

Giving Sense about Paradoxes: Paradoxical Leadership in the Public Sector

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Sector

Abstract

Although paradoxes are inherent to the public sector, few attempts have been made to better understand how to manage such competing yet interrelated demands effectively. This study examines how paradoxical leadership (i.e., leaders' sense-giving about organizational paradoxes) affects follower outcomes. Based on two-wave survey data from German district offices, structural equation modelling reveals that paradoxical leadership positively influences followers' job satisfaction and work engagement. Role ambiguity fully mediates the relationship between paradoxical leadership and perceived performance. Our study expands the nomological network of public leadership and advances the notion that paradoxes bear potentials for leadership in ambiguous public settings.

Keywords: paradoxical leadership; public sector; job satisfaction; perceived performance; structural equation modelling

Introduction

The public sector is full of paradoxes. For example, public managers often face the challenge to initiate organizational change without affecting stability, to increase throughput times of administrative procedures without compromising reliability, to respond to citizens' demands individually without violating the principle of equal treatment, or to improve service quality without increasing costs. In many cases, such paradoxical tensions arise from the variety of organizational goals and the diversity of stakeholders in the public sector (Tripathi and Dixon 2008), which cannot all be served at the same time and without trade-offs. Additionally, several paradigms of administrative reform may be in conflict with each other because they put emphasis on different sets of goals, strategies, practices, and values (Hood and Peters 2004; Tripathi and Dixon 2008; Torfing et al. 2020). Since these reform paradigms do not simply succeed each other but co-exist in multiple layers (Polzer et al. 2017), they make several, potentially contradictory frames of reference available to public managers and employees (e.g., Hood and Peters 2004). This coincides with a broader trend towards more complexity, ambiguity, and volatility not only in the public sector but also in current society as a whole, which requires an improved management of paradoxes (e.g., Miron-Spektor et al. 2018).

Leaders at all levels of the hierarchy play a crucial role in managing organizational paradoxes. Leaders may give sense about paradoxes by encouraging followers to accept paradoxes as inevitable and by showcasing how to deal with them (e.g., Sparr 2018; Sparr, van Knippenberg, and Kearney 2015; Zhang et al. 2015). Previous research has therefore paid increasing attention to paradoxical leadership associated with a particular set of leadership behaviours (Smith and Lewis 2012; Waldman and Bowen 2016; Zhang et al. 2015). Paradoxical leadership has been defined as 'leader's sense-giving to followers about the necessity to execute contradictory yet interrelated behaviours to constructively deal with

paradoxes and tensions in their work environment' (Sparr, van Knippenberg, and Kearney 2015, 12). Related scholarship has suggested that leaders who are cognizant of organizational paradoxes are better able to apply a 'both/and' perspective and, in turn, are more effective in leading people in complex, ambiguous, and contradictory work environments than leaders who lack these abilities (Smith and Lewis 2012; Sparr, van Knippenberg, and Kearney 2015; Zhang et al. 2015). For instance, when employees are faced with conflicting demands, they often experience feelings of threat, insecurity and anxiety, resulting in defensive responses or in decisions to only focus on one side while neglecting the other (e.g., Schad et al. 2016; Smith and Lewis 2011). Leaders' sense-giving to followers can reduce these negative feelings and rebalance priorities at the workplace (e.g., Lüscher and Lewis 2008; Sparr 2018), thus improving employees' wellbeing and performance.

Although research in the field of paradoxical leadership is increasing (e.g., Lewis and Smith 2014; Schad et al. 2016) and scholars identified paradoxes to be particularly salient in public administration (Pandey 2010; Tripathi and Dixon 2008), little is known about paradoxical leadership in the public sector. To the best of our knowledge, Franken and colleagues (2020) have only recently pioneered this approach, providing first empirical evidence for beneficial outcomes of paradoxical leadership in public organizations. Our study joins this endeavour and further raises attention to paradoxical leadership as a promising approach to leadership in the public sector, which can guide followers through ambiguous and paradoxical work settings. We therefore address the following research questions: *How is paradoxical leadership related to follower outcomes? How do different kinds of ambiguity (i.e., goal and role ambiguity) mediate these relationships?* We focus on three follower outcomes that have been of major interest in public management scholarship and practice: job satisfaction (e.g., Cantarelli, Belardinelli, and Belle 2016), work engagement (e.g., Ancarani et al. 2020), and performance (e.g., Andersen, Heinesen, and Pedersen 2015). Our data was

gathered in a two-wave field study in district offices of a German city state with $n=1,290$ responses from public employees.

We contribute to the literature in several ways. First, we expand the nomological network of public leadership research by shedding light on the important yet hitherto largely neglected approach of paradoxical leadership. In the burgeoning literature on public leadership, several scholars have focused on those aspects of leadership that are particularly salient in public organizations (Murphy et al. 2017; Trong Tuan 2017). We continue this line of enquiry and focus on a leadership approach that accounts for the paradoxical environment that is characteristic of many public organizations. With this agenda, we also respond to calls for more research on novel and dynamic leadership approaches in the public sector (e.g., Crosby and Bryson 2018; Murphy et al. 2017). Second, we contribute to research on organizational paradoxes more broadly. Previous work in this field has only begun to explore how these paradoxes translate to the micro-level, how organizational members resolve them in their daily operations, and what roles leaders play in this process (e.g., Miron-Spektor et al. 2018). Furthermore, as one of the first to explore paradoxical leadership in the public sector (Franken, Plimmer, and Malinen 2020), we advance the understanding of organizational paradoxes in different work settings and on different levels of analysis. Third, our study informs human resource management (HRM) in the public sector about further antecedents of favourable attitudes and behaviours of employees. HRM has a lasting interest in work conditions that facilitate job satisfaction, work engagement, and individual performance, including the impact that leaders may have on these outcomes. The findings stress the important role of public leaders' sense-giving about paradoxes for keeping employees satisfied and engaged while performing in ambiguous work environments, thus establishing crucial conditions for public organizations' overall success. These results encourage HR

managers and public managers to rethink paradoxes as being inherently fruitful, rather than detrimental, to public organizations and organizing.

The remainder of this paper is structured as follows: In the second section, we develop our theoretical framework and derive our hypotheses from paradox theory in general and from research on paradoxical leadership in particular. In the third section, we present the data and methods we applied. In the fourth section, we provide the results of the structural equation modelling (SEM). In the fifth section, we discuss the implications of our findings for theory and practice and conclude with reflections on the limitations of our study and future research on paradoxical leadership.

Theory

Organizational Paradoxes and Paradoxical Leadership

Paradoxes are ‘contradictory yet interrelated elements that exist simultaneously and persist over time’ (Smith and Lewis 2011, 382). For example, organizations across all sectors are supposed to exploit the efficiency of established work processes and simultaneously explore new ways of working; however, exploration and exploitation, while competing for the same resources, have very different organizational requirements (Gieske, Duijn, and van Buuren 2020; Lewis and Smith 2014; Smith and Tushman 2005). In the face of such paradoxes, management and organization studies, especially scholarship in the tradition of contingency theory, has long suggested to resolve them by giving one element priority over the other (Lewis and Smith 2014). In contrast to that, a growing number of scholars has recently begun to look at organizational tensions through a paradoxical lens (Lewis and Smith 2014; Smith and Lewis 2011). This approach is no longer based on an ‘either/or’ mindset but switches to a ‘both/and’ perspective, addressing both sides of a paradox simultaneously. It suggests accepting that paradoxes are inherently and abundantly present in complex and ambiguous

systems and may be a source of opportunities for organizations rather than threats (Lewis and Smith 2014; Smith and Lewis 2011).

