Commitment, Self-efficacy

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Dansereau, Graen, and Haga (1975) first introduced Leader-Member Exchange (LMX). It is based on the Vertical Dyad Linkage (VDL) approach and refers to the idea that leadership is built on the dyadic relationships between a leader and each of his / her followers. Graen and colleagues went beyond prior approaches, which had put leaders' behaviour or traits in the foreground, and argued that the variance often found in the perception of leadership is due to the fact that leadership is dyad-based rather than team-based. This means that there might well be as many leadership styles as there are leader-member dyads. The Leader-Member Exchange approach is a further development of this idea and focuses on the quality of the relationship between one leader and one subordinate (for a differentiation between VDL and LMX, see Dansereau, Yammarino, & Markham, 1995).

While quite popular in the USA, Leader-Member Exchange has only recently been introduced to German-speaking countries through Schyns' (2002) translation of the LMX 7 instrument (original by Graen & Uhl-Bien, 1995). A more recent work by Schyns (2004b) outlines that most other work on LMX in Germany is either still in progress or focuses on theoretical aspects (e.g., Schyns, 2004a; Weibler, 1994). The aim of this paper is, therefore, twofold. First, it gives a summary of results of a German research project on antecedents and consequences of LMX. Second, it compares these results to results found in prior US studies. The question arises as to whether US findings on LMX can be transferred to the German context or whether we can expect to find differences between German and American results. In order to answer these questions, it is useful to approach the issue from a broad cultural perspective. We will

do so after reviewing the constructs assessed in this study and their relationship to LMX.

Figure 1 displays the antecedents and consequences of LMX which were included. Naturally, we could not include all possible antecedents and consequences in our study but had to make some reasonable choices. An obvious first criterion for the selection, based on the purposes of our study, was that research on LMX and the respective other variable had to exist in the USA. As for the antecedents, not much research exists in the field of LMX. The research available focuses on work-related biographical variables. As LMX is relationship-oriented, we chose criteria that have an impact on that relationship - namely, relationship tenure (the duration of leader and follower working together) and span of leadership (the number of followers per leader).

The decision for consequences was more difficult, as a lot of research exists in the field of consequences of LMX. We chose to take the following approach: First, we considered what kinds of consequences leadership has in general and then, second, took one prominent example. For 'leaders' behaviours', we selected 'delegation'; for the general leadership consequence 'followers' attitudes', we selected 'affective commitment'; and for 'empowering of followers', we selected 'occupational self-efficacy'. Let us elaborate briefly on the examples we chose.

---- Insert Figure 1 about here ----

*Delegation* can be seen as a pivotal variable in understanding the interaction between member and leader (Bauer & Green, 1996). A leader's duties include the assignment of tasks to his/her followers. There is a certain degree of freedom to delegation, that is, leaders can assign more or less challenging tasks to their followers. The assignment of challenging tasks to a follower can be regarded as a sign of trust in

this follower (that he/she will fulfil this task to the supervisor's satisfaction) and also as a sign of support (as challenging tasks involve learning opportunities). Delegation of difficult and challenging tasks seems to be more frequent in high-quality LMX relationships than in low-quality LMX relationships. In the latter case, supervisors assign daily and routine tasks to their subordinates.

*Commitment* is a psychological state that characterizes the relationship which an employee has to his / her organization and which influences whether or not an employee stays in the organization (Meyer & Allen, 1991). Meyer and Allen (1991) describe three components of commitment – affective, continuance, and normative. Affective commitment refers to the emotional bonding with the organisation, whereas continuance commitment is related to a perceived lack of other job opportunities. Normatively committed employees feel obliged to stay in their organisation because changing a job is just “not done”. As leaders represent the organisation vis-à-vis their followers, we assume that relationship quality has an influence on affective commitment.

*Occupational self-efficacy* can be defined as “one's belief in one's own ability and competence to perform successfully and effectively in situations and across different tasks in a job” (Schyns & von Collani, 2002). Different kinds of experiences can enhance the occupational self-efficacy of employees. In the context of leadership, mastery experience and verbal persuasion are of relevance. As detailed in Schyns (2001), supervisors can provide opportunities for their subordinates to perform new tasks and thus offer opportunities for mastery experience. In addition, leaders can support their subordinates' self-efficacy by verbal persuasion in the sense of praising their efforts or focusing on good results (see also Schyns, 2004, for a theoretical explanation of the relationship between leadership and self-efficacy).

We did not include 'performance' for practical reasons: Our samples are heterogeneous with respect to professions and tasks, so general performance criteria would be hard to find. However, this is certainly a task for future research. In the next section, results of relevant US studies are reported along with each antecedent or consequence. We will then review cultural differences between Germany and the US in order to derive possible assumptions regarding cultural differences in the relationships between antecedents/consequences and LMX.

### Antecedents of LMX

In the following section, relationship tenure and span of leadership are considered as antecedents of Leader-Member Exchange.

