

The Effect of Leader-Member Exchange on Voice: The Role of Engagement and Digital Communication

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ABSTRACT

The new digital age introduces new challenges and opportunities for leaders to engage their followers in voice behavior. Drawing on the conservation of resources theory, the objective of this paper is to examine the mediating role of employee engagement and the moderating role of the degree of digital communication by conducting two independent studies comprised of 116 and 188 employees. Results indicated that the positive effect of LMX on voice was mediated by employee engagement. Analyzing the moderation effects of the degree of digital communication, the authors found that the degree of digital communication attenuated the increase in employee engagement associated with LMX. They contribute to the literature on LMX and employee engagement by showing that while voice behaviors are reduced via the increased use of digital communication in the workplace, leaders can leverage digital communications to engage employees with lower LMX.

KEYWORDS

Digital Communication, Employee Engagement, Leader Member Exchange, Voice

INTRODUCTION

The introduction of new communication technologies and the COVID-19 pandemic encourages organizations to use digital communication tools to maintain high employee performance levels (Bailey & Breslin, In Press; Raghuram et al., 2019). In alignment with the heightened importance of digital communication tools, researchers have started to pay increased attention to the relative use of communication technology by leaders (Hill et al., 2014; Raghuram et al., 2019). Indeed, research on leadership has recognized the importance of high-quality leader-member exchanges, suggesting that the quality of social exchanges between leaders and followers plays a central role in an individuals' performance at work (see for a review: Martin et al., 2016).

The core idea guiding research on leader-member exchange (LMX) is that leaders develop differential relationships with employees and that the relationship quality determines the level

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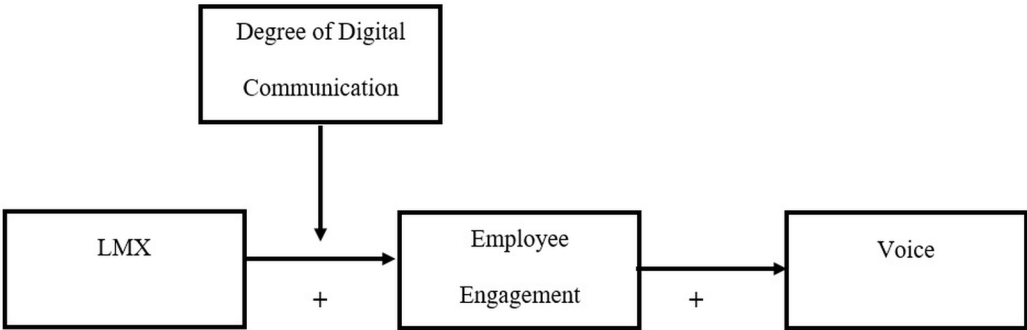
of exchanges between leader and followers (Dansereau et al., 1975; Dienesch & Liden, 1986). Organizational studies examining LMX showed significant positive effects on: job satisfaction (Erdogan & Enders, 2007), individual performance (Liden et al., 2006), preventing burnout (Thomas & Lankau, 2009), and organizational citizenship behavior (Dulebohn et al., 2012). LMX yields beneficial outcomes, at least in part, because of their motivational potential (Agarwal et al., 2012). Followers tend to perform better when they have a high-quality relationship with their leader because they feel more engaged. Employee engagement refers to “a persistent, positive affective-motivational state of fulfillment in employees” (Schaufeli et al., 2006, p. 702). Whereas previous research has already established a link between LMX and citizenship behavior (Dansereau et al., 1975; Graen & Uhl-Bien, 1995), the present study takes a different approach. Specifically, our objective is to use the conservation of resources theory (Halbesleben et al., 2014; Hobfoll et al., 2018) to investigate the mediating role of employee engagement in the association between LMX and voice. Voice is defined as: “informal and discretionary communication by an employee of ideas, suggestions, concerns, information about problems, or opinions about work-related issues to persons who might be able to take appropriate action, with the intent to bring about improvement or change” (Morrison, 2014, p. 174). By looking at the LMX from a motivational perspective, we hope to add our understanding of the explanatory mechanisms of employee engagement between LMX and voice.

Although previous studies have been valuable in helping to establish a strong positive association between LMX and work outcomes, they are limited because they do not address the challenges introduced by the new digital age (Charlier et al., 2016; Hill et al., 2014; Humphrey et al., 2007). Indeed, work is becoming more complex and cognitively demanding through the continuous introduction of new technologies, such as the degree of digital communication (Barley et al., 2017; Charlier et al., 2016; Raghuram et al., 2019). The degree of digital communication refers to the relative use of digital versus face-to-face communication to interact with others (Hill et al., 2014). It might be possible that the implementation of new technologies introduces boundary conditions for the positive association between LMX and work outcomes (Dulebohn et al., 2012; Hill et al., 2014). We argue that because digital communication reduces social cues within an LMX, followers derive little intrinsic motivation from a high-quality LMX. Hence, one potential contribution of the current study is to extend previous research on the association between LMX and voice by examining the moderating role of the degree of digital communication as a potential resource loss.

