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Modern leadership principles for public administration: time to move forward

Dana S. Kellis[1,2]* and Bing Ran[1]

[1] *Penn State Harrisburg, Public Affairs, Middletown, Pennsylvania, USA*
[2] *Pinnacle Health, Administration, Harrisburg, Pennsylvania, USA*

The historical aversion to effective leadership in American public administration literature imposes a troubling controversy over the appropriateness of nonelected public leaders being allowed to exercise the authority and capability to make decisions regarding the direction, focus, and intensity of their organizational efforts. Using principles from distributed, transformational, and authentic leadership theories, we propose a new public leadership theory that addresses the emerging unique characteristics of the public sector and test this theory using three administrations of the Federal Human Capital Survey. Results show strong support for the application of these theories in the public service. We advocate for the research and teaching of modern leadership of these theories in the public administration field. Copyright © 2012 John Wiley & Sons, Ltd.

INTRODUCTION

In the current context of recurrent crisis in the public sphere, the challenge of defining, finding, and supporting adequate leadership neither has been greater nor has been more pressing. Domestic and global recession, sovereign debt crises, multiple armed conflicts, and global environmental and natural disasters each challenge the capacity of public managers to respond effectively. In many of these crises, the inadequate leadership of some public managers highlighted the importance of understanding what constitutes effective public leadership. For example, inadequate leadership played a significant role in the Challenger and Columbia Space Shuttle Disasters (Levine *et al.*, 1992; CAIB, 2003; Lambright, 2008). Failed federal, state, and local leadership figured prominently in the inadequate response to Hurricane Katrina (Committee and USHS, 2006; Menzel, 2006; Waugh and Streib, 2006; Lester and Krejci, 2007). Shortcomings of leadership were also instrumental in the Federal Home Loan Bureau's role in the recent housing crisis (Hoffmann and Cassell, 2002; Hoffmann and Cassell, 2005; Cassell and Hoffmann, 2009).

Despite these unprecedented demonstrations of the risks and consequences of inadequate leadership capacity in public organizations, the profession of public administration (PA) has not fully embraced leadership as a fundamental element of successful practice. For much of its history, the field of PA has struggled to identify the appropriate role of leaders and managers in carrying out the affairs of government. The debate encompasses the distinctions between administration, politics, and values in a constitutional democracy (Wilson, 1887; Taylor, 1947; Waldo, 1948; Selznick, 1949; Appleby, 1973) and has evolved to questions of privatization versus accountability (Hood and Jackson, 1991; Rhodes, 1994; Peters and Pierre, 1998). Two opposing schools of thought exist among PA scholars regarding the role of leadership in the public sector. Advocates of market-based approaches to public services delivery believe that these result in greater levels of efficiency and accountability (Denhardt and Denhardt, 2000). Public interest advocates, on the other hand, point out the shortcomings of economic individualism (Bozeman, 2007) and believe public servants should receive direction from politicians, courts, and legislators. Regardless of their philosophical underpinnings, PA authors warn that strong leadership poses a danger to the democratic process (Bertelli and Lynn, 2006; Warner and Hefetz, 2008) and worry that empowered leaders may succumb to moral hazards such as shirking, opportunism, self-aggrandizement,

*Correspondence to: Dana S Kellis, Penn State Harrisburg, Public Affairs 777 W. Harrisburg Pike w160a Olmstead Bldg, Harrisburg, Pennsylvania 17057, USA.
E-mail: danakellis@aol.com

or self-promotion (Donaldson, 1990; Cook, 1998; Terry, 1998; Fairholm, 2004).

The reluctance of the PA field to develop and embrace strong leadership models is reflected by a significant gap in the development and progression of general and public leadership theories (Olshfski and Jun, 1989; Rost, 1990; Senge, 1990; Bennis *et al.*, 1994; Nalbandian, 1994; Chemers, 1997; Pearce and Conger, 2003; Trottier *et al.*, 2008). Despite good evidence that effective leadership plays a key role in the success of public endeavors, new approaches to the process of leadership in the general literature, including shared, transformational, and authentic or values-based leadership theories, have seen less investigation or application to public settings. Calls for research efforts to better define the structure, tools, processes, and functions of leadership in the public sector (Olshfski and Jun, 1989) have been lacking in regard to the public application of the new leadership approaches (Wright, 2011).

