



Bottomley, P., Mostafa, A. M. S., Gould-Williams, J. S., & León-Cázares, F. (2016). The Impact of Transformational Leadership on Organizational Citizenship Behaviours: The Contingent Role of Public Service Motivation. *British Journal of Management*, 27(2), 390-405. <https://doi.org/10.1111/1467-8551.12108>

Peer reviewed version

Link to published version (if available):
[10.1111/1467-8551.12108](https://doi.org/10.1111/1467-8551.12108)

[Link to publication record in Explore Bristol Research](#)
PDF-document

This is the peer reviewed version of the following article: Bottomley, P., Mostafa, A. M. S., Gould-Williams, J. S. and León-Cázares, F. (2015), The Impact of Transformational Leadership on Organizational Citizenship Behaviours: The Contingent Role of Public Service Motivation. *British Journal of Management*. doi: 10.1111/1467-8551.12108, which has been published in final form at [dx.doi.org/10.1111/1467-8551.12108](https://doi.org/10.1111/1467-8551.12108). This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Self-Archiving.

University of Bristol - Explore Bristol Research

General rights

This document is made available in accordance with publisher policies. Please cite only the published version using the reference above. Full terms of use are available: <http://www.bristol.ac.uk/red/research-policy/pure/user-guides/ebr-terms/>

The Impact of Transformational Leadership on Organisational Citizenship Behaviours: The Contingent Role of Public Service Motivation

Paul Bottomley
Cardiff University
Business School
Colum Drive
CARDIFF. CF10 3EU
email: bottomleypa@cf.ac.uk

Ahmed Mohammed Sayed Mostafa
University of Bristol
School of Economics Finance and Management
8 Woodland Road
Bristol
BS8 1TN
email: ahmed.mostafa@bristol.ac.uk

Julian Seymour Gould-Williams*
Cardiff University
Business School
Colum Drive
CARDIFF. CF10 3EU
email: gouldwilliams@cf.ac.uk
Tel : +44 (0)2920876146
Fax : +44 (0)2920875666

Filadelfo León-Cázares
University of Guadalajara
School of Economics and Business Administration
Department of Quantitative Methods
Periférico Norte N° 799, Modulo M 1er Nivel
Núcleo Universitario Los Belenes,
C.P. 45100, Zapopan, Jalisco, México.
email: filadelfo@cucea.udg.mx

*corresponding author.

The Impact of Transformational Leadership on Organisational Citizenship Behaviours: The Contingent Role of Public Service Motivation

Abstract

This paper examines whether the relationship between transformational leadership and organisational citizenship behaviours (OCBs) is contingent on public service motivation (PSM). We propose that PSM may reduce the motivational influences of transformational leaders' behaviours on followers' OCBs in public sector organisations. Using a sample of Mexican employees we tested this proposition with structural equation modelling. Our results show that the motivational effects of transformational leadership were less for public sector followers higher in PSM, than those lower in PSM. A follow-up study in private sector organisations did not reveal a similar interaction effect. These findings appear consistent with previous research demonstrating that PSM is more aligned to the goals and values of public rather than private sector organisations. Nevertheless, the direct effects of PSM on OCBs remained in the private sector.

Introduction

Leadership remains a central challenge facing many organisations today. One style that has attracted particular attention from scholars is transformational leadership, a key factor found to influence many beneficial employee outcomes in both private (Judge and Piccolo 2004; Herrmann and Felfe 2014) and public organisations (Trottier, Van Wart and Wang 2008; Wright and Pandey 2010; Oberfield 2012). Scholars have begun to explore the circumstances and processes by which these effects are ultimately realised (for a review, see Van Kippenberg and Sitkin 2013). Nevertheless, the accumulated evidence primarily focuses on *how* transformational leaders effect followers' behaviours rather than *why* leadership is more or less effective (Li et al, 2013). We contribute to this debate by exploring the moderating influence of public service motivation (defined below) on leader-follower relationships.

Transformational leadership encourages followers to focus on a common goal or mission, generates intrinsic motivation and inspires them to 'go the extra mile' (Bass, 1985), such as

engaging in discretionary behaviours (Wright and Pandey 2010). These extra role activities are referred to as organisational citizenship behaviours (OCBS) which extend beyond core task performance and support the work environment (Chiaburu et al. 2011), and are associated with improved organisational performance outcomes (Podsakoff, Ahearne and MacKenzie 1997; Messersmith et al. 2011). But is the relationship between transformational leadership and extra role behaviours the same for everyone, or does it depend on followers' individual characteristics?