THEORETICAL BACKGROUND AND HYPOTHESES

Our theorizing draws from the conservation of resources theory suggesting that individuals attempt to obtain, foster, and protect valued resources (Halbesleben et al., 2014; Hobfoll et al., 2018). This

Figure 1. Proposed conceptual framework



motivation theory posits that individuals perceive an increased level of motivation when they accumulate and acquire valued resources (Hobfoll et al., 2018). Valued resources are defined as those resources that help in the attainment of personal goals (Hobfoll et al., 2018; Ten Brummelhuis & Bakker, 2012). Frequently considered resources are personal resources (e.g., self-efficacy and optimism) (Xanthopoulou et al., 2009), job resources (e.g., feedback) (Bakker & Demerouti, 2007), and social resources (Hobfoll et al., 1990). Social resources are considered to be those resources embedded within relationships to fulfill individual objectives (Lin, 2002).

One primary source of social resources is supervisor-subordinate relationships, such as leader-member exchanges (Harris et al., 2011; Liden & Maslyn, 1998; Özsungur, 2019). The leader-member exchange perspective suggests that leaders develop differential relationships with their employees and that the relationship quality determines the level of exchanges between leader and followers (Dansereau et al., 1975; Dienesch & Liden, 1986). For example, leaders offer reputational advantages to followers through sponsorship in exchange for higher levels of task performance and organizational citizenship behavior (Erdogan & Enders, 2007; Henderson et al., 2009). Nevertheless, there are compelling reasons to conceptualize LMX in relational terms, where both instrumental and expressive resources are available, moving beyond a social exchange perspective (Graen & Uhl-Bien, 1995; Harris et al., 2011; Liden & Maslyn, 1998). For example, high-quality LMX might provide instrumental resources to followers, such as employability (Van der Heijden & Spurk, 2019), and also expressive resources, such as trust (Liden & Maslyn, 1998). Hence, employees who have access to high-quality LMX might benefit from enhanced instrumental and expressive resources. In contrast, employees who have a low-quality LMX might only receive instrumental resources that are bounded by the responsibilities mentioned within the formal employment contract (Creary et al., 2015).

Limitations of existing research on leader-member exchanges include only partial insight into the boundary conditions impacting the association between leader-member exchanges and work outcomes (Carnevale et al., 2020; Hill et al., 2014). Since the use of digital communication tools is becoming the new norm within organizations due to technological advancements (Maynard et al., 2019; Raghuram et al., 2019), it is important to investigate how digital communication impacts the associated benefits of leader-member exchanges. Based on the ‘cues-filtered-out’ perspective (Culnan & Markus, 1987), it is conceivable that digital communication tools might influence the relational dynamics underlying LMX. We have limited research insight into the role of digital communication, which shows that digital communication tools might be perceived as a resource loss as the social cues and informational exchanges used to create high-quality leader-member exchanges are reduced (Culnan & Markus, 1987; Halbesleben et al., 2014; Hobfoll et al., 2018). Our research aims to overcome these limitations by investigating how digital communication impacts the associated benefits of leader-member exchanges. We aim to bridge the gaps in the research by shedding light on the associations and relationships that impact the mediating role of employee engagement and the moderating role of the degree of digital communication on LMX through the ensuing hypotheses.

The Association Between Leader-Member Exchange, Employee Engagement, and Voice

The idea that LMX associates positively with voice is based on strong theoretical arguments and empirical evidence that LMX entails interpersonal resources that could increase citizenship behavior (Martin et al., 2016; Van Dyne et al., 2008). Although previous research examined LMX from a social exchange perspective focusing on both leader and followers (Dansereau et al., 1975; Graen & Uhl-Bien, 1995), more recent research examines LMX from a relational perspective focusing on the follower (Gottfredson & Aguinis, 2017). More specifically, this line of research investigates how followers react to different quality levels of LMX (Martin et al., 2016). From a relational perspective, it is conceivable that followers are more likely to voice their opinion when they perceive a good relationship with their leader (i.e., high-quality LMX) (Jiang et al., 2020; Van Dyne et al., 2008). More specifically, voice might be perceived as a risk to the employee because it might challenge the organization’s status quo

(Morrison, 2011; Morrison, 2014). Since voice might be a risk for the employee, it is likely that an employee is more motivated to take this risk when they believe that their leader will provide them additional instrumental and expressive resources, in the form of trust and professional respect (Dong et al., 2020; Liden & Maslyn, 1998; Van Dyne et al., 2008). Conversely, individuals experiencing a low-quality LMX are less likely to be motivated in voicing behavior because they do not have access to additional resources to cope with the potential risk associated with voicing behavior.

We build on prior research to hypothesize that LMX enhances voice indirectly through employee engagement. As the conservation of resources theory underscores, individuals perceive an increased level of employee engagement when they accumulate valued resources (Hobfoll et al., 2018). First, according to the primacy of loss principle (Halbesleben et al., 2014; Hobfoll et al., 2018), LMX associates positively with employee engagement because individuals experience an increase in resources to accommodate the (potential) loss of other resources. For example, leaders might provide the advice needed by an individual to complete a difficult task (Van Dyne et al., 2008). Second, according to the resource investment principle, individuals having access to high-quality LMX are better positioned for future gains (Halbesleben et al., 2014; Hobfoll et al., 2018). Previous research showed that LMX might lead to additional personal and job resources. For example, Graen and Uhl-Bien (1995) underscored that resources embedded within a high-quality LMX improves career success. Similarly, a recent meta-analytical study (Martin et al., 2016) showed that performance was associated positively with perceived empowerment. Hence, we argue that high-quality LMX will increase employee engagement because employees are motivated through the perceived additional resources accessible through high-quality LMX.