In this paper, we argue for the establishment of a public leadership theory that is supported by three tenets, the principles of authentic, transformational, and distributed leadership, to better equip public managers to function in a crisis-laden complex constitutional democracy. We then use data from the Federal Human Capital Survey to examine outcomes of effective leadership as they relate to the principles of authentic, transformational, and distributed leadership. We conclude the paper by arguing that a leadership theory constituted by these three tenets of leadership approaches can provide a strong foundation for developing leadership roles and expectations in the public service. We call for further investigation into the association of these principles with the performance of public organizations at federal, state, and local levels and their usefulness in predicting changes in measurable departmental outcomes.

THREE TENETS OF PUBLIC LEADERSHIP

A common thread in recent PA leadership research has been leaders' difficulty functioning effectively in the complex environments that characterize the modern public service, especially when faced with a crisis or other organizational challenge. Riccucci and Getha-Taylor (2009) refer to these complex public service environments as the 'new normalcy,' a term that reflects the challenges public leaders face in balancing operational priorities with unanticipated emergent needs, particularly in the setting of markedly constrained resources and an increased focus on performance (Ingraham, 2005). Although effective leadership will be a crucial determinant of public organizations' success in adapting to their changing environments (Hennessey, 1998; Ingraham, 2005), traditional approaches to public leadership are increasingly ineffective (Chrislip and Larson, 1994).

Ashby's law of requisite variety (1958) predicts that straightforward management and lower-level leadership skills will be inadequate in this 'new normalcy' that requires public leaders to effectively identify and support the public's interests (Jaques, 1976; Avolio *et al.*, 2000; Kellerman and Webster, 2001).

A number of leadership ideas and innovations from the general leadership literature have been developed to reflect and address these new requirements for leadership and whose application to the public service should be considered (Trottier, *et al.*, 2008; Fernandez *et al.*, 2010). Three of them are especially of importance to address the unique challenges faced by public managers and should be incorporated into an overarching public leadership theory: the core democratic values of modern public leaders; a transformational focus on enfranchising, developing, and retaining the highly skilled knowledge-based professional workforce; and the distributed nature of public leadership positions that characterizes today's public service. A new public leadership theory supported by these three key tenets recognizes the increasingly complex structures and interrelationships within and between public organizations, the increased levels of complexity, and the added constraints of a democratic system with ambiguous goals in which public leaders must grapple with, and the different legal underpinnings and different core values compared with their nonpublic colleagues. Combining these three areas of emphasis into a single leadership theory provides a solid foundation upon which public managers can be trained, upon which they can exercise leadership, and upon which expectations of leadership outcomes can be based.

The first tenet of the new public leadership theory focuses on the authentic values of leaders. Being the most central quality for leaders, authentic values constitute an essential component of leadership in the public sphere, forming a bridge between discretion without which effective leadership is unlikely and accountability that is essential for democracy. As public leaders function in a dynamic and complex leadership environment, to maintain democratic principles, they must negotiate between the Scylla and the Charybdis of discretion and accountability. Adequate discretion is the lifeblood of leadership. It forms the substrate upon which leadership processes give birth to change and progress. However, as the public bureaucracy increases in size and complexity, the likelihood increases that public leaders may abuse their discretionary latitude when they encounter opportunities to design or implement policy that disregards or contravenes the public will (Fung, 2007). Increased access to government officials as granted by the Administrative Procedure Act (1946) allows interest groups to collaborate directly with leaders thus potentially circumventing public interest (Stewart, 1975). Redford (1969) uses the term 'overhead democracy'

to describe the flow of power from the electorate to their elected representative, and thence to strictly supervised appointed heads of administrative departments, thus implying discretion is 'antidemocratic.' Bertelli and Lynn (2003) support Redford's contention that restricting managerial discretion in favor of close supervision enhances democratic principles. This idea is further supported by the diminished democracy theory, which holds that the price of maintaining national sovereignty and integrated international markets is decreased influence by the polity (Bezdek, 2000; Skocpol, 2004).

Leader discretion may still be compatible with democratic principles if there is adequate accountability, but this can be problematic as well. Bovens (2005) refers to accountability as the sine qua non of democratic governance, explaining that public leaders are the agents of electorate principals that hold them accountable for effective and efficient performance of electoral mandates (Prezeworksi et al., 1999). Adequate accountability serves to legitimize the public service (Bovens, 2005), protects it from corruption and other destructive behavior (Rose-Ackerman, 1999), and helps to improve its performance through learning (Aucoin and Heintzman, 2000). Nevertheless, in the excess, accountability may result in worse performance (Adelberg and Batson, 1978; Tetlock et al., 1989) as government leaders become overly rigid, subject to scapegoating, and become more focused on being held accountable than on performing the task at hand. Schneider (1999) posits a direct correlation between the power of target groups and the degree of accountability to which public servants providing service are held, such as relatively lax accountability of prison workers for their treatment of inmates. Public leaders have traditionally been subject to Weberian vertical accountability in which they are accountable to their direct supervisor in the bureaucratic chain of command (Bovens, 2005), a relationship increasingly supplanted by horizontal accountability to constituents. For example, media coverage holds public leaders at all levels of government bureaucracy accountable directly to the public for their actions and decision. Public–private partnerships and other cooperative relationships between multiple levels and divisions of government reside outside the bounds of vertical bureaucratic control and require more innovative horizontal approaches to accountability such as contracting or citizen-based oversight (McQuaid, 2010). New public management-inspired privatization initiatives for the provision of public services have been particularly challenged to establish accountability (Mulgan, 2000; Trebilcock and Iacobucci, 2003; McQuaid, 2010).

