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Academic Paper

An Investigation of the Effects of Leader-Member Exchange on the Transfer of Coaching Skills Training for Leaders

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Abstract

In this paper we propose that the theory of leader-member exchange (LMX) may be a useful lens to understand the influence of social support on the transfer of leader training. Data was collected from followers before the leader attended a two-day leader coaching skills training course one month later (n = 95). There was a significant and positive association between LMX as rated by the follower and two of the self-rated follower performance indicators at time two. We highlight the opportunity for future research to delve deeper into the potential explanatory power of LMX in the transfer of training.

Keywords

Leader-member exchange, transfer of training, leader coaching skills

Article history

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Introduction

Training leaders with coaching skills can be seen as one way of supporting the democratisation of coaching. By equipping leaders with coaching skills, leaders are able to use coaching to support team members in the pursuit of their career goals. However, to what extent does leader coaching skills training transfer, or be applied, to the leader's workplace? Furthermore, what theoretical mechanism can explain the extent to which coaching skills training transfers, or is applied to the leader's workplace? In this paper, we propose leader-member exchange as a suitable theoretical framework to understand the transfer of coaching skills training for leaders. In doing so, we position coaching skills training for leaders in the context of the wider literatures on leadership training. It is our aim to contribute to coaching scholarship by increasing our understanding of how to enhance the efficacy of coaching skills training for leaders.

Transfer of training

Transfer of training is the extent that learning from training transfers from the training room and is applied to the job, consequently improving the trainee's performance (Blume, Ford, Baldwin & Huang, 2010; Botke, Jansen, Khapova & Tims, 2018). It is well documented that organisational decision makers are not sure of the extent to which employees perform differently once back on the job following training (Blume et al., 2010). Clearly, if trainees fail to use their new skills to improve performance, this is an inefficient use of time, energy and money for all involved and therefore presents a significant problem for organisations (Van der Locht, Van Dam & Chiaburu, 2013). These challenges are particularly pertinent for leadership training, given that leadership is argued to be the greatest training focus in today's organisations (Lacerenza, Reyes, Marlow, Joseph & Salas, 2017).

Theory and research into the transfer of training emphasise that transfer is a personalised process as trainees decide what and when to transfer (Blume, Ford, Surface & Olenick, 2017). Baldwin, Ford and Blume (2017) argue that transfer can be considered to be 'a series of choices that trainees make to discard, maintain, apply or modify trained knowledge and skills in their work context' (p. 24). This is particularly relevant to what scholars describe as 'open skills': a group of skills where trainees have more choice over what and how to apply trained principles and concepts. This can be compared to 'closed skills' which have more prescribed transfer behaviours (Blume et al., 2010). In their meta-analysis of the factors that predict (i.e. predictor constructs) the transfer of training (e.g. cognitive ability; conscientiousness; motivation and a supportive work environment), Blume et al. (2010) found that, in general, predictor constructs tended to have stronger relationships with the transfer of open skills than with closed skills, therefore suggesting that the influence of these predictor constructs is greater for the transfer of open skills. The personalisation of transfer is particularly relevant in considering one specific branch of open skills: the transfer of leadership training. In leadership training, the content is often generalisable rules, concepts and principles, therefore trainees are responsible for identifying how and when to apply these general rules, concepts and principles, to their own unique work contexts (Baldwin et al., 2017).

