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**Leadership and Extra-Role Behavior in Public Sector:
The Effect of Public Service Motivation**

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Introduction

Motivation of public sector employees is one of the great future challenges for HRM in the public sector: Against the background of demographic change it becomes more and more difficult for public sector organizations to keep turnover intentions low and motivation for effective performance high (Ingraham et al., 2000). Employees perform effectively when the level of work outcome is in high agreement with its valence (Vroom, 1964). Public employees therefore need to be motivated in order to perform for the public and for public sector organizations. Regarding to contextual performance the degree of employee behavior which is intended to benefit the organization and which goes beyond existing role expectations is a relevant indicator of performance of public sector organizations.

After decades of performance management attempts and managerial reforms in public organizations results concerning an increase of performance at neither the organizational nor the individual level are not fully convincing (Pollitt, 2005). But the mostly liberation and market-driven management approaches had also an impact on organizational culture and leadership in public institutions (Pollitt and Bouckaert, 2004; Heinrich, 2002). The range of leadership skills for public managers is growing, especially in a competitive environment (Bass, 1985). Managerialism “cultivates the notion that public managers should assume an entrepreneurial leadership role” (Terry, 1998: 197). Even though this is seen as a danger for democratic governance because of many conflicts between accountability and responsiveness of strong leaders (Ruscio, 2004; Terry, 1998), in an organizational context, leadership behavior of supervisors gets more and more important and shows a primary tasks of managers to strengthen motivation and performance of employees (Park and Rainey, 2008; Steers and Porter, 1987). “Although many types of leadership in the public sector have been discussed extensively, such as those in policy positions and working in community settings, administrative leadership within organizations has received scant attention and would benefit from a research agenda linking explicit and well-articulated models with concrete data in public sector settings” (Van Wart, 2003: 214).

Against the background of Van Wart’s claim to further research this paper explores the relationship between leadership and extra-role behavior in public sector organizations which has not been in the focus of public management research yet. It presents a research model including dimensions of leadership, public service motivation and organizational citizenship behavior. Transformational leaders motivate their followers to perform beyond expectations by activating follower’s higher order needs and inducing followers to transcend self-interest for the sake of the organization. Organizational citizenship behaviors are defined as not discretionary work-related behaviors, not related to the formal reward systems, and which promote the effective functioning of the organization. According to Wayne et al (1997, 103) “the exchange between an employee and his or her direct superior is the primary determinant of employee behavior.” Organizational citizenship behaviors are based on social exchange between superiors and employees and not on economic or transactional exchanges in which obligations are more short-term oriented. Therefore we assume that transformational leaders support discretionary work-related behaviors of followers. Values and attitudes that support the overall goal and

functioning of an organization are part of transformational leader's behavior and strengthen employee's citizenship behavior. As an extent to previous work on transformational leadership and organizational citizenship, mostly undertaken in private sector organizations, we integrate the concept of public service motivation in our model to investigate a distinctive form of motivation towards public institutions in relationship to the value oriented leadership behavior in these organizations. Public service motives stand for an attitude toward distinctive goals of public organizations and can be understood as an important variable that influences the relationship between leadership and behavior of public administration employees. Therefore we expect to contribute substantially to the current debate about administrative arguments in a time of growing demand for management reforms to strengthen performance of public organizations.

The next sections outline the basic model we are testing in our study and the underlying assumptions. Then the research design and method will be presented as well as the data source. Following this, we test the theoretical model using structural equation modeling, drawing on a sample of municipal employees in Switzerland. The survey generated answers from 3'733 public employees from 277 municipalities and uses employee perceptions as measure of the named latent constructs. Finally, the main findings are discussed and paths for future research will be presented in the conclusion.

Extra-Role Behavior

Public sector organizations face the difficulty to measure organizational and individual performance, especially because simple measures like earnings, units sold etc. do not exist in many areas of public task fulfilling. Organizational research identified diverse concepts of work behavior that contribute to organizational effectiveness, but which are often overlooked by traditional measures of work performance; e. g. organizational citizenship behavior, prosocial behavior, contextual performance, and extra-role behavior (Borman and Motowidlo, 1997; Organ, 1997; Van Dyne et al., 1994; Podsakoff et al., 1990; Organ, 1988b; Brief and Motowidlo, 1986). Organizational citizenship behavior is used in our research as the measure of extra-role behavior and characterizes individual behavior that is maintaining and enhancing the context of work which supports task performance. Organizational citizenship behavior enhances the social or psychological work context, e. g. through some form of interpersonal helping with an organizationally relevant task or problem. Such behavior aggregated promotes the effective functioning of the organization and goes beyond individual role expectations.

Especially the term of citizenship reflects the historic roots of organizational citizenship behavior. Organ's "good soldier syndrome" shows the similarity with civic and democratic virtues - values which form the basis of a good functioning social entity. Civic virtues guarantee the survival of a democracy based on citizenship with the nature of citizen's membership in a political community and citizen's participation in the work of the polity as well as for the interests of the community (Denhardt and Denhardt, 2007b; Madison et al., 1787 [1987]). Organizational citizenship guarantees the effec-

tiveness and survival of an organization based on membership, support of other members, participation and identity with an organization, cooperation, and taking ownership and responsibility by the organization's employees. Especially public organizations offer a multitude of possibilities to become involved as a "citizen". On the one hand, public employees often are members of organizations which enhance civic virtues and public values outside of the organizations. On the other hand, the legal bases (e. g. personnel laws and policies) reflect the values and virtues within the public organization.

