

MEASURING PUBLIC LEADERSHIP: DEVELOPING SCALES FOR FOUR KEY PUBLIC LEADERSHIP ROLES

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This article on public leadership contributes to the literature by focusing on the ‘public’ aspect of leadership and developing quantitative scales for measuring four public leadership roles. These roles all refer to the extent to which public leaders actively support their employees in dealing with public sector issues: (1) accountability leadership, (2) rule-following leadership, (3) political loyalty leadership, and (4) network governance leadership. We tested the factor structure using exploratory and confirmatory analyses, with satisfactory results. Also, as expected, the scales for public leadership relate to transformational leadership and leadership effectiveness. The scales also correlate with organizational commitment, work engagement and turnover intention. These results indicate that our four scales of public leadership work adequately. We conclude with a future research agenda on how the scales can be used in survey and experimental research.

INTRODUCTION

In the public administration discipline, there have been a number of important studies on leadership within public sector organizations (for instance Fernandez 2005; Wright *et al.* 2012; Jacobsen and Andersen 2015). However, compared to related disciplines such as psychology and business management, the public administration literature is lagging behind. Hansen and Villadsen (2010, p. 247) concluded that, compared to other disciplines, ‘leadership theory has generally received little attention in public management research’. In a recent literature review on administrative leadership, Van Wart (2013) is more nuanced, stating that there has been a substantial development. However, he also noted that ‘fragmentation and conflicting nomenclature continue to be a problem, but at a more sophisticated level’ (p. 538). More specifically, Vogel and Masal (2015, p. 1179) argue in their overview study that ‘in current research on public leadership, the emphasis is still on the aspect of “leadership” rather than on the “public” element’ and that ‘research on public leadership needs to pay more attention to publicness itself’.

Related to this, we notice that up until now, there are almost no studies focused on the construction and validation of measurement scales for specific public leadership dimensions (a notable exception is the study by Fernandez *et al.* 2010). On the one hand, various leadership studies have been conducted in the public sector using general leadership concepts. Examples are studies on transformational and transactional leadership (Vigoda-Gadot 2007; Kroll and Vogel 2014; Pandey *et al.* 2016), Leader–Member Exchange (LMX) (Ritz *et al.* 2012; Tummers and Knies 2013), ethical leadership (Hassan *et al.* 2014) and servant leadership (Miao *et al.* 2014). These concepts are highly valuable and of paramount importance for public leaders. However, they do not capture the specific public aspects of leadership in public organizations. In the same vein, Rainey (2014, p. 364) stated that ‘although virtually anyone accepts the premise that all executives and managers face very similar tasks and challenges, a strong and growing body of evidence suggests that public managers operate within contexts that require rather distinctive skills and

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knowledge'. They work in contexts where they have to execute governmental rules and regulations (Hill and Hupe 2009), account for actions to external stakeholders, including politicians and the media (Bovens 2007), show political loyalty, even if this incurs personal costs (Gailmard and Patty 2012), and operate in networks (Klijn and Koppenjan 2012).

There have been some studies which do take such specific public sector leadership roles into account, such as the studies on networks and leadership (Currie *et al.* 2011) and accountability leadership (Kearns 1996). These studies are valuable as they capture the particular features of leadership in the public sector. However, a drawback is that these studies are conceptual, they use existing surveys with measures which have not been validated or use qualitative data to measure public leadership. To date, psychometrically proven techniques have not often been applied to develop valid and reliable measures of public leadership (see Fernandez *et al.* 2010 for an exception). We agree with Pandey and Scott (2002) that sound quantitative measurement, through the careful development of concepts and measurement scales, is highly beneficial for the advancement of public administration research and practice.

Therefore, the aim of this article is to develop reliable and valid measurement instruments for four public leadership roles. These roles have in common that they focus on the extent to which public leaders support employees in dealing with public sector issues. When developing the measures, we follow the recommendations for scale development by DeVellis (2003).

Four roles for public leaders are identified: enabling employees to deal with issues arising from (1) accountability, (2) following governmental rules and policies, (3) political loyalty, and (4) network governance. We fully acknowledge that there are other important public leadership roles (see for instance Boin and 't Hart 2003). We selected these four roles as they are all important for public administration. The first three roles (accountability, rule-following and political loyalty) relate to the traditional rational-legal authority of a bureaucratic system. Also, Van der Wal *et al.* (2008) found that accountability and following governmental rules are the most important values for the public sector. They did not include political loyalty, but they note that if it were included it would potentially be rated highly (p. 478). It is generally assumed that civil servants' loyalty is highly important (see for instance Gailmard and Patty 2012). The fourth role (network governance leadership) is included given the prominence of networks and network management for contemporary public organizations (see for instance Klijn and Koppenjan 2012). In general, we argue that the four public leadership roles are essential in the public sector. We will also test this by analysing the relationship between these roles and leadership effectiveness.

Why are these measurement instruments for public leadership roles useful? First, scholars can use these psychometrically sound scales instead of developing ad hoc scales, thereby substantially improving the quality of their research. The public administration community has not developed many psychometrically sound measurement instruments, although there are exceptions, such as work on Public Service Motivation (Perry 1996), trust (Yang 2005; Grimmelikhuijsen and Knies 2015) and policy alienation (Tummers 2012; Van Engen 2015). Using validated scales allows scholars interested in comparative public management to examine differences between countries or sectors. For instance, do leaders in some countries with a strong legalistic tradition (such as France and Germany) score higher on rule-following leadership than countries with a more corporatist tradition (such as the Netherlands) (Pollitt and Bouckaert 2004)? Furthermore, the antecedents (such individual and organizational characteristics) and effects (such as job performance, job satisfaction) of the use of various leadership roles could be explored.

Second, the measurement instruments can be valuable for practitioners. For instance, they can be used for leadership programmes. For public managers, these programmes should include not only traditional leadership behaviours such as maintaining good relationships with employees (LMX) or developing an inspiring vision (transformational leadership), but also supporting employees to develop networks of their own (network governance leadership) and how to encourage subordinates to carry out difficult political decisions (political loyalty leadership). By using before and after training tests with the scales developed and by including control groups, it can be established whether the trained managers are indeed improving their public leadership.

In sum, this article contributes to the literature by (1) focusing on the 'public' aspect of public leadership and (2) developing measurement instruments for four public leadership roles using advanced scale development techniques. This brings us to the outline. In the next section, we will elaborate on the four public leadership roles. We then describe the method and outline the results. We will conclude by highlighting the contributions of this study to public administration research and practice and by presenting some important suggestions for future research.