#### *Relationship tenure*

How is the amount of time which leader and member have worked together related to the quality of their relationship? In organizations, leaders and followers often work together for longer periods of time. Nevertheless, particular work groups are not stable, as members leave and new members join the group. Thus, work groups are composed of followers who have spent different amounts of time with their supervisor. As a consequence, especially in the context of LMX where dyads are the focus of attention, it is interesting to examine the extent to which relationship tenure is related to LMX quality. Although some researchers found that the LMX-relationship develops early in supervisor-subordinate dyads (within the first two weeks; see Liden, Wayne, & Stilwell, 1993), it can be assumed that LMX quality continues to improve over the span of time in which leaders and followers get to know each other better. In addition, followers who experience low LMX will tend to leave their positions in order to work for a new leader (in or out of the company; Graen, Liden, & Hoel, 1982; Kacmar, Carlson, & Brymer,

1999; Maslyn & Fedor, 1998). Maslyn and Uhl-Bien (2001) report a positive relationship between LMX and relationship tenure for different assessments of LMX, as well as for supervisors' and subordinates' ratings of LMX. Consequently, we expect LMX to be higher in long-term relationships.

**H 1: Relationship tenure is positively related to LMX.**

*Span of leadership*

Leaders lead groups of different sizes. Whereas some leaders may have to supervise only a few subordinates, others have to lead larger groups. As LMX is based on interpersonal exchange (see Liden, Sparrowe, & Wayne, 1997), the question arises as to the extent that leaders with large groups of followers are still able to establish a positive relationship quality with all followers. Dansereau, Graen, and Haga had mentioned as early as 1975 that leaders' limited resources in time and energy also limit the number of high-quality relationships possible. Time as well as energy might not be sufficient to uphold a large number of high-quality relationships (see Dansereau et al., 1975). Empirical findings support this assumption (Schriesheim, Castro, & Yammarino, 2000, Green, Anderson, & Shivers, 1996). Therefore, we will consider a high span of leadership as a negative antecedent of LMX.

**H 2: Span of leadership is negatively related to LMX.**

Consequences of LMX

The relationship between LMX and performance has been shown to be positive in several studies (e.g. Dunegan, Duchon, & Uhl-Bien, 1992; Graen, Novak, & Sommerkamp, 1982) as well as in a meta-analysis by Gerstner and Day (1997). In the following section, we will take a closer look at different consequences of LMX and the respective results from US studies.

*Delegation*

As reasoned above, leaders' behaviour in terms of delegation should be positively related to LMX. This assumption finds support in prior research. Yukl and Fu (1999) found that leaders tend to delegate challenging tasks to those followers to whom they have a positive (LMX) relationship (see also Schriesheim, Neider, & Scandura, 1998; Schriesheim, Neider; Scandura, & Tepper, 1992). Therefore, delegation of challenging tasks (in particular) can be regarded as a result of a good relationship quality in the sense of LMX.

**H 3: LMX is positively related to delegation.***Affective Commitment*

We argued above that the leader represents the organization for the follower, so we can expect LMX to be positively related to affective commitment. Empirical results support this notion: Schriesheim, Neider, Scandura, and Tepper (1992) found a positive relationship between LMX and commitment (see also Sherony & Green, 2002). We conclude:

**H 4: LMX is positively related to affective commitment.***Occupational self-efficacy*

As the leader is thought to be able to influence followers' occupational self-efficacy, and is thought to do so in positive LMX relationships, we assume that LMX and occupational self-efficacy are positively related. In an empirical study, Murphy and Ensher (1999) did in fact find that leading in an LMX-way enhances followers' self-efficacy (for an overview of the correlations found in the US for LMX and the concepts regarded here, see Table 1).

**H 5: LMX is positively related to occupational self-efficacy.**

--- Insert Table 1 about here ---

### Cultural differences between Germany and the US

Hofstede (1996) referred to cultural differences between Germany and the US with respect to five cultural dimensions (power distance, individualism, masculinity, uncertainty avoidance, and long-term orientation). He found that German and US-employees differ only with respect to the latter two dimensions (uncertainty avoidance and long term orientation) but not with respect to the former dimensions. While the US employees are low in uncertainty avoidance and in long-term orientation, German employees are on an intermediate level in these categories compared to other countries. Consequently, Germans prefer structured over unstructured situations to a higher degree than US-Americans, as the difference in uncertainty avoidance suggests. Being higher in long-term orientation means that Germans tend to be more oriented towards the past in comparison to US-Americans. In addition, Hofstede, van Deusen, Mueller, Charles, and The Business Network (2002) found that the goals of US- and German managers differ. German managers seem to put more emphasis on the relationship they have with their employees (or rather, they indicate that they attach more importance to a sense of responsibility for their employees) than US-managers do. We can expect that this has an impact on LMX in a way that managers try to uphold a good relationship with their employees to a higher degree in Germany than in the US.