When looking at the behavioral content of organizational citizenship behavior as a specific form of extra-role behavior there exist different suggestions of dimensionalities. Whereas Smith et al. (1983) distinguished a first factor called altruism (helping others) and a second factor named generalized compliance (impersonal behavior like compliance with norms), Organ (1988a) enlarged the scale to five factors called altruism, courtesy, conscientiousness, sportsmanship, and civic virtue which has been the most used scaled, first operationalized by Podsakoff et al. (1990). Williams and Anderson (1991) further developed the five-factor taxonomy of Organ in a two-factor taxonomy, allocating Organ's first two dimensions to organizational citizenship behavior directed toward individuals and the latter three dimensions to organizational citizenship behavior directed toward the organization. In our study we use organizational citizenship behavior covering two latent variables based on Williams and Anderson two-factor taxonomy that represents an individual and an organizational oriented employee behavior.

Leadership and Extra-Role Behavior in Public Organizations

Leadership research in public administration is closely related to the voluminous work on leadership in the private sector. The different stages of common leadership research, e. g. trait theory (Stogdill, 1948; Bowden, 1926), style theory (Blake and Mouton, 1964; Fleishman, 1953), contingency theory (Vroom and Yetton, 1973; Hersey and Blanchard, 1969; Fiedler, 1967) or transformational leadership (Bass and Avolio, 1990; Bass, 1985; Burns, 1978) can also be found in public sector leadership research. But on the one hand, public sector leadership research lags behind the developments in private sector research (Van Slyke and Alexander, 2006), e. g. with newer approaches on processes of leadership or dispersed leadership (Piccolo and Colquitt, 2006). On the other hand, public sector leadership deals with sector-specific issues determining research questions. "Bureaucratic reform movements during the past two decades have altered the leadership landscape of public sector organizations by introducing new organizational forms beyond traditional bureaucracy and further complicating the multiple stakeholders, competing demands, and tools available for public sector leaders at each level of an organization" (Van Slyke and Alexander, 2006: 362). This worldwide government reform agenda has challenged administrative leadership and its backgrounds of discretion, stewardship and accountability. Especially from a viewpoint of democratic theory strong leadership should not be important for administrators in comparison to political executives or private sector leaders (Denhardt and

Denhardt, 2007a; Ruscio, 2004; Terry, 1998; Terry, 1995). “[T]hus when small group and lower-level leadership was the focus of the mainstream leadership literature in the 1960s and 1970s, leadership topics were lightly covered” (Van Wart, 2003: 219). Also in today’s leadership research there is a deficit concerning bureaucratic and administrative leadership within the executive branch of all levels of government. Terry (1995) based on Doig and Hargrove (1987) names important reasons for that. Administrative leadership is seen as part of bureaucratic routines and institutional processes. Thus administrative leadership should not exist because of a primarily instrumental approach on leadership within a strong overhead democracy focusing on accountability structures (Van Wart, 2003). Against that background public bureaucracies are not guided by administrative leaders. Rather “powerful forces beyond the control of individual leaders” guide public bureaucracies. Contextual constraints, political and administrative processes weigh heavily on managerial behaviors, e. g. jurisdiction, legislative and interest-group alliances with administrators, and short tenure of political executives (Rainey, 2003).

Nevertheless we want to analyze the role of leadership in public administration in this article, because “the argument has been made clearly and strongly that leaders have a tremendous effect on individual organizations and on the performance of those organizations” (Hennessey, 1998: 522). On the one hand, administrative leadership is conditioned by the state of an organization. On the other hand, what leaders achieve is largely the product of influence rather than of command - influence within and outside the organization. Administrative leaders must rely on their staff for the achievement of objectives. “[A]lthough the executive is not likely to succeed if he approaches his organization as something that is his own to command, he is at no disadvantage as he takes up the role of leadership” (Stone, 1945). Thus, leadership behavior that strengthens values and attitudes in favor of the organization should influence the organization toward the achievement of its goals.

In our study with the three groups of variables of leadership, motivation, and extra-role behavior we are interested in the relationship between leadership and public service motivation as independent variable and extra-role behavior as dependent variable. Organ and Ryan (Organ and Ryan, 1995) showed in their meta-analysis that supportive leadership like leader consideration is a predictor of organizational citizenship behavior, even though not a strong or superior one when compared with variables like satisfaction, fairness or commitment. Along the lines of the “g” (general) factor when measuring mental ability Organ and Ryan bring an “m” (moral) factor up. Thus, morale can be seen as one of the best predictors of extra-role contributions. Basic values and attitudes as psychological state vis-à-vis the workplace may support our hypothesis that value oriented leadership behavior has a positive impact on extra-role behavior like organizational citizenship behavior. Wang et al (2005) argue in their study that individuals who are intrinsically motivated to fulfill a collective vision without expecting immediate personal gains contribute toward achieving the common goal in ways that their roles do not prescribe. Transformational leadership supports these individuals in behaving like “citizens” by influencing their self-concepts and getting them to internalize and prioritize a larger collective cause

over individual interests. Furthermore Truckenbrodt (2000) found a positive relationship between leader-member exchange and organizational citizenship behavior. We follow these empirical results, assuming a positive relationship between leadership and organizational citizenship behavior (see also Podsakoff et al., 1990).