Although the consequences of employee engagement have been examined through different theoretical lenses (Halbesleben & Wheeler, 2008; Saks, 2006), the literature in organizational psychology has been leading (Bakker & Demerouti, 2007). This line of research argues that there is a positive association between employee engagement and extra-role behavior, such as voice, because individuals (a) experience more positive emotions, which help them to offer new ideas (Salanova et al., 2011), (b) experience better psychological health (Bakker et al., 2008), (c) transmit their engagement to other peers (Bakker et al., 2013), and (d) look for feedback and support to create new resources (Bakker, 2008; Bakker et al., 2014). Hence, employee engagement is positively associated with voice, because individuals are likely to reinvest their high levels of employee engagement in their work (Halbesleben et al., 2009). Conversely, individuals experiencing low levels of employee engagement perform worse because they might experience exhaustion leading to unfavorable work outcomes, such as silence (Bakker et al., 2014).

Taken together, we expect that employee engagement mediates the association between LMX and voice. Building on the conservation of resources theory (Halbesleben et al., 2014; Hobfoll et al., 2018) to reduce this limitation in the current research, we argue for a motivational process in which individuals experience higher levels of employee engagement when they perceive a high-quality LMX, subsequently influencing voice. Therefore, we hypothesize the following:

Hypothesis 1: Employee engagement mediates the positive association between leader-member exchange and voice.

The Moderating Role of the Degree of Digital Communication in the Association Between Leader-Member Exchange and Employee Engagement

Building on the ‘cues-filtered-out’ perspective (Culnan & Markus, 1987), we argue that the degree of digital communication influences the extent to which followers are able to derive engagement from LMX. The degree of digital communication refers to the employee’s relative use of digital versus face-to-face communication to interact with their leader (Hill et al., 2014). Tools that facilitate digital communication are, for example: instant messaging and email (Raghuram et al., 2019). We argue that

followers are less likely to derive engagement from LMX while using digital communication because of information leanness and reduced social cues (Gibson et al., 2011). As such, we introduce the degree of digital communication as a potential resource loss (Culnan & Markus, 1987; Halbesleben et al., 2014; Hobfoll et al., 2018).

According to the information richness theory (Daft & Lengel, 1986), digital communication tools might limit the possibility of exchanging information in a natural language, diminishing the possibility of exchanging complex information effectively. Although digital communication might offer the possibility to share large amounts of detailed information rapidly, this does not mean that individuals share a mutual level of understanding of the information (Gibson & Cohen, 2003). Instead, followers might suffer from a misinterpretation of the information exchanged or even the illusion of mutual understanding (Daft & Lengel, 1986; Gibson & Cohen, 2003). For example, a qualitative study among 97 employees Nurmi (2011) found that employees who used communication technologies perceived that their exchanged information was of low quality. As such, individuals are less likely to derive engagement from high-quality LMX because the use of digital communication influences the degree of instrumental resources that can be shared. Second, one critical dimension of LMX is the availability of expressive resources, such as positive affect (Liden & Maslyn, 1998). Yet, according to the ‘cues-filtered-out’ perspective (Sproull & Kiesler, 1986), digital communication might increase uncertainty and ambiguity within a LMX (Hill et al., 2014). Indeed, the lack of social context cues might lead to impersonal relationships between leaders and followers (Hill et al., 2014). Impersonal relationships between leaders and followers might develop because digital communication only limitedly provides the possibility to exchange social cues (Greenberg et al., 2007). Social cues are essential within interpersonal relationships because they create a degree of connectedness between individuals (Erdogan & Bauer, 2014; Sproull & Kiesler, 1986). As such, it is likely that the intrinsic motivational potential of LMX is diminished while using digital communication. This is because digital communication limits the degree to which high-quality LMX can offer expressive resources. Conversely, followers using less digital communication derive more pleasure from having a high-quality relationship with their leader.

In sum, the degree of digital communication might influence the extent to which followers are able to derive engagement from LMX. Followers might benefit less from LMX because they perceive a loss of resources, such as information leanness and lower levels of expressive resources caused by reduced social cues. Therefore, we hypothesize the following:

Hypothesis 2: The degree of digital communication moderates the association between LMX and employee engagement, such that the strength of the positive association between LMX and employee engagement decreases when the degree of digital communication increases.

Integrated Model

To integrate these associations, we propose a moderated mediation model (Hayes, 2018) in which the degree of digital communication moderates the indirect association between LMX and voice. That is, when the degree of digital communication is high, LMX will have a weaker influence on employee engagement and indirectly on voice. When digital communication is low, LMX will have a stronger influence on employee engagement and, subsequently, on voice. Thus, we submit:

Hypothesis 3: The degree of digital communication moderates the indirect effect of LMX on voice (through employee engagement). Specifically, the indirect association between LMX on voice (through employee engagement) will be weaker for a high degree of digital communication than for a low degree of digital communication.