A similar dimension is addressed in the GLOBE (Global Leadership and Organizational Behaviour Effectiveness) study (e.g., House, Javidan, & Dorfman, 2001). Reviewing the Germanic cluster of the GLOBE study, Szabo, Brodbeck, Den Hartog, Reber, Weibler, and Wunderer (2002) outlined results on participation. They used a type of necessity rating, asking middle managers to rate items on a scale ranging

from “This behaviour or characteristic greatly inhibits a person from being an outstanding leader” to “This behaviour or characteristic greatly contributes to a person being an outstanding leader”. German- and Dutch-speaking countries attach a higher importance to participation compared to other countries. This may be due to the German tradition of union participation in important management decisions. One could argue that, due to this existing means of employee participation, German managers are accustomed to taking their employees’ opinions into account. However, Hunt (2002) reports a somewhat contradictory result: namely, that German managers rate the necessity of competencies related to leadership and team building significantly lower than US managers. Examples of such competencies are: “Coaching and developing others” and “providing individualized consideration to subordinates”. Precisely these kinds of competencies are reflected in the concept of LMX.

A review of the latest results obtained by the GLOBE research group (House, Hanges, Javidan, Dorfman, Gupta and GLOBE associates, 2004) offers support for Hunt’s results rather than for the conclusion we draw from Hofstede’s research: The results with respect to two dimensions in particular, namely, “humane orientation” (organizational or societal encouragement of and the giving of rewards to individuals who are fair, altruistic, friendly, generous, caring, and kind towards others) and “team oriented leadership” (the emphasis on effective team building and implementation of a common purpose or goal among team members) show a less positive picture of Germany, in comparison to the US, than our interpretation of Hofstede’s results suggests. In both cases Germany scores lower than the US (Dorfman, Hanges, Brodbeck, & Project GLOBE associates, 2004; see also Ashkanasy, Trevor-Roberts, & Earnshaw, 2002, for results on the Anglo cluster). Dorfman et al. (2004) even report

slightly higher values for “participation” in the USA than in Germany when regarding the country level rather than the country cluster level, as Szabo et al. (2002) do.

Based on the theory and research discussed above, what can we expect when comparing LMX research results in Germany to results in the US? On the one hand, if we focus on the research that indicates that German managers rate relationship-related competencies as less important (Hunt, 2002), that they execute less team-orientated leadership and are less rewarded for their “humane orientation” (Dorfman et al., 2004), we may expect that they show less LMX-related behaviour. On the other hand, results reported by Hofstede et al. (2002) would allow us to assume that German managers engage in higher LMX-relationships (that is, they place more emphasis on a high quality relationship with their subordinates) than US-managers. Although the results obtained by the GLOBE research group are more recent and more specific than those obtained by Hofstede, they are still somewhat contradictory in themselves, with Szabo et al. emphasizing the participation aspect of the Germanic work culture and Dorfman et al. finding lower values for “humane orientation”, “team-oriented leadership” and even “participation” in German samples than in US samples (country-level). The latter results are of course more directly connected to leadership style and, consequently, more relevant for assumptions about LMX in both countries. In any case, in light of the differing findings between the GLOBE findings and Hofstede’s et al. (2002) results, it does not seem possible to derive clear-cut hypotheses with respect to differences in the relationship between antecedents/outcomes and LMX in both countries. We will therefore frame this study as an exploratory study. In this sense, we will examine the relationships between antecedents/outcomes and LMX in Germany and attempt to validate the generalizability of the original US-based approach to LMX.

## Method

### *Participants and procedure: General*

All samples reported here come from larger studies on leadership. We chose the respective samples for our study as they all included LMX and one or more antecedent and / or consequence. All samples involve employees from different professions and positions. Although one sample consists mainly of employees in lower levels of hierarchy, in general, the participants worked on different levels of hierarchy. None of the participants were self-employed. Wherever possible, the samples were combined for the analyses in order to achieve higher power for the hypotheses tests. Only data relevant to our research question are reported here.

### *Sample 1<sup>i</sup>*

*Description:* The first sample consisted of 326 subordinates: 196 of them were male, 124 female (6 missing). Of the subordinates, 257 worked for a male leader, 69 were subordinate to a female leader. The mean indicated age of the participants was 39 years (SD = 9.6). On average, they reported having worked in their company for 13.8 years (SD = 10.3). Nearly the whole sample reported having a lower level of education, with only 9.8% of the participants having graduated from (German) high school. Participants worked in different professions and organizations on lower levels of hierarchy.

*Procedure:* Participants were selected on the condition that they were presently working in a hierarchically low position. Questioning took place in a group setting. Most participants filled out the questionnaire during working hours (N = 255). The questionnaires were recollected directly after being filled out. Participants were informed that the questionnaires would only be used for scientific purposes and anonymity was guaranteed.

*Sample 2<sup>ii</sup>*

*Description:* The second sample consisted of 252 subordinates: Most of the respondents were female (109 male and 141 female, 2 missing). Of the employees, 182 worked for a male supervisor, 67 for a female supervisor (3 missing). The average indicated age of participants was 34.4 years (SD = 11.56 years; 43 persons did not indicate their age). On average, the employees reported having worked in their company for 4.8 years (SD = 4 years). Nearly half (45.6%) of the participants reported having graduated from (German) high school.