By emphasising collective rather than individual goals, transformational leadership theory encourages followers to 'transcend their own self-interests for the sake of the team, organisation and larger polity' (Shamir et al. 1993, 579). In so doing, it brings centre-stage the wellbeing of others (Bass 1985). Among public sector organisations, concern for the wellbeing of citizens, community and society figures prominently and is likely reflected in leader behaviours (Wright and Pandey 2010; Kjeldsen and Jacobson 2013). Interestingly, these same 'audiences' are uppermost and salient among employees high in public service motivation (PSM) which is defined as 'an individual's prosocial motivation to do good for others and society through the delivery of public services' (Perry and Hondeghem 2008, 3). Perhaps unsurprisingly, studies of public sector employees in Korea, the United States and UK have also found that PSM is positively associated with OCBS (Kim 2005; Taylor 2013; Gould-Williams, Mustafa and Bottomley 2014).

So, questions arise as to the influence of transformational leadership on followers' behaviours when followers *already* endorse similar goals and values leaders endeavour to promote. Specifically, will PSM enhance or diminish the effects of transformational leadership on citizenship behaviours? Given employees high in PSM likely have a genuine interest in work, and identify with the organisation, they are less likely to require added encouragement from leaders to take action. Piccolo and Colquitt (2003) argue that as OCBs are rarely formally

rewarded, employees are also likely to undertake discretionary behaviours to satisfy self-generated, intrinsic motives. Indeed, PSM may be considered a form of intrinsic motivation (Steijn 2008; Kjeldsen and Jacobsen 2013). In contrast, employees low in PSM, perhaps lacking a genuine interest in their work, concern for citizen wellbeing, or intrinsic motivation to ‘independently’ undertake such discretionary behaviours (OCBs), are likely to be inspired by the added encouragement from leaders.

We test this proposition with Mexican data collected from public sector employees, distinguishing between citizenship behaviours directed at the organisation (OCBO) and individual co-worker (OCBI), as prior studies suggest each has unique antecedents (Le Pine et al. 2002; Chiaburu et al. 2011). In so doing, we adopt an interactionist approach testing whether PSM reduces the influence of leadership on follower behaviours, consistent with the logic of substitutes-for-leadership theory (Kerr and Jermier 1978; Avolio, Walumbwa and Weber 2009). While this theory has received mixed support, public sector plaudits of transformational leadership (e.g., Trottier et al. 2008; Paarlberg and Lavigna 2010) may have exaggerated its capacity if followers’ desire to serve the public forms a substitute for leadership in relation to OCBs. Moreover, Li et al. (2013, 236) contend that ‘identifying contingencies allows a more nuanced view ... of follower task and contextual performance’, thereby increasing not only the precision of transformational leadership theory, but our understanding of OCB engagement.

A follow-up study was undertaken two years later in 2012, based on a sample of Mexican private sector workers. Here, we explore what happens to the interaction effect when PSM is less consistent with organisational goals and not the primary focus of leader behaviours, as might typify many private sector organisations. Will PSM act as a substitute for leadership when the focus of pro-social motivation is the customer/client rather than the

community/public? Or is PSM an inherently beneficial quality that organisations should seek from employees making it portable across firms and sectors?

We proceed as follows. First, we describe the behaviours and benefits of transformational leadership. Thereafter, on the basis of substitutes-for-leadership theory, we explain why the relationship between leadership and OCBs is moderated by PSM in the public sector. Next, we describe our primary dataset comprising Mexican public sector employees, and present the structural equation modelling results. We also conduct a follow up study with Mexican private sector employees whose goals are more customer than community-focused to establish an “absence of moderation” by PSM. Finally, we discuss the managerial and theoretical implications of our findings, along with limitations of this research.

Transformational Leadership and OCBs

Since the 1990’s, research on transformational leadership has grown to the extent that more research has been conducted on this leadership style than any other (Judge and Piccolo 2004). According to scholars, the *sine qua non* of transformational leaders is their ability to motivate followers to ‘perform beyond the level of expectation’ (Bass 1985, 32).