One such predictor construct that has been established as being crucial to successful transfer is social support (e.g., supervisors, peers, subordinates) (Blume et al., 2010; Botke et al., 2018; Facteau, Dobbins, Russell, Ladd & Kudisch, 1995; Smith-Jentsch, Salas & Brannick, 2001; Tracey, Tannenbaum & Kavanagh, 1995; Tziner, Haccoun & Kadish, 1991). Govaerts and Dochy (2014) identify a number of categories of support from line managers that may facilitate transfer of training including: coaching; discussion of application of learning; encouragement; goal-setting; informal reinforcement; interest in training content; opportunities to practice and apply; positive attitude towards training; and practical support and rewards. Support is likely to be particularly important for the transfer of open skills such as those generally targeted in leadership training, as the transfer of these skills requires the participation of colleagues and supervisors (Kastenmüller, Frey, Kerschreiter, Tattersall, Traut-Mattausch & Fischer, 2012). Indeed, the importance of social support in the transfer of training is now so well established that Baldwin et al. (2017) suggest that 'we know that support, in varying forms, is an important factor that impacts transfer, and we have probably accumulated sufficient data on such relationships' (p. 21). Baldwin et al. (2017) instead encourage scholars to move their research agendas away from demonstrating that social support is a predictor of transfer, and suggest that scholars should now seek to understand how and why social support influences transfer.

In the present study, we seek to address these calls from Baldwin et al. (2017) to understand the 'why' of transfer. Specifically, we offer a theoretical explanation for the role of support in the transfer of training. We propose that the theory of leader-member exchange may be a useful lens, through which the influence of support on the transfer of training can be viewed. In doing so, we provide an explanation as to why support influences transfer of training; and consequently, moves the transfer

of training conversation towards understanding how to enhance the transfer of training through the mechanism of support.

Leader-Member Exchange and Transfer of Training

Leader-member exchange (LMX) is defined as the reciprocal exchanges between an employee and their supervisor based on obligation and trust (Graen & Uhl-Bien, 1995). A central premise of LMX theory is that leaders do not develop the same type of relationships with each follower. Instead, leaders vary their interactions across followers which consequently determines the strength of the relationships (Dulebohn, Bommer, Liden, Brotter & Ferris, 2012). Low LMX relationships are characterised by economic exchange whereas high LMX relationships engender feelings of mutual obligation and trust and are therefore more social in nature (Dulebohn et al., 2012). Research to-date has established a number of significant positive relationships between the quality of LMX and many outcome variables of interest including performance, turnover, job satisfaction and organisational commitment (for reviews see Anand, Hu, Liden, & Vidyarthi, 2011; Graen & Uhl-Bien, 1995; Martin, Epitropaki, Thomas & Topakas, 2010; van Breukelen, Schyns & Le Blanc, 2006). Despite the wealth of research on the topic of LMX, there has been no exploration of the role of LMX in the transfer of training. Given the evidence indicating the important role of social support in the transfer of training, we propose that the theory of LMX may help to enhance our understanding of the 'why' of transfer.

The link between LMX quality and outcomes is typically explained by Social Exchange Theory (Blau, 1964), where the norm of reciprocity dictates that any benefits received by one individual from another should be repaid in kind (Gouldner, 1960). For example, Ilies, Nahrganag and Morgeson (2007) and Lee, Thomas, Martin, Guillaume and Marstand (2019) have shown that in reciprocating high quality LMX relationships, followers will go beyond required in-role behaviours and engage in organisational citizenship behaviours to maintain a balanced social exchange. The obligations to reciprocate high quality LMX relationships are argued to be diffuse and unspecified (Blau, 1964), such as organisational citizenship behaviours which are likely to be outside of job descriptions, discretionary and consequently unlikely to be formally rewarded by the organisation (Organ, 1997). One such diffuse and unspecified obligation might be the obligation for followers to support their leader by providing opportunities for the leader to try out new skills learnt during training (Ford, Quinones, Sego & Sorra, 1992). As the transfer of open skills is characterised by a high degree of freedom on the trainees part to decide how to apply and customise the learning to their own work contexts, leaders who experience high quality LMX relationships with their followers are likely to benefit from higher levels of obligation, which may manifest in the followers demonstrating willingness and flexibility to provide opportunities for leaders to transfer learning back to the workplace, specifically, transfer learning back to how they lead and support followers.