*Procedure:* Questionnaires were distributed personally within the organizations. In part, employees were asked to distribute questionnaires among their acquaintances, observing strictly that these persons were not the immediate superiors of respondents. Most of the participating employees completed the questionnaire in a private setting. One part of the completed questionnaires was recollected by one of the authors, another part was returned in envelopes provided by the university. Confidentiality of data treatment was assured.

*Sample 3<sup>iii</sup>*

*Description:* The third sample consisted of 76 subordinates. Most of the respondents were female (31 male and 45 female). Of the employees, 48 worked for a male supervisor, 27 for a female supervisor (1 missing). The average indicated age of participants was 34.8 years (SD = 11.7 years). On average, the employees reported having worked in their company for 5.3 years (SD = 6.2). Half of the participants reported having successfully passed (German) high school examinations. Participants worked in different professions and organizations.

*Procedure:* Participants were selected on the condition that they were presently working and that they have a direct supervisor. The questionnaires were distributed amongst the acquaintances of the authors and of students taking part in an advanced course on research methods. The participants could choose when and where to fill in the questionnaire. Students and the authors re-collected the questionnaires. Participants were guaranteed anonymity.

#### *Sample 4<sup>iv</sup>*

*Description:* The fourth sample consisted of 141 subordinates. Again, most of the respondents were female (61 male and 80 female). Of the employees, 89 worked for a male supervisor, 52 for a female supervisor. The average indicated age of participants was 37.4 years (SD = 12.9 years). On average, the employees indicated having worked in their company for 7.3 years (SD = 8.7). More than a third (39.1%) of the participants reported having passed (German) high school exams. Participants worked in different professions and organizations on different levels of hierarchy.

*Procedure:* The procedure of data collection was identical to that in Sample 3.

#### *Instruments*

*Leader-Member Exchange* was assessed in all samples with the 7-item instrument recommended by Graen and Uhl-Bien (1995, German translation: Schyns, 2002). An example item is: "How well does your leader understand your problems and needs?" The Likert-scale ranges from 1 to 5 with different verbal anchors. Based on 908 participants from all samples, the internal consistency (Cronbach's Alpha) was .88. For the internal consistencies of the individual samples, see Table 2.

*Relationship tenure* was assessed in the samples 1 to 4. Participants were asked to indicate how long they had worked with their respective supervisor. On average, the participants had worked with their supervisor for 3.2 years ( $SD = 3.29$ ).

*Span of leadership* was only assessed in Sample 2. Participants were asked how many followers the direct supervisor has authority over.

*Delegation* was assessed in Sample 2. The delegation scale was adapted from the Managerial Practices Survey (MPS, see Yukl, Wall & Lepsinger, 1990; Yukl & Fu, 1999). Participants filled in the subscale “delegation” consisting of 7 items. The Likert-scale ranges from 1 (*never*) to 5 (*always*). One example item is: “My boss delegates the authority to me to make important decisions and to implement these without his/her prior approval”. The reliability for the sample ( $N = 252$ ) was  $\alpha = .83$  for six items (Cronbach’s Alpha, one item deleted).

*Commitment* was assessed in Sample 2 and Sample 4 using different instruments. In Sample 3, the Organizational Commitment Questionnaire developed by Mowday, Steers, and Porter (1979) was used. The scale consists of 15 items with a 5-point Likert-scale (1 = *strongly agree* to 5 = *strongly disagree*). One example item is: “I am proud to tell others that I am part of this organization.” The instrument had an internal consistency (Cronbach’s Alpha) of  $\alpha = .92$  in this sample.

In Sample 4, it was necessary to employ a shorter instrument for assessing commitment, due to the length of the entire questionnaire. We therefore used a subscale of the commitment instrument by Allen and Meyer (1990) assessing affective commitment. It consists of 8 items and can be answered on a 7-point-Likert scale (1 = *do not agree at all* to 7 = *agree completely*). An example-item is: “I would be very

happy to spend the rest of my career in this organization.” The instrument had an internal consistency (Cronbach’s alpha) of  $\alpha = .77$ .

*Occupational self-efficacy* was assessed in Samples 1, 3, and 4 using Schyns and von Collani’s (2002) OCCSEFF scale. The scale consists of 20 items. The reliability for the three samples (N = 543) was .86. A sample item is: “No matter what comes my way in my job, I’m usually able to handle it “. The scale ranges from 1 = *completely true* to 6 = *not at all true*. For the internal consistencies of the individual samples, see Table 2.

--- Insert Table 2 about here ---

## Results

### Antecedents of LMX

In order to test H1, a correlation was conducted between relationship tenure and LMX (Samples 1 to 4). No significant correlation ( $r = .00$ ) emerged between the two constructs. For more analytic purposes, a *t*-test with the groups with the lowest and highest values of relationship tenure (tertile split, that is, creating three groups with respect to their values in relationship tenure, leaving out the middle values group for the calculations) was executed. No significant differences on LMX emerged between the groups. Therefore, H1 has to be rejected.