Transformational leadership is generally conceptualized as consisting of four behavioural components: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass 1985). *Idealized influence* (also referred to as charisma) refers to leaders displaying trust and showing respect to followers, appealing to them on an emotional level. This component also captures leaders’ willingness to take a stand in challenging situations because they are convinced it is the ethical and right thing to do. Through such actions, transformational leaders become role models in acting out behaviours which are consistent with the organisation’s mission, goals and values. These behaviours help employees develop confidence and pride in their organisations (Wright and Pandey 2010;

Judge and Piccolo 2004). *Inspirational motivation* captures the extent to which leaders articulate an attractive vision for the future, and energise followers to take on challenging assignments and reach ambitious goals. This component reflects the degree to which leaders talk optimistically and enthusiastically about the organisation's mission and stimulate followers' higher order needs by encouraging them to pursue the organisation's goals and values rather than their own. In doing so, leaders provide meaning to the tasks at hand and encourage followers to uphold high standards of performance. *Intellectual stimulation* is the component in which leaders encourage followers to challenge previously held assumptions and beliefs. In doing so, it is anticipated that followers will become more creative in their approach to work, taking risks where necessary as they endeavour to solve organisational problems in order to meet its goals (Herrmann and Felfe 2014). Finally, *individualized consideration* is the transformational component of leadership in which leaders take a personal interest in their followers' individual needs and listen to their concerns. Here leaders act as mentors and coaches, helping followers achieve their aspirations in line with the organisation's mission.

Taken together, these four components suggest that transformational leaders inspire followers to exceed their work expectations by setting demanding goals and acting as role models. By giving each employee personalised attention and assistance, they help followers align their values with those of the organisation, and thus serve a higher collective purpose. A meta-analysis also shows that transformational leadership is likely to be just as prevalent and effective in public sector organisations as the private sector (Dumdum et al. 2002). Also, more recently Oberfield's (2012) dynamic panel study, using secondary data for a wide range of US public organisations, reinforces this view. He reports that transformational leadership shapes public employees' work behaviours and performance in both current and future time periods. Thus, the 'elaborate control systems associated with the mechanistic or bureaucratic

organisations' found in the public sector does not appear to limit transformational leadership's introduction or effectiveness (Wright and Pandey 2010, 78).

In this paper, we focus on an important individual level performance outcome, OCBs - employee activities that extend beyond the core task requirements (extra-role behaviours). Such behaviours 'support the organisational, social, and psychological environment' in which tasks are performed (Borman and Motowidlo 1993, 73) and are consistent with the assertion that transformational leaders motivate followers to exceed expectations (Bass 1985). Consistent with Christensen et al. (2013), we consider two types of OCBs: discretionary behaviours of benefit to the organisation (OCBO) and employees (OCBI) (see also Williams and Anderson 1991). OCBOs capture aspects of identification, commitment and loyalty to the organisation (such as defending the organisation when others criticize it, and showing pride when representing the organisation in public). OCBI, or helping behaviours, are defined as 'voluntarily helping others, or preventing the occurrence of work-related problems' (Podsakoff et al. 2000, 516), and include actions such as helping others who have been absent from work or who have work-related problems.

While we acknowledge that some employees may engage in OCBs to gain personal advantage through impression management (Bolino 1999), we adopt the view that the majority of employees do so as an expression of their indebtedness to the organisation, or to satisfy higher-order needs, or even to align their work behaviours with their individual values (Piccolo and Colquitt 2006). Although OCBs are one of the most widely studied topics in the fields of organisational behaviour and general management, relatively few studies have considered these behaviours in public administration (Kim 2006; Christensen et al. 2013; Taylor 2013). The paucity of research is surprising given that OCBs may be of particular importance here due to the labour-intensive nature in delivering many public service jobs (Taylor 2013).