LEADERSHIP ROLES IN THE PUBLIC SECTOR

Background on leadership

In broad terms, there are two contrasting views on leadership in organizations. One view is leader focused and attempts to explain performance by analysing specific actions leaders take themselves, and linking these to outcomes. For instance, when studying accountability and leadership, a 'leader-focused' strategy is to study how a leader accounts for his/her actions and those of the organization. For example, does a leader interact openly with other stakeholders about problems in his/her organization?

The second view on leadership is relationship based, analysing the behaviour of leaders in terms of the support they provide to their employees. For instance, regarding accountability leadership, it is not about the leader himself/herself interacting with stakeholders; it is about to what extent he/she supports employees to interact with stakeholders. We follow this relationship-based view as we want to study how leaders support their employees in dealing with public sector issues.

We acknowledge that a relevant question is whether such 'leaders' should not be better considered as 'supervisors' or 'managers'. Although the debate about the distinction between leaders and managers continues, many contemporary scholars argue against strictly distinguishing between managers and leaders (see for instance Fernandez *et al.* 2010; Yukl 2010). They state that many managers perform leadership tasks, and many leaders perform managerial tasks. Mintzberg even argues that one of the roles of managers is to be a 'leader' (1989, p. 53). Hence, he views leadership as part of management. Concluding, we acknowledge that there is a debate regarding the distinction between managers and leaders. We will use the term leadership when analysing how supervisors perform these leadership roles. In this way, we build upon related work in public administration and leadership studies (Fernandez 2005; Yukl 2010).

Four roles of public leaders

We focus on four ways in which public leaders can support their employees: accountability leadership, rule-following leadership, political loyalty leadership, and network governance leadership. These are shown in table 1.

TABLE 1 *Four roles of public leaders, including definitions of these roles*

| Role of public leader | Definition: Leaders who ... | Example of a high score |
|-------------------------------|--|--|
| Accountability leadership | ... encourage employees to justify and explain their actions to stakeholders | A welfare director who encourages her employees to tell a citizen why they did not provide a welfare benefit to him/her |
| Rule-following leadership | ... encourage their employees to act in accordance with governmental rules and regulations | A school leader who emphasizes to his/her teachers that they should follow the exact regulations accompanying the upcoming SAT (a standardized test for students) |
| Political loyalty leadership | ... motivate their employees to align their actions with the interests of politicians, even if this is costly for them | A director-general encouraging the civil servants of his directorate to implement the political decisions of the Minister, even when he and his employees see shortcomings |
| Network governance leadership | ... encourage their employees to actively connect with relevant stakeholders | A manager in a municipality encouraging her employees to go to various conferences and meetings for small and medium-sized businesses within the city, in order to make new contacts |

First, we will discuss accountability leadership. Van der Wal *et al.* (2008) found – based on a survey of public and private sector managers – that accountability was deemed the most important value for the public sector. Indeed, this role is particularly relevant for public leaders as being accountable to several stakeholders is typical for public sector organizations. In private organizations, one will primarily be held accountable by the organization's shareholders and some major stakeholders, whereas in public organizations there are many relevant stakeholders, such as local, regional and national politicians, the media, citizens, non-governmental organizations and small enterprises (Karsten 2015). Various important scholarly studies have been devoted to accountability, including leadership and accountability (such as Kearns 1996; Chapman and Lowndes 2014). However, Bovens (2007, pp. 449–50) warns us that accountability is an elusive concept. It is therefore necessary to define the concept properly. He notes that the most concise description of accountability would be 'the obligation to explain and justify conduct'. In the context of (relationship-based) public leadership, we thus define accountability leadership as leaders who encourage employees to justify and explain their actions to stakeholders. For instance, do supervisors encourage their employees to openly discuss their own actions and those of the organization with citizens? Do they emphasize that it is important that employees answer questions from citizens? When employees perceive that supervisors indeed do this, these supervisors are said to score high on accountability leadership.

The second role is rule-following leadership. Following governmental rules and regulations is a key public administration value (DeHart-Davis 2009). Lane (1994, p. 144) notes that public administration is at its core about implementing the rule of law.

Related to this, Van der Wal *et al.* (2008) found that rule-following was the second most important public sector value. In the context of relationship-based leadership, we define rule-following leadership as leaders who encourage their employees to act in accordance with governmental rules and regulations. Hence, in high publicness organizations (Bozeman and Bretschneider 1994) an important role of leaders is to encourage their followers to adhere to governmental rules and regulations, and prevent them from breaking them.

The third leadership role we identified is political loyalty leadership. As noted, in the study of Van der Wal *et al.* (2008) political loyalty was not included. However, the authors acknowledge that 'Loyalty (to the political superiors) as a value might have been ranked substantively higher' (p. 472). The relationship between politicians and civil servants can be characterized as a principal-agent relationship. Public employees (the agents) are performing actions for politicians (the principals), who cannot fully control these civil servants. How can politicians make sure that public employees develop and implement policies that have desirable policy outcomes? This among other things depends on the degree to which these employees are loyal towards their political principals (Gailmard and Patty 2012).

Kleinig (2007) argues that loyalty is shown when people continue to show commitment to others, even if such commitment is costly. Related to this, Hajdin (2005, p. 261) notes that when loyalty is aligned with other criteria, loyalty is redundant: 'If loyalty were always in harmony with other considerations, we would not have the concept [of] loyalty'. In the case of public employees and politicians, loyalty then exists when public employees continue to show commitment towards politicians, even when this means that they have to make sacrifices. For instance, they might follow the directions of politicians even when it conflicts with their own ideals or interest, when it will result in personal risks, or when it will negatively affect their own department. We thus define political loyalty leadership as leaders who encourage their employees to align their actions with the interests of politicians, even if this is costly for them. For instance, a supervisor might encourage employees to implement political decisions properly, even when other stakeholders confront these employees with that decision.

The final role we identify is network governance leadership. Compared with the first three roles, network governance leadership is less aligned with the historical roots of public administration. However, developments such as budget austerity, the economic and fiscal crisis and the reduced legitimacy of governments have encouraged civil servants to work together with other stakeholders to tackle the problems of contemporary society (Sørensen and Torfing 2011). This also aligns with the shift from 'government' to 'governance'. Public organizations are often a partner in collaborative networks, instead of the main developer and executer of policies. This requires different behaviour from public employees. We will examine to what extent leaders motivate their employees to develop networks and actively engage in existing networks. We then define network governance leadership as leaders who encourage their employees to actively connect with stakeholders. A leader would score high on network governance leadership when he/she encourages employees to spend time connecting to other stakeholders, to spend time maintaining contacts and to introduce his/her colleagues to their own contacts.

We assume that these four roles are underlying dimensions of a higher-order concept focused on the extent to which leaders support their employees in dealing with public sector issues, specifically: to act in an accountable way, to follow rules, to be loyal to politicians and to connect with stakeholders.

