

Robert M.

La Follette School of Public Affairs

at the University of Wisconsin-Madison

Working Paper Series

La Follette School Working Paper No. 2018-001

<http://www.lafollette.wisc.edu/research-public-service/publications>

Communicating the Vision: How Face-to-Face Dialogue Facilitates Transformational Leadership

Ulrich Thy Jensen

School of Public Affairs, Arizona State University

Donald P. Moynihan

Professor, La Follette School of Public Affairs, University of Wisconsin-Madison

dmoynihan@lafollette.wisc.edu

Heidi Houlberg Salomonsen

Department of Management, Aarhus University

January 2018



Robert M. La Follette
School of Public Affairs
UNIVERSITY OF WISCONSIN-MADISON

1225 Observatory Drive, Madison, Wisconsin 53706

608-262-3581 / www.lafollette.wisc.edu

The La Follette School takes no stand on policy issues; opinions expressed in this paper reflect the views of individual researchers and authors.

Communicating the Vision: How Face-to-Face Dialogue Facilitates Transformational Leadership

Final manuscript accepted for publication in *Public Administration Review*. Please consult published version before citing.

Ulrich Thy Jensen (*corresponding author*)

School of Public Affairs, Arizona State University

ujensen@asu.edu

Donald P. Moynihan

La Follette School of Public Affairs, University of Wisconsin–Madison

Heidi Houlberg Salomonsen

Department of Management, Aarhus University

Cite as:

Jensen, Ulrich T., Donald P. Moynihan, and Heidi H. Salomonsen. Communicating the Vision: How Face-to-Face Dialogue Facilitates Transformational Leadership. *Public Administration Review*. doi: 10.1111/puar.12922.

Funding information:

Danish Council for Independent Research

Grant number: 1327-00015B

Abstract

For public managers facing political and structural constraints, transformational leadership promises to meaningfully improve outcomes by communicating an inspiring vision of the organization. But this promise rests to a great degree upon the communication skills and behaviors of the leader. A better understanding of how transformational leadership functions in organizations therefore requires a deeper application of theory from the field of communication. We explore the question of what communication behaviors facilitate transformational leadership. We apply a media richness framework to propose that transformational leaders will be most effective when employing a face-to-face dialogue approach to communication. Using a multi-source longitudinal research design, we find support for this proposition in an empirical test on 256 Danish tax units, lower- and upper secondary schools, childcare centers, and bank branches. We also find that size matters, with the effectiveness of face-to-face dialogue declining as the organization becomes larger.

Evidence for Practice

- As employees see their leader as transformational, they are more likely to be attracted to the mission of the organization.
- Leaders can choose different types of communication behaviors with employees, relying on a mixture of one-way or two-way exchanges, and written or oral communication.
- The positive effects of transformational leadership on employee attraction to the organizational mission become stronger when the leader relies extensively on a face-to-face dialogue approach to communication.

- A face-to-face approach is time-intensive, and is less feasible in larger organizations where leaders have less capacity to engage with all employees.

Transformational leadership is attractive in public settings for a number of reasons. For scholars, it aligns well with the public service motivation approach that dominates public management accounts of motivation. For the world of practice, transformational leadership promises that the right type of inspiring leader can improve performance without investing extra financial resources, or engaging in politically difficult structural reorganizations. But if such promises are met is an empirical question, demanding better evidence on whether and under what conditions transformational leadership makes a difference.

The promise of transformational leadership, to a greater degree than other leadership strategies, rests upon the communication skills of the leaders. While the transactional leader relies on the use of objective punishments and rewards, and servant leaders succeed by visibly supporting the follower, the transformational leader is expected to engage in an alchemy of exceptional change through the communication of an idealized portrait of what the organization aspires to achieve (Carton, Murphy, and Clark 2014). This vision, in turn, increases employees' attraction to their organization's purpose, which ultimately is expected to be important for performance because employees invest greater energy and effort towards goals they perceive as meaningful and significant. But this causal chain of theorized behaviors is halted if the leader fails to communicate the vision, since "an organization's mission can only inspire those who are aware of its existence, and understand its importance." (Moynihan, Pandey and Wright, 2014, 95). Transformational leaders' ability to convey values and increase mission valence among employees' rests, at least partly, on their communication of the vision. This extraordinary reliance on communication is the blind spot of transformational leadership theory (but see Men 2014a; 2014b). For a form of leadership that depends inherently on communication, we know little about what communication

behaviors, if any, amplify the positive effects of transformational leadership on employee and organization outcomes. Empirical studies of transformational leadership also hint at an important role for communication, indicating that the effects of transformational leadership on employee mission valence occurs via mediating mechanisms such as goal clarity (Wright, Moynihan, and Pandey 2012). But a fuller understanding of transformational leadership demands a better incorporation of theory from the field of communication.

In this article, we shed light on the question of what communication behavior facilitates transformational leadership in two ways. First, we build on media richness theory and insights from social psychological research to argue that public managers are particularly successful in conveying organizational values to employees when they combine transformational leadership and *face-to-face dialogue* to communicate the vision. It would be trite of us to simply suggest that communication matters, or that more communication is better than less. ‘Media richness theory’ (Daft and Lengel 1986; Lengel and Daft 1988) posits that different media for communication serves different communication purposes and, hence, are not equally effective in terms of communicating messages that evoke equivocality. This implies that a communication behavior needs to be consistent with the leadership strategy employed. In order to effectively communicate an organizational vision, transformational leaders need to choose a media for communication that enables more than simple dissemination of facts about the vision and its ‘mere’ existence. Rather, to change employees’ perception of the attractiveness of the organization’s mission, transformational leaders benefit from communicating through face-to-face dialogue because this media provides opportunity to 1) translate the organizational vision into meaningful goals and provide feedback to employees when differences in interpretations of the vision and goals arise, 2) help close potential authenticity gaps in employees’ perception of their leader’s leadership by bringing a personalized element to the communication of the vision, and 3) promote processes of employee self-persuasion as employees

reflect on their contribution to the organization and its core purpose. We propose that leaders' use of face-to-face dialogue when communicating an organizational vision amplifies the effect of transformational leadership on employee mission valence.

Our second contribution is to test our theoretical proposition using a multi-source longitudinal research design in the context of 256 Danish tax units, lower- and upper secondary schools, childcare centers, and bank branches. The bulk of existing studies rely on cross-sectional research designs (for an exception, see Oberfield 2014), raising concerns about endogeneity, and putting heavy requirements on scholars to collect information on a large number of factors to mitigate concerns for omitted variable bias. Our study seeks to remedy these challenges using repeated measures of transformational leadership and mission valence among the same set of organizations over a one-year period (August 2014 and August 2015, respectively).

Our findings indicate that a change in employees' perception of transformational leadership is positively related to their perception of the attractiveness of the organizational mission, and that this relationship is strengthened when leaders use face-to-face dialogue to communicate the vision. Other communication behaviors do not seem to amplify the positive effects of transformational leadership. The results therefore suggest that some communication behaviors are better than others for transformational leadership, highlighting the need for managers to carefully consider how they communicate visions if they are intended to encourage employees to be more attracted to the organizations' purpose. Further the results suggest that this relationship is conditioned upon the size of the organization.

Transformational Leadership and Mission Valence

While the concept of transformational leadership originated in the study of public officials decades ago (Burns 1978), it has been adopted, and adapted, in studies of private organizations. As it has re-

emerged in studies of public organizations, it has been critiqued in business studies as an overly broad concept that lacks causal specificity (Yukl 1999; 2012; Van Knippenberg and Sitkin 2013).

Bass (1996) offers a “full range” theory of leadership that makes the case for a variety of leadership approaches, that includes a generally ineffective laissez faire approach, a transactional approach where leaders tie rewards and punishments to performance, and the transformational model. While our approach emphasizes transformational leadership, this does not imply a conflict with a transactional approach. The two approaches can be complementary (Bass 1996; Trottier, Van Wart and Wang 2008; Van Wart 2013). For example, Oberfield’s (2014) examination of the full range theory using a longitudinal model finds that both categories of leadership, separately and together, predict perceived work quality, employee satisfaction, and cooperation.

Bass’s model identifies three behaviors associated with transformational leadership: idealized influence, where leaders model their stated vision; intellectual stimulation, which challenges followers to question old assumptions; and articulating an inspiring vision. We focus only on the last behavior. Our approach is consistent both with Yukl’s (2012) suggestion that scholars focus on specific leadership behaviors rather than broad concepts, and Van Knippenberg and Sitkin’s (2013, 46) argument that the visioning behavior is the most critical aspect of transformational leadership.

Visioning implies a process of communication. Transformational leaders must first develop a clear image of what the organization aspires to achieve. But if employees are to actually be inspired by that vision they need to be aware of its existence. “People find it easier to imagine an ideal and unique future than they do painting a compelling picture for others,” say Kouzes and Posner (1987, 155), who portray communication skills as central to conveying a powerful vision. Consequently, we follow Jensen and colleagues to define transformational leadership as “behaviors that seek to develop, share, and sustain a vision ... [with] the intention behind these behaviors as

attempts to encourage employees to transcend their own self-interest and achieve organizational goals” (2016, 9-10).