Using a paradoxical lens raises the question of how to manage organizational paradoxes effectively. While previous research has been preoccupied with issues of organizational strategies and structures, less is known about how actors at the micro-level cope with paradoxes and help to leverage on their potentials (Miron-Spektor et al. 2018). In particular, the role of leaders across all levels of the hierarchy is unclear although it is often this leadership role within which organizational paradoxes come to the fore (Waldman and Bowen 2016). Scholars have focused on particular leadership skills that promise to be effective in managing with and through paradoxes (Smith, Lewis, and Tushman 2016). For instance, ambidextrous leadership offers a framework for leadership skills that encourage followers to engage in both exploration and exploitation to improve existing products and to innovate at the same time, with leaders flexibly switching between two sets of behaviours depending on tasks and situational demands (Andriopoulos and Lewis 2009; Rosing, Frese, and Bausch 2011; Smith and Tushman 2005). Other leadership scholars have gone beyond the innovation paradox and developed broader approaches, which address various kinds of organizational paradoxes (Smith, Lewis, and Tushman 2016; Sparr, van Knippenberg, and Kearney 2015; Zhang et al. 2015). Common to these works is the assumption that although leaders often respond to ambiguous work environments by considering only one side of the paradox, this either/or strategy may only result in short-term success because the more resources leaders use to deal with only one side, the more they stress neglecting the other (e.g., Lüscher and Lewis 2008). For instance, the more leaders focus on the importance of employee empowerment through delegation, the more they evoke the need for control to guarantee effective task and goal attainment (Smith and Lewis 2011). To establish sustainability and organizational performance in the long term, leaders have to apply a

both/and approach, thus embracing paradoxes with their contradictory but interrelated nature (Lewis and Smith 2014). According to Lüscher and Lewis (2008), managers can learn to recognize organizational paradoxes, to accept them as persistent over time, and to address them with both/and strategies. Since followers might perceive such leadership behaviours as contradictory, it is the leaders' role to give sense about paradoxes and to be a role model for how to effectively deal with paradoxical workplace demands (Sparr 2018; Sparr, van Knippenberg, and Kearney 2015).

Some researchers have pioneered the conceptualization of paradoxical leadership behaviours (e.g., Sparr, van Knippenberg, and Kearney 2015; Zhang et al. 2015). Drawing upon paradox theory, Sparr and colleagues (2015) follow Smith and Lewis's (2011) categories of paradoxes and suggest four dimensions of paradoxical leadership to address particular forms of paradoxes: First, leaders have to deal with *performing paradoxes* resulting from stakeholder plurality and competing goals. To cope with these paradoxes, leaders have to show their followers how to focus on both the details of a certain task and the big picture. Second, *learning paradoxes* emerge from organizational changes, reforms, and the necessity to innovate for future continuity. To cope with these, leaders have to show their followers how to simultaneously use well-known approaches and to search for new solutions. Third, *organizing paradoxes* stem from the complexity and multiplicity of working processes and designs. Thus, leaders need to be a role model in keeping processes stable and allowing flexibility at the same time. Fourth, *belonging paradoxes* emerge from plurality and complexity, which creates role ambiguity and tensions between the individuals' and the organizations' identity. Leaders should therefore show their followers how to maintain their own values and simultaneously adopt cultural norms of the organization. Preliminary findings provide first evidence that paradoxical leadership, as conceptualized along these four

dimensions, is positively related to favourable outcomes at the level of followers (such as adaptation, proactivity, and work engagement; Sparr, van Knippenberg, and Kearney 2015).

Organizational Paradoxes and Paradoxical Leadership in the Public Sector

Although public organizations are a prime example of organizations that operate in a paradoxical environment, little research exists on organizational paradoxes in the public sector. Drawing on the theory of publicness (Rainey 2009), Pandey (2010) argues that paradoxes are inherently present in public organizations. The organizational goals and performance may even generate a ‘publicness paradox’ (Pandey 2010, 566): On the one hand, public organizations have to cope with vague, multiple, and conflicting goals because they face contradictory expectations of various stakeholders and have limited scope for goal setting. On the other hand, paradoxically, public organizations face criticism for not achieving their goals. Hood and Peters (2004) as well as Tripathi and Dixon (2008) argued that organizational paradoxes in the public sector become even more salient with administrative reforms, such as the ‘clash’ of new public management (NPM) with traditional public administration. For instance, citizens, policy-makers, and managers increasingly expect more results-oriented behaviours from public employees while bureaucracy still often discourages employees to show these behaviours. Wightman and colleagues (2020) extend the notion of paradox to collaborative settings, wherein participants source solutions to complex problems from a considerable variety of backgrounds. However, and at the same time, this diversity often inhibits effective collaboration and requires a balancing act between divergence and convergence.

In the burgeoning field of public leadership research, some scholars suggest that leadership in the public sector should account more for today’s competing, ambiguous, and vague work environments and shift to more dynamic approaches by applying a paradoxical or

ambidextrous lens (e.g., Murphy et al. 2017; Trong Tuan 2017). According to Tripathi and Dixon (2008), the ability to deal with paradoxes, ambiguity, and chance is crucial for public leaders to meet expectations and requirements of both political and administrative leadership. While this perspective requires acknowledging the paradoxes that are inherent in public leadership roles (Murphy et al. 2017), there is hardly any research on paradoxical leadership and its outcomes in public organizations. To the best of our knowledge, Franken and colleagues (2020) have only recently pioneered this research in a study among managers and employees of a large public organization in New Zealand. In focusing on a complex and diverse public setting, specifically public service delivery and involvement within crises, the authors demonstrate how paradoxical leadership fosters employee resilience, i.e., the individual capacity to deal with challenging and often changing organizational conditions (Franken, Plimmer, and Malinen 2020). We proceed along these lines of reasoning and suggest a conceptual model of follower outcomes of paradoxical leadership.

Paradoxical Leadership and Follower Outcomes

Both theory and first supporting evidence suggest that paradoxical leadership has beneficial outcomes for public sector organizations. Given that leadership is a process of influencing others (Yukl and Gardner 2020), these outcomes should be achieved through favourable attitudinal and behavioural responses of those who are influenced, i.e., the followers.

Followers will show these attitudes and behaviours in response to their subjective perceptions of leadership. Previous research has largely agreed that leadership is ‘in the eye of the beholder’ (Jacobsen and Bøgh Andersen 2015, 829) rather than an objective reality.

Accordingly, we examine how followers’ perceptions of paradoxical leadership are related to follower outcomes. Being confronted with organizational paradoxes often makes employees feel anxious, threatened, or uncertain and thus defensive in their behaviour (e.g., Schad et al.

2016; Smith and Lewis 2011). If employees feel that work demands are pulling into opposite directions, it is likely that they lose the meaning of their work as they do not provide satisfactory results. Respectively, the willingness to put effort into one's work diminishes and employees are less likely to yield desired outcomes. However, paradoxical leadership can buffer such negative responses to paradoxical tensions (e.g., Lewis and Smith 2014; Sparr 2018; Zhang et al. 2015). Paradoxical leaders guide their followers to make sense of paradoxes through explanations and role modelling of how to behave in addressing both sides of a paradox (e.g., Sparr, van Knippenberg, and Kearney 2015; Zhang et al. 2015). By offering approaches of how to cope with uncertainty and ambiguity, leaders can prevent employees' defensive behaviours and support them to regain their work's meaning. Consequently, paradoxical leaders might empower employees to show beneficial attitudes and behaviours.

Our focus is on three outcomes that have received considerable scholarly and practical attention in public management: job satisfaction (e.g., Cantarelli, Belardinelli, and Belle 2016), work engagement (e.g., Noesgaard and Hansen 2018), and individual performance (e.g., Andersen, Heinesen, and Pedersen 2015). We chose this focus because followers of effective leaders should be satisfied with their jobs, show high levels of work engagement, and achieve their expected goals (Yukl and Gardner 2020). *Job satisfaction*, 'an affective or emotional response toward various facets of one's job' (Kim 2004, 246), is among the most frequently studied attitudes of public employees (Cantarelli, Belardinelli, and Belle 2016). Satisfied employees feel positive about their jobs and perform better than their less satisfied colleagues. Previous research has established job satisfaction as an important correlate also of turnover intentions, with more satisfied employees less frequently considering outside options and being more committed to their public service careers (e.g., Cantarelli, Belardinelli, and Belle 2016; Griffeth, Hom, and Gaertner 2000). To deliver public services,

particularly within times of growing complexity and uncertainty, public managers should therefore be interested in attracting and retaining employees who are satisfied with their jobs (Cantarelli, Belardinelli, and Belle 2016). Leadership is among the facilitating conditions of job satisfaction in the public sector, as meta-analytical evidence shows (Cantarelli, Belardinelli, and Belle 2016). Previous studies have been preoccupied with the impact of transformational leadership on followers' job satisfaction (Asencio 2016; Park and Rainey 2008), but, so far, no prior work has investigated the association between paradoxical leadership and job satisfaction in the public sector. Given that public organizations offer a fruitful setting for paradoxical leadership because paradoxes are prevalent in the public sector, the positive outcomes of paradoxical leadership should also hold in this setting. In particular, public employees whose leaders support them in tolerating an ambiguous work environment and in accepting conflicting needs should better cope and be more satisfied with their jobs. We conclude:

H1: Paradoxical leadership is positively related to followers' job satisfaction.