Authentic leadership theory, a prototypical values-based leadership theory, creates a democratic space between discretion and accountability by focusing on and requiring transparency and consistency between a leader's values, ethics, and actions (Chan

et al., 2005). Authentic leaders that have clarity of understanding regarding their personal values and ethical reasoning are inclined to develop positive psychological states and are known for their integrity (Gardner et al., 2005). They are 'moral agents who take ownership of and responsibility for the end results of their moral actions and the actions of their followers' (Hannah et al., 2005, p. 47). As moral leaders, they analyze moral issues through deontological (rules, laws, duties, norms), teleological (utilitarian, consequence), and areteological (inherent virtuousness) lenses. Authentic leaders have a deeper understanding of and a greater ability to explain their moral self in leadership events as the result of a higher level of complex cognitive ability and of core moral beliefs (Hannah, et al., 2005). Democracy and democratic values are protected far better by the internal moral compass of an authentic leader than could be hoped for by the external imposition of rules, laws, or values by politicians or the polity. By focusing on the development and recognition of a strong internal value system and accompanying moral behavior, authentic leadership allows for the greater discretion and lower levels of accountability encountered in modern public leadership environments.

The second tenet of the new public leadership theory extends first to the dyadic relationship between leaders and followers and focuses on public workers' development and value as described by transformational leadership theory. First proposed as a counterweight to transactional leadership by Burns (1978), it has been the subject of a large volume of research and development. On the basis of four relational leadership concepts, including idealized influence, inspirational motivation, intellectual stimulation, and individual consideration, transformational leadership recognizes the influence of leaders' relationships with their followers along these four axes on outcomes of organizational initiatives. Bass expanded transformational leadership framework to a 'full range' theory that includes transactional leadership styles of laissez faire, passive management by exception, active management by exception, and contingent reward, and transformational leadership styles of individualized consideration, idealized influence, intellectual stimulation, and inspirational motivation (Bass, 1996). Trottier et al. (2008) showed that Bass's expanded concept of the transformational leadership accurately describes federal employees' perception of effective leadership. Transformational leaders exert a strong effect on the ways in which workers view their job (Piccolo and Colquitt, 2006), as well as their engagement in change initiatives (Detert and Burris, 2007). It is associated with improved performance in both public and private contexts. Considered a form of neo-charismatic leadership by some authors, it combines the observed benefits of traditional trait-based leadership (charisma) with

those of relational leadership to form an approach to leadership often studied in the public service literature, although this association is not constant in the literature (Colbert *et al.*, 2008; Jung *et al.*, 2008; Ling *et al.*, 2008).

The third tenet of public leadership theory further extends leadership to the distributed and networked nature of modern public organizations. The infrastructure underlying delivery of public services grows increasingly complex, often involving multiple partnerships, departments, levels of government and networks at any given time. Schneider (2002) uses the term 'radix' to describe public, nonprofit, and private organizations operating in this complex environment and functioning as flexible value chains and support activities for customers. Characterized by structures such as teams, alliances, contingent workers, and outsourcing arrangements and nonvertical power relationships, radix organizations reflect the complexity that public organizations have assumed, such as outsourcing arrangements of various services and ambiguous power and authority infrastructure (Schneider and Ingram, 1993; Schneider, 2002). Such ambiguity requires new approaches to leadership that transcend hierarchical traditions in favor of more collaborative and interactive approaches. For example, far from the hierarchical structure of traditional PA or new public management-inspired market-based direct contracting for services, public managers increasingly find themselves in networks within and between different levels of government, in relational contracts with private and nonprofit entities and in partnerships with private and nonprofit entities that have ambiguous lines of authority and accountabilities (Osborne, 2010). These networks, contracts, and partnerships transcend political jurisdictions, require expertise well beyond what elected politicians or the general electorate possess, and are tasked with accomplishing crucial mission objectives. Leadership in such institutions is shared and distributed between the various components' leaders, such that each individual leader must collaborate with other leaders in the network to bring about significant organizational change. This distributed nature of leadership is incorporated into stakeholder, shared, and integrated leadership theories.