We acknowledge that this is by definition a partial view. Public leaders must do much more than perform these roles, such as communicating the goals of the organization, managing change and promoting diversity. This is reflected in the measure of 'integrated public leadership' of Fernandez *et al.* (2010), one of the few well-developed quantitative measurement instruments for leadership in the public sector. Within integrated public leadership, five roles are identified: task-oriented leadership, relations-oriented leadership, change-oriented leadership, diversity-oriented leadership and integrity-oriented leadership. The first three roles are based on the general leadership literature. Diversity-oriented and integrity-oriented leadership are more public sector specific. The four roles identified in this study could be seen as additional 'public sector specific' roles, supplementing those identified by Fernandez *et al.* (2010).

The literature review shows that these four roles are of high importance for public leaders. This will also be tested, by analysing how these public leadership roles relate to leadership effectiveness and employee outcomes such as organizational citizenship behaviour and intended turnover. This will be discussed in the next section.

Public leadership roles and related concepts

After having described the four public sector specific roles of public leaders, we will elaborate on the expected relationships with other concepts. If the empirical relationships between the concepts are in line with those suggested by the theory, we can be more confident that we have truly measured these four roles, a process known as determining construct validity (DeVellis 2003).

First, we will analyse the convergent validity. Our public leadership roles will show convergent validity when they are related to similar constructs in the expected directions. Given that the roles are leadership constructs, we would expect them to be positively related to one of the most established leadership constructs that exists: transformational leadership. Next, we will analyse whether they are related to perceived leadership effectiveness.

We expect that when leaders score higher on public leadership roles (for instance, motivating employees to be accountable and to follow the rules), they also score higher on transformational leadership. For instance, Bass and Steidlmeier (1999) argue that true transformational leadership has a strong moral backing. Alongside this, one of the dimensions of transformational leadership is 'individualized consideration'. This means that a transformational leader attends to the needs of employees, supports their development and acts as a mentor or coach. This is highly related to the four proposed public leadership roles.

Related to this, it is also expected that leaders who score higher on public leadership roles are perceived as more effective. Van Knippenberg and Hogg (2003) argue that leadership processes are enacted in shared group memberships, where leaders, as group members, ask their employees to exert themselves on behalf of the collective. They note that the leader's ability to speak to employees as group members plays a key role in leadership effectiveness. When looking at the (relationship-based style) of the four roles, we therefore also expect that leaders who are able to motivate their employees to be accountable, follow governmental rules, show political loyalty, and connect with other stakeholders in the network are perceived as more effective.

Based on the above, we formulate the following hypothesis:

Hypothesis 1: The four public leadership roles are positively related to transformational leadership and to perceived leadership effectiveness.

Next to construct validity, we will also examine criterion-related validity: to what extent are our four public leadership roles related to potential outcomes? We examine relationships with various employee outcomes: employee attitudes (organizational commitment, job satisfaction and work engagement), employee behaviour (organizational citizenship behaviour/OCB) and intended employee behaviour (turnover intentions). We expect a positive relationship between the public leadership roles and organizational commitment, job satisfaction, work engagement and OCB. For instance, Mullen and Jones (2008) note that when leaders (in their case school principals) encourage employees (teachers) to be accountable and follow rules, many positive effects will occur, such as improved trust, satisfaction and commitment. We expect a negative relationship between our four roles and turnover intentions. Hence, we formulate the following hypothesis:

Hypothesis 2: The four public leadership roles are positively related to organizational commitment, job satisfaction, work engagement and organizational citizenship behaviour and negatively related to turnover intentions.

METHODS

Steps in scale development and validation

The empirical scale validation consists of three main phases. The goal of the first phase was to operationalize the public leadership roles. Items were generated based on our literature review. For item generation, we took into account DeVellis' (2003) recommendations for scale development, such as using simple words, avoiding double-barrelled items and avoiding double negatives. Based on various discussions between the authors about face validity, we chose the best fitting items for each role.

The outcome of this first phase was a set of 25 items to measure the four public leadership roles. Accountability leadership was measured using seven items. A sample item was, 'My supervisor encourages me and my colleagues to explain our actions to various stakeholders.' For rule-following leadership five items were developed. An example is, 'My supervisor emphasizes to me and my colleagues that it is important to follow the law.' We developed six items for political loyalty leadership, one being 'My supervisor encourages me and my colleagues to defend political choices, even if we see shortcomings.' Lastly, seven items were developed for network governance leadership, one being 'My supervisor encourages me and my colleagues to maintain many contacts with other organizations.'

This number of items is in line with the recommendations by Hinkin (1998) who notes that at least four items per scale are needed to test the homogeneity of items with each latent construct. Following Hinkin (1998, p. 110), we also used 5-point Likert scales, as he notes that 'it is suggested that the new items be scaled using 5-point Likert scales'. The final items included are shown in table 2.

In the second phase, the psychometric properties of these scales were tested using a sample of 503 respondents, based on independent surveys from various public sector organizations in the Netherlands in education ($n = 58$), healthcare ($n = 307$) and provincial and municipal government ($n = 138$). The mean age of respondents was 42.8 years ($SD = 11.9$), and 43.2 per cent of our respondents were male. The factor structure was tested in two ways. An exploratory factor analysis, using SPSS, was conducted on 200 randomly selected employees. Next, a confirmatory factor analysis, using Mplus, was performed on the other 303 employees. We chose these selections given that for confirmatory factor analysis more respondents are needed: Hinkin recommends a minimum of 150 observations

TABLE 2 *Exploratory factor analysis of the four public leadership roles*

| Item | Factor loadings | | | |
|---|-----------------|-----|-----|------|
| | F1 | F2 | F3 | F4 |
| Every item starts with: My supervisor ... | | | | |
| Accountability leadership (ACC) | | | | |
| 1. ... Encourages me and my colleagues to explain our actions to various stakeholders | | | | -.86 |
| 2. ... Encourages us to inform stakeholders of our way of working | | | | -.90 |
| 3. ... Provides us with the opportunity to explain our behavior to stakeholders | | | | -.77 |
| 4. ... Emphasizes that it is important that we answer questions from clients | | | | -.86 |
| 5. ... Strives to ensure that we openly and honestly share the actions of our organizational unit with others | | | | -.81 |
| 6. ... Encourages us to explain to stakeholders why certain decisions were taken | | | | -.83 |
| 7. ... Makes sure that we keep stakeholders regularly informed of the actions of our organization unit* | .36 | | | -.59 |
| Rule-following leadership (RULE) | | | | |
| 1. ... Makes sure that our department can properly execute governmental policies* | | | .37 | -.56 |
| 2. ... Emphasizes to me and my colleagues that it is important to follow the law | | | .77 | |
| 3. ... Gives me and my colleagues the means to properly follow governmental rules and regulations | | | .52 | |
| 4. ... Emphasizes that my colleagues and I should carry out government policies properly | | | .80 | |
| 5. ... Ensures that we accurately follow the rules and procedures | | | .80 | |
| Political loyalty leadership (LOY) | | | | |
| 1. ... Encourages me and my colleagues to accommodate the wishes of the politicians, even when these don't align with our own values* | .30 | .70 | | |
| 2. ... Encourages me and my colleagues to support political decisions, even when other stakeholders confront us with it | | .73 | | |
| 3. ... Encourages me and my colleagues not to jeopardize the relationship with political heads, even if that entails risks | | .84 | | |
| 4. ... Encourages me and my colleagues to implement political decisions, even if that means undertaking additional responsibilities | | .82 | | |