Theoretically, we argue that the behaviours characterising transformational leaders, will have positive effects on followers' OCBs. The behavioural characteristics associated with idealized influence (acting out behaviours that are consistent with the organisation's mission) and individual consideration (leaders' expressing interest in and showing empathy towards followers' wellbeing), may encourage followers to act in commendable ways to both the organisation and fellow workers. Transformational leaders who 'walk the talk', treat their followers fairly and show that they trust them, along with taking an interest in their individual well-being, are more likely to see similar behaviours replicated by the workforce. Such leaders generate enthusiasm amongst followers to display prosocial activities such as OCBs, as they provide a role model for them to follow (Gilmore et al. 2012). When transformational leaders display inspirational motivation and intellectual stimulation they will provide an environment in which followers feel positive about their tasks at hand. Followers will have a clear future vision based on the organisation's mission, which energises them to act and take on challenging assignments. As transformational leaders encourage followers to challenge the status quo and recommend innovative solutions to remedy poor practice, then followers will feel more comfortable suggesting improvements that will impact both the psychological and social environment within the workplace. Accordingly, we believe that transformational leadership will have a positive effect on both OCBO and OCBI as followers mirror their exemplary behaviours. Indeed there is now accumulating evidence in both the private and public sectors of a positive relationship between transformational leadership and OCBs (e.g. Judge and Piccolo 2004; Podsakoff et al. 1996; Wang et al. 2011; Vigoda-Gadot and Beerli 2012; Oberfield 2012). Thus, we predict:

Hypothesis 1: Transformational leadership will be positively related to OCBS (OCBO and OCBI).

The moderating role of PSM on the transformational leadership-OCBs relationship

According to Gilmore et al. (2012), an interactionist approach should be adopted if a better understanding of the relationship between transformational leadership and employee behaviours is to be achieved. In other words, scholars should endeavour to give more consideration to the individual characteristics and the situational context in which leadership occurs. To this end, Kerr and Jermier's (1978) substitutes-for-leadership theory 'represents the most comprehensive attempt to identify the potential factors that may moderate leader effects on followers' (Whittington, Goodwin and Murray 2004, 594). Substitutes-for-leadership theory is a contemporary theory which postulates that situational factors (including individual characteristics) will diminish the effects of leaders' behaviours on followers' performance (Avolio, Walumbwa and Weber 2009). Individual characteristics are referred to as moderators because they have been found to interact with the leader's behaviour to change his or her influence over their followers. Consistent with the logic of substitutes-for-leadership theory, we argue that PSM, an individual characteristic, may act as an important moderator of transformational leadership's influence on followers' OCBs in public organisations.

Earlier we noted that PSM has been referred to by scholars as an 'individuals' prosocial motivation to do good for others and society through the delivery of public services' (Perry and Hondeghem 2008, 3). Employees with high levels of PSM care about doing work that has a positive impact on others, and exert greater effort to achieve organisational goals. Therefore, we argue that PSM will play a substantial role in moderating the relationship between transformational leadership and OCBs in public organisations as the employees' values overlap with their organisations. Specifically, as employees with higher levels of PSM are more inclined to want to do good for others, they willingly engage in behaviours that benefit the organisation and work colleagues, and in turn the public. Such individuals are more likely to

act in ways that are consistent with their organisation, thus the stimulating and inspirational influences characterising transformational leaders' behaviours will be *less* effective. We anticipate the motivational effect however, will be *greater* for followers lower in PSM, in that they will have a greater capacity to be influenced by the transformational leadership style as they are relatively less 'other-focused'. As such, consistent with the logic of substitutes-for-leadership theory we propose that transformational leaders will be more effective at promoting followers' OCBs when followers have lower levels of PSM as compared to those with higher levels of PSM in public organisations. Theoretically, we propose that higher PSM may, to some extent, substitute for the mechanisms by which the positive effects of transformational leadership increase OCBs.

Our view that individual characteristics that are consistent with the organisation's values, will diminish (moderate) the effects of leaders' transformational behaviours, is in line with prior research. For instance, De Cremer (2002) found that charismatic leaders were not able to promote group member cooperation amongst followers who were already inclined to cooperate. As such, inclination to cooperate acted as a substitute for charismatic leadership. In contrast, charismatic leaders had a transformational influence on followers who were more concerned with maximizing their own self-interests. Similarly Gilmore et al. (2012) reported that the positive effects of transformational leadership on OCBs were reduced when employees were enthusiastic, alert, interested and determined about life in general (high positive affect). In line with this, Den Hartog and Belschak (2012) reported that the impact of transformational leaders' influence on followers' proactive work behaviours was reduced for those higher compared to those lower, on self-efficacy (ability to perform a task). Finally, Li et al. (2013) reported that both followers' proactive personalities (taking the initiative) and high goal orientation (setting ambitious goals) reduced the motivational effects of transformational leaders' behaviours on followers' OCBs. Accordingly, we propose the following hypothesis.