While leaders may be able to develop a vision in isolation, sharing and sustaining the vision are two steps that depend upon communication to employees. Indeed, Yukl’s (2012, 73) description of leadership behaviors puts communication of goals as central: “A vision will be more inspiring and motivating if it is relevant to the values, ideals, and needs of followers and is communicated with colorful, emotional language (e.g., vivid imagery, metaphors, stories, symbols, and slogans).” Our focus on visioning also reflects recent critiques of transformational leadership in two important ways. First, our approach responds to the critique that the traditional multidimensional approach to transformational leadership was undertheorized (Van Knippenberg and Sitkin 2013). By focusing on the visioning aspect we can better theorize how this type of leadership behavior functions. Second, our approach avoids the flaw of describing transformational leadership behavior by its effects, a flaw that inhibits rigorous modelling of how one might be casually related to the other (Jensen et al. 2016). By defining transformational leadership as the intention to develop, share and sustain a vision among the employees, we place it within the domain of leadership behavior rather than expected effects of that behavior. Whether this behavior succeeds in making employees transcend their own interest and share the goals and the vision of the organization is an empirical question.

Research on public organizations has provided evidence of direct and indirect effects of transformational leadership on important outcomes such as performance, the experience of red tape, performance information use and goal clarity (see Moynihan, Pandey, and Wright 2014 for an overview). In particular, previous studies have made the case for a positive relationship between transformational leadership and what is considered a central dependent variable in public administration scholarship: mission valence (Moynihan, Pandey, and Wright 2014; Wright and

Pandey 2011; Wright, Moynihan, and Pandey 2012). Coined by Rainey and Steinbauer (1999), mission valence can be defined as an "...employee's perception of the attractiveness or salience of an organization's purpose." (Wright and Pandey 2011, 24). Mission valence thus refers to an employee's perception of the attractiveness or saliency of an organizational purpose (as stipulated by the leader through the vision), and derives from "the satisfaction an individual experiences (or anticipates to receive) from advancing that purpose" (Wright and Pandey 2011, 24). Mission valence should therefore relate to transformational leadership because "the more engaging, attractive, and worthwhile the mission is to people, the more the agency will be able to...motivate them to perform well in the agency" (Rainey and Steinbauer 1999, 16). The ability of transformational leaders to motivate employees to perform well hence largely rest on their ability to increase employees' perception of attractiveness and saliency of the organizational mission (Wright, Moynihan, and Pandey 2012). On this basis, we therefore expect that:

H1 Transformational leadership is positively related to mission valence.

Despite the straightforward logic of this argument, empirical studies have so far not been able to identify a direct positive relationship between transformational leadership and mission valence. In the context of US local government, Wright and colleagues (2012) find transformational leadership to be positively related to mission valence but only through public service motivation and goal clarity. Similarly, in the context of a US state agency, Pasha and colleagues (2014) find indirect relationships between transformational leadership and mission valence via performance management and goal clarity but no direct effect. The lack of empirical evidence on a direct relationship between transformational leadership and mission valence, we argue, may be attributed to an overlooked role of leaders' communication of the vision. Once a vision is developed,

transformational leaders can approach the process of communicating the vision to employees in a number of different ways. Some may be very effective in generating awareness and understanding of the significance of the vision while others may be less effective. What explains the differences between these two leaders? In the following section, we introduce media richness theory and outline three mechanisms that potentially underlie our theoretical argument that using a rich media – that is, face-to-face dialogue – to communicate the vision amplifies the positive effect of transformational leadership on employees' perception of the attractiveness of the organization's mission.

Media Richness and Communication of Vision

Although communication is considered crucial to the success of any organizational change, we have little knowledge on the relative effectiveness of different types of communication (Lewis 2011, 170). This is problematic because the effectiveness of transformational leadership demands leaders who can 'move beyond rhetoric' and turn vision statements into 'tangible realities' (Bellé 2014, 112). Recent research has pointed to the value of using fewer rather than more values, and relying on vision imagery (Carton, Murphy, and Clark 2014). However, turning a vision into a tangible reality is not only a matter of the content (Berson et al. 2001), it also depends on the media chosen to communicate the vision to employees.

Media richness theory, from the field of communications, allows us to theorize how leaders' communication behavior, reflected in their choice of media, affects the message received by employees (Lengel and Daft 1988, 225). The most basic elements of communication – a sender conveying a piece of information to a receiver – are routed through some sort of media (Shannon and Weaver 1949). Effective communication behavior, in the sense of getting a message through to the receiver, therefore depends upon matching the right media to the right message (Sheer and Chen 2004, 79). A salient form of variation in media is between rich and lean, with richness determined

by three characteristics: 1) its ability to handle multiple information cues simultaneously, 2) its ability to facilitate rapid feedback, and 3) its ability to establish a personal focus (Lengel and Daft 1988, 226). There is also variation in the type of messages. For our purposes, the most salient difference is in message equivocality: some messages, such as organizational visions, are equivocal relative to more simple directives. Medias carry with them different capacities for resolving or accommodating equivocality (Russ, Daft and Lengel 1990, 154), with richer forms of media better suited to the demands of equivocality.

From these basic assumptions we propose that face-to-face dialogue is the most effective media for communicating a vision because it is a rich form of media that incorporates the ability to provide multiple information cues, offer feedback to foster understanding and shared meanings, and personalize the message to the receivers (i.e., employees). We expand on this argument below: these three characteristics of rich media can – in combination with insights from the leadership and social psychological literatures – help us explain *why* face-to-face dialogue amplifies the positive effect of transformational leadership on mission valence.

Why Face-to-Face Dialogue Amplifies Effects of Transformational Leadership

Different media offer more or less effective leadership communication tools depending on the degree of equivocality characterizing the message (Lengel and Daft 1988, 226). The idea of equivocality refers to a message that is indeterminate, ambivalent, may permit and evoke multiple and potentially conflicting meanings and interpretations or even create a lack of common understanding (Daft and Lengel 1986, 556; Russ, Daft and Lengel 1990, 153; Weick 1979). By contrast to a mundane and unequivocal directive (“all employees must start work at 9am”), the organizational visions we study in this article are ambiguous. Visions alter established routines,

meanings ascribed to existing behavior and identities within an organization, altering the very objectives of an organization and subsequently the goals to be pursued by employees.

Rich media enable leaders to communicate personally through face-to-face interactions whereas lean media are impersonal (Daft and Lengel 1986, 560). The richest media is face-to-face dialogue (that is, two-way communication) as this media provides multiple cues for interpreting the message including "...body language and tone of voice, and message content is expressed in natural language." (Daft and Lengel 1986, 560). Such cues carry the potential to enrich the communication of the message with a sense of 'personal involvement' and 'promote personal attachment and responsibility' (Sheer and Chen 2004, 81). Additionally, dialogue as a two-way communication enables the provision of feedback, which in turn enables the establishment of a personal focus between the sender and the receiver.¹ By contrast, lean media, e.g., one-way written communication allow for no feedback, are stripped of cues other than what is reflected in the written material and are highly impersonal (e.g., electronic newsletters) (Lengel and Daft 1988, 222). Between these two extremes are media that enable a personal focus, but involve fewer cues and slower feedback such as dialogue through interactive media (Lengel and Daft 1988, 226).

Equivocality can be reduced through the creation of meaning in situations where organizations are confronted with ambiguity such as potentially conflicting goals.² Such situations may be invoked by environmental changes, but they may also be the result of managerial strategies that alter routines and establish meanings within the organizational context. Developing a vision represents such a situation and it is therefore important that the selected media for communicating a vision can accommodate the degree of equivocality characterizing such a message. Based upon media richness theory, we therefore expect that a leader who communicates the vision via face-to-face dialogue – the richest media – will be more effective in terms of generating mission valence. Such dialogue may be performed in a number of ways, from formal and informal encounters

between the leader and one employee, to meetings where the leader enters a dialogue with a larger group of employees, e.g., at general staff meetings.

A second mechanism by which face-to-face dialogue may amplify the effects of transformational leadership on mission valence is tied to the opportunity that this media presents to appear authentic. The need for authenticity poses a risk for leaders: one recent study pointed to a relatively low correlation between how leaders thought they were presenting themselves, and how employees actually perceived them, with only the latter being relevant for organizational performance (Jacobsen and Andersen 2015). But the potential risk of inauthenticity is more severe for transformational leaders, who depend upon asking others to commit to the organization on the basis of inspiration rather than extrinsic reward (Bass and Steidlmeier 1999). In short, if you don't believe the messenger, there is little reason to invest in the message.

It is easy to doubt the commitment of a far-away leader if the only communications of their vision are generic formal statements. Authenticity requires relational transparency (Banks et al. 2016, 2), i.e., a leader that openly shares information and feelings 'as appropriate for situations' (Avolio, Walumbwa, and Weber 2009, 424): "Authentic leaders control their ego drives and defensiveness, thereby encouraging openness, feedback, and effective communication" (Van Wart 2013, 560). Face-to-face dialogue gives the sender a chance to establish their genuine commitment to the message, and the receiver a chance to receive and review these commitments. Hence, bringing a personalized aspect to the communication of the vision gives leaders a chance to make both themselves and their vision feel authentic to followers.

The last mechanism by which face-to-face dialogue communication might enhance transformational leadership is that it enables processes of self-persuasion. The core idea of self-persuasion is that employees are more likely to be influenced by themselves rather than their leader due to an assessment of themselves as credible and likeable (Aronson 1999; Wright and Grant

2010, 696). This is relevant because communication based on a dialogue is a two-way street. Thus, when transformational leaders communicate a vision in a way that fosters face-to-face dialogue this ‘pushes’ employees to actively consider the attractiveness of the mission including how their own work contributes to the core purpose of the organization. Whenever employees try to make sense of a vision and disentangle which behavior will foster the accomplishment of the goals set for realizing the organization’s mission, employees may thus begin to reflect on how their behaviors add to the organizational goals, and hence how their specific behavior will contribute positively to the vision. In this sense, face-to-face dialogue invites employees to engage in a process of self-persuasion in which employees implicitly or explicitly make vivid to themselves how their own contribution already does, or soon will, tie into the broader organizational aims.