Social Exchange Theory suggests that as each party engages in reciprocal behaviours, they build trust, which results in moving from an 'economic exchange' to a 'social exchange' relationship (Erdogan & Bauer, 2011). This is supported by the evidence that indicates that trust has a strong, positive relationship with LMX (Dulebohn et al., 2012; Martin, Guillaume, Thomas, Lee & Epitropaki, 2016). Sue-Chan, Au and Hackett (2012) suggest that through a series of social exchanges, the leader and follower develop trust with each other so that there is an expectation that the positive exchanges will continue. We propose that the role of trust in LMX can help us to understand how social support facilitates the transfer of training, as the initial transfer of new skills to the workplace can be a risky process (Han & Bai, 2020). Specifically, learners may experience a fear of temporary incompetence as they give up the old way of working but have not yet mastered the new skills (Schein, 2010). With leadership skills in particular, learners will already have one way of responding to a given situation. The training, however, may introduce alternative behavioural responses and cognitions that conflict with previously held beliefs, values and frequently used behaviours. The process of considering and deciding on these conflicting options regarding how to respond to a situation (in the tried and tested way, or engaging with the newly learnt skills) may

produce learning anxiety (Laker & Powell, 2011). The implementation of new skills may also involve a significant change in practice to the way things are usually done, posing additional challenges to the learner, as there is the potential that these changes could be met with resistance from others.

We propose that where there is a high quality LMX relationship, the level of risk and anxiety associated with the practice and implementation of new skills will be somewhat mitigated by the supportive, trusting relationship between leader and follower. Therefore, if a leader has learned new skills in training that they wish to transfer to their workplace, they may be more likely to practice using these new skills with followers when LMX is high, consequently facilitating transfer. The high levels of trust experienced when LMX is high is likely to be important as leaders may feel that any errors during the early transfer stage will be forgiven by followers, therefore encouraging them to engage in transfer behaviours. Our arguments are supported by research evidence that indicates that relationship quality generally, and LMX specifically, promotes forgiveness in relationships. For example, Fincham, Paleari and Regalia (2002) explored the role that relationship quality plays in facilitating interpersonal forgiveness and found that positive relationship quality both directly and indirectly promoted forgiveness in married couples. In a working context, Legood, Lee, Schwarz and Newman (2018) demonstrated that the quality of leader-follower relationships acted as a boundary condition, mitigating the detrimental effects of leader procrastination on others, including levels of follower job frustration. The relationship between relationship quality and forgiveness is likely to be particularly relevant in the context of this study as leaders who feel that any errors during the early transfer stage will be forgiven by followers may be more inclined to engage in transfer behaviours.

We propose that the LMX relationship is important when considering the transfer of training of leadership skills. In the present study, we investigate one specific type of leadership skills: coaching skills for leaders. We argue that as the transfer of these skills is reliant on the participation of followers (i.e., for the leader to engage in coaching behaviours, they must have someone who they can ‘coach’; usually a follower), the role of LMX is likely to be particularly pertinent.

Coaching Skills for Leaders

Leader coaching (also known as managerial coaching) is the largely unstructured process of giving individualised attention and guidance to subordinates to improve their performance and address their personal challenges (Heslin, Vandewalle & Latham, 2006; Liu & Batt, 2010). Dahling, Taylor, Chau and Dwight (2016) expand on this definition of leader coaching to specify that leader coaching includes ‘(a) providing continual constructive, development feedback to subordinates, (b) serving as a behavioural model for good performance, and (c) working collaboratively with each subordinate to set engaging, challenging goals that motivate performance’ (p. 867). Evidence indicates that leader coaching is associated with enhanced follower performance, for example, Agarwal, Angst and Magni (2009) found that leaders’ coaching intensity influences the performance of their followers even after controlling for job satisfaction. Dahling et al. (2016) found that leaders’ coaching skill was directly related to the annual sales goal attainment of their followers. Ellinger, Ellinger and Keller (2003) found that leaders’ coaching behaviour was positively associated with followers' job satisfaction and performance and Liu and Batt (2010) found that the amount of coaching that a follower received from their leader each month predicted objective performance improvements over time. While these studies attest to the efficacy of leader coaching on follower performance, the literature to-date is characterised by an absence of theoretical reasoning for this relationship.