METHOD OVERVIEW

To test our hypothesis, we followed a constructive replication approach (Köhler & Cortina, 2021) and conducted two studies using two distinct samples. In Study 1, we tested our conditional indirect effect model in which the degree of digital communication moderates the indirect association between leader-member exchange and voice, through employee engagement, in a sample of US workers. In Study 2, we replicated Study 1 in a French context. Conjointly, the use of a multi-sample design enables a strong test of the proposed conceptual model.

STUDY 1

Study 1 provides an initial test of our proposed moderated mediation model in which the degree of digital communication moderates the indirect association between LMX and voice through employee engagement.

METHOD

Sample and Procedure

We recruited participants using the online platform Amazon Mechanical Turk. Amazon Mechanical Turk acts as an “intermediary, collecting a fee from the researcher and directly paying participants” (Dust et al., 2018, p. 577). Previous studies have shown that online crowdsourcing platforms, such as Amazon Mechanical Turk, are reliable sources of high-quality and representative data (Peer et al., 2017). Still, several procedures were implemented to reduce the risk of response bias (Podsakoff et al., 2012). For example, the questionnaire was accompanied by a cover letter: explaining the purpose of the research and re-assuring confidentiality. Relatedly, two attention checks were embedded within the questionnaire to ensure response quality. In total, 213 questionnaires were returned. The included attentive checks reduced the number of usable observations to 188. Thirty-one percent of the respondents were female, with an average age of 37.51 years ($SD = 9.53$). The average organizational tenure was 9.41 years ($SD = 7.87$), and on average, the respondents had known their current manager for 5.91 years ($SD = 5.30$). Forty-eight percent of the respondents had a bachelor’s degree, twenty-four percent of the respondents only had a high school degree, fourteen percent had a master’s degree, and the remaining respondents had professional degrees.

Measures

All the scales utilized in the research were derived from previously published studies. The questionnaire was distributed in English.

Employee engagement was measured using the nine-item scale developed by Schaufeli and colleagues (2006). A sample item reads, “I feel bursting with energy during my time at work”. A seven-point Likert scale was used to measure this construct (0 = *No, completely disagree*; 6 = *Yes, completely agree*). Cronbach’s alpha for this measurement was $\alpha = .94$. Schaufeli and colleagues (2006) claimed and showed that the three engagement dimensions can be combined into one overall score (see also Sonnentag, 2003).

Voice was measured using the four-item scale by Van Dyne and LePine (1998). A sample item reads: “How frequently do you communicate your views about work issues to others in the workplace, even if your views differ and others disagree with you?”. A five-point Likert scale was used to measure items (1 = *Never*, 5 = *Always*). Cronbach’s alpha for Voice was $\alpha = .85$.

Leader-Member Exchange (LMX) was measured using the eleven-item scale from Liden and Maslyn (1998). A sample item reads: “I do work for my direct manager that goes beyond those

normally required, to further the interests of the organization”. A five-point Likert scale was used to measure items (1 = *Strongly Disagree*; 5 = *Strongly Agree*). Cronbach’s alpha for LMX was $\alpha = .95$.

The degree of digital communication was adapted from Hill and colleagues (2014). Consistent with prior research (Gibson & Gibbs, 2006), the degree of digital communication refers to a relative amount of communication using internet communication technology rather than face-to-face. We asked participants to indicate how they communicated with their leader in relative percentages. The respondent could choose between, for example, face-to-face communication, WhatsApp, or other messaging services, email, telephone, and video/web-conferencing. Similar to Hill and colleagues (2014), we fixed the total communication to 100% and determined the degree of digital communication on the usage of digital communication methods between follower and leader. We computed the degree of electronic communication as the percent of interaction using digital communication methods.

Control Variables. In this study, we controlled for gender, organizational, and management tenure. Following the recommendations of Becker and colleagues (2016), we ran the results with and without control variables. The results did not significantly differ.

Data Analysis

We used PROCESS to investigate the proposed conditional indirect research model. The PROCESS tool includes a set of preprogrammed conceptual and statistical diagrams defined by a model number from which the researcher can choose (Hayes et al., 2017). After identifying the model variables, we followed the necessary steps to test the research model. First, we tested the mediation hypothesis using model 4 within the PROCESS tool (Hayes, 2018) developed. Second, we tested the moderation effect using model 1 within the PROCESS tool to determine the first-stage moderation. Third, we tested the conditional indirect effects by using model 7 within the PROCESS tool to determine the role of the degree of digital communication. Following Aiken and colleagues (1991) guidelines, we grand-mean centered the independent, mediator, and moderator variables to facilitate the interpretation of the results. We also applied Hayes (2018) bootstrapping procedure and reported 95% confidence intervals of the bootstrapping results. Bootstrapping is a robust procedure with high statistical power and free of data-distributional assumptions (Hayes et al., 2017).

Confirmatory Factor Analysis

We performed a series of confirmatory factor analyses (CFA) to test the hypothesized three-factor model structure, including: Leader-Member Exchange (LMX), employee engagement, and voice. We used Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Standardized Root Mean Square Residual (SRMR) to test for model fit (Vandenberg & Lance, 2000). The confirmatory factor analysis provided acceptable fit $\chi^2 = 404.31$ ($df=239$), $p < .01$, RMSEA = .06, SRMR = .06, CFI = .96 & a TLI = .95. Because the hypothesized measurement model demonstrated a superior fit to comparison models (results are available upon request from the first author), we were confident in using the defined scales for the analysis.