In sum, we propose that face-to-face dialogue amplifies the positive effect of transformational leadership on mission valence because face-to-face dialogue offers a suitable media for communicating messages of high equivocality, because it brings a personalized aspect to the communication of the vision that help close potential authenticity gaps, and/or because it allows for employees to actively reflect on the significance of the vision and engage in self-persuasion processes. While these mechanisms offer different explanations for our theoretical argument, they are complementary, and thus lead to the same expectation, that:

H2 The relationship between transformational leadership and mission valence is strengthened by use of face-to-face dialogue in communicating an organizational vision.

Face-to-face dialogue is a costly form of communication behavior, demanding significant investment of leadership time. As the organization becomes larger, the leader simply has less capacity to engage in such dialogue with all employees on a regular basis. It is therefore almost

axiomatic that face-to-face communication behaviors should have a more limited effect in larger organizations. Larger organizations have been found to constrain the vision strength of transformational leaders (Berson et al. 2001, 68), and also to create a context of structural distance between leader and employees (Napier and Ferris 1993, 333). Structural distance decreases opportunity to interact (Jensen and Bro 2014), robbing both parties of the chances to share information, create shared meanings in ways that contribute to verify the bona fides of the sender. Distance thereby heightens the risk of perceived leader inauthenticity and curbs leaders influence due to reduced opportunity for using rich media in information transmissions to employees (Antonakis and Atwater 2002, 685).

Although research on the role of size as a moderator for effective leadership communication is still limited (Jablin 1987), some evidence is consistent with the idea that the quality of communication (in terms of degree of openness between leaders and employees and the quality of the immediate superior) decreases when organizational size increases, although these results fall short of statistical significance (Snyder and Morris 1984; Jablin 1982). The hypothesis is also supported by some circumstantial evidence on leadership and structural context. For example, Gumusluoglu and colleagues (2013) finds a narrower span of control offers leaders more opportunities to communicate and explain organizational decisions. While our measure of size is related to the number of employees for whom the leader has leadership responsibility for, the same mechanisms of limiting opportunities to engage in two-way communication should apply. We thus expect that leaders engaging in face-to-face dialogue will be better able to establish high-quality relationship that builds support for the organizational mission in smaller organizations as compared to larger organizations.

H3 Face-to-face dialogue facilitates the effects of transformational leadership on mission valence more strongly in smaller organizations.

Research Design, Data and Methods

The empirical component of our study is a multisource longitudinal dataset on 256 public and private organizations in Denmark. This setup is useful for several reasons. First, while there is a focus on public organizations, the study includes organizations from various industries – childcare centers, schools, tax administration and banks – thereby enhancing the generalizability of the empirical findings. The empirical context includes variation across functional areas such as service provision in childcare centers and schools and administrative case work in tax units. It also includes variation in public and private ownership within the childcare and lower secondary school sectors (all high schools and tax units are public whereas all banks are private). Finally, it encompasses organizations of very different size and these factors therefore allow us to assess whether the findings are similar across organizations of different functioning, different ownership, and different size. Indicators for industry and ownership are included as covariates in the estimations and we assess whether the empirical results differed across these variables (no interaction effects were detected, results not shown but can be obtained from the corresponding author).

Survey data on transformational leadership and mission valence was collected twice with exactly one year in-between data collection (August 2014 and August 2015, respectively). At the outset, respondents were identified as employees of 672 leaders (of childcare centers, schools, tax units or bank branches) who signed up in the Spring of 2014 for a free leadership training program. For childcare and schools, all leaders in Denmark were invited to participate in the leadership training program, while leaders of tax units or bank branches were selected by the HR department of National Tax Authority or two banks, respectively. For the banks participation in the training

program was offered as an opportunity, and so some selection bias on the part of the leaders themselves may characterize this part of the sample. For the Tax Authority the organization head appointed the participants. The criterion given to the Tax Authority was that the appointed leaders should not have been or currently be part of any leadership training with similar content. However, for the Tax Authority we cannot rule out some selection bias on the part of the leaders of the leaders participating. As part of the training program, leaders delivered complete lists with contact information on their employees. The first survey (August 2014) was thus administrated electronically to all employees – 19,552 – via their unique email account. Few respondents did not have a personal email account and they received a unique code to access the questionnaire online from any computer. More details on how email accounts were obtained and information on the collection of the survey data can be found in the technical reports at [reference blinded for peer-review]. Of the 19,552 employees, 8,861 completed the 2014 survey corresponding to a response rate of 45.3% (response rates for organizations ranged between a low of 32.0 % for public schools and a high of 74.2 % for banks). For the second survey (August 2015), 15,132 employees received the questionnaire with 6,327 completing it (roughly 42 %). Of these, a balanced panel of 256 organizations representing 4,129 employee responses for the 2014 survey and 3,717 employees for the 2015 survey, respectively, constitutes the basis for our analyses.

Using repeated measures from the same set of organizations yields two important advantages to more traditional cross-sectional designs. First, it allows us to study changes in our focal constructs over time. Scholars and practitioners are interested not only in the level of mission valence at a given time but also whether leaders are capable of changing employees' perception of the attractiveness of an organization's mission. Looking at assessments over time allows us to make such comparisons (e.g., did mission valence increase on average?) and relate such changes to changes in the perception of organizational leadership. Second, and related, repeated measures

among the same organizations offers a strategy for controlling for unobserved confounders as long as they do not change over the period of investigation. In the case of two time periods only, a first-difference approach is identical to a fixed effects approach (Allison 2009), both of which make use of the variation within subjects (e.g., individual employees or organizations) only. Since we are looking at the variation with subjects over time factors – observed and unobserved – that do not change over time cannot confound our results. While this approach yields more robust estimates compared with cross-sectional designs, it is important to acknowledge that some concerns about endogeneity remain. We return to a discussion of these and other central limitations of our study in the concluding section.

The third advantage of our design pertains to its use of multiple sources. In addition to the survey data on employee perceived leadership and mission valence mentioned above, the data includes leader's retrospective accounts of their use of media for communicating their organization's vision. While retrospective accounts risk triggering recollection biases, it is particularly useful to describe the development in-between the two rounds of surveys among employees. Hence, leaders were asked at the end of the leadership training program (March 2015) to complete an evaluation survey including, amongst others, four questions on medias for vision communication (see item wording below). More than 80% of leaders completed the survey and combined with the balanced panel of employees' responses, we extract useable responses from 256 different organizations. Even though it is not clear that common source bias is overly problematic in interaction models (Jakobsen and Jensen 2015), it is useful to mitigate individual-level bias by drawing on different sources of ratings. One should be careful to consider, though, whether shared contextual characteristics (e.g., of the leader or the organization) still give rise issues of common source bias (Favero and Bullock 2015).

Measures

To the extent possible we employ previously validated measures. To measure transformational leadership, we draw on a four-item scale developed by Jensen and colleagues (2016; see items wording in table A4). Items were inspired by existing studies on transformational leadership in the management and public administration literatures (MacKenzie, Podsakoff, and Rich 2001; Moynihan, Pandey, and Wright 2012; Podsakoff et al. 1990) but carefully rephrased to avoid confounding the operational concept of transformational leadership with its proposed effects (see Jensen et al. 2016, 8-9 for more details). Items were measured on a 5-point Likert scale. Items reflect the three behavioral components of transformational leadership outlined in the theoretical section (i.e., develop, share and sustain a vision) and the measurement model has proven consistent across the industries represented in this study (Jensen et al. 2016). Cronbach's alpha indicates internal consistency of items (0.89) and we therefore generated a summative index for transformational leadership giving equal weight to each item.

Mission valence is measured using three items: "the vision of this organization is of personal importance to me", "this organization provides valuable public service", and "I believe that the priorities of this organization are quite important". Items were measured using a 5-point Likert scale. The first item is modified from van Loon, Vandenabeele, and Leisink (2017), while the latter two have been used by Wright, Moynihan, and Pandey (2012) in their study on mission valence in the US. Cronbach's alpha show internal consistency of items (0.72), and similar to transformational leadership, we therefore created a summative index based on the three items.

Confirmatory factor analysis was conducted on the full measurement model including all items for transformational leadership and mission valence for each time period (2014 and 2015, respectively)³. The two factors were specified a priori and allowed to correlate. The average covariance across the two time periods between the transformational leadership factor and the

mission valence factor was 0.36. Standardized factor loadings (λ) were high for both constructs: Transformational leadership₂₀₁₄ with a mean ($\bar{\lambda}$) of 0.82 [0.78 (low)-0.87 (high)], mission valence₂₀₁₄: ($\bar{\lambda}$) = 0.69 [0.57-0.77], transformational leadership₂₀₁₅: ($\bar{\lambda}$) = 0.82 [0.77-0.88], and mission valence₂₀₁₅: ($\bar{\lambda}$) = 0.68 [0.59-0.78]. In addition to convergent validity, our measurement models performed well in terms of reproducing the observed covariance matrix (Vandenberg and Lance 2000). Here, we rely on the chi-square test, and three common approximate fit indices: The root mean square of approximation (RMSEA), the comparative fit index (CFI), and the standardized root mean square residual (SRMR). For the 2014 sample, it yielded a chi-square test of $\chi^2(13) = 56.60, p < 0.001$, RMSEA = 0.03, CFI = 0.98, and SRMR = 0.02. Similar results were obtained for the 2015 sample: $\chi^2(13) = 34.05, p < 0.001$, RMSEA = 0.02, CFI = 0.99, and SRMR = 0.02. All fit indices are well within threshold values suggested by Williams, Vandenberg, and Edwards (2009).