Hypothesis 2: Followers' PSM will moderate the relationship between transformational leadership and OCBO and OCBI such that the positive association between transformational leadership and OCBs will be attenuated when followers are high on PSM.

Figure 1 depicts the conceptual model of this study.

FIGURE 1 ABOUT HERE

Main Study: Mexico Public Sector

The primary objective is to test the moderating role of PSM on the relationship between transformational leadership and OCBs in the Mexican public sector context.

Methods and approach

Sample and Procedures

Data were collected in 2010 from civil servants in the Guadalajara Metropolitan Area (GMA). GMA is the second largest metropolitan area in Mexico, and the centre of state and local government administration. To ensure the equivalence of measures, the English worded questionnaires were back-translated into Spanish and pretested by a number of Mexican public sector employees (Brislin 1970). To reduce the risk of social desirability bias, participants were contacted directly rather than through their organizations, and reassured that their responses would be treated anonymously (Miao, Newman, Schwarz and Xu 2013). A total of 1500 questionnaires were distributed to employees working in, *inter alia*, finance, planning, health, foreign affairs and social security in federal, state, and local government agencies. We received 1,016 questionnaires, yielding a response rate of 67.7 percent. The majority of respondents were male (53 percent), with a mean age of 36 years, a bachelor's degree (59 percent) and an average of 7.4 years tenure with their current employer.

We checked for non-response bias following Armstrong and Overton's (1977) approach. This entailed comparing early (first 15 percent of returned questionnaires) with later survey respondents (last 15 percent of returned questionnaires). Results of independent sample t-tests revealed no significant differences in the means of early and later respondents on each indicator of the focal constructs, suggesting that non-response bias is not a major problem.

Measures

Responses to questionnaire items were measured on five-point Likert scales where 1 = "strongly disagree" and 5 = "strongly agree", with the exception of leadership behaviours where 0 = "not at all" and 4 = "frequently, if not always".

Transformational Leadership. We measured transformational leadership using the Multi-Factor Leadership Questionnaire (MLQ5x; Bass and Avolio 2000), which comprises 20 items measuring four facets of leadership, namely idealized influence (8 items), inspirational motivation, individualized consideration and intellectual stimulation (4 items each). Consistent with previous research (e.g., Gilmore et al. 2012; Kovjanic et al. 2012; Li et al. 2013), we averaged the items within each dimension and treated the dimension scores as four indicators of a higher-order, overall transformational leadership construct.

Public service motivation. PSM was measured using an abridged version of Perry's (1996) scale. This instrument was developed by Coursey and Pandey (2007). The scale comprised 10 items representing three dimensions of PSM, namely attraction to policy making, commitment to public interest and compassion. The fourth dimension, self-sacrifice, is often omitted from PSM scales as it is highly correlated with compassion ($r = .89$; Perry 1996; see Moynihan and Pandey 2007; Kjeldsen and Jacobsen 2013). This three-dimensional measure also has a better conceptual fit with the rational, norm-based, and affective motivations underlying PSM in comparison with more complex four-dimensional scales (Coursey and

Pandey 2007; see Perry and Hondeghem 2008 for detailed discussion of PSM dimensions). Cronbach's alphas ranged from 0.64 (attraction to policy making) to 0.70 (commitment to public interest).

Organisational citizenship behaviours. OCBs were measured using eight items from the scale developed by Lee and Allen (2002). Four items represented behaviours that are beneficial to the organisation (OCBO) (e.g., 'I show pride when representing the organisation in public,' 'I express ideas to improve the functioning of the organisation'), and four items measured behaviours that are beneficial to individuals and co-workers (OCBI), (e.g., 'I help others who have been absent', 'I willingly give time to others who have work related problems'). Cronbach's alpha for OCBO and OCBI were 0.91 and 0.84 respectively.

Controls. We controlled for gender, education, organisational tenure and age as they may influence OCBs. For instance, female employees' may be more considerate than their male counterparts (Kidder 2002), while tenure has been recognised as relevant for understanding a variety of work outcomes (Messersmith et al. 2011; Fong and Snape 2013; Li et al. 2013).

Measurement Validation

Prior studies have consistently supported a single-factor structure of transformational leadership (Judge and Piccolo 2004). Following Gilmore et al. (2012) and Kovjanic et al.'s (2012) approach (among others), we averaged the items measuring each leadership dimension and treated the four dimension scores as indicators of an overall transformational leadership construct in the structural equation analyses.