Results

Table 1 provides an overview of the descriptive statistics (correlations, standard deviations, and means) for all the study variables. The table shows that employee engagement is positively correlated with LMX ($r = .65$, $p < .01$) and voice ($r = .51$, $p < .01$). Furthermore, LMX is also positively correlated with voice ($r = .42$, $p < .01$).

Test for Hypotheses

Table 2 shows that employee engagement was positively associated with voice ($b = .42$, $SE = .09$, $p < .00$). Results also show that LMX is positively associated with employee engagement ($b = .67$,

Table 1. Means, standard deviations, and correlations among the study variables

	Variables	Mean	SD	1	2	3	4	5	6	7
Study 1										
1	Gender	0.34	0.47	-						
2	Organizational Tenure	9.41	7.87	.08	-					
3	Management Tenure	5.91	5.30	-.02	.46**	-				
4	Degree of Digital Communication	33.81	24.24	-.15*	.05	-.01	-			
5	Employee Engagement	3.66	0.90	.02	.14	.21**	.07	(.94)		
6	LMX	3.90	0.86	-.04	.12	.16*	-.02	.65**	(.95)	
7	Voice	3.49	0.96	.06	.17*	.17*	-.03	.51**	.42**	(.85)
N=188, * $p < .05$, ** $p < .01$. Reliabilities are on the diagonal. LMX = Leader-Member Exchange.										
Study 2										
1	Gender	0.45	0.50	-						
2	Organizational Tenure	7.13	7.35	.22*						
3	Management Tenure	2.99	4.68	-.10	.34**					
4	Degree of Digital Communication	43.75	21.02	-.01	.07	-.12				
5	Employee Engagement	3.63	0.68	.05	.11	.14	.08	(.90)		
6	LMX	3.63	0.73	.02	-.17	.03	-.09	.38**	(.91)	
7	Voice	3.51	0.84	-.15	.10	.13	.08	.45**	.19*	(.85)
N=116, * $p < .05$, ** $p < .01$. Reliabilities are on the diagonal. LMX = Leader-Member Exchange.										

Table 2. Regression results for simple mediation: Voice

	Sample 1				Sample 2			
	<i>b</i>	<i>SE</i>		<i>p</i>	<i>b</i>	<i>SE</i>		<i>p</i>
Voice regressed on LMX (Step 1)	.45	.07		.00***	.23	.11		.03*
Employee engagement regressed on LMX (Step 2)	.67	.06		.00***	.38	.08		.00***
Voice regressed on Employee Engagement (Step 3)	.42	.09		.00***	.55	.11		.00***
Voice regressed on LMX controlling for Employee Engagement (Step 4)	.17	.09		.07	.03	.11		.79
Bootstrap results for Indirect effects	Effect	SE		Boot CI	Effect	SE		Boot CI
<i>Indirect effect of Technological Insecurity on Voice</i>	.28	.07		[.16;.44]*	.21	.06		[.10;.36]*

Sample 1: N=188, Sample 2: N= 116. * $p < .05$, ** $p < .01$, and *** $p < .001$.

Note. Unstandardized regression coefficients are reported. Bootstrap sample size=10,000, CI = confidence interval. LMX = Leader-Member Exchange.

$SE = .06, p < .00$). The results from the mediation analysis showed an indirect effect of employee engagement ($b = .28, Boot SE = .07, Boot CI = [.16; .44]$). Hence, hypotheses 1 is supported.

Hypothesis 2 predicted that the positive association between LMX and employee engagement would be weaker for individuals who use higher digital communication levels than for individuals who use lower levels of digital communication while communicating with their leaders. The results in Table 3 indicate that the interaction between employee engagement and the degree of digital communication was significant ($b = -.01, SE = .01, p < .05$). Figure 2 shows the moderating effect of the degree of digital communication at two levels of the degree of digital communication (mean plus and minus one standard deviation). Simple slopes analysis (Aiken et al., 1991) showed that under conditions of high degree of digital communication,, the association between LMX and employee engagement was weaker ($b = .49, SE = .10, p < .00$), than under conditions of low degree of digital communication ($b = .82, SE = .07, p < .00$). Hence, hypothesis 2 was supported.

Table 3. Results of multiple regression for conditional indirect effect: Voice

	Sample 1				Sample 2			
	<i>b</i>	<i>SE</i>		<i>p</i>	<i>b</i>	<i>SE</i>		<i>p</i>
Predictor		<i>Employee Engagement</i>						
Constant	.03	.05		.60	-.01	.06		.80
Gender	.08	.10		.46	.10	.11		.38
Management Tenure	.02	.01		.08	.01	.01		.29
Organizational Tenure	.01	.01		.94	.01	.01		.10
LMX	.61	.06		.00***	.38	.08		.00***
Degree of Digital Communication	.01	.01		.13	.01	.01		.11
Face-to-Face Communication * LMX	-.01	.01		.02*	-.01	.01		.02*
			<i>Voice</i>					
Constant	3.49	.06		.00***	3.51	.07		.00***
Gender	.11	.12		.38	-.29	.14		.05*
Management Tenure	.01	.01		.69	.01	.01		.58
Organizational Tenure	.01	.01		.23	.01	.01		.99
Employee Engagement	.42	.09		.00***	.55	.11		.00***
LMX	.17	.09		.07	.03	.11		.79
Conditional Indirect Effect Employee Engagement	Boot indirect effect	Boot SE		Boot CI	Boot indirect effect	Boot SE		Boot CI
-1 SD (low Degree of Digital Communication)	.33	.09		[.18;.52]*	.32	.09		[.14;.53]*
Mean (Degree of Digital Communication)	.28	.07		[.15;.43]*	.21	.06		[.10;.35] *
+1 SD (high Degree of Digital Communication)	.22	.06		[.12;.39]*	.09	.08		[-.05;.53]