TABLE 2 *Continued*

| Item | Factor loadings | | | |
|--|-----------------|-----|----|----|
| | F1 | F2 | F3 | F4 |
| Every item starts with: My supervisor ... | | | | |
| 5. ... Encourages me and my colleagues to defend political choices, even if we see shortcomings | | .75 | | |
| 6. ... Encourages me and my colleagues to support political decisions, even when we see downsides | | .89 | | |
| Network governance leadership (NETW) | | | | |
| 1. ... Encourages me and my colleagues to maintain many contacts with other organizations | .91 | | | |
| 2. ... Encourages me and my colleagues to invest substantial energy in the development of new contacts | .92 | | | |
| 3. ... Motivates me and my colleagues to regularly work together with people from our networks | .81 | | | |
| 4. ... Motivates me and my colleagues to develop many contacts with people outside our own department | .73 | | | |
| 5. ... Spends a lot of time maintaining his / her contacts** | .65 | | | |
| 6. ... Encourages me and my colleagues to introduce others to contacts of our own networks | .88 | | | |
| 7. ... Encourages me and my colleagues to be a 'linchpin' between different organizations | .84 | | | |

Only coefficients of > .30 are presented.

*Deleted later on as factor loading > .30 with two factors.

**Item deleted as it is about network actions of supervisors themselves and not about supporting their employees regarding networking.

for exploratory factor analysis and 200 for confirmatory factor analysis. Lastly, we assessed reliability by examining the Cronbach's alphas.

In the third phase, the convergent, criterion-related and discriminant validity of the measurement instrument was tested by correlating the public leadership roles with other variables. In order to study convergent validity, we included transformational leadership and perceived leadership effectiveness in our analyses. To establish criterion-related validity we studied the correlations with organizational commitment, work engagement, turnover intentions, organizational citizenship behaviour (OCB), and job satisfaction. To establish discriminant validity we included the number of working hours, the flexibility employees experience in their jobs and whether employees have their own desk in the office.

Transformational leadership was measured using the seven-item measurement instrument developed by Carless *et al.* (2000). A sample item is, 'My supervisor gives encouragement and recognition to staff.' Cronbach's alpha was .945.

Perceived leadership effectiveness was measured using the four-item scale developed by Van Knippenberg and Van Knippenberg (2005). A sample item is, 'My supervisor is an excellent supervisor.' The reliability was .948.

Organizational commitment was measured using the affective commitment dimension (Allen and Meyer 1990). A sample item is, 'I feel a strong sense of belonging to my organization.' The seven-item scale had a reliability of .776.

Job satisfaction was measured with a single item: 'Generally speaking, I am very satisfied with my job.' Wanous *et al.* (1997) have demonstrated that satisfaction can be reliably measured with a single item.

Work engagement was measured using the nine-item scale developed by Schaufeli *et al.* (2006). A sample item is, 'At my work, I feel bursting with energy.' The reliability of the scale was very good: .928.

Turnover intentions were measured using the work of Bozeman and Perrewé (2001). A sample item is, 'I will probably look for a new job in the near future.' The five-item scale was reliable at .869.

Organizational citizenship behaviour (OCB) was measured using the scale of MacKenzie *et al.* (1991). A sample item is, 'I help orient new people even though it is not required.' The reliability of this 12-item measure was .711.

RESULTS

Psychometric properties

Exploratory factor analysis

To examine the dimensionality of the public leadership roles, we carried out an exploratory factor analysis. All 25 items generated in the analysis were included. We used principal component factoring and oblimin rotation, as this allows the factors to be correlated. We allowed the factors to be freely estimated and did not specify the number of factors a priori. Four factors with eigenvalues greater than 1 were extracted. These factors explained 74 per cent of the total variance. This exceeds the minimum of 60 per cent for scale development (Hinkin 1998). The factor structure was as we had anticipated, although three items (item 7 for accountability leadership, item 1 for rule-following leadership, item 1 for political loyalty leadership) loaded on two dimensions (factor loadings > .30). Therefore, these items are not used in further analyses. The factor loadings are reported in table 2. We also decided to delete item 5 for network governance leadership, as this item is about network actions of supervisors themselves and not about supporting their employees regarding networking.

Confirmatory factor analysis

Using the results of the exploratory factor analysis, we performed confirmatory factor analyses (CFA) in Mplus. CFA has several advantages over EFA, such as more stringent psychometric criteria for accepting models, thereby improving validity and reliability.

First, we tested a first-order model in which six items loaded on the dimension 'accountability leadership', four items loaded on 'rule-following leadership', five items loaded on 'political loyalty leadership', and six items loaded on 'network governance leadership'. To assess the model fit, we examined the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA). Acceptable fit is evidenced by a CFI and TLI of .90 or higher, and an RMSEA of .08 or lower (Bentler 1990). The initial CFA showed acceptable fit indices (CFI = .938; TLI = .929; RMSEA = .070). However, the descriptives of the variables included showed that these were non-normally distributed. Therefore, we performed another CFA identifying all variables as categorical.

The fit indices improved (CFI = .979; TLI = .975; RMSEA = .082). All items loaded significantly on the latent variables ($p < 0.001$) with standardized factor loadings ranging from .731 to .949.

Since we conceptualized that these four latent constructs were related, we also conducted a second-order CFA. All four roles (accountability, rule-following, political loyalty and network governance) loaded on the latent variable 'public leadership'. The results of this test confirm the proposed structure and all fit indices are good (CFI = .978; TLI = .975; RMSEA = .082). The factor loadings of the dimensions on the second-order construct varied between .395 and .977.

To test the discriminant validity among the four dimensions of our scale we followed Fornell and Larcker's (1981) suggestion for comparing the square root of the average variance extracted (AVE) of each of the dimensions of the second-order construct to the correlations between that dimension and the remaining ones. The results show that for all dimensions the square root of the AVE is greater than the correlations between that dimension and the remaining ones. The square roots of the AVEs vary between .814 and .926 and the correlations vary between .306 and .693. This points to evidence of discriminant validity.