Work engagement has recently received growing attention in public management research (Noesgaard and Hansen 2018). It is defined as 'a positive, fulfilling work-related state of mind that is characterized by vigor, dedication and absorption' (Schaufeli et al. 2002, 74). Engaged employees extensively use their resources, capacity, and energy to fulfil their work tasks and to contribute to organizational goals. However, work engagement is often difficult to establish in public organizations due to bureaucratic structures and rules, the primacy of politics, and competing demands from various stakeholders. Public managers should thus be interested in understanding how to counteract these detrimental conditions and improve employees' work engagement (Lavigna 2015; Noesgaard and Hansen 2018; Pritchard 2008).

A trustful relationship between leader and employee was identified to be an important predictor of work engagement in public health organizations (Håvold, Håvold, and Glavee-Geo 2020). Further, Ancarani and colleagues (2020), in a study among local government workers in Italy, have recently provided support for the crucial role of leaders for the enhancement of work engagement in public organizations. In particular, paradoxical leadership should have this impact because followers who are empowered to face a paradoxical work environment are likely to struggle less, and engage more, with their work than employees who lack this support from their leader. This assumption resonates with first empirical evidence on the positive impact of paradoxical leadership on work engagement in the private sector (Sparr, van Knippenberg, and Kearney 2015). Accordingly, our second hypothesis is:

H2: Paradoxical leadership is positively related to followers' work engagement.

We include *perceived performance* as an outcome of paradoxical leadership into our conceptual framework. Performance is a central construct in public administration research (Andersen, Heinesen, and Pedersen 2015). If public employees do not perform in their jobs, the overall performance of public organizations in the delivery of public goods and services is jeopardized. Leadership is an important antecedent of individual performance (Wang et al. 2011). For example, public leadership research has repeatedly shown that transformational leadership is positively related to follower performance (Bellé 2014; Paarlberg and Lavigna 2010). Parry and Proctor-Thomson (2002) suggest that this link particularly holds in face of changing demands and paradoxes in public work environments. Research in general leadership studies has examined paradoxical leadership more explicitly and found it to predict various performance outcomes at the individual and organizational level (Sparr, van

Knippenberg, and Kearney 2015; Zhang et al. 2015). This should also hold in public sector settings because public leaders guiding their followers in how to effectively behave in paradoxical work settings and thus preventing defensive work behaviours create conditions supporting followers to perform well. Thus, we arrive at our third hypothesis:

H3: Paradoxical leadership is positively related to followers' perceived performance.

The Mediating Role of Goal and Role Ambiguity

In addition to the hypothesized direct effects of paradoxical leadership on follower outcomes, this relationship may be mediated by hitherto unobserved mechanisms. We introduce two mediators, both of which reflect ambiguities in public organizations but at different levels. First, *organizational goal ambiguity* has long been discussed in public management scholarship (Jung 2011; Pandey 2010; Rainey and Jung 2015). As outlined above, public organizations have numerous goals addressing multiple stakeholder groups, which leads to lower levels of goal clarity than in private sector organizations. Second, *role ambiguity*, defined as a 'lack of clarity as to what is expected, appropriate, or effective behavior' (Harrison 1980, 32), occurs when employees are uncertain about the expected set of behaviours related to their workplace position (Jong 2016; Kahn et al. 1964). While goal ambiguity refers to the organizational level, role ambiguity resides at the level of the workplace.

Leadership can reduce organizational goal ambiguity (Rainey and Jung 2015). This association is likely to hold for paradoxical leadership because paradoxical leaders engage in sense-giving and sense-making about organizational goals (Sparr, van Knippenberg, and Kearney 2015; Zhang et al. 2015). Moreover, paradoxical leaders help followers to translate multiple and potentially conflicting goals into their work role. This effect occurs through role

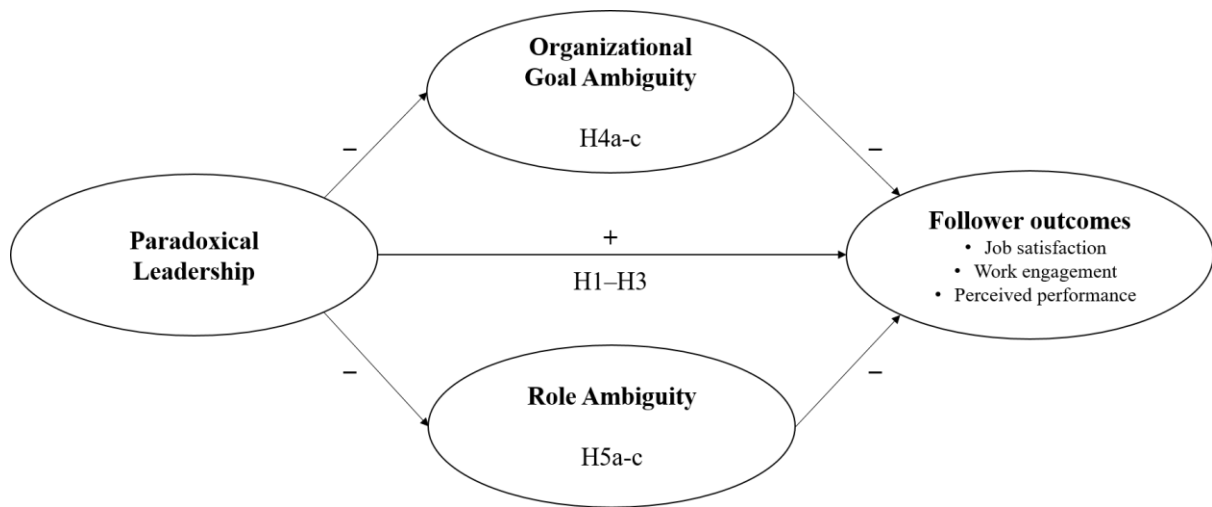
modelling by the role sender (i.e., leader) and communication of related expectations (Wright and Millesen 2008). As a consequence, followers will perceive higher levels of goal and role clarity because they learn to accept paradoxes as an inevitable work characteristic in the public sector, which may provide resources to their job rather than being a burden. We therefore assume that paradoxical leadership will reduce perceptions of goal and role ambiguity among followers. In turn, the less followers perceive goal and role ambiguity, the more favourable attitudes and behaviours they will show. For example, goal ambiguity has been found to be negatively related to job satisfaction (Chun and Rainey 2005; Jung 2014), motivation (Jung and Rainey 2011), and perceptions of performance (Chun and Rainey 2005; Jung 2011). Similarly, role ambiguity translates into lower levels of performance (e.g., Tubre and Collins 2000) and job satisfaction (Abramis 1994). Hence, we assume the following mediation hypothesis:

H4a-c: Organizational goal ambiguity partially mediates the relationship between paradoxical leadership and (a) job satisfaction, (b) work engagement, and (c) perceived performance.

H5a-c: Role ambiguity partially mediates the relationship between paradoxical leadership and (a) job satisfaction, (b) work engagement, and (c) perceived performance.

Figure 1 summarizes our conceptual model and hypotheses. We do not hypothesize which of the mediation paths is stronger but leave this issue open to empirical testing.

Figure 1. Conceptual Framework



Data and Method

Sample

To test our conceptual model, we used survey data from district offices of a German city state. District offices are governed by the city’s ministries and offer a broad range of administrative services to residents and businesses. Accordingly, interaction with and accountability to various interest groups figure high on the district offices’ agenda. Our definition of leadership was not restricted to the very top of the district offices but defined leaders in terms of supervisory power across all hierarchical levels. Data was collected by asking all members of the district offices to answer a two-wave, paper-based survey, with the first wave covering the period from October to November 2017 and the second wave from April to June 2018. The response rate was 31.0 per cent in the first wave ($n = 2,291$) and 22.6 per cent in the second wave ($n = 1,726$). We arrived at a final sample of 1,290 respondents, including only those participants who (1) took part in both waves and (2) did not change their position and/or (3) their supervisor between the two waves. Table 1 shows all sample characteristics.