In the context of the transfer of training literature, coaching skills can be considered ‘open skills’ and as such, learners have a high degree of choice as to when and how to apply trained principles and concepts (Blume et al., 2010). Consequently, social support is likely to be important in the transfer or application of coaching skills following training. For example, in one-to-one meetings with followers, leaders may be more likely to try out new coaching skills such as working

collaboratively to set goals, providing developmental feedback and modelling good performance. We propose that the application of these coaching skills is likely to be higher when LMX quality is high as the mutual obligation and trusting relationship between leader and follower will provide the opportunities and required safe environment for the practice and application of new coaching skills back to the workplace. Therefore, we suggest that followers of leaders who have attended coaching skills training will experience an increase in performance between time one (before their leader attended training) and time two (after their leader attended training). Consequently, we hypothesize:

Hypothesis 1: The increase in follower performance following leader coaching skills training will be greater for followers where leader-member exchange (as reported by the follower) is higher (when performance at time one (before leader training) is controlled for).

To test this hypothesis, we operationalise follower performance utilising Griffin, Neal and Parker's (2007) model of work role performance. The model of work role performance provides a method of understanding work performance in the context of broader social systems. Griffin et al (2007) developed their model of work role performance in response to the changing nature of work in organisations. They argue that traditional models of work performance failed to consider the increasing interdependence and uncertainty of work systems. Since the publication of the model in 2007, the paper has been cited over 3,000 times and continues to be used as a scientifically robust methodology of measuring work performance across a range of work contexts and roles.

Method

Participants

Table 1. Participant Demographics

	Leaders (*n* = 43)	**Followers (*n* = 95)**
Gender	72.6% male	74.7% were male
Ethnicity	92.6% white 7.4% did not specify	92.6% were white 1.1% were Indian 1.1% indicated 'prefer not to say' 5.3% did not specify
Highest level of qualification	6.3% doctorate 32.6% postgraduate degree 33.7% undergraduate degree 11.6% A levels or equivalent 1.1% GCSEs or equivalent 7.4% 'other' type of qualification 7.4% did not specify	1.1% doctoral 21.1% postgraduate degree 34.7% undergraduate degree 15.8% A levels or equivalent 8.4% GCSEs or equivalent 1.1% indicated no formal qualifications 9.5% 'other' type of qualification 3.2% 'prefer not to say' 5.3% did not specify
Age	31 to 60 (mean = 47.43, *S.D* = 7.24)	20 to 63 (mean = 44.65, *S.D* = 9.89)
Tenure in current role	2 months to 274 months (approximately 22 years) (mean = 53.26 months (approximately 4 years), *S.D* = 60.30)	2 months to 240 months (20 years) (mean = 54.17 months (approximately 4.5 years), *S.D* = 52.04)
Tenure in organization	3 months to 486 months (approximately 40 years) (mean = 268.74 (approximately 22 years), *S.D* = 111.97)	15 months to 504 months (42 years) (mean = 226.44 (approximately 18.5 years), *S.D* = 137.85)
Average hours worked	37 hours per week to 60 hours per week (mean = 42.55, *S.D* = 4.22).	22 hours per week to 55 hours per week (mean = 40.06, *S.D* = 4.90)

The research was conducted within a nuclear fuel reprocessing and decommissioning site in the UK. A total of 95 leader and follower dyads participated in the study, completing questionnaires at both time one and time two, which consisted of 43 leaders with an average of 2.11 followers per leader. See Table 1 for a summary of the demographic characteristics of both leaders and followers. Based on an anticipated small effect size (f2 = 0.15), with a desired statistical power level of 0.8, this sample is deemed sufficient (minimum required *n* = 54) (Soper, 2023).