Therefore we use two latent variables which describe value oriented leadership behavior. On the one hand, transformational leadership as a leader-focused behavior explains individual, group and organizational outcomes like performance or extra-role contributions (Bass and Avolio, 1990; Bass, 1985; Burns, 1978). On the other hand we integrated a more administrative like leadership behavior and call it simple “public leadership”. Public services are organized and provided according to particular principles and underlying values which guide supervisors in their leadership behavior assuring successful task fulfillment. According to the value theory (Rokeach, 1973; Schwartz and Bardi, 2001; Jorgensen and Bozeman, 2007), two categories of values are distinguished, depending on their degree of abstraction and capacity to influence behavior. Rokeach distinguishes between "terminal" and "instrumental" values (Rokeach, 1973), which matches up with Jorgensen and Bozeman's definitions of "fundamental or prime" and "procedural" values (Jorgensen and Bozeman, 2007). Translated into the Swiss administrative context and the “Rechtsstaat” tradition, and following Jorgensen and Bozeman's identification of fundamental values, our public leadership dimension can be established from the constitutional and administrative principles that set the main goals and roles of the federal state. Constitutional principles are a basic expression of the most fundamental values of a nation. These principles are part of the written constitution, and they guide the actions of administrative leaders. The procedural values are related both to the foundations of public service and the principles governing administrative activity. They are defined through the administrative law ruling the provision of goods and services of general interest, but also, in some ways, through the behavior of public employees. They are narrower than constitutional principles, since they primarily concern characteristics of public institutions and set guidelines for public servants in their daily work. Therefore we define public leadership by underlying procedural values like “rule of law”, “equal treatment” and “permanent public service”. We assume that these values support citizenship behavior of public employees because of their roots in principles which guarantee the effective functioning of public organizations.

Leadership, Public Service Motivation and Extra-Role Behavior

Research on work motivation has a long history and is one of the fields in organizational behavior with a comparably solid theoretical ground (Miner, 2003). Work motivation as a psychological process results from the interaction between the individual and its environment. Forces within and outside an individual characterize work motivation and determine form, direction, intensity, and duration of work-related behavior. Endogenous sources of work motivation are e. g. needs, traits, and values. Work-related behavior results from needs and values affecting cognition, particularly goals, and

encompassing affective reactions. Exogenous respectively contextual factors like culture, job characteristics or the person-context fit influence the extent to which needs and values are fulfilled (Latham and Pinder, 2005; Locke and Henne, 1986).

Public organizations are characterized by a specific context affecting employee motivation. Even though more market-driven and competitive management approaches became part of public governance settings during last decades, public management still underlies severe formal constraints. For example, public law sets rules and restrictions limiting the selection, appraisal, reward or dismissal of employees. The often not existing competitive environment and absence of market forces as well as the accountability driven control mechanism create a more internal and control oriented culture emphasizing stability and cohesion (Rainey, 2003; Parker and Bradley, 2000; Zammuto and Krakower, 1991). In recent years research about specific motivational aspects in public sector organizations increased. As a need-based theory of motivation (Perry et al., 2008) public service motivation encompasses the “individual’s predispositions to respond to motives grounded primarily or uniquely in public institutions and organizations” (Perry and Wise, 1990: 368). People who feel attracted by features of public organizations behave in ways supporting the organization’s values and strategies because they expect to get rewards fulfilling their needs.

Against the background of public organizations the impact of value-based leadership on motivation, namely public service motivation, is of great interest (Paarlberg et al., 2008). Especially research on transformational and charismatic leadership showed the influence on the judge of followers of their work environment and the activation of intrinsic values by such leadership behaviors (Shamir et al., 1993; House, 1977; Burns, 1978). But leadership behavior is not an intrinsic, and thus self-determined, factor influencing employee motivation following McGregor and Herzberg (McGregor, 1960; Herzberg et al., 1959). Against the background of self-determination theory intrinsic motivation is not the only type of self-determined motivation (Deci and Ryan, 1985). Deci and Ryan’s continuum from nonself-determined to self-determined motivation exemplifies different stages of internalization (“taking in” of a value or regulation) and integration (further transformation of regulation into their own) of motivation. Integration stands for identified regulations which are brought into congruence with one’s other values and needs. “Actions characterized by integrated motivation share many qualities with intrinsic motivation, although they are still considered extrinsic because they are done to attain separable outcomes rather than for their inherent enjoyment” (Ryan and Deci, 2000: 73). Against this background, positive feedback as an external influence can enhance intrinsic motivation (Ryan and Deci, 2002). One form of positive feedback can be the supervisor’s leadership behavior. Supervisors may positively affect this type of motivation when reducing for example heteronomous control and supporting information oriented feedback (Frey, 1997).