Table 1. Sample characteristics (n = 1,290).^a

		n	%
Gender	Male	427	33.10%
	Female	840	65.12%
Age	≤ 25	29	2.25%
	26-35	235	18.22%
	36-45	248	19.22%
	46-55	431	33.41%
	> 55	343	26.59%
Tenure	< 5 years	427	33.10%
	5-<10 years	237	18.37%
	10-<15 years	149	11.55%
	15-<20 years	65	5.04%
	20-<25 years	74	5.81%
	25-<30 years	141	10.93%
	≥ 30 years	183	14.18%
Leadership position	Subordinate	989	76.67%
	Supervisor	216	16.74%
Duration of leadership relation	< 6 months	40	3.10%
	6-<12 months	133	10.31%
	1-<3 years	485	37.60%
	3-<5 years	218	16.90%
	≥ 5 years	411	31.86%
Pay group	E1-E4 resp. A2-A4 (lower service)	9	0.70%
	E5-E8 resp. A5-A9 (intermediate service)	340	26.36%
	E9-E12 resp. A9-A13 (upper intermediate service)	781	60.54%
	E13-E15 resp. A13-A16 (higher service)	137	10.62%
	B1-B11/non-tariff (top management)	13	1.01%

Note. ^a Categories might not add to 100 % due to missing data.

Measures

Table 2 gives an overview of the measurements of the constructs included in our theoretical model. Appendix A provides a complete list of all items in English and German.

Unfortunately, not all constructs were measured in both waves, as data collection took place in the context of a larger research project. In particular, the measure of work engagement is available only from wave 1, while paradoxical leadership was measured in wave 2. This violates the recommended order of measuring independent variables prior to the outcome variables (Podsakoff et al. 2003). However, apart from systematic fluctuations within a

person (Sonnentag, Dormann, and Demerouti 2010) and situational influences (Bowling et al. 2005), work-related attitudes tend to be relatively stable over time if there is no job change (see Mauno, Kinnunen, and Ruokolainen 2007 for work engagement and Dormann and Zapf 2001 for job satisfaction). This construct stability is supported by high correlations of our other outcomes across the two waves ($r_{\text{satisfaction_wave1, satisfaction_wave2}} = .89$; $r_{\text{performance_wave1, performance_wave2}} = .78$).

Except for paradoxical leadership, all constructs have repeatedly been applied in public management research. The paradoxical leadership scale (Sparr, van Knippenberg, and Kearney 2015) is based on Smith and Lewis' (2011) four-dimensional categorization of organizational tensions (i.e., performing, learning, organizing and belonging). Accordingly, the scale defines paradoxical leadership as a second-order construct with four subdimensions. As outlined in the theoretical framework, we focused on followers' perceptions of their supervisors' paradoxical leadership behaviour. Reliability analysis based on Cronbach's Alpha showed excellent reliability for the total scale (.95) as well as for the four subdimensions (.85–.91). We conducted confirmatory factor analysis (CFA) to examine whether the theoretically assumed factor model fits our data. Indeed, indices confirm that the second-order factor model with four first-order factors is the model that fits our data best (RMSEA = .054; SMRA = .016; CFI = .990; TLI = .985; Appendix B1). All factor loadings within this model were above .8 (Appendix B2).

Apart from the constructs in our conceptual model, we collected some demographical data for control purposes. We used respondents' *age*, *gender*, *tenure*, *pay group*, *team size*, and the duration of the leadership relation (*leadership duration*) as control variables. These variables were dummy-coded, except the continuous variable team size.

Table 2. Measurements

Construct	Source	Sample Item	Response	Wave
Perceived Performance	Sparrowe et al. (2001)	“Please rate your work performance with regard to the following aspects: Quality of work [...]”	1 = “inadequate” to 5 = “very good”	1, 2
Job Satisfaction	Tsui et al. (1992)	“How satisfied are you with the nature of the work you perform?”	1 = “not satisfied at all” to 5 = “very satisfied”	1, 2
Organizational Goal Ambiguity	Pandey and Wright (2006)	“This organization has clearly defined goals.”	1 = “totally disagree” to 5 = “totally agree”	1, 2
Paradoxical Leadership	Sparr et al. (2015)	“My direct leader shows me why it is important to simultaneously keep processes stable AND allow flexibility.”	1 = “totally disagree” to 5 = “totally agree”	2
Role Ambiguity	Pandey and Wright (2006); Rizzo et al. (1970)	“I know exactly what is expected of me.”	1 = “totally disagree” to 5 = “totally agree”	1, 2
Work Engagement	Sautier et al. (2015); Schaufeli et al. (2002)	“I am enthusiastic about my job.”	1 = “totally disagree” to 5 = “totally agree”	1

Statistical Analysis

We applied structural equation modelling (SEM) with maximum likelihood (ML) estimator. SEM allows to analyse relationships between latent constructs and to consider measurement errors in observed variables (Kline 2010; Reineke 2005). Since the sampling distribution of indirect effects is assumed not to be normally distributed (Bollen and Stine 1990), we applied bootstrapping with 1000 replications to calculate bias-corrected confidence intervals. Our theoretical framework predicts such indirect effects of paradoxical leadership on follower outcomes through organizational goal ambiguity and role ambiguity. All analyses were run using Mplus software version 7.4 (Muthén and Muthén 2012).

Our data has a nested structure because followers cluster in teams led by the same supervisors. Therefore, we considered hierarchical, or multilevel, modelling. However, the

average cluster size (i.e., number of team members) in our sample is 2.48. This is below the threshold of at least 3 level-1 observations in each cluster, which is commonly assumed as a requirement for multilevel analyses. Furthermore, we calculated intraclass correlation coefficients (ICC), measuring the amount of variance explained by team membership, and found it for all three outcome variables to be below 10 % ($ICC_{\text{Engagement}} = .06$; $ICC_{\text{Satisfaction}} = .09$; $ICC_{\text{Performance}} = .00$). According to Lee (2000), nestedness of data can be neglected if the between-variance is below this threshold. We therefore proceeded with a single-level analysis.

We were cognizant of common method bias (CMB; Meier and O'Toole 2013), as our data was collected from the same sources (i.e., followers) who reported on perceptual measures in questionnaires. Although there is some debate on how seriously the use of self-reported instruments in survey designs inflates the results (George and Pandey 2017), we applied the best practice recommendations by Podsakoff and colleagues (2003) to prevent CMB as far as possible. In particular, we used all procedural remedies related to the design and implementation of the questionnaire (e.g., protecting respondent anonymity and giving clear and concise instructions). We also re-estimate some of the models with a temporal separation between predictor and criterion variables as a robustness check.

Results

Table 3 shows descriptive statistics as well as reliability and validity of our constructs. All variables showed excellent Cronbach's Alpha values as well as composite reliability values above the recommended threshold ($> .7$). To test discriminant validity of our constructs, we applied the Fornell-Larcker criterion. Given lower correlations between our latent constructs than the root of the AVE, we concluded this criterion to be met. An exception presents the correlation between paradoxical leadership and job satisfaction.

Table 3. Descriptive statistics, reliability and validity analyses

Construct	Descriptives		Reliability and convergent validity			Discriminant validity: Fornell-Larcker criterion						
	Mean	SD	α	CR	AVE	1	2	3	4	5	6	
1 Perceived Performance	4.150	.481	.79	.84	.473	.688						
2 Job Satisfaction	3.346	.655	.71	.78	.429	.263	.655					
3 Goal Ambiguity	2.735	.860	.80	.86	.672	-.177	-.359	.820				
4 Role Ambiguity	2.078	.814	.76	.84	.639	-.337	-.456	.465	.800			
5 Paradoxical Leadership	3.224	.964	.95	.96	.672	.177	.863	-.270	-.385	.820		
6 Work Engagement	3.546	.675	.91	.93	.598	.370	.454	-.293	-.253	.271	.773	

Note. SD = Standard Deviation; α = Cronbach's Alpha; CR = Composite Reliability; Root of AVEs are presented on the main diagonal of the correlation matrix. Apart from work engagement all presented variables were measured in wave 2.

Figure 2 displays the results of SEM for three follower outcomes (i.e., job satisfaction, work engagement, and perceived performance) with standardized regression path coefficients for all direct effects and the explained variance of the dependent latent variables. For each model, indices showed satisfactory model fit (RMSEA < 0.08, CFI > 0.86, TLI > 0.84, SRMR < 0.06). Appendix B3 lists the full models.