Measures

Follower performance

Follower work role performance was measured utilising the work role performance scale (Griffin, Neal & Parker, 2007). Followers were asked to rate how often they have exhibited 27 work role performance behaviours on a 5-point Likert scale (ranging from 1 = very little to 5 = a great deal). The 27 items were used to assess nine sub dimensions of performance. These sub dimensions, with sample items in parentheses, were individual task proficiency (carried out the core parts of your job well); individual task adaptivity (adapted well to changes in core tasks); individual task proactivity (initiated better ways of doing your tasks); team member proficiency (coordinated your work with coworkers); team member adaptivity (learnt new skills or taken on new roles to cope with changes in the way your unit works); team member proactivity (suggested ways to make your work unit more effective); organisation member proficiency (defended the organisation if others criticized it); organisation member adaptivity (coped with changes in the way the organisation operates) and organisation member proactivity (involved yourself in changes that are helping to improve the overall effectiveness of the organisation). Given that transfer of training is generally defined as the extent to which the training improves the trainee's performance (Blume et al., 2010; Botke et al., 2018) and when the focus of the training is leadership development (such as in the case of the present study), follower performance is an effective measure of transfer or application of leader training as we would expect follower performance to improve if the leader training effectively transfers or is applied back to the workplace (Tafvelin, Hasson, Holmström, & von Thiele Schwarz, 2019). This is particularly likely in the context of coaching skills training, as the literature indicates that leader coaching behaviour is associated with enhanced follower performance (Agarwal et al., 2009; Dahling et al., 2016; Ellinger et al., 2003; Liu & Batt, 2010).

Leader-member exchange (LMX)

Leader-member exchange was measured using an amended version of the LMX-7 scale developed by Graen and Uhl-Bien (1995). The LMX-7 scale consists of seven items whereby followers rate their relationship with their leader on a 5-point Likert scale. An example item from the scale is 'how would you characterise your working relationship with your leader?' In order to adapt the scale to the organisational context for this research, the word 'leader' was replaced with the word 'supervisor'. One item was also removed from the scale ('Regardless of the amount of formal authority your leader has, what are the chances that he/she would "bail you out", at his/her expenses?') as due to the high safety risk context of the research organisation (a nuclear power facility) the concept of 'bailing someone out' has the potential to have wide reaching repercussions, therefore this item was deemed to be unsuitable for this participant sample. Consequently, six items were used to measure leader-member exchange. Followers rated the LMX with their leader.

Intervention and Procedure

Leaders all attended a two-day coaching skills training programme delivered by an external organisation who specialise in coach education training. The programme provided an initial overview of coaching skills and a coaching model. The programme consisted of a combination of taught content and observed practice coaching sessions with peers. The programme covered topics such as raising awareness and taking responsibility for own behaviour, using powerful

questions to generate insight, active listening skills, the role of trust and non-judgment, providing feedback in coaching, effective goal-setting and accountability. As such, the content of the training programme was closely aligned with Dahling et al.'s (2016) definition of leader coaching.

Time one data was collected in the two weeks immediately before the leader attended the training programme. Time two data was collected one month after the training was completed, following the same time lag approach to data collection as other similar studies (see Jones, Woods & Zhou, 2019). This time lag was selected given the absence of any clear direction on optimal time lags for field experiments such as these (Mitchell & James, 2001). For example, Griep, Vranjes, Kraak, Dudda & Li (2021) argue that researchers should take the shortest time-lag needed to capture a particular effect. Consequently, the researchers opted for a one month time lag which they believed would give sufficient time for leaders to implement their newly acquired coaching skills and for subsequent changes in follower performance to occur. All data was collected electronically utilising online survey software.

An important note regarding the participant sample is related to the stability of the leader-follower relations and work teams. The study organisation is characterised by a very high average tenure of employment (mean = 22 years for leaders and 18.5 years for followers). This stability is important to consider in the context of our study design. Unfortunately, the field context of the research did not allow for a control group with which we could compare the results of our coaching skills training intervention group. However, the stability of the teams and the longevity of the working relationships between leaders and followers, coupled with the fact that during the research period there were no significant changes in the organisation or working environment, meant that we can be relatively confident that there was no obvious theoretical reason why performance should systematically increase between time one and time two, apart from the influence of the leader coaching skills training (which was the only variable to change during the study period).