H2 was supported, as a significant correlation emerged between span of leadership and LMX (sample 2;  $r = -.14$ ;  $p < .05$ ), indicating that the more followers a leader has, the lower these rate the quality of the relationship with their leader.

### Consequences of LMX

The correlation between LMX and delegation was positive and significant (Sample 2;  $r = .58$ ;  $p < .001$ ), indicating more delegation in high LMX relationships. Thus, H3 is supported.

Using the Organization Commitment Questionnaire (Mowday et al., 1979) to assess commitment, a positive correlation emerged for LMX and commitment (Sample 3;  $r = .63$ ;  $p < .001$ ). For the affective commitment instrument (Meyer et al., 1991) and LMX, the correlation was  $r = .44$  ( $p < .001$ ) (Sample 5). Therefore, H4 was supported.

Leader-Member Exchange and occupational self-efficacy were correlated significantly and positively (Samples 1, 3, 4;  $r = .19$ ;  $p < .001$ ). Thus, H5 was supported.

#### Comparison between German and US findings

Given that the present findings are the first ones obtained in a German context, and most of the existing research on antecedents and consequences of LMX was conducted in the USA, it is of interest to see whether or not there are any deviations between these two research bodies. The most systematic way to approach this task is to conduct several small meta-analyses of the correlations found between LMX and its antecedents and consequences. In order to do so, we compared the results found in our samples to those found in the relevant prior studies in the US (i.e., those featured in Table 1), using national context (US versus Germany) as a moderator variable. We are well aware of the fact that the number of studies included in each of these meta-analyses is quite small, and therefore only limited conclusions can be drawn from them. Still, it seems clear that a quantitative analysis yields more precise insights than a purely narrative review.

Following the meta-analytic approach and procedures suggested by Hedges and Olkin (1985) and Cooper and Hedges (1994), we included all of the US and German studies pertaining to a certain correlation (e.g., between LMX and relationship tenure; see Table 1 for the studies included with respect to each LMX correlate). Thereby, the different German sub-samples reported here were treated as separate studies. We then

conducted a moderator analysis to see whether the national context (US versus Germany) was significantly related to the variance in the observed effect sizes (here, the correlation coefficients  $r$ ). This analysis subdivides the overall between-study variance in effect sizes into variance between classes of studies (i.e., US and German studies) and remaining variance within these classes. Ideally, if there is substantial between-class but negligible (i.e., not exceeding chance) within-class variance, we can say that the variance in effect sizes is explained by the moderator variable.

The results of these analyses with respect to various antecedents and consequences of LMX are shown in Table 3. The second column gives the between-class test statistics  $Q_b$  for four LMX correlates. As it turned out, the only clear-cut difference between US and German studies was obtained with respect to the correlation between LMX and delegation. As the estimated class-level effects (given in the fourth column) show, the relationship between these variables is much stronger in the German study ( $r = .58$ ) than in the US studies (estimated class-level  $r = .36$ ). This finding is qualified, however, by the significant homogeneity statistic  $Q_w$  (given in the last column), indicating that larger-than-chance variability remains within the US studies, which is still unaccounted for. The only other moderating effect of national context that approaches significance is found for the correlation between LMX and relationship tenure, which appears to be somewhat stronger in the US study ( $r = .15$ ) than in the German studies (estimated class-level  $r = .02$ ), although on a very low overall level. In this case,  $Q_w$  within the German studies is not significant, indicating that the effect sizes are homogenous. No moderating effects of the national context are found for the relationships between LMX and span of supervision, or for LMX and self-efficacy.

--- Insert Table 3 about here ---

In addition to the four LMX correlates considered in the above moderator analyses, a fifth correlate of LMX featured in Table 1, 'commitment', was also considered. Because the reported US correlation between LMX and this variable was already the outcome of a meta-analysis (Gerstner & Day, 1997), a different approach was chosen here to assess possible differences in effect sizes relating to national context. Since it is possible to calculate confidence intervals for meta-analytically estimated effect sizes (here again, correlations), and the 95 per cent confidence interval for the LMX-commitment correlation can be deduced from the Gerstner and Day data (see Table 2 on p. 833), we can do the same for the two relevant German studies and see how much the US and German confidence intervals overlap. As it turned out, the two intervals for  $r$  did not overlap at all (US studies: .33 - .37; German studies: .52 - .65). This means that we can be quite confident that national context plays a role in the LMX-commitment relationship. The latter is far stronger in the German than in the US studies. However, it should be mentioned that sufficient heterogeneity remains within the German studies, as indicated by  $Q_w = 5.82$ ,  $p < .05$ . The same was true for the US studies analysed by Gerstner and Day (1997; see the  $Q$  statistic reported in Table 5 on p. 835). This suggests that other variables than national context may also moderate the LMX-commitment relationship. To summarize, relationship tenure correlates lower with LMX in Germany than in the US and the correlation between LMX and consequences (delegation and commitment) is higher in Germany than in the US.