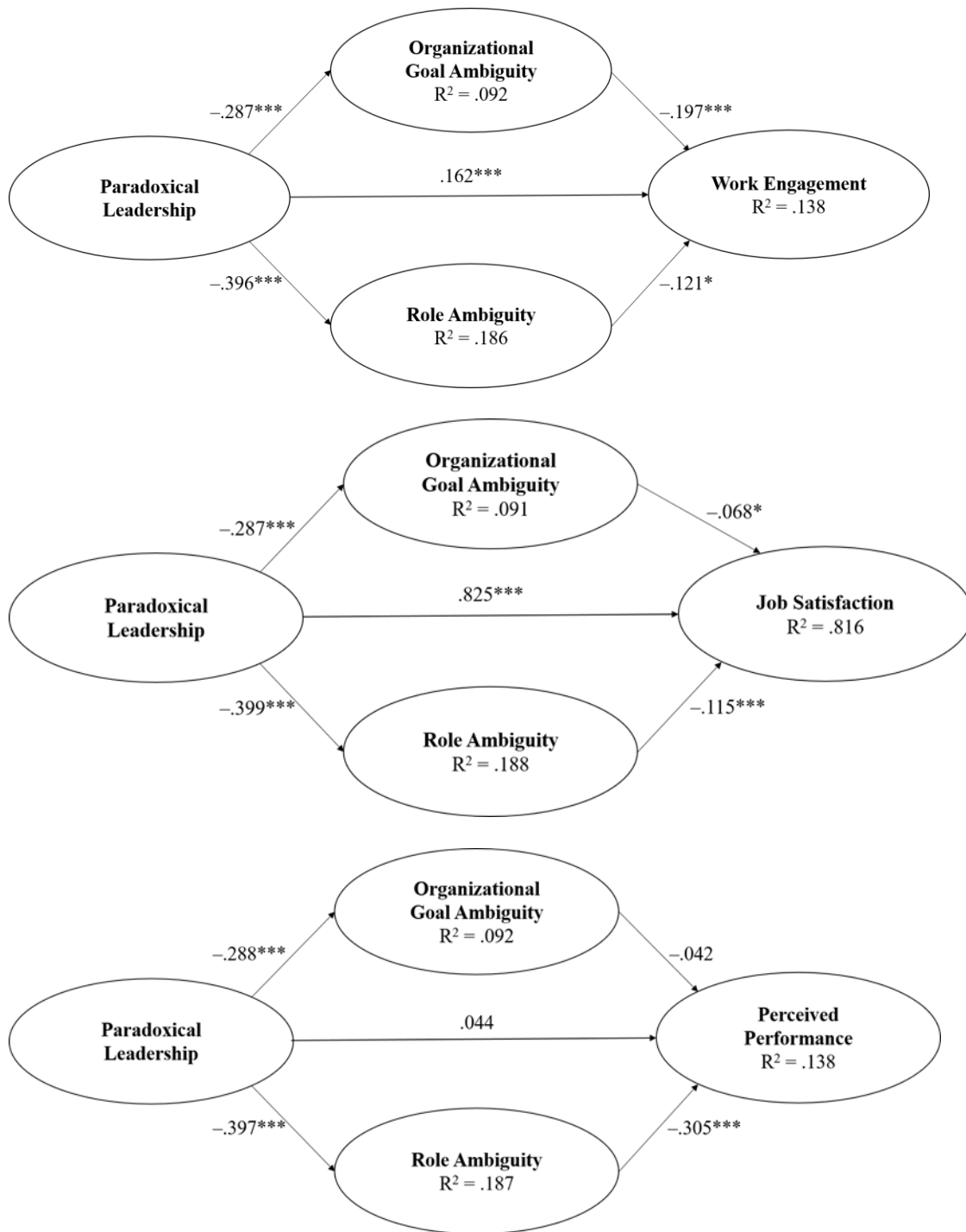


Figure 2. Results of structural equation modelling. Model I: Job satisfaction (measured in wave 2) with standardized regression coefficients. Model II: Work engagement with standardized regression coefficients (measured in wave 1). Model III: Perceived performance (measured in wave 2) with standardized regression coefficients.

*** $p < .001$, ** $p < .01$, * $p < .05$.

Hypothesis 1 predicts that paradoxical leadership is positively related to job satisfaction. The results confirm this hypothesis, as the path coefficient is indeed positive and significant (Model I; $\beta = .825, p < .001$). Hypothesis 2 suggests that there is a positive relationship between paradox leadership and work engagement. The findings provide support for this assumption (Model II; $\beta = .162, p < .001$). Hypothesis 3 states that paradoxical leadership will also be positively associated with perceived performance. We reject this hypothesis because findings do not lend support (Model III; $\beta = .044, p = .270$). Accordingly, we have to reject Hypothesis 4c and Hypothesis 5c, too, as they suggest only partial mediations between paradoxical leadership and perceived performance through organizational goal ambiguity and role ambiguity.

Regarding the hypothesized mediations (Hypotheses 4a-c and 5a-c), all models indicate negative and significant direct effects of paradoxical leadership on the mediators (i.e., organizational goal ambiguity and role ambiguity; $p < .001$). Role ambiguity is negatively related ($p < .05$) to job satisfaction (Model I), work engagement (Model II), and perceived performance (Model III). This also applies to the associations between organizational goal ambiguity and work engagement ($p < .001$) and between organizational goal ambiguity and job satisfaction ($p < .05$). To test the hypotheses, Table 4 shows the indirect effects of the mediation paths along with bias-corrected bootstrap confidence intervals. Given that all specific indirect effects are significant for Models I (job satisfaction) and II (work engagement), we can confirm Hypotheses 4a and 4b as well as Hypotheses 5a and 5b. For perceived performance, the results do not suggest any mediation through organizational goal ambiguity, as the indirect effect is statistically not significant. However, results corroborate a full mediation through role ambiguity.

In all models, we controlled for respondents' age, gender, tenure, pay group, the size of their team, and the duration of their leadership relation (see Appendix C for the estimated

path coefficients). Team size is significantly linked to job satisfaction and perceived performance, such that members of larger teams show lower ratings on these outcome variables. The longer employees have worked in their district offices, the lower are their ratings on all three outcomes. Gender is related to perceived performance, with women reporting higher performance ratings. The higher the employees' pay group, the higher are their ratings on job satisfaction. Age is positively related to organizational goal ambiguity, such that the older the respondents the less intense the perception of organizational goal ambiguity. The longer followers have worked together with their supervisors (i.e., leadership duration) and the longer their tenure in general, the lower are their role ambiguity ratings.

Table 4. Standardized indirect effects

Path	Estimate	Bias-corrected bootstrap interval	
		2.5%	97.5%
<i>DV: Job satisfaction^a</i>			
PL ^c → Goal Ambiguity → Job Satisfaction ^d	.020	.003	.039
PL ^c → Role Ambiguity → Job Satisfaction ^d	.046	.027	.070
PL ^c → Job Satisfaction ^e	.065	.042	.100
<i>DV: Work engagement^b</i>			
PL ^c → Goal Ambiguity → Work Engagement ^d	.057	.029	.089
PL ^c → Role Ambiguity → Work Engagement ^d	.048	.009	.087
PL ^c → Work Engagement ^e	.105	.066	.148
<i>DV: Perceived performance^a</i>			
PL ^c → Goal Ambiguity → Perceived Performance ^d	.012	-.008	.033
PL ^c → Role Ambiguity → Perceived Performance ^d	.121	.084	.166
PL ^c → Perceived Performance ^e	.133	.093	.177

Notes. ^a DV measured in wave 2; ^b DV measured in wave 1. ^c paradoxical leadership; ^d specific indirect effect; ^e sum of indirect effects.

As robustness check, we re-estimated the models with temporal separation between predictors and outcomes, conditional on the availability of this data. This was the case for Models I (job satisfaction) and III (perceived performance). Path coefficients and explained variances were slightly lower than in the models with all data collected in the same wave (see Appendix D). However, the same patterns emerged from these analyses, and we would have arrived at the same results of hypotheses testing. We are thus confident that we present robust results, the limitations of this robustness check notwithstanding.

Discussion and Conclusion

Although the public sector is an arena full of paradoxes, little is known about how public employees cope with such contradictory but interrelated elements in organizational life. We join scholarly endeavours to highlight and examine the role of leadership in the management of organizational paradoxes (Sparr, van Knippenberg, and Kearney 2015; Zhang et al. 2015). The public management literature has only recently paid attention to paradoxical leadership (Franken, Plimmer, and Malinen 2020), in spite of repeated calls to engage more with this approach (Murphy et al. 2017; Tripathi and Dixon 2008). We respond to these calls and investigate how paradoxical leadership is related to three follower outcomes that are frequently studied in public management research (i.e., job satisfaction, work engagement, and perceived performance), and how these relationships are mediated by organizational goal ambiguity and role ambiguity (Pandey 2010; Rainey and Jung 2015). Our findings contribute to the literature in different ways.