We have also calculated the AVE and the Weighted Omega to determine the validity of our second-order construct model. The average variance extracted was .47, which is slightly below the recommended threshold of .50. However, Fornell and Larcker (1981, p. 46) point out that this is a conservative cut-off value. Furthermore, they argue that based on ρ_{ii} (which is above .50 in our case) alone, the researcher can conclude that the construct is adequate (Fornell and Larcker 1981, p. 46). The value of weighted omega was .95, which is well above the recommended threshold of .70.

To test the robustness of our four-factor solution we compared it with all alternative two-factor and three-factor models in which we combined two or three dimensions. The fit indices for these models are worse than for our four-factor model. These results provide evidence for the validity of our four-factor model. As the political loyalty role has the weakest loading on the second-order construct, we also compared the four-factor model with the three-factor model that excludes the political loyalty dimension. The latter (CFI = .989; TLI = .987; RMSEA = .079) fits the data slightly better. This result is almost by definition the case when the least scoring factor is excluded.

Metaphorically speaking, a chain will always be stronger whenever the weakest link has been deleted, no matter how strong this weakest link is. We decided to include political loyalty leadership because the model still provides good fit indices. Furthermore, the relationship between politicians and civil servants can be characterized as a principal-agent relationship. Public employees (the agents) are performing actions for politicians (the principals) who cannot fully control these civil servants. How can politicians make sure that public employees develop and implement policies that have desirable policy outcomes? Among other things, this depends on the degree to which these employees are loyal towards their political principals (Gailmard and Patty 2012). Furthermore, the relatively low factor loading of political loyalty leadership on the second-order construct could be expected as loyalty is an inherently ambiguous concept. Loyalty is shown when people continue to show commitment to others, even when such commitment is costly, for instance because it goes against the employee's own values and entails high risks (Kleinig 2007). Enacting this type of leadership can involve costs and therefore might be less strongly related to the overall concept of public leadership. Figure 1 shows the final factor structure of the items measuring the public leadership roles.

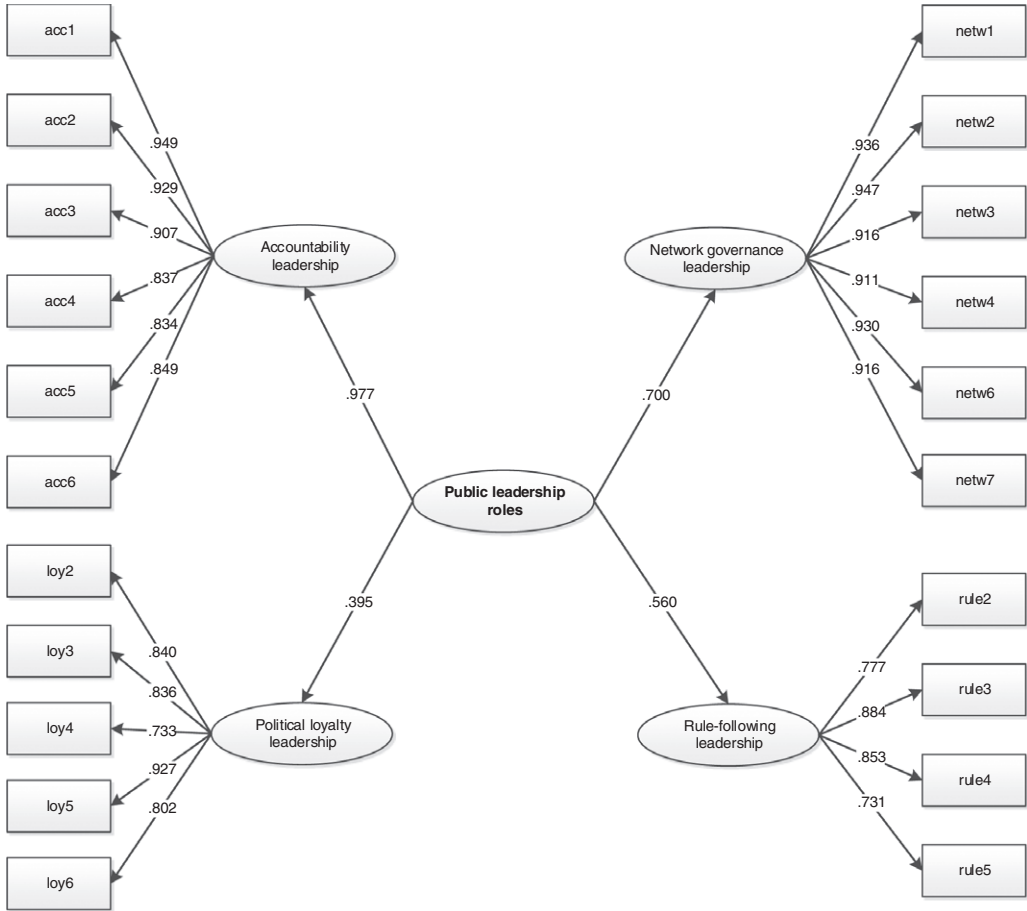


FIGURE 1 Hierarchical confirmatory factor analysis for public leadership roles

Correlations and Cronbach’s alpha

As shown in table 3, all four roles are significantly correlated. The correlations vary between .306 and .693. Based on Kalshoven *et al.* (2011) – who developed a measurement instrument for ethical leadership – such correlations are similar to the correlations between other leadership measures.

Finally, we assessed the scale’s reliability by examining the Cronbach’s alphas. All four public leadership roles show sufficient reliability (>.70), as shown in table 3.

In summary, the results of our analyses show that the scales for measuring the four public leadership roles behave appropriately. The final items are also shown in the appendix.

Convergent, criterion-related and discriminant validity

In order to establish convergent validity, we examined the relationship between the four public leadership roles and two scales for leadership in general (transformational leadership and leadership effectiveness). The correlation matrix displayed in table 4 shows that all public leadership roles are significantly related to both transformational leadership (r ranging from .158 to .696) and leadership effectiveness (r ranging from .131

TABLE 3 Cronbach's alphas, means, standard deviations and correlations of the four public leadership roles

| | Cronbach's alpha | M | SD | 1. | 2. | 3. |
|----------------------------------|------------------|------|-----|--------|--------|--------|
| 1. Accountability leadership | .934 | 3.64 | .73 | | | |
| 2. Rule-following leadership | .821 | 3.47 | .68 | .564** | | |
| 3. Political loyalty leadership | .889 | 3.07 | .71 | .317** | .341** | |
| 4. Network governance leadership | .958 | 3.26 | .90 | .693** | .322** | .306** |

** $p < 0.01$

TABLE 4 Correlations between public leadership roles and related leadership constructs

| | Transformational leadership | Leadership effectiveness |
|----------------------------------|-----------------------------|--------------------------|
| 1. Accountability leadership | .696** | .652** |
| 2. Rule-following leadership | .389** | .406** |
| 3. Political loyalty leadership | .158** | .131* |
| 4. Network governance leadership | .578** | .514** |

** $p < 0.01$, * $p < 0.05$.

to .652). Therefore, we can conclude that we found support for hypothesis 1. There are also interesting differences in the strengths of the relationships. The low correlations of political loyalty leadership could be expected as loyalty is shown when people continue to show commitment to others even when such commitment is costly, for instance because it goes against the employee's own values and entails high risks. Enacting this type of public leadership involves costs. Furthermore, the high correlations between accountability and network governance leadership and the general leadership constructs might indicate the importance that is nowadays attached to being accountable and working in networks (see table 4).