#### Summary and discussion

We provided an overview of the results of some studies on LMX in Germany. The results obtained were compared to results from prior studies in the US. Relationship tenure and span of leadership were considered as antecedents of Leader-Member

Exchange. Delegation, commitment, and self-efficacy were regarded as consequences of LMX. Summarizing the German findings, we found that of the *antecedents* only span of leadership turned out to have a significant, negative impact on the relationship quality between leader and member (as rated by the member). All *consequences* were found to be positively related to LMX.

We will now have a closer look at the results concerning the *antecedents* of LMX. Contrary to our assumptions and to results reported by Maslyn and Uhl-Bien (2001), no relationship emerged between LMX and relationship tenure. Possibly, this result is related to special features of our sample. Most of our participants came from areas with high unemployment and high job insecurity because of downsizing and bankruptcies. Therefore, deliberate turnover is difficult due to the economic background in the respective regions. This may lead to lower fluctuation within the organization as well as between organizations. Even within-organizational change is less probable in times of downsizing, as fewer vacancies are available. Generally, opportunities to leave the dyad are rare for employees, independent of the relationship towards their supervisors. We could therefore expect that followers cope with their working conditions (of which supervisors are a part) by lowering their expectations, and, as a result, report higher values of LMX. This might result in a ceiling effect and, consequently, lower the correlation between LMX and other variables. The lowering of expectations is comparable to the effect of resignative job satisfaction, where satisfaction is not based on met expectations but on lowered expectations (Bruggemann, 1976). In a work environment where employees cannot leave the dyad, a supervisor will have to cope with good and bad relationships towards different followers over a longer

period of time. It would be interesting to investigate how this affects the performance of the team as a whole.

We found that the more followers a leader has, the less LMX these followers report (span of leadership). This is equally true for German and US-data. Thus, we can assume this to be a fairly general relationship. It would be interesting to see whether there is a “cut-off-point” beyond which high quality LMX-relationships are no longer possible. It can be assumed that this cut-off-point is not independent of a leader’s characteristics. A more extraverted supervisor might be more capable of establishing quite a few positive relationships in comparison to a less extraverted one. In addition, the possible number of positive relationships may also be dependent upon the leader’s task. For example, one could imagine that an emotionally exhausting task leaves less energy to establish good LMX-relationships with followers. On the followers’ side, if their task is routine and isolated, it may leave less necessity and opportunity for personal interaction with the leader or for supportive leader behaviour. A low rate of mutual contact should, therefore, reduce the opportunity to build a high-quality relationship.

Regarding *consequences* of LMX, both in the US (Yukl & Fu, 1999) and in Germany, subordinates’ evaluation of the relationship to their leader is positively related to delegation. One might speculate that subordinates with a good relationship towards their leaders feel supported by them (see Graen & Uhl-Bien, 1995) and, therefore, tend to ask for more challenging tasks themselves. We can assume that a good relationship between supervisor and follower enhances opportunities for learning (as given by the leader). Notwithstanding these general and positive, culturally-independent influences, the relationship between LMX and delegation seems to be higher in Germany than in

the US, although more research is needed to confirm our results. The differences found can be interpreted in terms of the cultural differences found in Hofstede's work.

Hofstede's data revealed that Germans show more uncertainty avoidance than US-Americans. This may have an effect on delegation in so far as German managers may tend to delegate to the "safe" candidate, that is, to the one with whom they have the best LMX relationship, which would explain the high positive correlation. However, it could also mean that the relationship quality increases with delegation, meaning that German workers like their supervisors more if the supervisors delegate more challenging tasks to them (in particular, when they consider these tasks to lie within their abilities and to imply the leader's trust in them). Furthermore, it should be taken into account that the measurement of delegation was different in all samples, which could also account for the differences found between the studies.

Our hypothesis concerning commitment was supported as well, even when measured with different instruments and across different samples. This result is in line with US (Schriesheim, Neider, Scandura, & Tepper, 1992) as well as Dutch findings (van Breukelen, Konst, & van der Vlist, 2002). Consequently, leader-member relationships are important with respect to followers' feelings of attachment to the organization. In addition, these relationships are more important for commitment in Germany than in the US. We have to keep the different operationalizations in Germany and the US in mind as one possible explanation of this result: Whereas we focused on affective commitment, Gerstner and Day (1997) used a broader definition. The relationship quality between leader and member, however, is more important for affective commitment than for general commitment, which may account for the higher relationships in the German studies.

In any case, the emotional attachment becomes a very important resource, especially in times of flexibility and loss of conventional employer-employee relationships, as is discussed in the understanding of ‘psychological contracts’ (Schalk & Rousseau, 2001). The required flexibility could reduce emotional commitment to the organization, which could then have a negative influence on factors such as obligation and performance. “Hidden costs”, for example, motivational deficits and decreased performance caused by restructuring and downsizing, must be compensated. The building of high-quality relationships to employees seems to be an effective way for supervisors to do so, especially for German managers.