Transformational leaders play an important role in the management of information and meaning by clearly communicating goals and values of an organization. Utilizing intellectual stimulation by seeking new ways to perform tasks may enhance followers’ view on task variety and autonomy. Individua-

lized consideration, idealized influence or inspirational motivation help followers to see more autonomy, feedback, and significance in their jobs (Piccolo and Colquitt, 2006). Leaders communicating an inspiring vision or behaving supportively can enhance the followers' goal commitment and task satisfaction (Locke and Latham, 2002; Kirkpatrick and Locke, 1996). Value-based leaders lead by example and exhibit values that transcend the individual's self-interest, e. g. social justice, equality, and benevolence (Paarlberg et al., 2008; Avolio and Gardner, 2005). Transformational or "morally uplifting" leaders furthermore have an impact on employee morale (Bass, 1998; Dvir et al., 2002). Leaders thus frame appropriate social behavior and social norms get reinforced by interpersonal contact which can mute opportunistic forms of behavior (Moynihan, 2008; Pearce, 1993).

This leads us to the conclusion that forms of value-based or transformational leadership influence followers by making individual values more congruent with organizational values and work goals. Public service motivation is an individual attitude towards specific organizational, especially public service values, and therefore can be characterized as an intrinsic type of motivation which gets strengthened by transformational leadership behavior. The reward for public employees is primarily the satisfaction of work activities for the public good itself (Park and Rainey, 2008), and that is part of transformational leader's inspirational motivation toward employees.

Consequently, leadership is a crucial influencing factor on intrinsic motivation respectively on public service motivation (Park and Rainey, 2008; Shamir et al., 1993). In our model we therefore assume a positive impact of our two value based leadership dimensions, transformational leadership and public leadership on public service motivation.

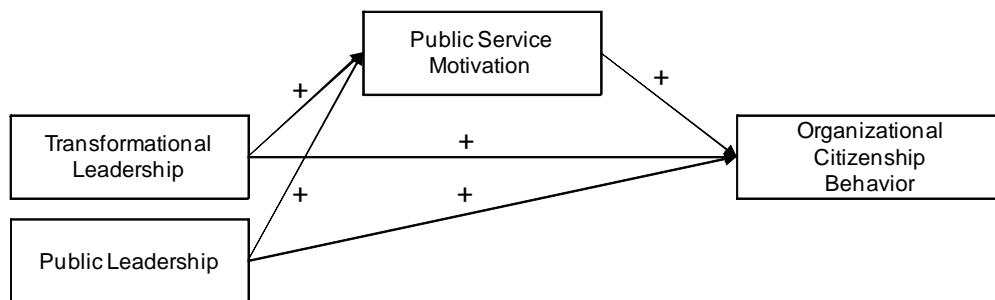
The relationship between public service motivation and organizational citizenship behavior has so far not been tested. But there exist several studies about relationship between public service motivation and attitudinal constructs. Clear and strong connections between public service motivation and different attitudes couldn't be proved (Brewer, 2008; Bright, 2008). Several scholars deal with public service motivation as an antecedent of organizational commitment (Park and Rainey, 2007; Castaing, 2006; Brewer and Selden, 1998, Crewson, 1997; Perry and Wise, 1990) whereas others draw on the inverted link (Ting, 1997; Camilleri, 2006) or describe it as correlate (Pandey and Stazyk, 2008). Public service motivation also encourages and sustains engagement toward public sector work (Lewis and Frank (2002); Moynihan and Pandey (2007)), supports decision for government as employer (Steijn, 2008), and has an impact on job satisfaction and commitment to employee's organizations (Bright, 2008; Wright and Pandey, 2008; Pandey et al., 2008; Steijn, 2008; Steijn and Leisink, 2006; Taylor, 2008; (Park and Rainey, 2008); (Naff and Crum, 1999); (Rainey, 1982)).

Combining these insights about public service motivation mostly used as an antecedent of employee attitudes and attitudinal predictors of organizational citizenship behavior (Organ and Ryan, 1995) we hypothesize a positive public service motivation to organizational citizenship behavior relationship.

Conceptual Model and Study Hypothesis

Based on our precedent analysis of the four dimensions transformational leadership, public leadership, public service motivation, and organizational citizenship behavior we define our conceptual model (see figure 1). Both leadership dimensions as well as public service motivation are treated as antecedents of organizational citizenship behavior of public employees. Thus, we assume direct and positive effects from the three exogenous latent variables to the endogenous latent variable.

Figure 1: Conceptual Model



According to the previous explanations about the theoretical and empirical implications for the dimensions of our model the following hypotheses can be made:

Hypothesis 1: Transformational leadership has a direct, positive effect on organizational citizenship behavior.

Hypothesis 2: Public leadership has a direct, positive effect on organizational citizenship behavior.

Hypothesis 3: Transformational leadership has a direct, positive effect on public service motivation.

Hypothesis 4: Public leadership has a direct, positive effect on public service motivation.

Hypothesis 5: Public service motivation has a direct, positive effect on organizational citizenship behavior.

Method and Data

Measures

The following measures consist of items with response options on a five-point Likert-type scale ranging from 1, “strongly disagree”, to 5, “strongly agree”.

Transformational leadership: We used five items from the transformational leadership scale (Bass and Avolio, 1990) from the four dimensions intellectual stimulation, individualized consideration, idealized influence and inspirational motivation.

Public leadership: Therefore we used three self-developed items relating to procedural values and administrative principles, respectively. These three items characterize supervisor’s behavior in relation to equal treatment of citizens and customers, law-abiding task fulfilling, and honesty as a guideline of supervisor’s behavior.