To test the criterion-related validity of our scales we analysed the relationships between the four roles and several outcome variables: organizational commitment, work engagement, turnover intentions, OCB and job satisfaction.

All four roles are significantly related to organizational commitment. Correlations varied between .150 (political loyalty) and .399 (accountability). Three of the four dimensions are significantly related to work engagement. The only exception is political loyalty leadership. Other correlations varied between .132 (network governance) and .195 (rule-following). Three of the four dimensions are significantly related to turnover intentions. Again, the only exception is political loyalty leadership. The other correlations varied between $-.103$ (network governance) and $-.209$ (accountability). OCB

TABLE 5 *Correlations between four leadership roles and several outcome variables*

| | Organizational commitment | Work engagement | Turnover intentions | OCB | Job satisfaction |
|----------------------------------|------------------------------|--------------------|------------------------|--------|---------------------|
| 1. Accountability leadership | .399** | .150** | -.209** | .107* | .272** |
| 2. Rule-following leadership | .333** | .195** | -.203** | .202** | .200** |
| 3. Political loyalty leadership | .150** | .055 | -.057 | .049 | .106* |
| 4. Network governance leadership | .309** | .132** | -.103* | .101* | .238** |

** $p < 0.01$, * $p < 0.05$.

is significantly related to all dimensions except political loyalty leadership. The other correlations varied between .101 (network governance) and .202 (rule-following). Finally, job satisfaction is significantly related to all dimensions. Correlations varied between .106 (political loyalty) and .272 (accountability). Overall, these results provide moderate support for hypothesis 2. The low correlations of political loyalty leadership and its consequences is possibly related to the fact that we only analysed the effects on constructs related to individual performance, and not organizational performance. It could be the case that political loyalty leadership has strong consequences on the organizational level, which are not reflected in the individual-level variables (see table 5).

Lastly, to test the discriminant validity of the public leadership roles we correlated our measure with presumed unrelated constructs. The discriminant validity tests show that public leadership roles do not correlate with those measures they are not expected to strongly correlate with, such as the number of working hours (-.01, ns), the flexibility employees experience in their jobs (.12, ns) and whether employees have their own desk in the office (.06, ns). This provides evidence for the discriminant validity of the scales.

CONCLUSION

The purpose of this research was to establish validated scales for four key roles of public leaders. The results indicate that our measures for the following four public sector specific roles of leaders are valid and reliable: (1) accountability leadership (six items), (2) rule-following leadership (four items), (3) political loyalty leadership (five items) and (4) network governance leadership (six items).

There are a number of potential uses for the scales to measure the four public leadership roles. As noted, most importantly, scholars could use these psychometrically sound scales instead of developing ad hoc scales, thereby potentially improving the quality of their research (DeVellis 2003). Regarding new theoretical avenues, future research can further study the antecedents and effects of these public leadership roles. Potential promising directions are to relate the public leadership roles to network studies (for instance: does higher network governance leadership positively affect trust and performance in public-private partnerships?), public personnel studies (how can HR practices encourage rule-following and accountability leadership?) and studies on rules and regulation (what are the effects of rule-following leadership on red tape, green tape and rule-following

behaviour?). Based upon various studies, meta-analyses can then be used to summarize the results found (Chapman *et al.* 2016).

The scales can also be important for practitioners. For instance, directors and HR experts can analyse whether the managers in the organization demonstrate essential public leadership roles. The scales can be used for talent assessment and selection purposes to determine the degree to which candidates show relevant leadership potential. Furthermore, in leadership development programmes the scales can be used as before and after tests, analysing whether the training helped to improve certain public leadership roles.

As with all studies, this study has its limitations. It should be viewed as a first endeavour in developing a scale measuring four public leadership roles. Validation of measurement instruments is an ongoing process (DeVellis 2003). Future studies can test whether the scales work in different settings, and potentially refine the scales. An inspiring example to look at in the public administration literature is the work on public service motivation, which has devoted substantial effort to refining the scales to measure this (starting with Perry 1996, followed by Vandenabeele 2008 and most recently by Kim *et al.* 2013).

A second limitation is the cross-sectional design of this research. Correlational analyses were used to explore the relationship between our public leadership roles and potential outcomes such as job satisfaction and organizational citizenship behaviour. Cross-sectional designs cannot establish causality or identify long-term effects. However, conducting a cross-sectional study is an important and practical first step in the construction and validation of measures. A next step can be to use longitudinal designs to analyse the long-term effects of public leadership roles and their temporal stability. Furthermore, researchers could use multiple sources to analyse effects of public leadership roles, such as on job performance or turnover. For some relationships the use of self-reports is justified, as the nature of the variables – such as job satisfaction – can best be analysed using self-reports (Kalshoven *et al.* 2011). However, other constructs – such as OCB – could be measured by asking supervisors to rate employees. Another way forward could be to use a multi-trait multi-method CFA (Campbell and Fiske 1959) to examine the construct validity of our scale.

A third limitation is that we selected four roles of public leadership. Although we argue and empirically show that these four roles are very relevant in a public sector context (also shown given the relationships with leadership effectiveness), other roles (such as managing conflicting values) might also be relevant. So, future research might expand this study by including additional roles of public leadership. For instance, scholars could include the roles identified in this study with the six roles identified by Fernandez *et al.* (2010). Using this approach, it could for instance be tested whether the roles identified in this study explain additional variance above and beyond the integrated leadership roles. Furthermore, convergent and discriminant validity could be used to test whether there are potential interesting interactions between the various roles.

According to Lambright and Quinn (2011, p. 782), 'nothing in public administration is more important, interesting, or mysterious than leadership'. Vogel and Masal (2015) acknowledge this and furthermore argue that research on public leadership needs to pay more attention to publicness itself. We have thus aimed to contribute to the literature by developing a new and valid questionnaire on four specific public leadership roles that can be used by both scholars and practitioners in survey and experimental research.