Sample 1: $N=188$, Sample 2: $N=116$. * $p < .05$, ** $p < .01$, and *** $p < .001$.

Note. Unstandardized regression coefficients are reported. Bootstrap sample size=10,000, CI = confidence interval. LMX = Leader-Member Exchange.

Figure 2. Employee Engagement predicted by LMX moderated by the Degree of Digital Communication: Sample 1

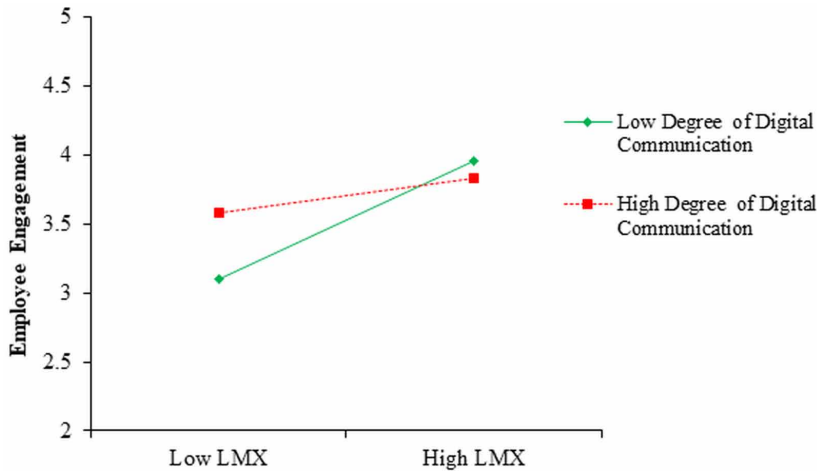


Table 3 present the results for hypothesis 3, which states that the indirect and positive effect on voice, through employee engagement, was contingent on the degree of digital communication. The conditional-indirect effect of the degree of digital communication was examined at three values (1 SD below the Mean (i.e., low), Mean, and 1 SD above the Mean (i.e., high)). Hypotheses 3 was supported, such that the indirect and positive effect of LMX on voice through employee engagement was weaker when the degree of digital communication was high.

STUDY 2

To enhance the robustness of our Study 1 results and to verify that our results are not sample-specific, we examined whether our findings could be replicated in a French workplace context (Köhler & Cortina, 2021).

METHOD

Sample and Procedure

We collected data from 233 employees who graduated from a Business School in France. The questionnaire was accompanied by a cover letter: explaining the purpose of the research, assuring confidentiality, and emphasizing anonymity. One month after initial questionnaires were distributed, reminder emails were sent to all possible respondents. A total of 116 usable surveys were collected. Thirty-five percent of the respondents were female, with an average age of 35.43 years ($SD = 8.71$). The average organizational tenure was 7.16 years ($SD = 7.29$), and on average, the respondents knew their current manager for a period of 2.96 years ($SD = 4.65$).

Measures

The questionnaire was distributed in the participant's language (i.e., French). The conventional method of back-to-back translation based on Brislin (1970) was used to translate the measures from English to French. The translated versions were pre-tested on two bilingual speaking individuals, who were asked to comment on items they found ambiguous or difficult to understand. The pre-test did not indicate the necessity for major changes in wording.

Employee engagement was measured using the same measure as in Study 1. Cronbach's alpha for this measurement was $\alpha = .90$.

Voice was measured using the same measure as in Study 1. Cronbach's alpha for this measurement was $\alpha = .85$.

Leader-Member Exchange was measured using the same measure as in Study 1. Cronbach's alpha was $\alpha = .91$.

The degree of digital communication was measured using the same measure as in Study 1.

Control Variables. Similar to Study 1, we controlled for gender, organizational, and management tenure. Following the recommendations of Becker and colleagues (2016), we ran the results with and without control variables. The results did not significantly differ.

Confirmatory Factor Analysis

We followed the same procedure as in Study 1 to test the construct validity of our measures. The hypothesized three-factor model included: Leader-Member Exchange (LMX), employee engagement, and voice. The confirmatory factor analysis provided a good fit of: $\chi^2 = 327.13$ ($df = 239$), $p < .01$, with RMSEA = .05, SRMR = .08, CFI = .95 & TLI = .94). Because the hypothesized measurement model demonstrated a superior fit to comparison models (results are available upon request from the first author), we were confident in using the defined scales for the analysis.