Most importantly, we expand the nomological network of public leadership. Leadership scholars in the field of public management have paid increasing attention to aspects of leadership that have particular relevance to the public sector (Fernandez, Cho, and Perry 2010; Tummers and Knies 2016; Vogel and Masal 2015). Arguably, this applies to

paradoxical leadership because the public sector inherently gives rise to paradoxes. Our results confirm that paradoxical leadership is both a valid and relevant construct in the public sector. The findings establish strong and positive relationships between paradoxical leadership and both job satisfaction and work engagement of public employees. Regarding job satisfaction, our study joins the plethora of research on the paramount role of leadership for a satisfied workforce in the public sector (Cantarelli, Belardinelli, and Belle 2016). In contrast, work engagement has been less frequently researched in the public sector. Our results are consistent with findings from private sector contexts (Sparr, van Knippenberg, and Kearney 2015) and support previous evidence that leaders in middle management positions play an important role in fostering work engagement in public organizations (Ancarani et al. 2020).

Mediation analyses demonstrate that besides direct effects of paradoxical leadership on job satisfaction and work engagement, there are significant indirect effects through organizational goal ambiguity and role ambiguity. This finding is noteworthy because scholarship in public management has repeatedly demonstrated that goal and role ambiguity are negatively associated with follower outcomes in the public sector (e.g., Chun 2005; Chun and Rainey 2005; Jung 2014). Our study echoes these findings and shows that paradoxical leadership buffers such negative effects by increasing goal and role clarity. This supports the assumption that leadership in the public sector has the potential to reduce ambiguity at the workplace (Rainey and Jung 2015).

Our results for perceived performance show a somewhat different pattern. In contrast to job satisfaction and work engagement, we find no association of paradoxical leadership with perceived performance, which is not in line with empirical evidence from private settings (Sparr et al., 2015; Zhang et al., 2015). A possible explanation is that performance in the public sector is a multifaceted construct, which is less easy to define and to reflect upon

than performance in the private sector (Andersen, Boesen, and Pedersen 2016). This might be a particular problem when performance is measured with self-reported constructs, which we did in this study. Another explanation is that reflective and affective outcomes might be more responsive to the sense-giving about paradoxes by leaders, a core aspect of paradoxical leadership (Sparr, van Knippenberg, and Kearney 2015). A reflective and affective character applies to job satisfaction and work engagement more than to performance, which corresponds more to a behavioural, results-based construct. We do find, however, a full mediation of paradoxical leadership and perceived performance through role ambiguity. This suggests that the clarity of work roles is more important for public employees to perform well than the clarity of organizational goals, which are more distant to the workplace.

Our study also expands on the variety of paradox research by focusing on an underresearched context (i.e., the public sector) and by shifting attention to the micro-level of managing organizational paradoxes (i.e., leadership). While there is plenty of research on the occurrence and significance of different kinds of organizational paradoxes, both in private and public organizations, the focus on how to accept, deal with, and resolve them in daily work routines has received less attention (e.g., Miron-Spektor et al., 2018). Our study supports the view that leaders play a key role in the management of paradoxes (Rosing, Frese, and Bausch 2011; Sparr, van Knippenberg, and Kearney 2015; Zhang et al. 2015). We advance this view by demonstrating that paradoxical leadership does not only matter on the senior management level (Smith 2014), but across all levels of the hierarchy. Moreover, our study shows that paradoxical leadership is significant not only in private settings, but also – and probably even more – in the public sector (Franken, Plimmer, and Malinen 2020). However, our deviant findings on the association with perceived performance suggest that the effects of paradoxical leadership cannot be fully generalized across different contexts and that more research in this field is needed.

Finally, we contribute to both research and practice of HRM in the public sector. Among the central goals of HRM is the attraction and retention of employees, which requires working conditions that will keep them satisfied, engaged, and motivated to perform well. HR managers in the public sector should play an important role to establish such work conditions. Our results echo claims for management approaches that specifically address the ambiguous working conditions of the public sector (e.g., Franken et al., 2020; Murphy et al., 2017). Given that paradoxical leadership addresses these calls, HR managers in the public sector should adapt recruitment policies and training programmes accordingly, such that leaders applying both/and strategies are selected into public sector careers and those with less experiences in dealing with paradoxes are developed along their careers. For example, leadership development should raise awareness for organizational paradoxes and provide best practice examples of how to cope with them. This will be most successful in organizational cultures that accept paradoxes as inevitable and fruitful elements of public organizations, rather than as barriers. Additionally, we contribute to public managers' everyday practice by identifying a prospective leadership approach for effectively leading followers within paradoxical public environments. We invite leaders to reflect upon the inevitable presence of public paradoxes and upon fruitful ways of coping with and flourishing through them. Leaders should use their scope to give sense to their followers about these paradoxes and to make them understand that this change of perspective entails opportunities. Through this process of influencing, followers feel supported and guided through uncertain and ambiguous work place conditions, and are thus more likely to show beneficial motivational and behavioural responses.

Limitations and Future Research Directions

As any research, our study is not without limitations. First, we acknowledge some limitations arising from our methods. Although we prevented CMB to the largest possible extent, we cannot fully exclude this issue because we used self-reported measures. Further, as noted above, the results for one outcome variable (i.e., work engagement) should be interpreted with caution because the survey design did not allow us to measure the main predictor variable prior to the outcome. Future research could collect data from multiple sources and at multiple times or apply research designs that allow for stronger causal inference.

Second, there are possible theoretical limitations. We focused on the three follower outcomes that are of major interest in public management research, but paradoxical leadership might also have an impact on other important outcomes. Future research could thus expand the conceptual framework, for example by public service motivation, turnover intentions, or other measures of individual, team, and organizational performance. The same applies to the mediators in our framework. We focused on the mediating effects of goal and role ambiguity, but it might be interesting to include other mediators as well as moderators. For example, leadership experience and job characteristics might have an impact on how effective paradoxical leadership is in the public sector.

Third, we acknowledge empirical limitations that emerge from our focus on a specific country setting (i.e., Germany). Paradoxes might be particularly salient in the German public sector because new reform paradigms, such as NPM or NPG, clash with the rigid tradition of Weberian bureaucracy. At the same time, paradoxical leadership might clash with the German rule-of-law culture with its strong preference for unambiguity and precision. Both these aspects might raise issues of external validity. Future research should thus replicate research on paradoxical leadership in other public contexts and examine both the salience of paradoxical leadership and its effects on follower outcomes in other administrative cultures.

Concluding Remarks

Despite these limitations, this study contributes to public management research by exploring the new research field of paradoxical leadership in public organizations (Franken, Plimmer, and Malinen 2020). The results encourage public leaders to give sense to their followers as to why to execute seemingly competing yet interrelated behaviours. Thereby, our study paves the way for more dynamic public leadership approaches that account for the challenges of leading and working in the public sector. Both scholars and practitioners in public management should have an interest in how paradoxical leadership can reduce ambiguity in public organizations and, in turn, yield beneficial follower outcomes. A deeper understanding of paradoxical leadership will help public organizations to benefit from the fruitful potential of leading and working with and through paradoxes.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

- Abramis, David J. 1994. "Work Role Ambiguity, Job Satisfaction, and Job Performance: Meta-Analyses and Review." *Psychological Reports* 75 (3_suppl): 1411–33. doi:10.2466/pr0.1994.75.3f.1411.
- Ancarani, Alessandro, Francesco Arcidiacono, Carmela Di Mauro, and Maria D. Giammanco. 2020. "Promoting Work Engagement in Public Administrations: The Role of Middle Managers' Leadership." *Public Management Review* 1–30. doi:10.1080/14719037.2020.1763072.
- Andersen, Lotte B., Andreas Boesen, and Lene H. Pedersen. 2016. "Performance in Public Organizations: Clarifying the Conceptual Space." *Public Administration Review* 76 (6): 852–62. doi:10.1111/puar.12578.
- Andersen, Lotte B., Eskil Heinesen, and Lene H. Pedersen. 2015. "Individual Performance: From Common Source Bias to Institutionalized Assessment." *Journal of Public Administration Research and Theory* 26 (1): 63-78. doi:10.1093/jopart/muv010.
- Andriopoulos, Constantine, and Marianne W. Lewis. 2009. "Exploitation-Exploration Tensions and Organizational Ambidexterity: Managing Paradoxes of Innovation." *ORGANIZATION SCIENCE* 20 (4): 696–717. doi:10.1287/orsc.1080.0406.
- Asencio, Hugo. 2016. "Leadership, Trust, and Job Satisfaction in the Public Sector: A Study of US Federal Employees." *International Review of Public Administration* 21 (3): 250–67. doi:10.1080/12294659.2016.1237342.
- 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. doi:10.1093/jopart/mut033.
- Bollen, Kenneth A., and Robert Stine. 1990. "Direct and Indirect Effects: Classical and Bootstrap Estimates of Variability." *Sociological Methodology* 20: 115–40.
- Bowling, Nathan A., Terry A. Beehr, Stephen H. Wagner, and Terry M. Libkuman. 2005. "Adaptation-Level Theory, Opponent Process Theory, and Dispositions: An Integrated Approach to the Stability of Job Satisfaction." *The Journal of Applied Psychology* 90 (6): 1044–53. doi:10.1037/0021-9010.90.6.1044.
- Cantarelli, Paola, Paolo Belardinelli, and Nicola Bellé. 2016. "A Meta-Analysis of Job Satisfaction Correlates in the Public Administration Literature." *Review of Public Personnel Administration* 36 (2): 115–44. doi:10.1177/0734371X15578534.
- Chun, Y. H. 2005. "Goal Ambiguity and Organizational Performance in U.S. Federal Agencies." *Journal of Public Administration Research and Theory* 15 (4): 529–57. doi:10.1093/jopart/mui030.
- Chun, Y. H., and Hal G. Rainey. 2005. "Goal Ambiguity and Organizational Performance in U.S. Federal Agencies." *Journal of Public Administration Research and Theory* 15 (4): 529–57. doi:10.1093/jopart/mui030.