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REFERENCES

- Allen, N.J. and J.P. Meyer. 1990. 'The Measurement and Antecedents of Affective, Continuance and Normative Commitment to the Organization', *Journal of Occupational Psychology*, 63, 1, 1–18.
- Bass, B.M. and P. Steidlmeier. 1999. 'Ethics, Character, and Authentic Transformational Leadership Behavior', *Leadership Quarterly*, 10, 2, 181–217.
- Bentler, P.M. 1990. 'Comparative Fit Indexes in Structural Models', *Psychological Bulletin*, 107, 2, 238–46.
- Boin, A. and P. 't Hart. 2003. 'Public Leadership in Times of Crisis: Mission Impossible?', *Public Administration Review*, 63, 5, 544–53.
- Bovens, M. 2007. 'Analysing and Assessing Accountability: A Conceptual Framework', *European Law Journal*, 13, 4, 447–68.
- Bozeman, B. and S. Bretschneider. 1994. 'The "Publicness Puzzle" in Organization Theory: A Test of Alternative Explanations of Differences between Public and Private Organizations', *Journal of Public Administration Research and Theory*, 4, 2, 197–224.
- Bozeman, D.P. and P.L. Perrewé. 2001. 'The Effect of Item Content Overlap on Organizational Commitment Questionnaire–Turnover Cognitions Relationships', *Journal of Applied Psychology*, 86, 1, 161–73.
- Campbell, D.T. and D.W. Fiske. 1959. 'Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix', *Psychological Bulletin*, 56, 2, 81–105.
- Carless, S.A., A.J. Wearing and L. Mann. 2000. 'A Short Measure of Transformational Leadership', *Journal of Business and Psychology*, 14, 3, 389–405.
- Chapman, C., H. Getha-Taylor, M.H. Holmes, W.S. Jacobson, R.S. Morse and J.E. Sowa. 2016. 'How Public Service Leadership is Studied: An Examination of a Quarter Century of Scholarship', *Public Administration*, 94, 1, 111–28.
- Chapman, R. and V. Lowndes. 2014. 'Searching for Authenticity? Understanding Representation in Network Governance: The Case of Faith Engagement', *Public Administration*, 92, 2, 274–90.
- Currie, G., S. Grubnic and R. Hodges. 2011. 'Leadership in Public Services Networks: Antecedents, Process and Outcome', *Public Administration*, 89, 2, 242–64.
- DeHart-Davis, L. 2009. 'Green Tape: A Theory of Effective Organizational Rules', *Journal of Public Administration Research and Theory*, 19, 2, 361–84.
- DeVellis, R.F. 2003. *Scale Development: Theory and Applications*. Thousand Oaks, CA: Sage.
- Fernandez, S. 2005. 'Developing and Testing an Integrative Framework of Public Sector Leadership: Evidence from the Public Education Arena', *Journal of Public Administration Research and Theory*, 15, 2, 197–217.
- Fernandez, S., Y.J. Cho and J.L. Perry. 2010. 'Exploring the Link between Integrated Leadership and Public Sector Performance', *Leadership Quarterly*, 21, 2, 308–23.
- Fornell, C. and D.F. Larcker. 1981. 'Evaluating Structural Equation Models with Unobservable Variables and Measurement Error', *Journal of Marketing Research*, 18, 39–50.
- Gailmard, S. and J.W. Patty. 2012. *Learning While Governing: Expertise and Accountability in the Executive Branch*. Chicago, IL: University of Chicago Press.
- Grimmelikhuisen, S.G. and E. Knies. 2015. 'Validating a Scale for Citizen Trust in Government Organizations', *International Review of Administrative Sciences*. doi: 10.1177/0020852315585950
- Hajdin, M. 2005. 'Employee Loyalty: An Examination', *Journal of Business Ethics*, 59, 3, 259–80.
- Hansen, J.R. and A.R. Villadsen. 2010. 'Comparing Public and Private Managers' Leadership Styles: Understanding the Role of Job Context', *International Public Management Journal*, 13, 3, 247–74.
- Hassan, S., B.E. Wright and G. Yukl. 2014. 'Does Ethical Leadership Matter in Government? Effects on Organizational Commitment, Absenteeism, and Willingness to Report Ethical Problems', *Public Administration Review*, 74, 3, 333–43.
- Hill, M.J. and P.L. Hupe. 2009. *Implementing Public Policy: Governance in Theory and Practice*. London: Sage.
- Hinkin, T.R. 1998. 'A Brief Tutorial on the Development of Measures for Use in Survey Questionnaires', *Organizational Research Methods*, 1, 1, 104–21.
- Jacobsen, C.B. and L. 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*. doi: 10.1111/puar.12380
- Kalshoven, K., D.N. Den Hartog and A.H. De Hoogh. 2011. 'Ethical Leadership at Work Questionnaire (ELW): Development and Validation of a Multidimensional Measure', *Leadership Quarterly*, 22, 1, 51–69.
- Karsten, N. 2015. 'Scrutinize Me, Please! The Drivers, Manifestations and Implications of Accountability-Seeking Behaviour', *Public Administration*, 93, 3, 684–99.
- Kearns, K.P. 1996. *Managing for Accountability: Preserving the Public Trust in Public and Nonprofit Organizations*. San Francisco, CA: Jossey-Bass Publishers.