RESULTS

Table 1 provides an overview of the descriptive statistics (correlations, standard deviations, and means) for the variables of study 1. The results describe a positive correlation between employee engagement and LMX ($r = .38$, $p < .01$) and voice ($r = .45$, $p < .01$). Additionally, LMX is seen to be positively correlated to voice ($r = .19$, $p < .05$).

Hypotheses Testing

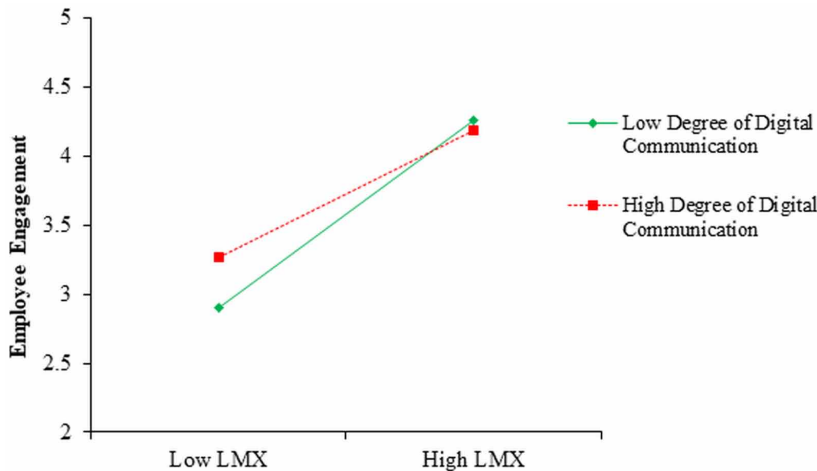
Table 2 shows that employee engagement was positively associated with voice ($b = .55$, $SE = .11$, $p < .00$). Results also show that LMX is positively associated with employee engagement ($b = .38$, $SE = .08$, $p < .00$). Relatedly, the results from the mediation analysis showed that the indirect effect was significant ($b = .21$, $SE = .06$, $p = [.10; .36]$). Hence, hypothesis 1 was supported. Table 3 presents the results for hypothesis 2, which states an indirect and positive effect of LMX on voice via employee engagement is contingent on the degree of digital communication. The results show a significant moderation of the degree of digital communication ($b = -.01$, $SE = .01$, $p < .05$). As hypothesized, the degree of digital communication attenuated the relationship between LMX and employee engagement relationship (see figure 3). Simple slopes analysis (Aiken et al., 1991) showed that when the degree of digital communication was high, the relationship between LMX and employee engagement was not significant ($b = .07$, $SE = .15$, ns) but was significant when the degree of digital communication was low ($b = .66$, $SE = .13$, $p < .00$). Hence, Hypothesis 2 was supported.

In table 3, we also examined the conditional indirect effect of the degree of digital communication at three values (1 SD less than the Mean (i.e., low), Mean, & 1 SD greater than the Mean (i.e., high)). Hypotheses 3 was supported, such that the indirect and positive effect of LMX on voice through employee engagement was observed when the degree of digital communication was low, but not when the degree of digital communication was high.

General Results: Mini Meta-Analysis

We followed the emerging practice of performing a mini meta-analysis of all studies to assess our proposed moderated mediation model ($N = 304$) (Goh et al., 2016). The mini meta-analysis revealed that employee engagement mediated the association between LMX and voice ($Mr = .25$, $z = 4.48$, $p < .01$). The mini meta-analysis showed that the degree of digital communication moderated the

Figure 3. Employee Engagement predicted by LMX moderated by the Degree of Digital Communication: Sample 2



association between LMX and employee engagement ($Mr = -.01$, $z = -1.73$, $p < .05$). The results of the mini meta-analysis also showed that the indirect effect of LMX on voice, through employee engagement, was weaker for high degree of digital communication ($Mr = 0.17$, $z = 2.99$, $p < .05$) than for low degree of digital communication ($Mr = 0.32$, $z = 5.84$, $p < .01$).

DISCUSSION

Two primary findings emerge from this study. First, we find that employee engagement mediates the positive association between LMX and voice. This result supports the idea that high-quality LMX promotes employee engagement because this specific type of relationship offers instrumental and expressive resources. Indeed, followers are more likely to engage in voice when they have high-quality LMX. Second, we find evidence that the degree of digital communication affects the association between LMX and voice, through employee engagement. Our results support the idea that new communication technologies, in the form of digital communication, might be considered as a resource loss that weakens the positive consequences associated with LMX.

Theoretical Implications

Our primary contribution rests in the exploration of a motivational approach towards LMX. We draw on the conservation of resources theory to test the possibility that a high-quality LMX might be considered an important relational resource for followers to achieve personal goals (Halbesleben et al., 2014; Hobfoll et al., 2018). Previous research showed that followers engage in higher levels of citizenship behavior because followers feel the need to reciprocate the additional resources they receive from their leader (Dansereau et al., 1975; Graen & Uhl-Bien, 1995; Teng et al., 2020). Although the social exchange perspective has been key in understanding the dynamics between leaders and followers within a LMX (Cropanzano et al., 2017; Van Dyne et al., 2008), our findings suggest that employee engagement is a mechanism that explains how LMX influences citizenship behavior by the follower, such as voice. As such, our study offers a novel and important insight that a high quality LMX might be perceived as a valuable relational resource for followers. Followers who perceive a high quality LMX are more likely to be intrinsically motivated at work due to a good working relationship with their leader. This finding highlights a continued need to investigate LMX from different theoretical perspectives to examine and extend our knowledge of the underlying mechanisms.