Another major resource in companies is occupational self-efficacy. As hypothesized, LMX and occupational self-efficacy are positively related. This result is similar to results of US studies (e.g., Murphy & Ensher, 1999). Graen (2003) even indicates that self-efficacy may be considered a dimension of LMX. Because self-efficacy and work-related performance are positively related, as Stajkovic and Luthan (1998) found in their meta-analysis, enhancing self-efficacy through LMX may be a way to indirectly improve followers’ performance.

The last two results indicate the importance of relationships between leaders and followers in companies. For companies, these results may indicate not only that they should focus on leaders or leaders’ behaviour (as is often done in the case of training) but also on the relationship quality between member and leader, as well as within groups (see solidarity behaviour, Koster, Sanders, & van Emmerik, 2002, or Team Member Exchange, Seers, Petty, & Cashman, 1995).

Limitations and future research

In all reported samples, it was only possible to use self-report data. As is quite common in LMX research in the US, we only assessed the quality of relationship from the perspective of the followers. Although the original approach of LMX included the idea of assessing LMX from both the members' and the leaders' perspectives, research showed lower reliabilities for the leaders' than for followers' assessments ( $\alpha = .78$  for leaders and  $\alpha = .89$  followers in a meta-analysis by Gerstner & Day, 1997) and a low correlation between the two perspectives ( $r = .30$  according to Gerstner & Day, 1997). Therefore, it can be judged as acceptable to use only the followers' perspective in this study. However, we have to keep the fact in mind that, when using this kind of assessment, we are only assessing the followers' perception and not how others (leaders, peers) may view the LMX-relationship. Nevertheless, including only the level of members may be sufficient, because the relationship perceived by members is relevant to explaining effects caused in the members.

Future research should take into account the group composition in which the dyads perform. From research on tokens, we know that, in work groups, minorities in particular are subjected to different standards (see Pazy & Oron, 2001, on women in an Israeli military context). This may make a difference with respect to the individual relationships within the groups (see Sparrowe & Liden, 1997). Organizational culture may matter for the individual dyads, as embedded intergroup relations theory suggests (Alderfer & Smith, 1982; see also argumentation by Nkomo & Cox, 1996). We can assume that employees belonging to a minority do not feel equally integrated in groups and, as a consequence, experience less LMX.

As for the antecedents of LMX, other constructs than the ones tested here may be of importance: As cited above, the composition of the group may be relevant to the

relationship quality, as research on diversity suggests (see Scandura and Lankau, 1996). The task may play a role in so far as it may or may not leave room for relationships to develop. The relationship quality may differ depending on how often leader and members have contact while working. These two points should be addressed by future research.

Another limitation is that we could not include more than the above-mentioned consequences of LMX. Future research should address this topic by examining other consequences of LMX in the German work context. Especially interesting could be a comparison between effects of LMX on employees' attitudes and effects on their actual performance.

### Conclusion

Using different samples and – at least for some of the analyses – large sample sizes, we have shown that LMX is related to outcomes in the German working context. While this is in line with results reported by US studies, fewer antecedents were detected.

Nevertheless, knowing about the consequences of LMX is helpful in organisational contexts. As Schyns (2004) argues, LMX is also positively related to preparedness for change – prior to, during, and after change is introduced. Therefore, considering the present economic situation, which requires employee flexibility (see van Dam, 2003), supervisor support as indicated by LMX is an important resource in companies. In general, it seems that we know more about what results from a good quality relationship with the leader than about what enhances this quality. It is obviously important for companies to emphasize the relationship quality within their work groups in order to attain desired outcomes. As we do not know much about how the mechanism of the development of LMX works at this moment (at least in Germany), apart from

theoretical assumptions, we can only recommend enhancing relationship quality by taking into account the size of the group and perhaps by training leaders and followers or giving them space to develop their relationship. Even in times of lean management, it remains particularly important for supervisors to have a “manageable” work group size in order to establish positive relationships to followers. Regarding antecedents of LMX, it appears to be useful to take the culture in which the relationships are grounded into account, as the results reveal at least some differences between Germany and the US.