- Crosby, Barbara C., and John M. Bryson. 2018. "Why Leadership of Public Leadership Research Matters: And What to Do About It." *Public Management Review* 20 (9): 1265–86. doi:10.1080/14719037.2017.1348731.
- Dormann, Christian, and Dieter Zapf. 2001. "Job Satisfaction: A Meta-analysis of Stabilities." *Journal of Organizational Behavior* 22: 483–504.
- Fernandez, Sergio, Yoon J. Cho, and James L. Perry. 2010. "Exploring the Link Between Integrated Leadership and Public Sector Performance." *The Leadership Quarterly* 21 (2): 308–23. doi:10.1016/j.leaqua.2010.01.009.
- Franken, Esme, Geoff Plimmer, and Sanna Malinen. 2020. "Paradoxical Leadership in Public Sector Organisations: Its Role in Fostering Employee Resilience." *Australian Journal of Public Administration* 79 (1): 93–110. doi:10.1111/1467-8500.12396.
- George, Bert, and Sanjay K. Pandey. 2017. "We Know the Yin-but Where Is the Yang? Toward a Balanced Approach on Common Source Bias in Public Administration Scholarship." *Review of Public Personnel Administration*, 37 (2): 245–70. doi:10.1177/0734371X17698189.
- Gieske, Hanneke, Michael Duijn, and Arwin van Buuren. 2020. "Ambidextrous Practices in Public Service Organizations: Innovation and Optimization Tensions in Dutch Water Authorities." *Public Management Review* 22 (3): 341–63. doi:10.1080/14719037.2019.1588354.
- Griffeth, Rodger W., Peter W. Hom, and Stefan Gaertner. 2000. "A Meta-Analysis of Antecedents and Correlates of Employee Turnover: Update, Moderator Tests, and Research Implications for the Next Millennium." *Journal of Management* 26 (3): 463–88.
- Harrison, David W. 1980. "Role Strain and Burnout in Child-Protective Service Workers." *Social Service Review* 54 (1): 31–44. doi:10.1086/643802.
- Håvold, Ole K. S., Jon I. Håvold, and Richard Glavee-Geo. 2020. "Trust in Leaders, Work Satisfaction and Work Engagement in Public Hospitals." *International Journal of Public Leadership. Ahead-of-print*. doi:10.1108/IJPL-07-2020-0061.
- Hood, Christopher, and Guy Peters. 2004. "The Middle Aging of New Public Management: Into the Age of Paradox?" *Journal of Public Administration Research and Theory* 14 (3): 267–82. doi:10.1093/jopart/muh019.
- Jacobsen, Christian B., and Lotte Bøgh 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. doi:10.1111/puar.12380.
- Jong, Jaehee. 2016. "The Role of Performance Feedback and Job Autonomy in Mitigating the Negative Effect of Role Ambiguity on Employee Satisfaction." *Public Performance & Management Review* 39 (4): 814–34. doi:10.1080/15309576.2015.1137771.
- Jung, C. S. 2014. "Organizational Goal Ambiguity and Job Satisfaction in the Public Sector." *Journal of Public Administration Research and Theory* 24 (4): 955–981. doi:10.1093/jopart/mut020.

- Jung, Chan S. 2011. "Organizational Goal Ambiguity and Performance: Conceptualization, Measurement, and Relationships." *International Public Management Journal* 14 (2): 193–217. doi:10.1080/10967494.2011.589760.
- . 2014. "Organizational Goal Ambiguity and Job Satisfaction in the Public Sector." *Journal of Public Administration Research and Theory* 24 (4): 955–81. doi:10.1093/jopart/mut020.
- Jung, Chan S., and Hal G. Rainey. 2011. "Organizational Goal Characteristics and Public Duty Motivation in U.S. Federal Agencies." *Review of Public Personnel Administration* 31 (1): 28–47. doi:10.1177/0734371X10394404.
- Kahn, Robert L., Donald M. Wolfe, Robert P. Quinn, J. D. Snoek, and Robert A. Rosenthal. 1964. *Organizational Stress: Studies in Role Conflict and Ambiguity*. Oxford: John Wiley.
- Kim, S. 2004. "Individual-Level Factors and Organizational Performance in Government Organizations." *Journal of Public Administration Research and Theory* 15 (2): 245–61. doi:10.1093/jopart/mui013.
- Kline, Rex B. 2010. *Principles and Practices of Structural Equation Modeling (3rd Ed)*. Guilford Press: New York.
- Lavigna, Bob. 2015. "Commentary: Public Service Motivation and Employee Engagement." *Public Administration Review* 75 (5): 732–33. doi:10.1111/puar.12429.
- Lee, Valerie E. 2000. "Using Hierarchical Linear Modeling to Study Social Contexts: The Case of School Effects." *Educational Psychologist* 35 (2): 125–41. doi:10.1207/S15326985EP3502_6.
- Lewis, Marianne W., and Wendy K. Smith. 2014. "Paradox as a Metatheoretical Perspective." *The Journal of Applied Behavioral Science* 50 (2): 127–49. doi:10.1177/0021886314522322.
- Lüscher, Lotte S., and Marianne W. Lewis. 2008. "Organizational Change and Managerial Sensemaking: Working Through Paradox." *Academy of Management Journal* 51 (2): 221–40.
- Mauno, Saija, Ulla Kinnunen, and Mervi Ruokolainen. 2007. "Job Demands and Resources as Antecedents of Work Engagement: A Longitudinal Study." *Journal of Vocational Behavior* 70 (1): 149–71. doi:10.1016/j.jvb.2006.09.002.
- Meier, Kenneth J., and Laurence J. O'Toole. 2013. "Subjective Organizational Performance and Measurement Error: Common Source Bias and Spurious Relationships." *Journal of Public Administration Research and Theory* 23 (2): 429–56. doi:10.1093/jopart/mus057.
- Miron-Spektor, Ella, Amy Ingram, Joshua Keller, Wendy K. Smith, and Marianne W. Lewis. 2018. "Microfoundations of Organizational Paradox: The Problem Is How We Think About the Problem." *Academy of Management Journal* 61 (1): 26–45. doi:10.5465/amj.2016.0594.
- Murphy, Joanne, Mary L. Rhodes, Jack W. Meek, and David Denyer. 2017. "Managing the Entanglement: Complexity Leadership in Public Sector Systems." *Public Administration Review* 77 (5): 692–704. doi:10.1111/puar.12698.