Analytical Approach

In this study we have adopted multivariate linear regression analysis to examine the relationship between LMX and follower performance. The dependent variable is follower performance measured at time two which include a total of nine variables: individual task proficiency, individual task adaptivity, individual task proactivity, team member proficiency, team member adaptivity, team member proactivity, organisational member proficiency, organisational member adaptivity and organisational member proactivity. The independent variable is LMX measured at time one. By separating the measurement of the independent and dependent variables (i.e., LMX measured at time one and performance at time two) we are able to minimize potential common method bias (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). In all regressions we control for follower performance measured at time one to tease out its confounding influence on the relationship between LMX and performance at time two.

Results

Table 2 shows the descriptive statistics of all variables measured. The results of our analysis are shown in Table 3. As expected, follower performance reported at time two is significantly associated with their performance reported at time one. After taking into account the baseline performance reported at time one, LMX has significant and positive associations with two performance indicators measured at time two: team member adaptivity (B = 0.159, SE = 0.077) and organisational member proficiency (B = 0.182; SE = 0.081). The coefficients for both variables are significant at the 95% level.

Table 2. Descriptive statistics for all variables

	Mean	SD	Alpha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	4.21	0.51	0.76	1																		
	3.52	0.56	0.59	0.316*	1																	
	3.34	0.58	0.70	0.113	0.756*	1																
	4.32	0.48	0.64	0.404*	0.173	0.134	1															
	3.53	0.60	0.58	0.215*	0.742*	0.642*	0.319*	1														
	3.24	0.70	0.80	0.077	0.658*	0.800*	0.223*	0.662*	1													
	3.47	0.77	0.82	0.259*	0.379*	0.362*	0.187	0.425*	0.392*	1												
	3.38	0.62	0.73	0.353*	0.711*	0.611*	0.236*	0.734*	0.581*	0.486*	1											
	3.24	0.73	0.78	0.194	0.630*	0.718*	0.283*	0.585*	0.734*	0.428*	0.648*	1										
0	4.08	0.54	0.67	0.567*	0.222*	0.063	0.199	0.163	0.009	0.221*	0.216*	0.051	1									
1	3.56	0.52	0.52	0.145	0.401*	0.305*	0.078	0.421*	0.343*	0.194	0.299*	0.178	0.390*	1								
2	3.34	0.56	0.69	-0.009	0.157	0.331*	0.187	0.221*	0.373*	0.121	0.105	0.241*	0.099	0.461*	1							
3	4.13	0.49	0.57	0.492*	0.096	-0.059	0.443*	0.164	-0.010	0.031	0.069	-0.084	0.468*	0.200	0.074	1						
4	3.53	0.59	0.62	0.088	0.282*	0.197	0.194	0.406*	0.243*	0.135	0.186	0.127	0.270*	0.653*	0.426*	0.336*	1					
5	3.27	0.70	0.74	-0.044	0.241*	0.349*	0.198	0.302*	0.426*	0.066	0.134	0.363*	-0.030	0.435*	0.676*	0.153	0.498*	1				
6	3.59	0.71	0.80	0.195	0.208*	0.244*	0.248*	0.263*	0.253*	0.671*	0.236*	0.271*	0.230*	0.181	0.284*	0.198	0.247*	0.334*	1			
7	3.39	0.57	0.56	0.178	0.442*	0.228*	0.059	0.388*	0.218*	0.241*	0.311*	0.197	0.380*	0.618*	0.357*	0.256*	0.671*	0.351*	0.331*	1		
8	3.27	0.64	0.66	0.095	0.294*	0.384*	0.197	0.227*	0.430*	0.185	0.251*	0.501*	0.087	0.305*	0.422*	0.191	0.300*	0.629*	0.361*	0.345*	1	
9	3.90	0.73	0.88	0.101	0.099	0.044	0.108	0.268*	0.130	0.333*	0.253*	0.092	0.133	0.263*	-0.020	0.164	0.196	0.087	0.253*	0.232*	0.149	1