Stakeholder or collaborative leadership theory recognizes that organizational hierarchy has become less important than interorganizational relationships defined in multiple manners such as contracting and alliances (Schneider, 2002) and that one person is unlikely to possess all of the skills, knowledge, and expertise needed by modern public organizations (Chrislip and Larson, 1994), thus creating a need for public leaders to bring together diverse internal and external stakeholders to address public concerns (Chrislip and Larson, 1994; Freeman, 2000). It emphasizes stakeholder value as the fundamental aim of the organization as opposed to shareholder value and suggests that organizations must include both internal and external stakeholders when making strategic decisions (Freeman, 1984). The theory also has a value basis as it requires leaders to act equitably and ethically when resolving conflicting priorities between different stakeholders (Evan and Freeman, 1988; Yukl, 2006). One form of stakeholder leadership is shared leadership theory, which further characterizes leadership as a process in which individuals, teams, or organizations exert influence on their environment. Cox *et al.* (2003) describe shared leadership as a 'collaborative, emergent process of group interaction through an unfolding series of fluid, situationally appropriate exchanges of lateral influence.' Shared leadership does not call for a succession of individuals to function as the group leader. Rather, it places them simultaneously in the position of sharing the influence and direction of the team or organization. Shared leadership helps improve the morale and satisfaction of employees in public as well as private organizations (Sweeney, 1996; R. Denhardt, 1999). Kim (2002) confirmed a positive relationship between job satisfaction and shared leadership in local government agencies. Improved job satisfaction, in turn, has been linked to lower absenteeism and turnover (Pierce *et al.*, 1991; Eby *et al.*, 1999). Choi (2009, p. 94) examined shared leadership in public organizations and found that public employees often participate in leadership in specific situations, concluding that 'organizational crisis, information technology, innovative culture, and hierarchy of position are significantly associated with shared leadership' in public organizations.

Essentially, the distributed nature of this tenet of the new public leadership theory proposes that public leaders are most effective when they focus on organizational stakeholders, including employees within their organization, citizens being served, partnering institutions involved in providing, or creating the service, in addition to the leadership hierarchy in their own organization. It encourages public leaders to share leadership among these stakeholders as required by the various contexts and circumstances that arise, thereby creating a leadership process rather than vesting all leadership responsibilities and activities in a single person.

In summary, we propose a new public leadership theory that combines salient features of authentic, transformational, and distributed leadership theories; proposing effective leadership in the public sector is networked and often nonhierarchical, is based on core values, and is more effective when utilizing transformational rather than transactional principles. These three tenets provide a basis for research into leadership of a modern public sector characterized by ambiguous boundaries between public, private, and nonprofit organizations working in partnerships, contracts, and collaboratives with unclear lines of authority and accountability. It acknowledges the existence and importance of a knowledge-based

public service motivated by individualized intellectual and inspirational influence rather than by more prescriptive managerial approaches. It calls for strong leadership in the public sector by transcending the barriers of limited accountability and discretion, placing the onus for appropriate orientation and focus of leaders on their internal compass rather than external regulations. Preliminary studies of each of these individual theories suggest that they add value to the public service; however, no study to date has considered these three aspects of leadership combined as part of a unified approach to leadership in the public sector. To fill in this gap in literature, we used the Federal Human Capital Surveys administered in 2006, 2008, and 2010 to examine the utility of a comprehensive public leadership theory comprised of these three tenets.

FEDERAL HUMAN CAPITAL SURVEYS: AN EMPIRICAL EXAMINATION OF THE THREE TENETS

To examine the importance of the three tenets of new public leadership theory in the public service, we used data from the Federal Human Viewpoint Survey (formally known as the Federal Human Capital Survey) conducted biannually by the Office of Personnel Management. This survey is used to 'gauge the impressions of our civil servants and seek out those areas where agencies are doing well and where improvement is needed' (Hager, 2008). It is a 'tool that measures employees' perceptions of whether and to what extend conditions characterizing successful organizations are present in their agencies' (OPM, 2008). The OPM randomly selects over 400 000 individuals from among all full-time permanent employees in participating federal agencies to participate in these surveys. They are conducted principally via the internet, although paper copies of the survey are provided to individuals lacking internet access. Employees are contacted multiple times if needed to encourage completion of the survey. The data are weighted to reflect under or over representation of different response groups, and response rates then undergo 'raking' to adjust for demographic inequalities.