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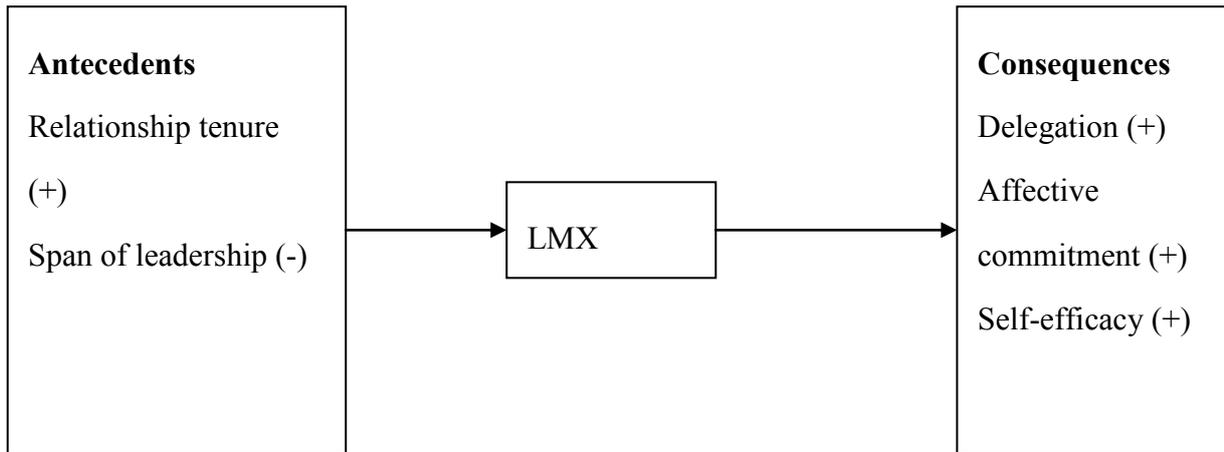
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Note: (+) and (-) in brackets behind the variables indicate the direction of the expected relationship.

**Figure 1: Antecedents and consequences of LMX**

**Table 1: Correlations between LMX and antecedents/consequences according to prior studies**

Concept	Reference	Assessment	Correlation	N <sup>1</sup>
Relationship tenure	Maslyn & Uhl-	Employee LMX, dyadic	.15	153
	Bien (2001)	tenure		
	Sample 2		.05	309
	Sample 3		-.09	239
	Sample 4		.01	76
Span of supervision	Sample 5		.02	138
	Schriesheim et al. (2000)	employee LMX, supervisor span of leadership	-.32	150
	Green et al. (1996)	employee LMX, unit size	-.22	192 <sup>2</sup>
Delegation	Sample 3		-.14	215
	Yukl and Fu (1999)	Employee LMX and perceived delegation	.46	395
	Schriesheim et al. (1998)	Employee LMX and perceived delegation	.39	106
	Schriesheim et al. (1992): Study 1	Employee LMX and perceived delegative decision making style	.19	281
	Schriesheim et al. (1992): Study 2	see above	.22	115
Commitment	Sample 3		.58	240
	Gerstner and Day		.35	

<sup>1</sup> Lower Ns in samples due to missing values.

<sup>2</sup> Mean of N as given in table.

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	(1997) <sup>3</sup>		
	Sample 3	.63	234
	Sample 5	.44	141
Self-efficacy	Murphy and Ensher (1999)	.23	61 <sup>4</sup>
	Sample 2	.22	287
	Sample 4	.07	75
	Sample 5	.23	138

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<sup>3</sup> Meta-analysis.

<sup>4</sup> Mean of N given in table.

**Table 2: Overview of samples**

Sample	1	2	3	4
N	326	252	76	141
LMX	$\alpha = .89$	$\alpha = .88$	$\alpha = .84$	$\alpha = .89$
Supervisor tenure	M = 3.17; SD = 3.32	M = 3.34; SD = 3.10	M = 2.85; SD = 3.17	M = 3.36; SD = 3.61
Span of Leadership	-	M = 15.7; SD = 11.9	-	-
Delegation	-	$\alpha = .83$	-	-
Commitment		$\alpha = .92$		$\alpha = .77$
Occupational self- efficacy	$\alpha = .82$		$\alpha = .86$	$\alpha = .92$

**Table 3: Results of moderator analyses (national context: US vs. Germany)  
with respect to several correlates of LMX**

LMX correlate	$Q_b$	$K$	$r$	$Q_w$
Relationship tenure	3.11 (*)			
US		1	.15	0
Germany		4	.02	2.79
Span of supervision	2.29			
US		2	-.27	0.99
Germany		1	-.14	0
Delegation	18.27 ***			
US		4	.36	17.65 ***
Germany		1	.58	0
Self-efficacy	0.05			
US		1	.23	0
Germany		3	.20	1.52

Note.  $Q_b$  = test statistic for differences between moderator classes (US vs. Germany);  $Q_w$  = test statistic for homogeneity of effect sizes within classes (significance indicates rejection of homogeneity);  $k$  = number of studies in each class;  $r$  = estimated effect size (correlation coefficient  $r$ ) in each class.

(\*)  $p < .10$ ; \*\*\*  $p < .001$ .

Footnotes

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<sup>i</sup> This sample has been gathered as part of the doctoral thesis of the first author.

The correlation between LMX and occupational self-efficacy has previously been reported in Schyns and von Collani (2002), as part of the validation of the occupational self-efficacy scale.

<sup>ii</sup> This sample has been gathered as part of the master thesis of the second author.

<sup>iii</sup> This sample has been gathered as part of course credit of a psychology student at the University of Leipzig, Germany.

<sup>iv</sup> This sample has been gathered by students taking part in an advanced research course at the University of Leipzig, given by the first author.