Variables: 1: Individual task proficiency at time two; 2: Individual task adaptivity at time two; 3:Individual task proactivity at time two; 4:Team member proficiency at time two; 5: Team member adaptivity at time two; 6: Team member proactivity at time two; 7: Organizational member proficiency at time two; 8: Organizational member adaptivity at time two; 9: Organizational member proactivity at time two; 10: Individual task proficiency at time one; 11: Individual task adaptivity at time one; 12：Individual task proactivity at time one; 13: Team member proficiency at time one; 14: Team member adaptivity at time one; 15: Team member proactivity at time one; 16: Organizational member proficiency at time one; 17: Organizational member adaptivity at time one; 18: Organizational member proactivity at time one; 19: LMX at time one.
*** p<0.001, ** p<0.01, * p<0.05

To check the robustness of our results, we repeated the same analysis by substituting the indicator of LMX measured at time one by that measured at time two. The pattern of results remained unchanged: LMX has significant and positive associations with the same two performance measures: team member adaptivity and organisational member proficiency. These results provide partial support for Hypothesis 1.

Table 3. Effect of LMX on performance at time two after controlling for performance at time one

	Individual task proficiency at time two	Individual task adaptivity at time two	Individual task proactivity at time two	Team member proficiency at time two	Team member adaptivity at time two	Team member proactivity at time two	Org member proficiency at time two	Org member adaptivity at time two	Org member proactivity at time two
Leader-member exchange	0.018	-0.005	0.040	0.024	0.159*	0.089	0.182*	0.160	0.017
	(0.060)	(0.075)	(0.078)	(0.062)	(0.077)	(0.089)	(0.081)	(0.084)	(0.090)
Individual task proficiency at time one	0.529***								
	(0.081)								
Individual task adaptivity at time one		0.440***							
		(0.108)							
Individual task proactivity at time one			0.344**						
			(0.102)						
Team member proficiency at time one				0.433***					
				(0.094)					
Team member adaptivity at time one					0.371***				
					(0.096)				
Team member proactivity at time one						0.413***			
						(0.093)			
Org member proficiency at time one							0.683***		
							(0.085)		
Org member adaptivity at time one								0.285**	
								(0.107)	
Org member proactivity at time one									0.564***
									(0.103)
Constant	1.983***	1.971***	2.032***	2.435***	1.603***	1.538***	0.308	1.785***	1.324**
	(0.382)	(0.422)	(0.465)	(0.424)	(0.410)	(0.447)	(0.385)	(0.432)	(0.454)
Observations	95	95	95	95	95	95	95	95	95
R-squared	0.322	0.161	0.112	0.198	0.202	0.190	0.479	0.131	0.252

Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05

Discussion

In this paper, we sought to investigate whether the theory of leader-member exchange (LMX) is a useful lens through which to examine the influence of social support on the transfer of leader skills training, specifically leader coaching skills. We examined the relationship between follower performance and LMX after their leaders had attended coaching skills training and compared this to ratings of performance prior to the leader attending training. Our prediction that higher LMX would lead to greater performance increases following training was based on our reasoning that the transfer of coaching skills is likely to be higher when LMX quality is higher, as the mutual obligation and trusting relationship between leader and follower will provide the opportunities and

safe environment for the practice and application of new skills back to the workplace. Our prediction was partially supported in that we found that LMX has significant and positive associations with two of our performance measures: team member adaptivity and organisational member proficiency.

Scholarship on the transfer of training has tended to focus on identifying the variables that predict whether training will transfer back to the workplace (Baldwin et al., 2017). As such, there has been a shortage of theorising on how and why these variables are predictors of transfer. In this paper we sought to open the conversation on the topic of LMX in the context of transfer of training. Given that social support is one of the most well established predictors of transfer and LMX is one of the most established relational leadership theories, we sought to provide an initial examination of the role of LMX in the transfer of training, with the aim of highlighting whether this might be an avenue of research worthy of further exploration.