To investigate leaders' use of different types of media for communicating the vision, we asked the leaders to assess in retrospect the degree to which they had used four different media. The items used reflect whether the communication of the vision was performed through media allowing for face-to-face, oral or written media, as well as for two-way or one-way communication. These media provide different abilities for providing feedback, communicate multiple information cues as well as personalized communication described in the theoretical section. As there is not validated items used in the literature to measure different types of media and their leanness/richness, the items were developed by the authors. Table 1 combines the two dimensions (oral or written) and (one-way or two-way) of communication to make up a 2×2 typology. The different types of media and their richness/leanness are reflected in table 1. Different media may suit different communication challenges. We might speculate that lean media may be appropriate for mundane or procedural tasks, while one-way communication may be more paramount in cases where tasks must

be achieved quickly, such as crisis communications (Moynihan 2009). For our purposes, we hypothesize that face-to-face communication is optimal for strategic visioning. Descriptive statistics for all variables can be found in table A1 while pairwise correlations between all measures are reported in tables A2 and A3 in the appendix.

[Table 1 here]

Analytical Procedures

Analyses are performed at the organizational level and we therefore averaged employee scores within each organization at each time point for organizations with a minimum of 5 valid responses. The organization score thus reflect the mean of employee scores for a given construct at a given time (August 2014 and August 2015, respectively). In order to estimate first-difference regressions, we then generated change scores for transformational leadership and mission valence by subtracting the organization score for the 2014 survey from the organization score for 2015 (distributions of change scores are plotted in figure A1 in the appendix).

Aggregating individual-level data to higher levels (such as teams or organizations) requires sufficient within-group interrater agreement and group-mean reliability. With-group agreement refers to the extent to which individuals' ratings are interchangeable (Bliese 2000). In an organization, do employees, for example, offer similar ratings of the leaders' transformational leadership behaviors? Group-mean reliability refers to the "relative consistency of response among raters" (Bliese 2000, 354). While scholars in PA have only recently begun to pay attention to these issues (see for example Hassan 2013), the r_{wg} index (James, Demaree and Wolf 1984) and intraclass

correlation coefficients – ICC(1) and ICC(2) – are considered established statistics in organizational research (Klein and Kozlowski 2000). In our study, r_{wg} index scores were calculated for each of the 256 organizations.⁴ Upper and lower bounds for mean r_{wg} were: Mission valence₂₀₁₄ = [0.84-0.72], mission valence₂₀₁₅ = [0.86-0.74], transformational leadership₂₀₁₄ = [0.84-0.68], and transformational leadership₂₀₁₅ = [0.84-0.68]. Values equaling or exceeding 0.70 is often taken as evidence of sufficient within-group agreement (Klein and Kozlowski 2000, 223), and aggregation to the organization-level therefore seems appropriate in our case. Intraclass correlation coefficients for each of our main constructs at both points in time were calculated to offer an indicator of interrater reliability. ICC(1): Mission valence₂₀₁₄ = 0.20, mission valence₂₀₁₅ = 0.17, transformational leadership₂₀₁₄ = 0.24, and transformational leadership₂₀₁₅ = 0.21. ICC(2): Mission valence₂₀₁₄ = 0.80, mission valence₂₀₁₅ = 0.74, transformational leadership₂₀₁₄ = 0.84, and transformational leadership₂₀₁₅ = 0.80. While existing studies have analyzed averaged scores of individual-level data for transformational leadership (e.g., Andersen and Jacobsen 2015; Oberfield 2014), they do not report ICCs making it difficult to follow best practice of justifying cut-off criteria based on previously published evidence in the literature (Biemann, Cole, and Voelpel 2012).⁵ Instead, we note that all ICC(2) values exceed the commonly considered lower threshold of 0.70, while ANOVA results for each of the two measures at both points in time yield statistically significant F tests ($p < 0.001$), indicating sufficient between-group variation (Klein and Kozlowski 2000, 225).

To account for serial correlation of error terms, standard errors are clustered by organization. Moreover, we standardized variables since employees' reports of transformational leadership and mission valence were measured on 5-point Likert scales whereas leaders' use of communication media was measured on a 7-point Likert scale.

As mentioned, employees surveyed for this research all work for leaders that participated in a leadership training program. Leaders were randomly assigned to various conditions (leadership training programs focusing on transformational leadership, transactional leadership or a combination of the two) or a control group. Since *only* leaders in the three intervention groups were asked how they communicated the vision of their organization, we are restricted from analyzing the experimental variation induced by the leadership program. However, the content of the training program still differs (i.e., transformational, transactional, or a combination), and we therefore control for the type of training intervention that the leader received in-between the two waves of data collection. In addition to indicator variables for content of the leadership training, we also control for task (childcare, school, high school, tax or bank) and include a public/private indicator variable.

Findings

Table 2 presents OLS regressions of a change in transformational leadership on a change in mission valence moderated by leaders' use of different media to communicate the organization's vision. Variables are standardized and can be given an additive interpretation such that the regression coefficient estimate expresses the magnitude of change in standard deviations of the dependent variable for a one standard deviation change in the independent variable (controlling for all observed and unobserved time-invariant confounders).

Our first hypothesis proposed a positive relationship between transformational leadership and mission valence. Models 2.1 and 2.2 offer support for this hypothesis. The results show that a one standard deviation change in transformational leadership is estimated to amount to a 0.3 standard deviation change in mission valence. In other words, the findings seem to corroborate

the claim that when employees see their leader as transformational, they also tend to perceive the mission of their organization as increasingly attractive.

[Table 2 here]

The second hypothesis states that when leaders use transformational leadership *and* face-to-face dialogue as a media for communicating the vision, we should expect to see even stronger effects on mission valence. This expectation is tested in two steps. First, we introduce an interaction term between the change score for transformational leadership and the time-invariant leader score for use of face-to-face dialogue (see Allison 2009 for a general discussion on using a time-invariant factor in fixed effects interaction models). The coefficient tells us whether the relationship between a change in transformational leadership and a change in mission valence differs for organizations in which leaders use face-to-face dialogue to different degrees. Second, we control for the other types of communication media and their interactions with transformational leadership because leaders likely use several media simultaneously. Model 2.3 and 2.7 display positive and statistically significant interaction terms indicating that transformational leaders indeed seem to be more successful in changing employees' perception of the attractiveness of the organization's mission when they communicate the vision using face-to-face dialogue. We estimated the marginal effect of a one standard deviation change in transformational leadership on a change in mission valence over the different values of leaders' use of face-to-face dialogue. Figure 1 shows that a change in transformational leadership only amount to a significant change in mission valence when leaders

use face-to-face dialogue as a media for communicating the vision, and the effect may be as high as half a standard deviation when leaders use this media extensively.

[Figure 1 here]

Our third hypothesis addressed organizational size, with the expectation that the combined use of transformational leadership and face-to-face dialogue as a leadership technique would be more effective in smaller organizations where it would be possible for the leader to reach a higher proportion of the workforce. Few organizations in our sample are exceptionally large. Even so, size still matters. A three-way interaction effect between transformational leadership, face-to-face dialogue variables and organizational size is negative and statistically significant ($\beta = -0.331, p < 0.01$). This finding is illustrated in figure 2, where we differentiate the responses of small (less than 30 employees) and large organizations. For small organizations, the slope is positive and steep. For moderate to extensive use of face-to-face dialogue, the positive marginal effect of transformational leadership on mission valence is statistically significant (cf. confidence interval excluding zero). For larger organizations (30 or more employees), however, the marginal effect of transformational leadership is indistinguishable from zero (demonstrated by the flat line with confidence intervals including zero). Regardless of the extent to which transformational leaders use face-to-face dialogue in communicating the vision, these leadership behaviors do not seem make a difference (positive or negative) in changing employees' perception of mission valence. In sum, these results suggest that the positive effect of face-to-face communication erodes, as the organization grows

larger. This result helps to provide additional evidence for our theory on how communication behaviors matter but also establish some scope conditions for our findings.

[Table 3 here]

[Figure 2 here]

Discussion and Conclusion

The primary goal of this article has been to begin to shed light on the importance of transformational leader's communication behavior as a condition for their effectiveness.

Transformational leadership is a concept with enormous appeal, promising a low-cost approach that can revitalize employee's engagement in public service. But empirical research suggests a more complex story, with transformational leadership effects that are indirect and contingent (Moynihan, Pandey and Wright 2014). Unlocking the benefits of transformational leadership poses an analytical puzzle: what are the contingencies that make it work?

Here, we argue for establishing a better understanding of the leader's communication behavior. Linking transformational leadership and communication is important because 'getting through to the employees' may constitute the necessary contextual condition for transformational leaders to increase employees' mission valence, something that has consistently been seen as critical to motivate employees to perform well in their organization (Barnard 1938; Rainey and Steinbauer 1999). Although communication is imperative for transformational leadership, we have

made the theoretical case and empirically validated the relevance of considering communication as a distinct behavior with real consequences for the effectiveness of leaders in terms of increasing mission valence among the employees.

Our article has limitations, much of which invite additional research. The risks of common source bias that are inherent in the employee's association between transformational leadership and mission valence (for hypothesis 1) are not present in the same fashion for our finding on communication behaviors (hypothesis 2), since the latter relies on multiple sourcing (from both leaders and employees) or on organizational size (hypothesis 3) since this also relies on objective indicators. It is possible that leader's recollection of their behaviors is unreliable, or prone to social desirability bias. However, the time-span over which leaders are asked to recollect (of less than a year) should reduce the potential for faulty recall. A different type of risk with panel studies is that respondents deliberately try to maintain consistency with prior responses (Litwin 1995) which should dampen variation and make a finding less likely. It is possible that leaders are simply poor evaluators of their own leadership behaviors (Jacobsen and Andersen 2015), but if we assume these forms of measurement errors are randomly distributed it should not condition the results for the findings that emerged. Another limitation of our approach is that we specify multiple causal mechanisms by which face-to-face dialogue facilitates the outcome we find in actual public organizations. These mechanisms are themselves not directly tested, but are ideally suited for additional testing in experimental conditions.