- Muthén, Linda, and Bengt Muthén. 2012. *Mplus User's Guide*. 7th ed. Los Angeles, CA: Muthén and Muthén.
- Noesgaard, Mette S., and Jesper R. Hansen. 2018. "Work Engagement in the Public Service Context: The Dual Perceptions of Job Characteristics." *International Journal of Public Administration* 41 (13): 1047–60. doi:10.1080/01900692.2017.1318401.
- Paarlberg, Laurie E., and Bob Lavigna. 2010. "Transformational Leadership and Public Service Motivation: Driving Individual and Organizational Performance." *Public Administration Review* 70 (5): 710–18. doi:10.1111/j.1540-6210.2010.02199.x.
- Pandey, Sanjay K. 2010. "Cutback Management and the Paradox of Publicness." *Public Administration Review* 70 (4): 564–71. www.jstor.org/stable/40802233.
- Park, Sung M., and Hal G. Rainey. 2008. "Leadership and Public Service Motivation in U.S. Federal Agencies." *International Public Management Journal* 11 (1): 109–42. doi:10.1080/10967490801887954.
- Parry, Ken, and Sarah Proctor-Thomson. 2002. "Leadership, Culture and Performance: The Case of the New Zealand Public Sector." *Journal of Change Management* 3 (4): 376–99. doi:10.1080/714023843.
- Podsakoff, Philip M., Scott B. MacKenzie, Jeong-Yeon Lee, and Nathan P. Podsakoff. 2003. "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies." *The Journal of Applied Psychology* 88 (5): 879–903. doi:10.1037/0021-9010.88.5.879.
- Polzer, Tobias, Renate E. Meyer, Markus A. Höllerer, and Johann Seiwald. 2017. "Institutional Hybridity in Public Sector Reform: Replacement, Blending, or Layering of Administrative Paradigms." In *How Institutions Matter!* edited by Joel Gehman, Michael Lounsbury, and Royston Greenwood. First edition, 69–99. Research in the sociology of organizations 48B. Bingley, UK: Emerald Group Publishing.
- Pritchard, Kate. 2008. "Employee Engagement in the UK: Meeting the Challenge in the Public Sector." *Development and Learning in Organizations: An International Journal* 22 (6): 15–17. doi:10.1108/14777280810910302.
- Rainey, Hal G. 2009. *Understanding and Managing Public Organizations*. San Francisco, CA: Jossey-Bass.
- Rainey, Hal G., and Chan S. Jung. 2015. "A Conceptual Framework for Analysis of Goal Ambiguity in Public Organizations." *Journal of Public Administration Research and Theory* 25 (1): 71–99. doi:10.1093/jopart/muu040.
- Reineke, J. 2005. *Strukturgleichungsmodelle in den Sozialwissenschaften*. München: Oldenbourg.
- Rizzo, J. R., R. T. House, and S. I. Lirtzman. 1970. "Role Conflict and Ambiguity in Complex Organizations." *Administrative Science Quarterly* 15 (2): 150–163. doi:10.2307/2391486.
- Rosing, Kathrin, Michael Frese, and Andreas Bausch. 2011. "Explaining the Heterogeneity of the Leadership-Innovation Relationship: Ambidextrous Leadership." *The Leadership Quarterly* 22 (5): 956–74. doi:10.1016/j.leaqua.2011.07.014.

- Sautier, L.P. et al. 2015. "Assessment of Work Engagement in Patients with Hematological Malignancies: Psychometric Properties of the German Version of the Utrecht Work Engagement Scale 9 (UWES-9)." *Rehabilitation* 54 (5): 297–303. doi:10.1055/s-0035-1555912.
- Schad, Jonathan, Marianne W. Lewis, Sebastian Raisch, and Wendy K. Smith. 2016. "Paradox Research in Management Science: Looking Back to Move Forward." *The Academy of Management Annals* 10 (1): 5–64. doi:10.1080/19416520.2016.1162422.
- Schaufeli, Wilmar B., Marisa Salanova, Vicente González-Romá, and Arnold B. Bakker. 2002. "The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach." *Journal of Happiness Studies* 3 (1): 71–92. doi:10.1023/A:1015630930326.
- Smith, Wendy K. 2014. "Dynamic Decision Making: A Model of Senior Leaders Managing Strategic Paradoxes." *Academy of Management Journal* 57 (6): 1592–1623.
- Smith, Wendy K., and Marianne W. Lewis. 2011. "Toward a Theory of Paradox: A Dynamic Equilibrium Model of Organizing." *The Academy of Management Review* 36 (2): 381–403.
- . 2012. "Leadership Skills for Managing Paradoxes." *Industrial and Organizational Psychology* 5 (2): 227–31. doi:10.1111/j.1754-9434.2012.01435.x.
- Smith, Wendy K., Marianne W. Lewis, and Michael L. Tushman. 2016. "'Both/And' Leadership. Don't Worry so Much About Being Inconsistent." *Harvard Business Review* May 2016: 62-70.
- Smith, Wendy K., and Michael L. Tushman. 2005. "Managing Strategic Contradictions: A Top Management Model for Managing Innovation Streams." *ORGANIZATION SCIENCE* 16 (5): 522–36. doi:10.1287/orsc.1050.0134.
- Sonnentag, Sabine, Christian Dormann, and Evangelia Demerouti. 2010. "Not All Days Are Created Equal: The Concept of State Work Engagement." In *Work Engagement: A Handbook of Essential Theory and Research*, edited by Arnold Bakker and Michael Leitner, 25–38. East Sussex: Psychology Press.
- Sparr, Jennifer L. 2018. "Paradoxes in Organizational Change: The Crucial Role of Leaders' Sensegiving." *Journal of Change Management* 18 (2): 162–80. doi:10.1080/14697017.2018.1446696.
- Sparr, Jennifer L., Daan van Knippenberg, and Eric Kearney. 2015. "Paradox Perspectives on Leadership: Developing a Model and Measure." Presentation at the 17th Congress of the European Congress of Works and Organizational Psychology, Oslo, Norway.
- Sparrowe, R. C., R. C. Liden, S. J. Wayne, and M. L. Kraimer. 2001. "Social Networks and the Performance of Individuals and Groups." *Academy of Management Journal* 44 (2): 316–325. doi:10.5465/3069458.
- Torring, Jacob, Lotte Bøgh Andersen, Carsten Greve, and Kurt K. Klausen. 2020. *Public Governance Paradigms: Competing and Co-Existing*. Cheltenham, UK: Edward Elgar Publishing.

- Tripathi, Smita, and John Dixon. 2008. "Leadership in a Paradoxical Public-sector Environment: The Challenges of Ambiguity." *International Journal of Leadership in Public Services* 4 (3): 4–14. doi:10.1108/17479886200800025.
- Trong Tuan, Luu. 2017. "Reform in Public Organizations: The Roles of Ambidextrous Leadership and Moderating Mechanisms." *Public Management Review* 19 (4): 518–41. doi:10.1080/14719037.2016.1195438.
- Tsui, A. S., T. D. Egan, and C. A. O'Reilly. 1992. "Being Different: Relational Demography and Organizational Attachment." *Administrative Science Quarterly* 37 (4): 549–579. doi:10.2307/2393472.
- Tubre, Travis C., and Judith M. Collins. 2000. "Jackson and Schuler (1985) Revisited: A Meta-Analysis of the Relationships Between Role Ambiguity, Role Conflict, and Job Performance." *Journal of Management* 26 (1): 155–69. doi:10.1177/014920630002600104.
- Tummers, Lars, and Eva Knies. 2016. "Measuring Public Leadership: Developing Scales for Four Key Public Leadership Roles." *Public Administration Review* 94 (2): 433–51. doi:10.1111/padm.12224.
- 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. doi:10.1080/14719037.2014.895031.
- Waldman, David A., and David E. Bowen. 2016. "Learning to Be a Paradox-Savvy Leader." *Academy of Management Perspectives* 30 (3): 316–27. doi:10.5465/amp.2015.0070.
- Wang, Gang, In-Sue Oh, Stephen H. Courtright, and Amy E. Colbert. 2011. "Transformational Leadership and Performance Across Criteria and Levels: A Meta-Analytic Review of 25 Years of Research." *Group & Organization Management* 36 (2): 223–70. doi:10.1177/1059601111401017.
- Wightman, G. Breck, Christensen, Robert K., and Sanford, Paula. 2020. "Attitudinal Divergence and Convergence Concerning Collaboration: A Descriptive Case of Public Education in Georgia." *Public Performance & Management Review* 43 (6): 1318–1341. doi:10.1080/15309576.2020.1835677
- Wright, Bradley E., and Judith L. Millesen. 2008. "Nonprofit Board Role Ambiguity." *The American Review of Public Administration* 38 (3): 322–38. doi:10.1177/0275074007309151.
- Yukl, Gary A., and William L. Gardner. 2020. *Leadership in Organizations*. Ninth edition. Boston: Pearson Education, Inc.
- Zhang, Yan, David A. Waldman, Yu-Lan Han, and Xiao-Bei Li. 2015. "Paradoxical Leader Behaviors in People Management: Antecedents and Consequences." *Academy of Management Journal* 58 (2): 538–66. doi:10.5465/amj.2012.0995.