Further, we draw on the ‘cues-filtered-out’ perspective (Culnan & Markus, 1987) to test the possibility that the degree of digital communication might influence the extent to which followers are able to benefit from LMX. Indeed, our findings suggest that followers who use digital communication derive less intrinsic motivation from a high quality LMX. Our results support the idea that through the use of digital communication, information might be misinterpreted or misunderstood, reducing the access to additional instrumental resources. Relatedly, expressive resources, such as trust, are also less likely to be accessible because the use of digital communication reduces social awareness between individuals. Indeed, the lack of social cues might lead to impersonal relationships between leaders and followers (Hill et al., 2014). Hence, this insight extends our knowledge on LMX by showing that the degree of digital communication might be considered as a resource loss indicating an important boundary condition for the association between LMX, employee engagement, and voice.

Collectively, our broad contribution consists of integrating the literature on LMX and digital communication with the proposal that the association between LMX and voice is mediated by employee engagement and the conclusions that the degree of digital communication might mitigate this association. We believe this contribution is important because it enhances our understanding of the challenges of using digital communication mediums in the workplace.

Practical Implications

Our research provides a unique perspective on the role of the degree of digital communication in attenuating the motivational benefits associated with high-quality LMX. Our findings show that followers are less likely to engage in voice because the degree of digital communication reduces the level of intrinsic motivation followers derive from high-quality LMX. Considering that the use of digital communication is becoming the new norm within organizations (Maynard et al., 2019), it is unlikely that leaders can mitigate the use of digital communication. Hence, it might be appropriate for leaders to provide guidelines to effectively use digital communication tools (Hill et al., 2014). These guidelines might prevent the depersonalization of information exchanges. Second, our findings also show that followers desire different levels of digital communication to derive intrinsic motivation from LMX. Whereas the degree of digital communication is less important when followers perceive a high quality LMX, followers who perceive a low-quality LMX might prefer more digital communication. This finding might present an opportunity for leaders to engage ‘strangers’ (Graen & Uhl-Bien, 1995) through the increased use of digital communication. Indeed, digital communication tools do not fit with the collaboration preference of all followers. To get the most out of their followers, leaders should not necessarily adopt a one-size-fits-all approach to their digital communications. Our research shows that increased digital communication can help engage employees who do not desire intense collaborative relationships with their leader. Managers can role-model these behaviors by using digital media to connect with staff that they would infrequently come into contact. Instructors teaching good leadership practices could ensure to cover the role of digital communication for current and future managers, especially with recent developments due to Covid19 and the increase in virtual work settings while keeping in mind individual preferences. Furthermore, managers should consider having various digital media channels available to staff for informal and infrequent communications and general interpersonal interactions.

Limitations and Future Research

As with all empirical research, certain limitations need to be mentioned. One limitation has to do with the cross-sectional research design, limiting the possibility of testing causal relations. In this paper, LMX act as an antecedent of employee engagement and voice. Although this is in line with the conservation of resources theory (Halbesleben et al., 2014; Hobfoll et al., 2018), it is possible that the opposite also holds, for example, lower levels of employee engagement decreases LMX. Future research is needed to test the causal relationship between the constructs. A second limitation arises from the fact that all constructs rested on the respondents’ perception. Although the concepts used are

highly subjective, it does suggest a potential source of common method bias. However, this research followed the recommendations of Podsakoff and colleagues (2012) to diminish the possibility of common method variance. Future research is needed to test our conceptual framework while using multi-source data; for example, voice might be evaluated by peers or a supervisor. Third, in line with the contemporary tradition of theorizing leadership in relational terms (Carter et al., 2015; Goodwin et al., 2009), we investigated the role of LMX on voice. Yet, we acknowledge that different theoretical perspectives are available. Future researchers could apply social network theories to explain the role of leader-member exchanges. A fourth potential limitation is related to the operationalization of the degree of digital communication. In this study, our measure for the degree of digital communication is consistent with prior operationalization (Hill et al., 2014). Yet, we acknowledge that the degree of digital communication might consist of other sub-dimensions, such as: informational values and the synchronicity afforded (Kirkman et al., 2004; Raghuram et al., 2019). Hence, future research might investigate different operationalizations of the degree of digital communication. Furthermore, future studies could examine the reasons why lower LMX employees may prefer digital communication, and in addition, examine situational factors that might impact communication style factors.

CONCLUSION

This research adds to a growing number of studies that are exploring the role of digital communication at the workplace (Raghuram et al., 2019). The insights from our research are the result of bringing together two previously disconnected research perspectives, LMX and digital work characteristics, to explore the consequences of LMX. The result is a richer understanding of the boundary conditions of LMX. In future research, scholars should refine and extend our work to shed further light on effective leadership during the new digital age. These findings are particularly prescient, given the increased reliance and scope of digital communication in the current work environment. If, as expected, digital communications are to increase, practical mechanisms need to be identified and implemented so that positive aspects of voice and employee engagement are not reduced by an environment increased working from home.

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