Future work could also better consider how transformational leaders choose to engage in face-to-face dialogue for communicating a vision. It is possible that there might be some form of unobserved selection taking place – those comfortable with rich forms of communication are also more positively disposed to transformational leadership as a leadership approach (or vice versa) – or that the overlap between two is a matter of strategic selection, or simply a happy accident. Our

results therefore invite more research that maps how leaders consider the compatibility of leadership and communication behaviors. This research challenge is one with very practical implications, since it raises the question of whether it possible to train leaders not just in transformational leadership but also in the communication strategies that they match to this form of leadership.

Our article also raises practical implications about how organizational size relates to transformational leadership and communication behaviors. There is some evidence that transformational leadership works less well in larger organizations (Jensen and Bro 2014), and our findings help to provide an explanation as to why. In larger organizations leaders have less capacity to make use of a tool – face-to-face dialogue – that helps to make transformational leadership successful. For leaders of smaller organizations, face-to-face dialogue seems to be an effective strategy. But leaders of larger organizations face a quandary: how can they communicate in a way that evokes, to employees who were not part of a dialogue, the sense of intimacy and feedback that comes with a two-way dialogue? This may mean combining a transformational and distributed approach to leadership, where lower-level managers are empowered and enabled to use dialogue to effectively convey the leadership vision. Our findings offer a caution for leaders who might embrace less personal forms of communication afforded by technological improvements: for equivocal forms of communication, face-to-face is best. It also raises the possibility that technology might facilitate face-to-face dialogue in larger organizations, and the concomitant risk that such technologically mediated communication might be less effective than the direct interactions that took place in our sample, where leaders were typically co-located with followers. It also calls for more direct tests of how different forms of face-to-face dialogue are effective. Finally, while we look at only one aspect of size, future work could better explore the related and distinct effects of

organizational size, such as span of control, hierarchical or physical distance between leaders and followers affect how communication matters to transformational leadership.

Consistent with the axiom that nothing is as practical as a good theory, the primary practical implications of our analysis arises from our incorporation of media richness theory: leaders need to consider their communication behaviors, and adopting a rich media aligns well with the equivocality of conveying an organizational vision. This point is consistent with prior work that suggests that leader's ability to choose the right media for any given type of message increases managerial performance (Lengel and Daft 1988). It is also the case that leaders generally gravitate toward dialogue when they perform communication (Lengel and Daft 1988), but our analysis shows that that not all leaders performing transformational leadership are equally media sensitive. The findings suggest that any consideration of the transformational leadership toolkit is incomplete without parallel attention to the communication behaviors crucial for getting the vision through to the employees.

Notes

¹ In that sense one may argue that dialogue may be understood as an unmediated communication (Russ, Daft and Lengel 1990, 155).

² Daft and Lengel differentiate between equivocality and uncertainty. While uncertainty may be reduced by increasing the information available for leaders, reducing equivocality requires the creation of meaning of potentially conflicting information and interpretations of such information (1986, 554-556).

³ We also estimated a multiple indicators, multiple causes (MIMIC) model on the pooled dataset in which we regressed the transformational leadership and mission valence factors on an indicator for time period (year dummy variable with 2014 a reference category). Mean differences in factors due

to the timing of surveys can cause heterogeneity in our latent measures, if they are not explicitly modeled. The model fit was good: $\chi^2(18) = 100.38, p < 0.001, RMSEA = 0.02, CFI = 0.98,$ and $SRMR = 0.01,$ indicating that the transformational leadership and mission valence factors were rated similarly by subjects across time.

⁴ The formula for calculating the $r_{wg(j)}$ statistic can be found in James, Demaree and Wolf 1984. The statistic is calculated by comparing the observed variance for a group (for example, the variance in ratings of transformational leadership within a single organization) to an expected random variance. As described by Bliese (2000, 351-354), assuming that the expected variance is derived from a uniform distribution of responses (i.e., equal numbers of 1s, 2s etc. on a 5-point scale) is problematic if respondents only use a restricted part of the response range. This is the case for many constructs in PA with positive societal or organizational connotations (e.g., public service motivation or transformational leadership). To reduce the risk of systematically overestimating the “true” within-group agreement, we therefore also present lower bound estimates based on an assumption of an alternative null distribution that takes into account skewness from response bias.

⁵ If we compare the ICCs to estimates from an extensive literature review by Woehr and colleagues (2015), aggregation also seems justified. Drawing on more than 400 studies, Woehr and colleagues (2015, 714-715) report an average ICC(1) value of 0.22 with a standard deviation of 0.15 and an average ICC(2) value of 0.66 with a standard deviation of 0.18. All but one of our ICC(1) scores are below the literature mean and fall within the range of ICC values reported by nearly 50 % of the studies in their sample (0.11–0.30). All of our ICC(2) scores exceed the reported average value.

⁶ Three-way interaction term is also negative and statistically significant when organization size is modeled as the absolute number of employees in the organizations (cf. table A1): $\beta = -0.002, p < 0.05.$

References

- Allison, Paul D. 2009. *Fixed Effects Regression Models*. Quantitative Applications in the Social Sciences 160. Los Angeles: SAGE.
- Antonakis, John, and Leanne Atwater. 2002. Leader Distance: A Review and a Proposed Theory. *The Leadership Quarterly* 13(6): 673–704.
- Aronson, Elliot. 1999. The Power of Self-Persuasion. *American Psychologist* 54(11): 875–84.
- Avolio, Bruce J., Fred O. Walumbwa, and Todd J. Weber. 2009. Leadership: Current Theories, Research, and Future Directions. *Annual Review of Psychology* 60: 421–49.
- Banks, George C., Kelly D. McCauley, William L. Gardner, and Courtney E. Guler. 2016. A Meta-Analytic Review of Authentic and Transformational Leadership: A Test for Redundancy. *The Leadership Quarterly* 27(4): 634–52.
- Barnard, Chester I. 1938. *The Functions of the Executive*. Cambridge, MA: Harvard University Press.
- Bass, Bernard. 1996. Is there Universality in the Full Range Model of Leadership? *International Journal of Public Administration* 19(6): 731–61.
- Bass, Bernard M., and Paul Steidlmeier. 1999. Ethics, Character, and Authentic Transformational Leadership Behavior. *Leadership Quarterly* 10(2): 181–217.
- Bellé, Nicola. 2014. Leading to Make a Difference: A Field Experiment on the Performance Effects of Transformational Leadership, Perceived Social Impact, and Public Service Motivation. *Journal of Public Administration Research and Theory* 24(1): 109–36.
- Berson, Yair, Boas Shamir, Bruce J. Avolio, and Micha Popper. 2001. The Relationship between Vision Strength, Leadership Style, and Context. *The Leadership Quarterly* 12(1): 53–73.
- Biemann, Torsten, Michael S. Cole, and Sven Voelpel. 2012. Within-Group Agreement: On the Use (and Misuse) of r_{wg} and $r_{wg(j)}$ in Leadership Research and some Best Practice Guidelines.

The Leadership Quarterly 23(1): 66–80.

- Bliese, Paul D. 2000. Within-Group Agreement, Non-Independence, and Reliability. In *Multilevel Theory, Research, and Methods in Organizations: Foundations, Extensions, and New Directions*, edited by Katherine J. Klein and Steve W.J. Kozlowski, 349–81. San Francisco, CA: Jossey-Bass.
- Carton, Andrew M., Chad Murphy, and Jonathan R. Clark. 2014. A (Blurry) Vision of the Future: How Leader Rhetoric about Ultimate Goals Influences Performance. *Academy of Management Journal* 57 (6): 1544–70.
- Daft, Richard L., and Robert H. Lengel. 1986. Organizational Information Requirements, Media Richness and Structural Design. *Management Science* 32(5): 554–71.
- Favero, Nathan, and Justin B. Bullock. 2015. How (Not) to Solve the Problem: An Evaluation of Scholarly Responses to Common Source Bias. *Journal of Public Administration Research and Theory* 25(1): 285–308.
- Gumusluoglu, Lale, Zahide Karakitapoğlu-Aygün and Giles Hirst. 2013. Transformational Leadership and R&D Workers' Multiple Commitments: Do Justice and Span of Control Matter? *Journal of Business Research* 66(11): 2269–78.
- Hassan, Shahidul. 2013. The Importance of Role Clarification in Workgroups: Effects of Perceived Role Clarity, Work Satisfaction, and Turnover Rates. *Public Administration Review* 73(5): 716–25.
- Jablin, Fredric. M. 1982. Formal Structural Characteristics of Organizations and Superior-subordinate Communication. *Human Communication Research*, 69(3): 338-347.
- Jablin, Fredric. M. 1987. Formal Organization Structure. In Jablin, F. M., Putnam, L.L., Roberts, K. H. and Porter, L. W. *Handbook of Organizational Communication. An interdisciplinary Perspective*. Newbury Park, Beverly Hills, London, New Delhi:Sage, pp. 389-419