Using AMOS18 and robust maximum likelihood, we conducted a confirmatory factor analysis (CFA) for a second-order measurement model of PSM, wherein the observed items were treated as indicators of three first-order factors capturing the dimensions of PSM. The standardized second-order factor loadings for commitment to public interest and compassion

were 0.84 and 0.80 respectively, and highly significant ($p < .001$). However, the factor loading on attraction to policy making was weak ($\beta = 0.027, p = .627$) and it exhibited low correlation with the other PSM dimensions. Lacking content validity, it was dropped from further analysis. (Kim 2009 utilised a similar solution). The remaining items measuring commitment to public interest and compassion were averaged and treated as two indicators of a general PSM construct.

We then conducted an overall CFA to assess the relationships amongst the four focal latent constructs (TL, PSM, OCBO and OCBI) and evaluated their reliability and validity. Model fit was good ($\chi^2 (df = 71) = 328.753, p < .001$; CFI = .966, RMSEA = .060 and TLI = .950). The factor loading of each item on its corresponding construct was significant at the .001 level, in support of convergent validity (Anderson and Gerbing, 1988). The constructs also possessed high internal consistency with composite reliabilities above 0.75, with the exception of the two item PSM scale which approached recommended thresholds (Bagozzi and Yi 2012). Discriminant validity was satisfied as the square root of the average variance extracted (AVE) for each construct was greater than the correlation between that construct and all other constructs in the model (Fornell and Larcker 1981); see Table 1.

<<<<<< Insert Table 1 about here >>>>>>

Since data for both dependent and independent variables were collected from the same respondents, we tested whether common method bias (CMB) might have impacted the focal construct relationships. Following Podsakoff et al.'s (2003) guidelines, we addressed this issue in several ways. First, the data collection process ensured respondents anonymity, and used a variety of scale formats. Second, concern for CMB is partially alleviated because Siemsen,

Roth and Oliveira (2010, 456) have proven mathematically that “interaction effects cannot be artefacts of CMB”, thereby protecting our central hypotheses from contamination.

But, the possibility of CMB impacting the direct (simple) effects from leadership and PSM with the dependent variables remained. Following Podsakoff et al.’s (2003) suggestion, we tested for CMB using Harman’s single factor test and the more stringent common-method factor approach. For the latter, we re-estimated the measurement model allowing each item to load on its theoretical construct and common-factor. All loadings on the common-factor were constrained equal, assuming the influence of CMB was broadly comparable across items, and the common-factor’s correlation with the four focal-factors was constrained to zero. This model exhibited a good fit (χ^2 (df = 57) = 180.113, $p < .001$; CFI = .984, RMSEA = .046, TLI = .970), but more importantly the variance extracted (AVE) by the common-factor was 0.34, falling below Fornell and Larcker’s (1981) 0.50 criterion indicative of a substantive construct. So CMB did not appear unduly problematic.

Table 1 presents the means, standard deviations and correlations between the constructs. As anticipated, public sector workers scored relatively high on public service motivation (Mean = 3.69; 1-5 scale), and perceived their supervisors as displaying transformational leadership behaviours (Mean = 2.65; 0-4 scale). Similarly, as expected, leadership and PSM were both positively related, and associated with OCBI and OCBO. A comprehensive analysis using SEM with latent interactions (see Steinmetz, Davidov and Schmidt 2011) follows below.

Structural Model Estimation with Latent Interactions

To examine the moderating role of PSM on the transformational leadership–OCB relationship, the *residual centring approach* advocated by Little and colleagues (2006; Geldhof et al. 2013) was followed. The benefits of this approach are fourfold: (i) It has more power in detecting interaction effects than standard multiple regression; (ii) It is relatively easy to use in

comparison to earlier complex latent interaction approaches, which imposed numerous non-linear constraints on model parameters; (iii) The relative contribution of interaction and main (first-order) effects are clearly identified as the orthogonalizing process ensures that multicollinearity between the main (first-order) effects and associated interaction is not an issue ($r = 0$); (iv) It performed well in simulation studies (unbiased parameter estimates and broadly acceptable power) comparing alternative latent interaction methods.