Public service motivation: The various conceptualizations of PSM have resulted in different operational definitions. In this study Perry’s (Perry, 1996) multidimensional measure is taken as baseline. Perry (1996) developed a list of 24 items measuring four distinct subscales of PSM (attraction to policy making, commitment to the public interest, compassion, self-sacrifice). For the purpose of this study the author reduced the set of items to a 14-items scale including items for all four PSM dimensions. The 14 items were chosen based on previous research in the psychometric testing of the PSM scale (Coursey and Pandey, 2007; Coursey et al., 2008; Kim, 2008; Vandenabeele, 2007) and face validity in the specific Swiss context. After model respecification we used six items for the second-order construct with its dimensions commitment to the public interest, compassion, and self-sacrifice.

Organizational citizenship behavior: For this latent variable we used two dimensions of organizational citizenship behavior according to Williams and Anderson (Williams and Anderson, 1991). The second-order construct measures the two dimensions of organizational citizenship behavior, one directed toward individuals (three items) and the other directed toward the organization (three items).

Data collection and sample characteristics

The data for this study were collected in a national survey of civil servants at the Swiss municipal level. Switzerland has 2636 municipalities per January 1 2009. 1736 municipalities in the German- and French-speaking areas were contacted by mail inviting them to take part in a national survey on the motivation of Swiss public servants. This means that, apart from the municipalities in the Italian speaking part of Switzerland, virtually all Swiss municipalities were addressed. In order to raise the participation the municipal authorities were promised a standardized benchmark report containing the survey’s key results. 279 municipalities participated in the survey. Depending on their preferences, the survey was administered online or paper-based. The municipalities were responsible for the distribution of the questionnaire to the civil servants and also for reporting back to the authors, to how many

people the questionnaire was given. This information was important to determine the response rate accurately.

The survey was given to 9852 civil servants. 3733 questionnaires were returned, yielding a response rate of 38.1%. Men were 54.4% and women were 45.6%. The average age was 43 years. The vast majority of participants had either professional apprenticeship (44.1%) or held a college or university degree (38.9%). The sample includes employees of different hierarchical levels and with different job tasks. As to the separation of the German speaking and French speaking part of Switzerland, an adequate measure is the respondent's survey language. 79.0% of the respondents used the German questionnaire and 21% the French version. The latter corresponds approximately with data from 2000 about the relative distribution of languages among all inhabitants of Switzerland: 65 percent were German and 20 percent French speaking inhabitants (Source: Federal Statistical Office of Switzerland). Concerning the language of municipal employees no accurate data are available.

Data analysis

The statistical analysis applies reflective confirmatory factor analysis and structural equation modeling using Amos 17.0. Maximum likelihood estimation (ML) was used. Though the ML estimator doesn't fully take into account the ordinal nature of the used measures and as a consequence factor correlations and factor loadings may be underestimated and χ^2 values inflated (Byrne, 2001; West et al., 1995; Finch et al., 1997) "continuous methods can be used with little worry when a variable has four or more categories, as long as normally distributed categorical variables are given" (Bentler and Chou, 1987). In this study, five categories are given and multivariate normal distribution is checked.¹ Further, by using the covariance, rather than the correlation matrix, the authors prevented the standard error estimates from being biased. Missing data were listwise deleted. Even though applying diagonally weighted least squares estimation (DWLS) or weighted least squares mean and variance adjusted estimation (WLSMV) would be more appropriate given the Likert, ordinal items, the study of Coursey et al. (Coursey et al., 2008) comparing different measurement techniques of public service motivation did not show strongly distinctive results due to the chosen estimator. While the advantages of using DWLS instead of other estimators like Maximum Likelihood has been discussed in public service motivation research (Coursey and Pandey, 2007; Vandenabeele, 2008), the question if public service motivation is second-order formative or reflective still remains open (Wright and Christensen, 2009).

¹ Even though assuming multinormality the deviation of normality is found to be acceptable for using maximum likelihood estimation because of the big sample size and independence of latent variables (Faulbaum, F. and Bentler, P. (1994) 'Causal Modeling: Some Trends and Perspectives', in I. Borg and P. Mohler (eds.) *Trends and Perspectives in Empirical Social Research*: 224-249. Berlin: De Gruyter.). In line with Kline (Kline, R. B. (2005) *Principles and Practice of Structural Equation Modeling* (2 ed.). New York: Guilford.), multivariate normality was assessed by univariate distribution statistics with 3 and 10 as cut-off criteria for skewness and kurtosis. In all presented models these limits have not been met.

Though there can be made a case for understanding PSM as second-order formative construct, this article sticks to a reflective measurement as stated by Coursey et al. (2008).

Model fit is assessed by inferential χ^2 and several descriptive goodness-of-fit indices. Since the χ^2 -statistic is known to be inflated for samples with $N > 200$ (Kelloway, 1998), χ^2 is referred here as descriptive information rather than as strong inferential test upon which a model is accepted or rejected. In addition to χ^2 , root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), comparative fit index (CFI) and the Tucker-Lewis fit index (TLI) are consulted as fit indices.

In structural equation modeling, a strict confirmatory approach has often to be given up, because the initially set up and tested model is usually rejected due to low fit.² Therefore we modified and tested again our model using the same data. The process of respecification must go hand in hand with theoretical considerations in order to ensure and preserve the coherence between substantial theory and the proposed structural equation model.