- Jacobsen, Christian B., and Lotte B. Andersen. 2015. Is Leadership in the Eye of the Beholder? A Study of Intended and Perceived Leadership Practices and Organizational Performance. *Public Administration Review* 75(6): 829–41.
- Jakobsen, Morten, and Rasmus Jensen. 2015. Common Method Bias in Public Management Studies. *International Public Management Journal* 18(1): 3–30.
- James, Lawrence R., Robert G. Demaree and Gerrit Wolf. 1984. Estimating Within-Group Interrater Reliability With and Without Response Bias. *Journal of Applied Psychology* 69(1): 85–98.
- Jensen, Ulrich T., Lotte B. Andersen, Louise L. Bro, Anne Bøllingtoft, Tine L.M. Eriksen, Ann-Louise Holten, Christian B. Jacobsen, Jacob Ladenburg, Poul A. Nielsen, Heidi H. Salomonsen, Niels Westergård-Nielsen, and Allan Würtz. 2016. Conceptualizing and Measuring Transformational and Transactional Leadership. Online before print in *Administration & Society*. DOI: 10.1177/0095399716667157.
- Jensen, Ulrich T, and Louise Ladegaard Bro. 2014. Leadership, Distance, and Performance. Conference paper presented at the Association for Public Policy Analysis and Management Conference, 6-8 November, Albuquerque, NM, USA.
- Jung, Dong I., and Bruce J. Avolio. 2000. Opening the Black Box: An Experimental Investigation of the Mediating Effects of Trust and Value Congruence on Transformational and Transactional Leadership. *Journal of Organizational Behavior* 21(8): 949–64.
- Klein, Katherine J., and Steve W.J. Kozlowski. 2000. From Micro to Meso: Critical Steps in Conceptualizing and Conducting Multilevel Research. *Organizational Research Methods* 3(3): 211–36.
- Kouzes, James M., and Barry Posner. 1987. *The Leadership Challenge: How to get Extraordinary Things Done in Organizations*. San Francisco: Jossey Bass. Lengel, Robert H., and Richard

- L. Daft. 1988. The Selection of Communication Media as an Executive Skill. *The Academy of Management Executive* 2(3): 225–32.
- Lewis, Laurie K. 2011. *Organizational Change: Creating Change Through Strategic Communication*. Wiley-Blackwell.
- Litwin, M. 1995. *How to Measure Survey Reliability and Validity*. Thousand Oaks, CA: SAGE.
- MacKenzie, Scott B., Philip M. Podsakoff, and Gregory A. Rich. 2001. Transformational and Transactional Leadership and Salesperson Performance. *Journal of the Academy of Marketing Science* 29(2): 115–34.
- Men, Linjuan R. 2014a. Strategic Internal Communication: Transformational Leadership, Communication Channels, and Employee Satisfaction. *Management Communication Quarterly* 28(2): 1–21.
- . 2014b. Why Leadership Matters to Internal Communication: Linking Transformational Leadership, Symmetrical Communication, and Employee Outcomes. *Journal of Public Relations Research* 26(3): 256–79.
- Moynihan, Donald P. 2009. The Network Governance of Crisis Response: Case Studies of Incident Command Systems. *Journal of Public Administration Research and Theory* 19(4): 895–915.
- Moynihan, Donald P., Sanjay K. Pandey, and Bradley E. Wright. 2012. Setting the Table: How Transformational Leadership Fosters Performance Information Use. *Journal of Public Administration Research and Theory* 22(1): 143–64.
- Moynihan, Donald P., Sanjay K. Pandey, and Bradley E. Wright. 2014. “Transformational Leadership in the Public Sector: Empirical Evidence of its Effects”, in Dwivedi, Y. K., Shareef, M. A., Pandey, S. K. and Kumar, V. (eds). *Public Administration Reformation: Market Demand from public Organizations*, Routledge. 87–104.
- Napier, Barbara J., and Gerald R. Ferris. 1993. Distance in Organizations. *Human Resource*

Management Review 3(4): 321–57.

- Oberfield, Zachary M. 2014. Public Management in Time: A Longitudinal Examination of the Full Range of Leadership Theory. *Journal of Public Administration Research and Theory* 24(2): 407–29.
- Paarlberg, Laurie A., and Bob Lavigna. 2010. Transformational Leadership and Public Service Motivation: Driving Individual and Organizational Performance. *Public Administration Review* 70(5): 710–18.
- Pasha, Obed Q., Theodore H. Poister, Bradley E. Wright, and John C. Thomas. 2014. Cascading Effects of Transformational Leadership and their Impact on Mission Valence: A Validation Study of Intervening Mechanisms, *Academy of Management Proceedings*.
- Podsakoff, Philip M., Scott B. MacKenzie, Robert H. Moorman, and Richard Fetter. 1990. Transformational Leader Behaviors and their Effects on Followers' Trust in Leader, Satisfaction, and Organizational Citizenship Behaviors. *The Leadership Quarterly* 1(2): 107–42.
- Rainey, Hal G., and Paula Steinbauer. 1999. Galloping Elephants: Developing Elements of a Theory of Effective Government Organizations. *Journal of Public Administration Research and Theory* 9(1): 1–32.
- Russ, Gail S., Richard L. Daft, and Robert H. Lengel. 1990. Media Selection and Managerial Characteristics in Organizational Communications. *Management of Communication Quarterly* 4(2): 151–75.
- Shannon, Claude. E., and Warren Weaver. 1949. *A Mathematical Theory of Communication*. Urbana: University of Illinois Press
- Sheer, Vivian. C., and Ling Chen. 2004. Improving Media Richness Theory. A Study of Goals, Message Valence, and Task Complexity in Manager-Subordinate Communication.

- Management Communication Quarterly* 18(1): 76–93.
- Snyder, Robert. A. and Morris, James, H. Organizational Communication and Performance. *Journal of Applied Psychology*, 69(3): 461-465.
- Trottier, Tracey, Montgomery Van Wart, and XiaoHu Wang. 2008. Examining the Nature and Significance of Leadership in Government Organizations. *Public Administration Review* 68(2): 319–33.
- Vandenberg, Robert J., and Charles E. Lance. 2000. A Review and Synthesis of the Measurement Invariance Literature: Suggestions, Practices, and Recommendations for Organizational Research. *Organizational Research Methods* 3(1): 4–70.
- Van Knippenberg, Daan, and Sim B. Sitkin. 2013. A Critical Assessment of Charismatic—Transformational Leadership Research: Back to the Drawing Board? *The Academy of Management Annals* 7(1): 1–60.
- Van Loon, Nina M., Wouter Vandenaabeele, and Peter Leisink. 2017. Clarifying the Relationship Between Public Service Motivation and In-Role and Extra-Role Behaviors: The Relative Contributions of Person-Job and Person-Organization Fit. *The American Review of Public Administration* 47(6): 699–713.
- Van Wart, Montgomery. 2013. Lessons from Leadership Theory and the Contemporary Challenges of Leaders. *Public Administration Review* 73(4), 553-565.
- Vogel, Rick, and Doris Masal. 2015. Public Leadership: A Review of the Literature and Framework for Future Research. *Public Management Review* 17(8): 1165–89.
- Weick, Karl E. 1979. *The Social Psychology of Organizations*. Reading, MA: Addison-Wesley.
- Williams, Larry J., Robert J. Vandenberg, and Jeffrey R. Edwards. 2009. 12 Structural Equation Modeling in Management Research: A Guide for Improved Analysis. *The Academy of Management Annals* 3(1): 543–604.

- Woehr, David J., Andrew C. Loignon, Paul B. Schmidt, Misty L. Loughry, and Matthew W. Ohland. 2015. Justifying Aggregation with Consensus-Based Constructs: A Review and Examination of Cutoff Values for Common Aggregation Indices. *Organizational Research Methods* 18(4): 704–37.
- Wright, Bradley E., and Adam M. Grant. 2010. Unanswered Questions about Public Service Motivation: Designing Research to Address Key Issues of Emergence and Effects. *Public Administration Review* 70(5): 691–700.
- Wright, Bradley E., and Sanjay K. Pandey. 2011. Public Organizations and Mission Valence: When Does Mission Matter? *Administration & Society* 43(1): 22–44.
- Wright, Bradley E., Donald P. Moynihan, and Sanjay K. Pandey. 2012. Pulling the Levers: Transformational Leadership, Public Service Motivation, and Mission Valence. *Public Administration Review* 72(2): 206–15.
- Yukl, Gary. 1999. An Evaluation of Conceptual Weaknesses in Transformational and Charismatic Leadership Theories. *The Leadership Quarterly* 10(2): 285–305.
- . 2012. Effective leadership behavior: What we know and what questions need more attention. *The Academy of Management Perspectives* 26(4): 66-85.

Table A1 Descriptive Statistics for Cross-Sectional Variables

Variable	Description	Time	N	Mean	SD	Min	Max
Mission Valence	3-item summative index; see item wording in Table A4. 5-point Likert scale, cf. Table A4.	0	256	11.87	1.15	8	15
		1	256	12.06	1.10	7.50	14.50
Transformational Leadership	4-item summative index; see item wording in Table A4. 5-point Likert scale, cf. Table A4.	0	256	15.35	1.93	9.62	20
		1	256	15.71	1.88	9.36	20
<i>Communication Behavior</i>	7-point Likert scale, cf. Table 1.						
Face-to-Face Dialogue	1 item, cf. Table 1.	1	256	5.34	1.35	1	7
One Way Face-to-Face	1 item, cf. Table 1.	1	256	5.71	1.07	2	7
Written Dialogue	1 item, cf. Table 1.	1	256	4.01	1.63	1	7
One Way Written	1 item, cf. Table 1.	1	256	3.48	1.54	1	7
Organization Size	Number of employees.	0/1	256	33.35	33.27	5	304
Sector	1 = Public.	0/1	256	.832	.375	0	1
<i>Industry</i>							
Childcare	1 = Childcare	0/1	256	.402	.491	0	1
Schools	1 = Schools	0/1	256	.199	.400	0	1
High Schools	1 = High Schools	0/1	256	.078	.269	0	1
Tax	1 = Tax Units	0/1	256	.273	.447	0	1
Banks	1 = Bank Units	0/1	256	.047	.212	0	1
<i>Leadership Group</i>							
Transformational	1 = Transformational	0/1	256	.316	.466	0	1
Transactional	1 = Transactional	0/1	256	.348	.477	0	1
Combination	1 = Combination	0/1	256	.336	.473	0	1

Note.: Time denotes survey waves. 0 = 'August 2014', 1 = 'August 2015'. Time-invariant variables are marked '0/1'.