The leadership focus as well as the extensive nature of this survey in terms of both the number of federal employees and the number of public organizations that participated in the survey makes it an ideal source of information to examine the different aspects of a new public leadership theory. A number of authors have used some portion of this data to investigate leadership in public organizations. Trottier *et al*. (2008) used the 2002 survey to show the relative effectiveness of transformational leadership as compared with transactional leadership approaches. Fernandez *et al*. (2010) used 2006 survey data to establish a link between integrated leadership and federal agency PART scores. Yang and Kassekert (2010) used 2006 survey to show a strong correlation between ratings by employees and job satisfaction. Although these cross-sectional researches on individual administration of the survey has established a good indicator between leadership and its effectiveness, what is missing yet in literature is a longitudinal analysis of the effects of the modern leadership principles comprised of the salient features of authentic, transformational, and distributed leadership theories.

For the purposes of this study, we used data from the 2006, 2008, and 2010 surveys. Survey data was obtained from the OPM website and included results of the surveys for 45 Federal departments in 2010 and 2008 and for 43 in 2006. The total data points are 697 177 (263 475 for 2010, 212 223 for 2008, and 221 479 for 2006). The data consist of the number of individuals in each department who selected 'strongly agree,' 'agree,' 'neither agree nor disagree,' 'disagree,' or 'strongly disagree' for each question. Although each survey contained approximately 75 questions, we restricted our analysis to the 55 questions that were common to all three of the surveys. To obtain a score for each department for each question, responses were weighted, with 'strongly agree' weighted 100, 'agree' weighted 80, 'neither agree nor disagree' weighted 60, 'disagree' weighted 40, and 'strongly disagree' weighted 20. These weights were multiplied by the number of individuals selecting that response, and the summation of the results was divided by the total number of responses to obtain a total score.

To delineate the dependent variable, three categories of outcomes of effective leadership were identified (Appendix I). These categories include job outcomes (five survey questions), organizational outcomes (three survey questions), and leader outcomes (two survey questions). Job outcomes were derived from questions in which respondents ranked their overall satisfaction with their current positions. Organizational outcomes were calculated from questions in which respondents indicated their perception of their respective organization's effectiveness and success in achieving their designated mission. Leader outcomes were measured from questions in which respondents rated their leaders' effectiveness in directing the organization and in meeting the respondents' expectations for appropriate leader behavior. A combined outcomes score was obtained as an additional dependent variable by combining the results of all three outcome categories into a single outcomes measure.

The three predictor question categories (Appendix I) included transformational leadership (17 questions), distributed leadership (four questions), and values-based leadership (10 questions). These categories correspond to the subcomponents of the new public leadership theory of transformational leadership, distributed leadership, and authentic leadership.

Performing a backward elimination stepwise regression analysis of these predictive categories with the outcomes measures yielded the following results (Table 1).

As shown in Table 1, all three leadership approaches were predictive of important aspects of outcome measurements in these surveys. Transformational leadership was predictive of organizational and leader-based outcomes in all three surveys as well as when the three surveys were combined. Distributive leadership approaches were predictive of organizational outcomes in all three surveys and of job-based outcomes in 2008 and 2010. Values-based leadership was predictive of all three outcome measures (job, organizational, and leader) when the three surveys were combined but was only predictive of leader-based outcomes in 2006 and 2008 and of job-based outcomes in 2006.

Predictive models for organizational and leader-based outcomes had Pearson coefficients of 80 or greater for all three surveys, suggesting strong predictive values for the models. Job-based outcome measures had Pearson coefficients between 48 and 62, which, although not as robust as the other outcome measures, support the predictive models.

Factor analysis is shown in Tables 2 and 3. Cronbach's alpha is greater than 0.9 for all predictive factors, suggesting strong reliability for these factors' measures (Carmines and Zeller, 1979). Intrayear correlations between the factors for each year's surveys are positive and strong, supporting the claim of construct validity for the surveys. Interyear correlations are less strong, suggesting analysis using combined data from the three surveys is less robust.

DISCUSSION

This analysis of the Federal Human Capital Survey results over a period of 6 years (three surveys) provides strong support for the new public leadership theory and its application to the Federal workforce. Outcomes or impact of leadership activities identified by the survey (job, organization, and leader) were predicted by a leadership model that includes authentic, transformational, and distributed leadership. For the overall model, transformational and values-based leadership were most significantly correlated with overall outcomes. However, considering each survey and each outcome separately provided a more complex picture.