Results

Descriptive Statistics

Table 1 provides the univariate and bivariate statistics of the explained measures. A confirmatory factor analysis offered support for the discriminant validity of the measures used. All of the scale items were found to have statistically significant factor loadings for their latent constructs. The lambda values for these latent constructs range from .55 to .90, except for one item, i.e. the first-order factor of organizational citizenship behavior directed toward individuals ($\lambda = .47$).

Table 1: Descriptive Statistics, Reliabilities and Correlations^a

	Mean ^b	s.d. ^b	1	2	3	4
1 Transformational Leadership	3.44	1.07	(.83)			
2 Public Leadership	3.64	1.12	0.59**	(.89)		
3 Public Service Motivation	3.59	0.63	0.16**	0.13**	(.67)	
4 Organizational Citizenship Behavior	3.89	0.62	0.18**	0.17**	0.55**	(.73)

** $p < .01$; ^aSample size = 3513; ^bMean and standard deviation are calculated as additive indexes

² First, we checked if our analysis needs to meet the following requirements: a non-significant Chi-Square test for the whole model (for a perfect model), significant and high factor loadings, no modification indices (for a perfect model), a good explanation of variance and fit-indices within threshold levels. In this sense, analyzing fit indices is only one part of the overall evaluation of model.

The scale reliability coefficients (Cronbach's alpha) for the reduced three-items scale of transformational leadership was .83 and support the use of these measures, with all lambda estimates above the .70 level. The reliability coefficient for the public leadership scale was .89 and all three estimates were above .80. For the dimension of public service motivation the results of a confirmatory factor analysis conducted and model respecification following deletion of items with low factor loadings (below .40) confirmed a three first-order and one second-order factor structure with two items for each first-order factor. The fit indices fell within a good range ($\chi^2 = 9.84$, $df = 6$, $RMSEA = .01$; $CFI = .99$; $TLI = .99$; for commitment to the public interest, compassion, and self-sacrifice, α 's = .62, .55, and .58, respectively). All first-order and second-order lambda estimates ranged above .60. The results of a confirmatory factor analysis conducted for organizational citizenship behavior confirmed two first-order constructs and one second-order factor. The fit indices for the whole construct fell within a poor range ($\chi^2 = 153.43$, $df = 8$, $RMSEA = .07$; $CFI = .99$; $TLI = .93$). The scale measures the two dimensions of organizational citizenship behavior, one directed toward individuals (three items; $\alpha = .60$) and the other directed toward the organization (three items; $\alpha = .70$). All first-order and second-order estimates ranged above .65, except for the already above mentioned item of the first-order factor directed toward individuals ($\lambda = .47$).

The descriptive statistics show relatively high levels of organizational citizenship behavior and more moderate levels of transformational leadership. All of the bivariate correlations are statistically significant and the measures appear to have discriminant validity, as the largest correlation is only 0.59 and apart from two values above 0.5, all other values lie between 0 and 0.5. The prevalence of highly significant correlations can have different causes. On the one hand, the one-sided methodology using a self-report questionnaire at a specific time can result in a mono-method bias, since correlations arise due to hidden, systematic features that support the measured variables (Spector, 1994). On the other hand, above all, the large-scale effect may well lose its impact, since the scope of this study's sample was large enough to identify statistically significant correlations with only 0.5 percent divided variance (Diekmann, 2002).

Hypothesis Tests

The univariate correlations between the three latent variables transformational leadership, public leadership, public service motivation and organizational citizenship behavior ($r = .18$; $.17$; $.55$; $p < .01$) provided preliminary evidence to support hypothesis 1, 2 and 5 which state that the three variables have positive relationships with organizational citizenship behavior. Supporting hypothesis 3 and 4, transformational leadership and public leadership have positive relationships with public service motivation ($r = .16$; $.13$; $p < .01$).

We tested the five hypotheses through a series of structure equation models. Table 2 shows the results. In our baseline model we specified paths from transformational leadership to organizational citizen-

ship behavior, from public leadership to organizational citizenship behavior and from public service motivation to organizational citizenship behavior. As table 2 shows, all fit indexes showed a good fit ($\chi^2 = 874.48$, $df = 124$, $RMSEA = .04$; $SRMR = .03$; $CFI = .96$; $TLI = .96$).