Table A2 Correlation Matrix for Wave 1 (2014)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Mission Valence	1														
2.TFL	.38 ***	1													
3.Face-to-Face Dialogue	.02	.11	1												
4.One Way Face-to-Face	.02	.17 **	.31 ***	1											
5.Written Dialogue	-.12	-.01	-.04	.08	1										
6.One Way Written	.21 ***	-.04	-.21 ***	-.20 **	.16 *	1									
7.Organization Size	.05	-.25 ***	-.12	-.22 ***	.07	.26 ***	1								
8. Public	-.07	-.10	-.07	-.04	.05	.05	.23 ***	1							
9.Childcare	.56 ***	.35 ***	.00	.03	-.11	.11	-.12	-.01	1						
10.School	.14 *	-.24 ***	-.08	-.03	.09	.14 *	.30 ***	-.12	-.41 ***	1					
11.High School	-.01	-.19 **	-.13 *	-.09	-.09	.13 *	.28 ***	.13 *	-.24 ***	-.15 *	1				
12.Tax	-.64 ***	-.09	.12	.07	.13 *	-.29 ***	-.25 ***	.28 ***	-.50 ***	-.31 ***	-.18 **	1			
13.Bank	-.21 ***	.10	.05	.02	-.08	-.07	-.12	-.49 ***	-.18 ***	-.11 *	-.06	-.14 *	1		
14.Group: TFL	-.04	-.06	-.04	-.12	.07	-.08	.07	-.12 *	.02	.04	-.07	-.08	.13 *	1	
15.Group: TAL	-.04	.01	-.02	.04	-.03	.02	-.03	.09	-.01	-.10	.09	.03	.03	-.50 ***	1
16.Group: CBT	.08	.05	.05	.07	-.03	.06	-.03	.03	-.01	.06	-.02	.05	-.16 *	-.48 ***	-.52 ***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Pearson's pairwise correlations. TFL = Transformational Leadership, TAL = Transactional Leadership, CBT = Combination.

Table A3 Correlation Matrix for Wave 2 (2015)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Mission Valence	1														
2.TFL	.34 ***	1													
3.Face-to-Face Dialogue	-.07	.17 **	1												
4.One Way Face-to-Face	.06	.19 **	.31 ***	1											
5.Written Dialogue	-.10	-.01	-.04	.08	1										
6.One Way Written	.13 *	-.11	-.21 ***	-.20 **	.16 *	1									
7.Organization Size	.03	-.20 **	-.13 *	-.22 ***	.07	.27 ***	1								
8. Public	.04	.01	-.07	-.04	.05	.05	.27 ***	1							
9.Childcare	.53 ***	.28 ***	.00	.00	-.11	.11	-.14 *	-.01	1						
10.School	.09	-.24 ***	-.08	-.03	.09	.14 *	.29 ***	-.12	-.41 ***	1					
11.High School	-.06	-.22 ***	-.13 *	-.09	-.09	.13 *	.33 ***	.13 *	-.24 ***	-.15 *	1				
12.Tax	-.45 ***	.06	.12	.07	.13 *	-.29 ***	-.24 ***	.28 ***	-.50 ***	-.31 ***	-.18 **	1			
13.Bank	-.38 ***	-.04	.05	.02	-.08	-.07	-.14 *	-.49 ***	-.18 **	-.11	-.06	-.14 *	1		
14.Group: TFL	-.03	-.17 **	-.04	-.12 *	.07	-.08	.04	-.12	.02	.04	-.07	-.08	.13 *	1	
15.Group: TAL	-.06	.00	-.02	.04	-.03	.02	-.01	.09	-.01	-.10	.09	.03	.03	-.50 ***	1
16.Group: CBT	.09	.17 **	.05	.07	-.03	.06	-.03	.03	-.01	.06	-.02	.05	-.16 *	-.48 ***	-.52 ***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Pearson's pairwise correlations. TFL = Transformational Leadership, TAL = Transactional Leadership, CBT = Combination.

Figure A1 Distributions of Change Scores

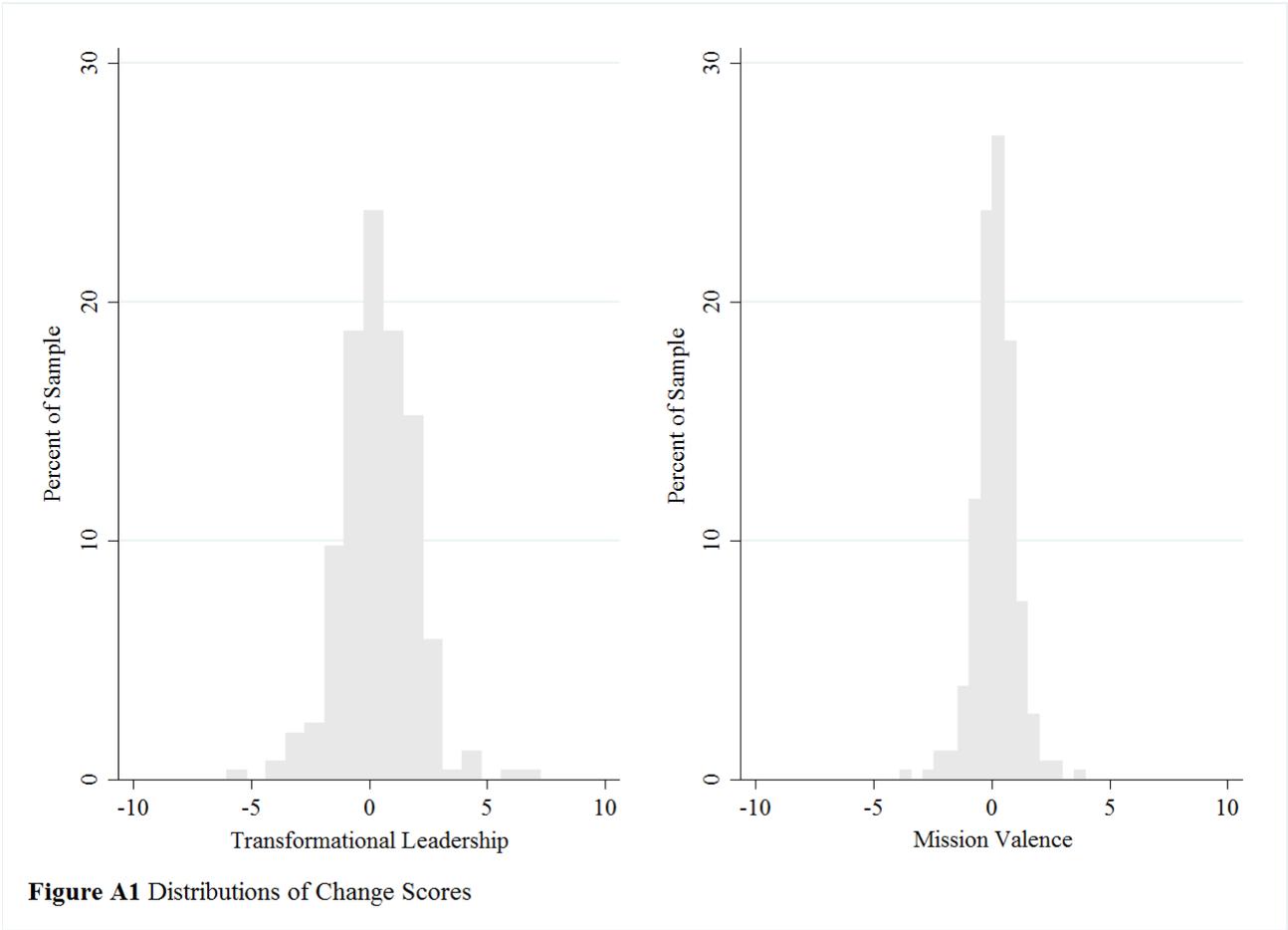


Figure A1 Distributions of Change Scores

Table A4 Questionnaire Items

Transformational leadership (Pretext: My leader ...):

- Concretizes a clear vision for the [organization's] future.
- Seeks to make employees accept common goals for the [organization].
- Strives to get the [organization's] employees to work together in the direction of the vision.
- Strives to clarify for the employees how they can contribute to achieving the [organization's] goals.

Mission valence:

- The vision of this organization is of personal importance to me.
- This organization provides valuable public service.
- I believe that the priorities of this organization are quite important.

Communication behavior: See table 1.

Note.: Response categories for items measuring transformational leadership and mission valence were given on a 5-point Likert scale, ranging from 'strongly disagree', over 'disagree', 'neither agree or disagree', 'agree' to 'strongly agree'.