- Kim, S., W. Vandebeele, B.E. Wright, L.B. Andersen, F.P. Cerase, R.K. Christensen *et al.* 2013. 'Investigating the Structure and Meaning of Public Service Motivation across Populations: Developing an International Instrument and Addressing Issues of Measurement Invariance', *Journal of Public Administration Research and Theory*, 23, 1, 79–102.
- Klein, J. 2007. 'Loyalty', in E.N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2008 edn.). <http://plato.stanford.edu/archives/fall2008/entries/loyalty/>
- Klijn, E.H. and J. Koppenjan. 2012. 'Governance Network Theory: Past, Present and Future', *Policy and Politics*, 40, 4, 587–606.
- Kroll, A. and D. Vogel. 2014. 'The PSM-Leadership Fit: A Model of Performance Information Use', *Public Administration*, 92, 4, 974–91.
- Lambright, W.H. and M.M. Quinn. 2011. 'Understanding Leadership in Public Administration: The Biographical Approach', *Public Administration Review*, 71, 5, 782–90.
- Lane, J.E. 1994. 'Will Public Management Drive Out Public Administration?', *Asian Journal of Public Administration*, 16, 2, 139–51.
- MacKenzie, S.B., P.M. Podsakoff and R. Fetter. 1991. 'Organizational Citizenship Behavior and Objective Productivity as Determinants of Managerial Evaluations of Salespersons' Performance', *Organizational Behavior and Human Decision Processes*, 50, 1, 123–50.
- Miao, Q., A. Newman, G. Schwarz and L. Xu. 2014. 'Servant Leadership, Trust, and the Organizational Commitment of Public Sector Employees in China', *Public Administration*, 92, 3, 727–43.
- Mintzberg, H. 1989. 'The Manager's Job: Folklore and Fact', in H. Levinson (ed.), *Designing and Managing Your Career*. Boston, MA: Harvard Business School Press, pp. 47–63.
- Mullen, C.A. and R.J. Jones. 2008. 'Teacher Leadership Capacity-building: Developing Democratically Accountable Leaders in Schools', *Teacher Development*, 12, 4, 329–40.
- Pandey, S.K. and P.G. Scott. 2002. 'Red Tape: A Review and Assessment of Concepts and Measures', *Journal of Public Administration Research and Theory*, 12, 4, 553–80.
- Pandey, S.K., R.S. Davis, S. Pandey and S. Peng. 2016. 'Transformational Leadership and the Use of Normative Public Values: Can Employees Be Inspired to Serve Larger Public Purposes?', *Public Administration*, 94, 1, 2014–222.
- Perry, J.L. 1996. 'Measuring Public Service Motivation: An Assessment of Construct Reliability and Validity', *Journal of Public Administration Research and Theory*, 6, 1, 5–22.
- Pollitt, C. and G. Bouckaert. 2004. *Public Management Reform: A Comparative Analysis*. Oxford: Oxford University Press.
- Rainey, H.G. 2014. *Understanding and Managing Public Organizations* (5th edn.). New York: John Wiley & Sons.
- Ritz, A., A. Shantz, K. Alfes and A.S. Arshoff. 2012. 'Who Needs Leaders the Most? The Interactive Effect of Leadership and Core Self-evaluations on Commitment to Change in the Public Sector', *International Public Management Journal*, 15, 2, 160–85.
- Schaufeli, W.B., A.B. Bakker and M. Salanova. 2006. 'The Measurement of Work Engagement with a Short Questionnaire: A Cross-national Study', *Educational and Psychological Measurement*, 66, 4, 701–16.
- Sørensen, E. and J. Torfing. 2011. 'Enhancing Collaborative Innovation in the Public Sector', *Administration & Society*, 43, 8, 842–68.
- Tummers, L.G. 2012. 'Policy Alienation of Public Professionals: The Construct and its Measurement', *Public Administration Review*, 72, 4, 516–25.
- Tummers, L.G. and E. Knies. 2013. 'Leadership and Meaningful Work in the Public Sector', *Public Administration Review*, 73, 6, 859–68.
- Vandenabeele, W. 2008. 'Development of a Public Service Motivation Measurement Scale: Corroborating and Extending Perry's Measurement Instrument', *International Public Management Journal*, 11, 1, 143–67.
- Van der Wal, Z., G. De Graaf and K. Lasthuizen. 2008. 'What's Valued Most? Similarities and Differences between the Organizational Values of the Public and Private Sector', *Public Administration*, 86, 2, 465–82.
- Van Engen, N., L. Tummers, V. Bekkers and B. Steijn. 2015. 'Bringing History in: Policy Accumulation and General Policy Alienation', *Public Management Review*. doi: 10.1080/14719037.2015.1088568
- Van Knippenberg, B. and D. Van Knippenberg. 2005. 'Leader Self-sacrifice and Leadership Effectiveness: The Moderating Role of Leader Prototypicality', *Journal of Applied Psychology*, 90, 1, 25–37.
- Van Knippenberg, D. and M.A. Hogg. 2003. 'A Social Identity Model of Leadership Effectiveness in Organizations', *Research in Organizational Behavior*, 25, 243–95.
- Van Wart, M. 2013. 'Administrative Leadership Theory: A Reassessment after 10 Years', *Public Administration*, 91, 3, 521–43.
- Vigoda-Gadot, E. 2007. 'Leadership Style, Organizational Politics, and Employees' Performance: An Empirical Examination of Two Competing Models', *Personnel Review*, 36, 5, 661–83.
- Vogel, R., and D. Masal. 2015. 'Public Leadership: A Review of the Literature and Framework for Future Research', *Public Management Review*, 17, 8, 1165–89.
- Wanous, J.P., A.E. Reichers and M.J. Hudy. 1997. 'Overall Job Satisfaction: How Good are Single-Item Measures?', *Journal of Applied Psychology*, 82, 2, 247–52.
- Wright, B.E., D.P. Moynihan and S.K. Pandey. 2012. 'Pulling the Levers: Transformational Leadership, Public Service Motivation, and Mission Valence', *Public Administration Review*, 72, 2, 206–15.

Yang, K. 2005. 'Public Administrators' Trust in Citizens: A Missing Link in Citizen Involvement Efforts', *Public Administration Review*, 65, 3, 273–85.

Yukl, G. 2010. *Leadership in Organizations* (7th edn.). New York: Pearson.

APPENDIX

Scales for measuring public leadership roles

Accountability leadership

My supervisor ...

- ... Encourages me and my colleagues to explain our actions to various stakeholders.
- ... Encourages us to inform stakeholders of our way of working.
- ... Provides us with the opportunity to explain our behaviour to stakeholders.
- ... Emphasizes that it is important that we answer questions from clients.
- ... Strives to ensure that we openly and honestly share the actions of our organizational unit with others.
- ... Encourages us to explain to stakeholders why certain decisions were taken.

Rule-following leadership

My supervisor ...

- ... Emphasizes to me and my colleagues that it is important to follow the law.
- ... Gives me and my colleagues the means to properly follow governmental rules and regulations.
- ... Emphasizes that my colleagues and I should carry out government policies properly.
- ... Ensures that we accurately follow the rules and procedures.

Political loyalty leadership

My supervisor ...

- ... Encourages me and my colleagues to support political decisions, even when other stakeholders confront us with it.
- ... Encourages me and my colleagues not to jeopardize the relationship with political heads, even if that entails risks.
- ... Encourages me and my colleagues to implement political decisions, even if that means undertaking additional responsibilities.
- ... Encourages me and my colleagues to defend political choices, even if we see shortcomings.
- ... Encourages me and my colleagues to support political decisions, even when we see downsides.

Network governance leadership

My supervisor ...

- ... Encourages me and my colleagues to maintain many contacts with other organizations.

- ... Encourages me and my colleagues to invest substantial energy in the development of new contacts.
- ... Motivates me and my colleagues to regularly work together with people from our networks.
- ... Motivates me and my colleagues to develop many contacts with people outside our own department.
- ... Encourages me and my colleagues to introduce others to contacts of our own networks.
- ... Encourages me and my colleagues to be a 'linchpin' between different organizations.