Table 2: Comparison of Structure Equation Models^a

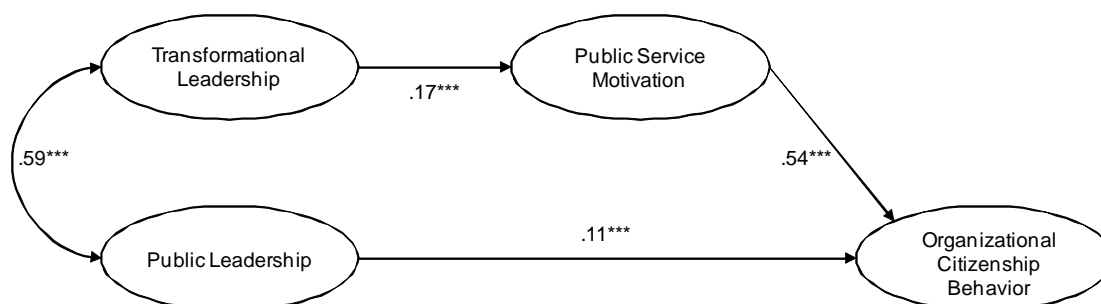
	χ^2	df	RMSEA	SRMR	CFI	TLI
1 TFL > OCB, PLS > OCB, PSM > OCB ^b	874.48	124	.04	.03	.96	.96
2 TFL > OCB, PLS > OCB, PSM > OCB, and TFL > PSM, PLS > PSM	874.48	124	.04	.03	.96	.96
3 TFL > OCB, PLS > OCB, PSM > OCB, and TFL > PSM	877.81	125	.04	.03	.96	.96
4 TFL > OCB, PLS > OCB, PSM > OCB, and PFL > PSM	891.32	125	.04	.03	.96	.96
5 PSM > OCB, and TFL > PSM, PLS > PSM	900.03	126	.04	.03	.96	.96
6 OCB > TLS, OCB > PLS, OCB > PSM	1915.54	127	.06	.09	.91	.90
7 OCB > PSM, PSM > TLS, PSM > PLS	1936.22	127	.06	.09	.91	.90
8 TFL > OCB, PLS > OCB, PSM > OCB, and PSM > TLS, PSM > PLS	1934.53	125	.06	.09	.91	.89
9 PSM > TLS, PSM > PLS, TLS > OCB, PLS > OCB	2311.92	126	.07	.11	.89	.87
10 OCB > TLS, OCB > PLS, TLS > PSM, PLS > PSM	2288.28	126	.07	.11	.90	.87

^aTFL = Transformational Leadership; PLS = Public Leadership; OCB = Organizational Citizenship Behavior; PSM = Public Service Motivation; ^bBaseline

Against our baseline model, we tested three nested models. The second nested model has two additional direct paths, one from transformational leadership and another from public leadership to organizational citizenship behavior. In model 3, we added to a direct path from transformational leadership to organizational citizenship behavior. Model 4 was also identical to model 1, except for an additional direct path from public leadership to organizational citizenship behavior. The baseline model and all three nested models showed good fit indexes referring to the generally accepted thresholds (Hu and Bentler, 1999: $RMSEA < .06$; $SRMR < .08$; $CFI > .95$; $TLI > .95$). As table 2 shows, the differences between the fit indexes and non significant differences of chi-squares did not help to state one of the four as best model. Therefore we conducted a specification search (Schumacker, 2006) using the Bayes Information Criterion to identify the best nested subset model. Comparing the various models with different path options between the latent variables showed that model 2 without the non significant paths from transformational leadership to organizational citizenship behavior and from public leadership to public service motivation resulted as best model ($\chi^2 = 879.49$, $df = 126$, $RMSEA = .04$; $SRMR = .03$; $CFI = .96$; $TLI = .96$). Figure 2 shows that the coefficient of the path from public leadership to organizational citizenship behavior was significant ($\beta = .11$, $p < .001$), as were the coefficients

of the paths from public service motivation to organizational citizenship behavior ($\beta = .54, p < .001$) and from transformational leadership to public service motivation ($\beta = .17, p < .001$).

Figure 2: Results of Structural Equation Modeling



Models 5-10 are alternative models that are not nested within the first four models. These alternative models are included in our analysis in order to assess changing construct order. Only model 5 showed a good fit, where we modeled the influence of public service motivation on organizational citizenship behavior as well as the influence of both leadership types on public service motivation ($\chi^2 = 900.03, df = 126, RMSEA = .04; SRMR = .03; CFI = .96; TLI = .96$). The fit indexes for the other models 6-10 were marginal and poorer than the baseline's model and the three nested models.

Summarizing, these results support our hypothesis 2, 3, and 5. We found statistically significant and positive coefficients for the direct paths from public leadership to organizational citizenship behavior, from transformational leadership to public service motivation, and from public service motivation to organizational citizenship behavior. In contrary our analysis showed no evidence for hypothesis 1 and hypothesis 4. There is no direct effect of transformational leadership on organizational citizenship behavior and of public leadership on public service motivation. The relationship between transformational leadership and organizational citizenship behavior is mediated by public service motivation. Thus, the standardized total effect of transformational leadership on organizational citizenship behavior is $.09$.

Discussion and Limitations

This study was a response to the call to investigate administrative leadership within public organizations using concrete data in public sector settings (Van Wart, 2003). Against the background of management reforms in public organizations during the last decades the significance of leadership behavior more directed towards an entrepreneurial role of supervisors has risen. We analyzed the relationship of leadership and extra-role behavior in public administrations at the municipal level. Therefore, we developed a theoretical model which comprehends the independent variables transformational lea-

dership, public leadership and public service motivation, and the dependent variable organizational citizenship behavior.

Before discussing the results of our study we have to mention its limitations. The results of this single study with a monomethod approach, using perceived subjective data and not the full original measurement scales should be viewed with caution. Concerns about possible common source bias in our results are justified. On the one hand, a further developed research design with different measurement sources that distinguish the evaluation of supervisor's and of employee's behavior would be more appropriate. Because of the width of our study design with more than 1700 municipalities that had to be convinced to participate, we decided to use only one questionnaire. On the other hand, it can be argued that employee behavior predicts employee attitudes like public service motivation or employee attitudes predict the perception of leadership behavior and not vice versa. Therefore, we tested several models to analyze if our finally reported model holds our theoretical assumptions.