Table 1 Typology of Media for Vision Communication: Degree of Richness-Leanness Explained by Theoretical Characteristics and Operational Indicators

	Oral (Face-to-Face) Communication	Written Communication
Two-Way Communication (Dialogue)	<p><u>Conceptual:</u></p> <p><u>Richest media</u></p> <p>High ability to provide:</p> <ul style="list-style-type: none"> • Multiple information cues • Instant feedback • Personalized communication <p><u>Operationalization:</u></p> <p><i>The internal communication of the goals/vision has to a large extent been face-to-face dialogue with the employees.</i></p> <p><u>Example:</u></p> <p><i>Performed in formal meetings with employee representatives; regular meetings with employees in minor teams; specific meetings where the employees were asked to share and discuss examples of behavior they had performed during the week which contributed to realizing the vision etc. as well as performed in informal meetings with fewer or one employee</i></p>	<p><u>Conceptual:</u></p> <p><u>Medium lean</u></p> <p>Some ability to provide feedback, but slower than dialogue, and hence restricted ability to personalize communication. No ability to communicate cues beyond the written word</p> <p><u>Operationalization:</u></p> <p><i>Other channels than face-to-face dialogue (e.g., intranet and white boards) play a central role in the dialogue on the goals/vision</i></p> <p><u>Example:</u></p> <p><i>Performed via the intra net where employees were able to provide comments to the changes caused by the new vision followed by leader responses; leader blogs</i></p>
One-Way Communication	<p><u>Conceptual:</u></p> <p><u>Medium rich</u></p> <p>High ability to provide multiple cues.</p>	<p><u>Conceptual:</u></p> <p><u>Leanest media</u></p> <p>No ability to provide feedback, and limited</p>

	<p>No ability to provide feedback and hence restricted ability to personalize communication</p> <p><u>Operationalization:</u></p> <p><i>My communication to the employees is to a large extent oral information when communicating the goals/vision (e.g. presentations at employee meetings).</i></p> <p><u>Example:</u></p> <p><i>Performed in formal meetings with employees often when the vision were presented to the employees e.g. at vision seminars etc.</i></p>	<p>ability to personalize communication. No ability to communicate cues beyond the written word</p> <p><u>Operationalization:</u></p> <p><i>My communication of the goals/vision has in particular been written information from me to the employees (e.g., news letters).</i></p> <p><u>Example:</u></p> <p><i>Performed through weekly newsletters to employees on the vision and the changes accompanying the vision; performed through ad hoc e-mail correspondence</i></p>
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Note.: Response categories were given on a 7-point Likert scale ranging from 'strongly disagree' over 'disagree', 'partially disagree', 'neither agree or disagree', 'agree', 'partially agree' to 'strongly agree'.

Table 2 Change in Transformational Leadership on Change in Mission Valence Moderated by Leader Communication Behavior. Organization-Level Analysis. Standardized Regression Coefficients.

	Model 2.1	Model 2.2	Model 2.3	Model 2.4	Model 2.5	Model 2.6	Model 2.7
Transformational Leadership (TFL) ^a	.329 *** (.082)	.281 ** (.082)	.285 *** (.078)	.278 ** (.082)	.292 *** (.076)	.278 ** (.085)	.290 *** (.076)
Communication Behavior: Face-to-Face Dialogue ^b			-.111 (.059)				-.136 * (.061)
TFL × Face-to-Face Dialogue			.184 ** (.070)				.175 * (.070)
Communication Behavior: One Way Face-to-Face ^b				.037 (.053)			.076 (.057)
TFL × One Way Face-to-Face				.023 (.069)			-.004 (.078)
Communication Behavior: Written Dialogue ^b					-.021 (.061)		-.051 (.062)
TFL × Written Dialogue					-.043 (.082)		-.037 (.087)
Communication Behavior: One Way Written ^b						-.035 (.068)	-.049 (.067)
TFL × One Way Written						-.087 (.086)	-.075 (.077)
Organization Size		.000 (.002)	.001 (.002)	.000 (.002)	.000 (.002)	.001 (.002)	.002 (.002)
Constant	.000 (.059)	-.681 * (.307)	-.657 * (.252)	-.696 * (.309)	-.680 * (.314)	-.681 * (.307)	-.678 ** (.252)
Covariates	NO	YES	YES	YES	YES	YES	YES
N (Organizations)	256	256	256	256	256	256	256
R ²	.109	.191	.242	.193	.194	.199	.256

Note: *** $p < .001$, ** $p < .01$, * $p < .05$. ^a Employee report. ^b Leader report. First-difference regression with standard errors clustered by organization (in parentheses). Two-wave balanced panel with observations at August 2014 and August 2015. Communication behavior measured in August 2015. Covariates include sector (childcare, school, high school, tax office, bank), a public/private indicator and two indicators for leadership training group (transformational as reference category; the other two groups being transactional leadership and a combination of transformational and transactional leadership).

Table 3 Change in Transformational Leadership on Change in Mission Valence Moderated by Leader Communication Behavior in Small (<30 Employees) and Large (30+ Employees) Organizations. Organization-Level Analysis. Standardized Regression Coefficients.

	Model 3.1	Model 3.2
Transformational Leadership (TFL) ^a	.268 ** (.077)	.323 ** (.099)
Communication Behavior: Face-to-Face Dialogue ^b	-.139 * (.061)	-.114 (.083)
TFL × Face-to-Face Dialogue	.189 ** (.068)	.304 ** (.099)
Organization Size	.002 (.002)	.245 (.159)
TFL × Face-to-Face Dialogue × Organization Size		-.331 ** (.119)
Constant	-.750 ** (.248)	-.636 ** (.230)
Covariates	YES	YES
N (Organizations)	256	256
R ²	.245	.271

Note: ** $p < .01$, * $p < .05$. ^a Employee report. ^b Leader report. First-difference regression with standard errors clustered by organization (in parentheses). Two-wave balanced panel with observations at August 2014 and August 2015. Communication behavior measured in August 2015. Covariates include sector (childcare, school, high school, tax office, bank), a public/private indicator and two indicators for leadership training group (transformational as reference category; the other two groups being transactional leadership and a combination of transformational and transactional leadership).

Figure 1 Marginal Effects of a Change in Transformational Leadership on a Change in Mission Valence for Different Values of Leaders' Use of Face-to-Face Dialogue in Communicating the Vision.

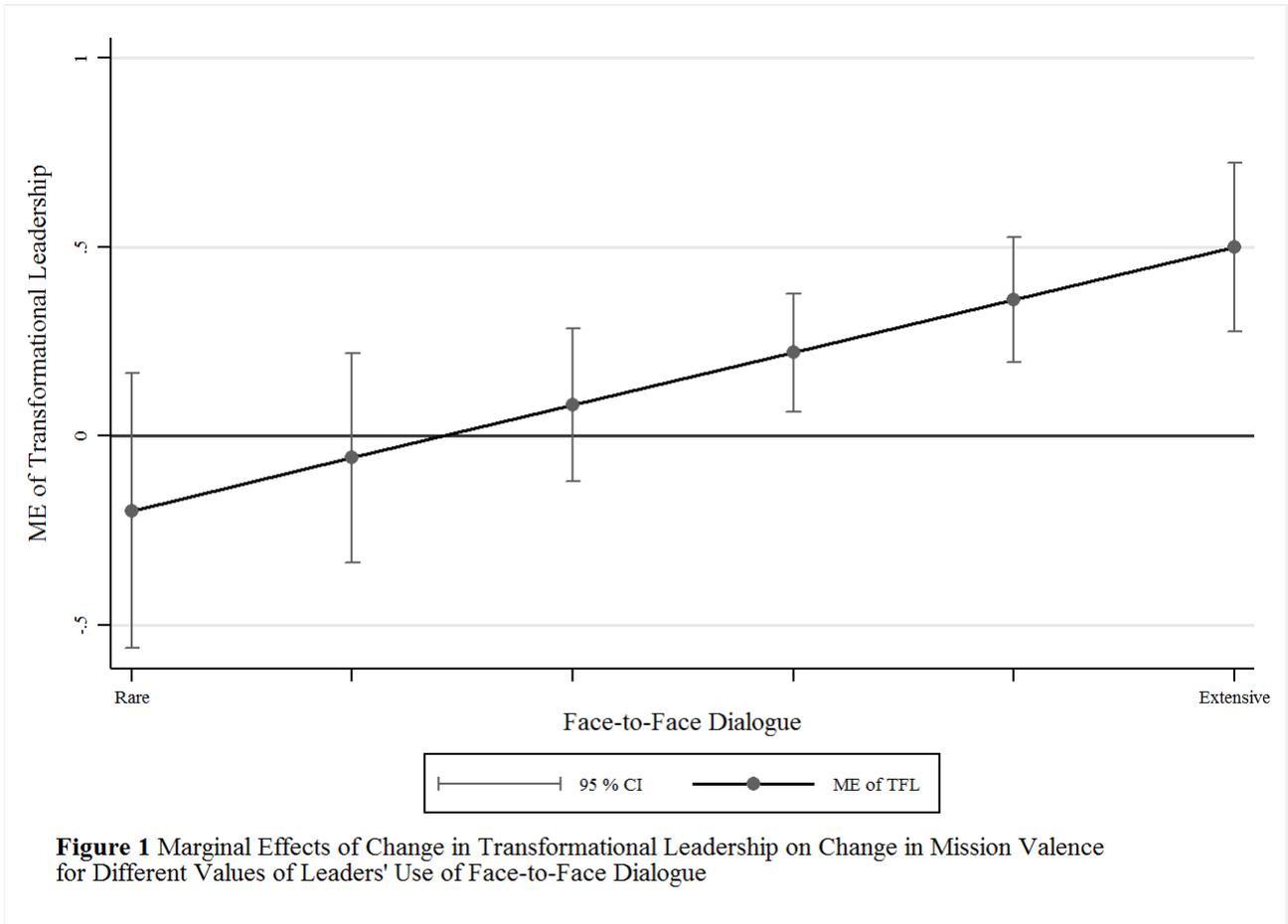


Figure 2 Marginal Effects of a Change in Transformational Leadership on a Change in Mission Valence for Different Values of Leaders' Use of Face-to-Face Dialogue in Small and Large Organizations.