The residual centring approach consists of a two-step procedure. First, two indicators are selected, one from each first-order construct (transformational leadership and PSM), and multiplied together (e.g., TL1*PSM1). The cross-product is regressed on all indicators of the two first-order constructs (TL1, TL2, TL3 TL4, PSM1, PSM2) and residuals retrieved, in this instance (TL1*PSM1_res). The procedure is then repeated for each ($4 \times 2 = 8$) cross-product. Second, the 8 sets of residuals are treated as indicators of the latent (transformational leadership-PSM) interaction term when estimating the structural model. Finally, correlated covariances are estimated between residual-centred indicators if the original cross-product comprised the same first-order indicator (e.g., TL1*PSM1_res and TL1*PSM2_res may share unique variance associated with indicator TL1).

Results revealed that the proposed structural model provided a good fit (χ^2 (df = 185) = 439.199, $p < .001$; CFI = .981, RMSEA = .037, and TLI = .974). Similar findings were obtained with and without controls, so in the interest of parsimony, the controls aren't reported here. The predictor variables explained 47.5 percent of the variance in OCBO ($R^2 = .475$) and 40.5 percent in OCBI ($R^2 = .405$). Transformational leadership had significant positive associations with both OCBO ($\beta = .412$, $p < .001$), and OCBI ($\beta = .262$; $p < .001$). This suggests that leadership enhances citizenship behaviours directed towards both co-workers and the organisation. Therefore, our first hypothesis was supported. PSM also had significant positive

associations with both OCBO ($\beta = .614, p < .001$) and OCBI ($\beta = .574, p < .001$). Thus, increased levels of public service motivation enhanced citizenship behaviours. More importantly, the analysis revealed that the interaction between transformational leadership and PSM was significant and negative for both OCBO and OCBI ($\beta = -.154$ and $\beta = -.197; p's < .001$), indicating support for our second hypothesis. The negative interaction indicates that as follower PSM increased, the association between transformational leadership and OCBs decreased. In other words, transformational leadership had *less* of an impact on followers' citizenship behaviours when employees already had higher, rather than lower, levels of public service motivation.

A follow-up analysis replacing transformational leadership by the four facets of leadership in turn, revealed broadly consistent results. The interaction with PSM remained negative and significant when idealized influence, inspirational motivation and individual consideration was the focal variable and when OCBI and OCBO was the dependent measure (all $p's < .05$). The exception was intellect stimulation where a non significant finding is reported (here followers' displaying both high and low levels of PSM are similarly affected by leaders' who encourage them to challenge the status quo). As public employees face many constraints, such as organisational red tape and bureaucratic culture, they (including highly motivated public employees) may be reluctant to think 'outside the box'. Under such conditions, when transformational leaders encourage and support such behaviours, followers are likely to do so too.

To better understand the form of the interactions, we reverted to moderated multiple regression and used Aiken and West's (1991) 'spot-light' procedures to illuminate the nature of the relationship between transformational leadership and OCBs. Regression analysis which includes information on mean-structures and co-variances offers greater flexibility than SEM

in exploring this issue. Separate plots were drawn for employees whose scores on the PSM moderator were one standard deviation below the mean, at the mean, and one standard deviation above the mean. Results are presented in Figures 2a and 2b. For the leadership-OCBI relationship, the slope coefficients were larger for employees lower in PSM ($\beta = 0.405$, $t = 9.418$), and smaller for employees higher in PSM ($\beta = 0.212$, $t = 5.130$), while employees at the mean were in-between ($\beta = 0.308$, $t = 9.736$). Similar results were found for OCBO. Taken together, these results suggest that transformational leadership matters for all employees, but to a lesser extent for those higher in PSM.

Repeating the analysis, but treating leadership as the moderator and PSM as the focal variable revealed a similar pattern. For the PSM-OCBI relationship, the slope coefficients were larger when transformational leadership was lower ($\beta = 0.429$, $t = 11.758$), and smaller when transformational leadership was higher ($\beta = 0.265$, $t = 7.736$), while at the mean were in-between ($\beta = 0.347$, $t = 13.044$). Similar results were found for OCBO. Again, this suggests that PSM matters for all employees, but more so when leader behaviours are found wanting.