Job-related outcomes for all three surveys combined were best predicted by values-based leadership alone, which was also the case for the 2006 survey. However, in both 2008 and 2010, distributed leadership scores were the only predictive factor for job-related outcomes. Transformational leadership did not predict job-related outcomes in either the combined results nor in any of the individual surveys. This trend from a predictive effect of values-based leadership in 2006 to a distributed leadership effect in 2008 and 2010 was also seen for the other individual outcome measures.

Leader outcomes were predicted by values-based leadership variables in both 2006 and 2008 along with transformational leadership effects but not in 2010, when only transformational leadership was predictive of leader outcomes. Interestingly, the combined outcomes had a significant but negative association with distributed leadership. This suggests the possibility that Federal employees view leaders exercising distributed leadership skills negatively or indicative of weak or ineffective leadership as opposed to more traditional approaches to leadership. The association with transformational leadership styles indicates that Federal employees place significant value on personal development and engagement in the various areas by their leaders.

Organizational outcomes were significantly correlated with values-based leadership in the combined results but only with transformational and distributed leadership variables in the individual 2010, 2008, and 2006 surveys. This suggests that the Federal workforce places a value on distributed leadership in the organizational setting, seeing the involvement of a broader base of employees in leadership activities as beneficial for their respective organizations, perhaps because they perceived this greater involvement as more effective in achieving organizational goals and mission. Similarly, transformational leadership skills were positively associated with organizational outcomes in all three surveys, again suggesting that the Federal workforce perceived individual development and engagement as beneficial in achieving organizational goals.

Values-based leadership assumed diminishing importance as a predictor of outcome measures over the course of the three surveys. In 2006, three of the four outcome measures were significantly predicted by values-based leadership scores, whereas in 2010, none of the outcome measures were associated with values-based leadership. Conversely, in 2006, only one of the four outcomes measures was significantly associated with distributed leadership as a predictor, whereas in 2008 and 2010, three of the four outcome measures were associated with distributed leadership. This drift away from values-based leadership towards distributed leadership as predictors of the overall outcomes; job-based and leadership-based outcomes over the course of the three surveys raises important questions. It is possible that the workforce perceived a strong values basis for their respective leadership regardless of their perception of the individual outcomes. Alternatively, it is possible that the workforce changed their perception of the importance of values in their leaders in favor of a greater expectation for distributed leadership approaches.

Table 1   Regression analysis of survey results

Category of outcomes	Combined results of three surveys	Results of 2006 survey	Results of 2008 survey	Results of 2010 survey
All outcome measures combined	TL: yes (1.145; p=0.000) DL: no VB: yes (1.119; p=0.000) R²=70.0	TL: yes (0.967; p=0.013) DL: no VB: yes (1.364; p=0.001) R²=83.5	TL: yes (0.901; p=0.09) DL: yes (1.688; p=0.000) VB: no R²=85.2	TL: yes (1.402; p=0.000) DL: yes (0.731; p=0.007) VB: no R²=87.0
Job-related outcome measures	TL: no DL: no VB: yes (0.988; p=0.000) R²=36.2	TL: no DL: no VB: yes (1.041; p=0.000) R²=48.2	TL: no DL: yes (1.379; p=0.000) VB: no R²=61.9	TL: no DL: yes (0.982; p=0.486) VB: no R²=48.6
Organization outcome measures	TL: yes (1.765; p=0.000) DL: no VB: yes (1.656, p=0.001) R²=66.5	TL: yes (2.133; p=0.000) DL: yes (1.443; p=0.001) VB: no R²=86.2	TL: yes (1.815; p=0.000) DL: yes (1.818; p=0.000) VB: no R²=88.8	TL: yes (1.315; p=0.000) DL: yes (2.001; p=0.000) VB: no R²=91.7
Leader outcome measures	TL: yes (1.97; p=0.001) DL: no VB: yes (1.674, p=0.004) R²=61.9	TL: yes (1.683; p=0.011) DL: no VB: yes (2.075; p=0.003) R²=82.2	TL: yes (1.654; p=0.043) DL: no VB: yes (2.473; p=0.002) R²=80.0	TL: yes (3.310; p=0.000) DL: no VB: no R²=87.2

TL, transitional leadership; DL, distributed leadership; VB, values-based leadership.
'Yes': significant correlation of predictor with outcomes measure.
'No': correlation of predictor with outcomes not significant.

Table 2   Factor correlation

Factor	2010 TL	2010 DL	2010 VB	2008 TL	2008 DL	2008 VB	2006 TL	2006 DL	2006 VB
2010 TL	1.000								
2010 DL	0.867	1.000							
2010 VB	0.889	0.932	1.000						
2008 TL	0.862	0.856	0.887	1.000					
2008 DL	0.659	0.882	0.827	0.882	1.000				
2008 VB	0.727	0.864	0.904	0.925	0.953	1.000			
2006 TL	0.522	0.468	0.552	0.594	0.457	0.543	1.000		
2006 DL	0.476	0.423	0.538	0.603	0.495	0.595	0.862	1.000	
2006 VB	0.415	0.417	0.507	0.555	0.488	0.570	0.912	0.912	1.000

TL, transformational leadership; DL, distributed leadership; VB, values-based leadership.