Whilst we found some initial support for our predictions, in that our results indicated that when LMX was higher, follower performance after leader coaching skills training increased in two dimensions: team member adaptivity and organisational member proficiency, our findings were far from conclusive regarding the role of LMX and transfer of training. This may be partially explained by the nature of the training under investigation in this study. The leaders in our study attended a coaching skills training course. Leader coaching skills are argued to improve employee performance because leaders who coach their employees provide tailored, on-demand guidance about how to best respond to individual work challenges (Daudelin, 1996). It may be that our findings indicated that the 'tailored, on-demand guidance' that the followers in our study sought from their leaders, focused on the dimensions of performance captured by the two measures where significant effects were identified: team member adaptivity and organisational member proficiency. A methodological challenge of transfer of training research, particularly in relation to open skills such as leader skills, is that learners experience a high degree of personalisation in how and when they transfer their learning (Baldwin et al., 2017). This personalisation is potentially further emphasised in the transfer of coaching skills as 'coaching is multidimensional and deeply personalised based on the needs of each individual subordinate' (Dahling et al., 2016, p. 867). Therefore, our results may be indicating that in the context of this particular organisation and these followers, the greatest performance need was with regards to team member adaptivity and organisational member proficiency, hence the significant findings with these dimensions. Future research should seek to explore this further, building on our initial findings. In particular, researchers should seek to capture the followers' developmental goals identified and worked on when coached by their leaders and identify the link between LMX, coaching skills training for leaders and attainment of follower goals.

Limitations

As with all research, our study is not without limitations. Namely, due to constraints within the field setting, we were not able to utilise a control group with which to compare our results. The use of a control group would have added further confidence to our findings. However, the stability of the work teams, leader-follower dyads and organisational context generally, provides some confidence that there is unlikely to be systematic changes in performance outside of the training intervention, during the two time points in our study.

Future Research

The impact of leadership training on follower performance is an important area of research. With enhanced evidence in this area, organisations can experience greater confidence that they will achieve a satisfactory return on investment in relation to training expenditure. Therefore, future research could continue to build on the findings presented in this paper to understand the factors that contribute to the transfer of training. In the context of building on our theorising that LMX is a key predictor of training transfer, research could extend our findings across different work and

training contexts. For example, exploring the transfer of other forms of leadership training in addition to coaching skills training for leaders (for example, inclusive leader training, performance management training, conflict resolution training etc.) and isolating the transfer of this training in conditions of both low and high LMX.

Future coaching skills for leaders research could build on our findings by examining the impact of leader coaching skills training on other follower variables of interest. For example, do followers experience an increase in goal attainment, feelings of psychological safety, inclusion and engagement following leader coaching skills training.

Implications

Our findings have potential implications for practice in relation to enhancing social support to facilitate the transfer of training. Our results indicate yet another benefit of high LMX, in that leaders and follower who have higher LMX may experience higher transfer of training and greater performance improvements following training. Consequently, leaders should aim to develop high LMX with all of their followers as this will provide them with greater opportunities to practice new skills learnt during training and consequently enhance work performance across all followers. In order to develop high LMX, leaders need to develop good relationship building skills and the ability to manage all members of their team in a procedurally fair and unbiased way (Hooper & Martin, 2008).

A further implication of our finding is to raise awareness of the impact of LMX on transfer of training to enable the leader to mitigate for the impact of lower LMX. For example, where leaders are aware that their relationship is weaker with certain followers and therefore, they may find it more challenging to experiment with newly acquired skills with these followers, leaders may need to proactively identify alternative practice scenarios to enable them to continue to develop and hone their newly acquired skills. For example, peer learning groups may provide a safe space to enable this practice to happen.

Conclusion

In this paper we sought to contribute to the literature on the transfer of training, LMX and coaching skills for leaders by applying the theory of LMX to the context of transfer of training. Our findings provide initial evidence to support the suggestion that LMX may provide a theoretical explanation for the predictive role of social support on the transfer of training. Specifically, followers experienced greater gains in some performance dimensions following leader coaching skills training when LMX is higher. We hope that our study opens further empirical and theoretical focus on the role of LMX in the transfer of training.

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