When looking at our study results three hypotheses are confirmed. The direct, positive impact of transformational leadership on public service motivation, of public leadership on organizational citizenship behavior and of public service motivation on organizational citizenship behavior goes along with the assumed theoretical links based on literature research. Value based leadership behavior strengthens the motivation of public employees towards institutional values and public task fulfilling. Inspirational leaders that stimulate and challenge employees in the way they are doing their job and towards the overall goal of a job have a higher potential to bind followers with public institutions compared to non transformational leaders. Supervisors that behave more in relation to equal treatment of citizens and customers, law-abiding task fulfilling, and honesty surprisingly have a stronger impact on organizational citizenship behavior of followers compared to transformational leaders. Although our study results do not show a significant impact of transformational leadership behavior on individual behavior that is maintaining and enhancing the context of work which supports task performance, theoretical considerations suggest a positive relationship between these two variables. We could argue that transformational leadership in a public setting does not support individuals in behaving like "citizens" by influencing their self-concepts and getting them to internalize and prioritize a larger collective cause over individual interests. Against the background of these results, we argue that the specific public context encompassing public employees does not give enough room for transformational leaders to influence followers' extra-role behavior. Even though these results are in contrary to our theoretical assumptions, they have to be seen in relationship to the literature about administrative leadership (Terry, 1995). The powerful forces beyond the control of individual leaders, and contextual constraints, political and administrative processes may have an important influence on leadership behavior (Rainey, 2003). Our public leadership dimension can be understood as an integration of these institutional characteristics into public sector leadership, showing that other value based leadership behavior like transformational leadership may lose its impact on extra-role behavior. Referring again to Organ

and Ryan (1995) morale can be seen as one of the best predictors of extra-role contributions. In our study their so called “m” factor can be better explained by the public leadership dimension.

The strongest link, except for the correlation between the two leadership dimensions, exists between public service motivation and extra-role behavior. The higher the employee’s attitudes toward public service the more they are willing to maintain and enhance a psychological work context which supports task performance. Thus, public service motivation mediates the relationship between transformational leadership and task performance. In the light of administrative practice and reforms these findings are very important. Nevertheless, the range of leadership skills for public managers is growing, especially in a competitive environment, it depends on the contents towards which leadership behavior is directed to. The conception that public managers should assume an entrepreneurial leadership role in a time of managerialism (Terry, 1998) cannot be seen from the perspective of private sector leadership. Transformational leadership helps to strengthen a “public entrepreneurial role” in the way that it is directed towards public tasks and a vision of public task fulfilling. Public service motivation is an outcome of such leadership behavior and of our measured dimension public leadership, which both increase extra-role-behavior of employees and support task performance.

In conclusion, our study shows the importance of public service values in relation to extra-role behavior, either as part of supervisor’s leadership behavior – which we called public leadership in this study – or as a strong mediating factor between transformational leadership and extra-role behavior. Thus, this study helps to advance our understanding between leadership and extra-role behavior in a public sector setting.

Appendix 1

Questionnaire Items:

Transformational Leadership:

- My supervisor speaks enthusiastically about what has to be achieved.
- My supervisor communicates a vision that motivates me.
- My supervisor proposes new ways how tasks can be approached.

Public Leadership:

- My supervisor reminds us again and again of the importance of treating citizens/customers equally.
- My supervisor reminds us again and again of the importance of a law-abiding task fulfilling.
- My supervisor reminds us again and again of the importance of honesty.

Public Service Motivation:

- It is important to me to unselfishly contribute to my community. (Commitment to the public interest)
- I consider public service my civic duty. (Commitment to the public interest)
- Most social programs are too vital to do without. (Compassion)
- I am often reminded by daily events about how dependent we are on one another. (Compassion)
- I am one of those people who would risk personal loss to help someone else. (Self-Sacrifice)
- It is important that people give back to society more than they get from it. (Self-Sacrifice)

Organizational Citizenship Behavior:

- I adapt my time schedule to help other co-workers. (Individual)
- I try hard to help others so they can become integrated in my organization. (Individual)
- I spend much of my time to help co-workers with work-related problems or private matters. (Individual)
- I read and keep up actively with developments of my organization. (Organization)
- I attend functions that are not required, but help the company image. (Organization)
- I make innovative suggestions how to improve the functioning of my organization. (Organization)

Appendix 2

	Lambda (SE)	t-Value	Standardized Loadings	R2
Transformational leadership				
V1	1 (---)	---	.84	.70
V2	1.12 (.02)	59.68	.90	.81
V3	.94 (.02)	51.14	.78	.60
Public Leadership				
V1	1 (---)	---	.84	.71
V2	.95 (.02)	58.94	.85	.72
V3	1.06 (.02)	60.56	.88	.78
Organizational Citizenship Behavior				
OCB-I				.31
OCB-I				.85
V1	1 (---)	---	.47	.22
V2	.95 (.05)	20.46	.66	.43
V3	1.18 (.06)	20.99	.65	.43
OCB-O				.55
V1	1 (---)	---	.68	.46
V2	1.17 (.04)	26.50	.67	.44
V3	1.00 (.04)	27.94	.64	.41
Public Service Motivation				
CPI				.03
CPI				.56
V1	1 (---)	---	.74	.55
V2	.80 (.04)	19.71	.60	.36
COM				.36
V1	1 (---)	---	.55	.31
V2	1.13 (.08)	14.49	.68	.46
SS				.61
V1	1 (---)	---	.69	.48
V2	.083 (.04)	19.16	.59	.34

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