Table 3   Means, standard deviations, and Cronbach's alpha for each of the predictive factors

Factor	Mean	Standard deviation	Cronbach's alpha
2010 TL	71.27	2.94	0.9671
2008 TL	71.16	2.90	0.9608
2006 TL	70.65	2.68	0.9572
2010 DL	71.64	2.70	0.9145
2008 DL	72.60	2.76	0.9129
2008 DL	72.25	2.50	0.9040
2010 VB	73.58	2.91	0.9546
2008 VB	73.55	3.15	0.9208
2006 VB	72.54	2.91	0.9508

TL, transformational leadership; DL, distributed leadership; VB, values-based leadership.

Descriptive statistics for values-based leadership support the former conclusion. Responses to the values-based leadership questions were not significantly different in any of the three surveys (2010 vs 2006, $p = 0.097$; 2010 vs 2008, $p = 0.962$; 2008 vs 2006, $p = 0.121$). However, responses to values-based leadership questions were significantly higher (more positive) than responses to transformational leadership questions in all three surveys (2010 mean value responses were 73.6 compared with mean transformational responses of 71.6, $p = 0.000$; 2008 mean value responses of 73.55 compared with mean transformational leadership values of 67.79, $p = 0.000$; and 2006 mean value responses of 72.5 compared with mean transformational leadership values of 67.19, $p = 0.000$) and were significantly higher than distributed leadership responses in 2010 ($p = 0.001$). In other words, respondents gave uniformly highly positive marks to values-based leadership questions in each of the three surveys, reflecting a strong expectation for values-based leadership regardless of their perception of their job, organization, or leadership effectiveness.

The importance of distributed leadership was also manifested in each of the three surveys. In each survey, the scores for distributed leadership were significantly higher than those for transformational leadership. In 2010, the mean for distributed leadership was 71.6 compared with a mean of 68.7 for transformational leadership, $p = 0.000$. In 2008, the mean for distributed leadership was 72.6 versus a mean for transformational leadership of 67.8, $p = 0.000$. In 2006, the mean for distributed leadership was 72.3 versus a mean for transformational leadership of 67.2, $p = 0.000$. As with values-based leadership, this implies a high expectation for and perception of distributed leadership independent of the performance of the organization, leadership, or job satisfaction measures.

These results provide strong support for the combination of authentic, transformational, and distributed leadership approaches into a single cohesive leadership theory for the public service. Using survey respondents' perceptions of their jobs, organizations and leaders as indicators of success of different leadership styles showed highly significant correlation of these three tenets with improved performance of public organizations. The only comparative approach to leadership used in this study was 'contingent reward,' in which employees are rewarded for achieving certain outcomes or behaviors. In contrast to the findings by Trottier *et al.* (2008), no correlation was found with any of the outcome measures and this leadership approach. Interestingly, these authors conducted their investigation using the 2002 Federal Human Capital Survey and found that both transactional and transformational leadership approaches provided a strong basis for predicting different organizational outcomes. It is possible that continued evolution of the public service over the ensuing decade resulted in a lower efficacy of transactional leadership.

If this were the case, it would give further support to our contention that as the public service evolves into a collection of radix organizations, different leadership styles and approaches will become necessary. Traditional hierarchical production-oriented public organizations may have been well-served by transactional leadership styles, but today's complex public organizations with ambiguous boundaries, diverse and often unclear expectations of performance, and

shifting concepts of accountability and discretion are better served by a new approach to leadership as is proposed by the new public leadership theory.

Although these results provide strong confirmatory evidence of the utility of the new public leadership theory, significant opportunities remain to delve further into the mechanisms and implications of this theory. For instance, a number of Federal departments are outliers from either an outcome perspective or from the perspective of correlating various leadership approaches with specific outcomes. It would also be valuable to use outcomes measures independent of the surveys to confirm the effect of the theory, such as PART scores and employee turnover. A third area of potential research would be to test other leadership approaches in public settings to compare their relative utility in explaining successful or unsuccessful organizational and/or employee outcomes.

There are, however, some potential limitations of the current study. The empirical portion of this study is based on responses to a questionnaire that has remained relatively consistent over the period examined by this study. Nevertheless, respondents answering to questions could have conceivably been influenced by environmental or political factors not covered by the study. High values of Cronbach's alpha for each of the predictive variables suggest a reasonable degree of internal validity for the use of these variables. Some have posited that causality cannot be established through nonexperimental research methods such as questionnaires (Stone-Romero, 2009). Examples of problems with questionnaire-based research include common method bias, in which survey respondents supply both the predictive as well as the outcome variables, acquiescence effects in which respondents either agree or disagree with Likert inventories, and low response rates (Bryman, 2011). These difficulties are mediated to an extent by the large size of the Human Capital survey samples, the high response rates obtained, the diversity of the respondents (i.e., originating from multiple federal departments, bureaus, and centers), and the longitudinal nature of this study using multiple administrations of the survey over a period of several years. Few disagree that an experimental approach to studying public leadership would be more robust; the logistical difficulties involved in such an undertaking would, however, be considerable.

CONCLUSION

On the basis of our discussion and findings, we call for further research and development of a new public leadership theory comprised of the transformational, distributed, and values-based leadership principles to the field of PA. The highly complex environment facing many public organizations cannot be successfully managed using traditional leadership techniques.

The public managers of tomorrow will need these skills and insights to carry out their public service mandates. We demonstrated a strong correlation between the tenets of the new public leadership theory and positive organizational outcomes as measured by the Federal Human Capital Survey over a period of 6 years. Our findings provide strong support for the concept of a combined values-based, transformational, and distributed approach to public leadership. We predict that public leaders are most effective in meeting the expectations of public service employees and thereby able to obtain greater organizational efficacy when they combine authentic values-based leadership with a willingness and ability to share leadership responsibilities with internal and external stakeholders, and an ability to effectively engage individual employees through intellectual stimulation, inspirational motivation, idealized influence, and individual consideration.

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APPENDIX I: SURVEY QUESTION CATEGORIES FOR THE VARIABLES

1. Job outcomes

   a. My work gives me a feeling of personal accomplishment
   b. I like the kind of work I do.
   c. The work I do is important
   d. Considering everything, how satisfied are you with your job?
   e. Considering everything, how satisfied are you with your pay?

2. Organization outcomes

   a. The skill level in my work unit has improved in the past year
   b. My agency is successful in accomplishing its mission
   c. Considering everything, how satisfied are you with your organization?

3. Leader outcomes

   a. I have a high level of respect for my organization's senior leaders
   b. How satisfied are you with the policies and practices of your senior leaders?

4. Transformational leadership categories

   a. Promotions in my work unit are based on merit
   b. In my work unit, steps are taken to deal with a poor performer who cannot or will not improve
   c. In my work unit, differences in performance are recognized ina a meaningful way
   d. Awards in my work unit depend on how well employees perform their job
   e. Creativity and innovation are recognized
   f. Pay raises depend on how well employees perform their jobs
   g. How satisfied are you with the recognition you receive for doing a good job?
   h. I am given a real opportunity to improve my skills in my organization.
   i. I have enough information to do my job well
   j. I have sufficient resources to get my job done
   k. My talents are used well in the workplace
   l. My performance appraisal is a fair reflection of my performance
   m. My supervisor supports my need to balance work and other life issues
   n. Supervisors/team leaders in my work unit support employee development

o. How satisfied are you with the training you receive for you present job?

p. I know how my work relates to the agency's goals and priorities

q. My training needs are assessed

r. I feel encouraged to come up with new and better ways of doing things

s. In my organization, leaders generate high levels of motivation and commitment in the workforce

t. Managers communicate the goals and priorities of the organization.

u. Managers review and evaluate the organization's progress toward meeting its goals and objectives.

v. How satisfied are you with the information you receive from management on what's going on in your organization?

w. My workload is reasonable

x. Physical conditions allow employees to perform their jobs well

5. Distributed leadership

a. How satisfied are you with your involvement in decisions that affect your work?

b. Employees have a feeling of personal empowerment with respect to work processes

c. Employees in my work unit share job knowledge with each other.

d. The people I work with cooperate to get the job done

6. Values-based leadership

a. My organization's leaders maintain high standards of honesty and integrity

b. Managers/supervisors/team leaders work well with employees of different backgrounds.

c. I have trust and confidence in my supervisor.

d. Policies and programs promote diversity in the workplace

e. Employees are protected from health and safety hazards on the job

f. My organization has prepared employees for potential security threats

g. Arbitrary action, personal favoritism and coercion for partisan political purposes are not tolerated.

h. Prohibited practices are not tolerated

i. I am held accountable for achieving results

j. I can disclose a suspected violation of any law, rule or regulation without fear of reprisal.