<<<<<< Insert Figures 2a and 2b About Here >>>>>>

Summary

Our findings show that the effects of transformational leadership on followers' OCBs were contingent on their level of PSM, with respondents higher, compared to those lower, in PSM being less influenced by leaders' motivational behaviours. Thus, as followers higher in PSM are already motivated to serve the public and undertake OCBs, while those lower in PSM could be motivated via leadership to undertake such actions. Next, we describe a follow-up replication with private sector employees to establish the validity of these results.

Follow-up study: Mexico Private Sector

The objectives of this follow-up study are twofold. First, we establish the validity of the main study's results by demonstrating that private sector employees' PSM is lower than public sector employees. Second, we examine whether the interactive effect of PSM on the transformational leadership – OCB relationship is contingent on sector (public vs. private). We test these propositions by surveying Mexican private sector employees.

Employees higher in PSM are assumed to be more likely to fulfil their desire to help others and contribute to society in the public rather than private sector, and many studies appear to support this (e.g., Crewson 1997; Lewis and Frank 2002). However, after controlling for occupational differences across the public-private divide and organisational socialisation by examining the destination of graduates within a specific profession, results are less clear cut (Kjeldsen and Jacobsen 2013; Wright and Christensen 2010). Given our follow-up comprises only private sector employees (discussed below), evidence of lower PSM than their public sector 'counterparts' provides convergent validity and support for the main study results.

The organisational values and nature of the jobs offered in the public sector are more likely to be consistent with higher PSM where serving society and the community is core. In contrast, the market environment of private sector organisations not only 'implies an entirely different focus on effective production and low-cost operations' (Kjeldsen and Jacobsen 2013, 902), but the beneficiaries of prosocial behaviours are more narrowly defined (customers rather than community). Thus, the overlap of PSM with private sector values and jobs should be notably reduced. From a leadership perspective, private sector managers' are also likely to exhibit different role modelling behaviours, placing more emphasis on serving customers rather than the public. Consequently, if developing employees with higher prosocial motives focused on

community, rather than customers, is both less consistent with private sector environments and considered less important by private sector managers, then PSM is unlikely to be a substitute for leadership. Thus, the interaction between transformational leadership-PSM should be weaker (if not eliminated) in the private sector. But, the pro-social desire to help others may still make PSM a desirable employee quality (direct effect only).

Methods and approach

This follow-up replication, conducted two years later in 2012, included 1220 Mexican private sector employees from the Guadalajara metropolitan area. Respondents worked in a broad range of predominantly service orientated industries, the most common being hotel and catering (44%), social and personal services (26%), manufacturing (18%), financial and insurance (6%) and transport (4%). But, the extent to which these organizations worked closely with the public sector or were privatized remains unknown, so we cannot assert that the sample is representative of any definable population. The survey questions were included as part of a wider leadership study, with the exception of organisational tenure (control variable) which was omitted following a printing ‘oversight’. In the interests of brevity, only the main findings will be summarised here (detailed SEM results available upon request).

<<<<<< Insert Table 2 About Here >>>>>>

Table 2 shows the means, standard deviations and correlations among study variables. In line with the main study, transformational leadership and PSM were both positively related, and associated with OCBO and OCBI. We conducted an independent sample t-test to determine whether PSM was higher amongst public sector compared with private sector employees. The results revealed that PSM was indeed higher in the public than private sector ($M = 3.69$ versus

3.45, $t = 6.90$, $p < .001$), consistent with earlier studies (Crewson 1997; Lewis and Frank 2002) and providing further support for the validity of our abridged measure of PSM.

Our proposed structural model provided a good fit (χ^2 (df = 248) = 739.869, $p < .001$; CFI = .966, RMSEA = .040, and TLI = .955). The predictor variables explained 44 percent of the variance in OCBO ($R^2 = .444$) and 37 percent of the variance in OCBI ($R^2 = .367$). The analysis revealed that transformational leadership had significant positive associations with both OCBO and OCBI ($\beta = 0.679$ and $\beta = 0.436$; p 's $< .001$). This suggests that leadership enhances citizenship directed towards both individuals and the organisation in the private sector. Similarly, PSM also had significant positive associations with both types of OCBs ($\beta = 0.219$ and 0.394 for OCBO and OCBI respectively; p 's $< .001$). Thus, increased levels of public service motivation also contribute to citizenship behaviours in the private sector.¹

More importantly, in contrast to our public sector employees model, the analysis revealed that the interaction between transformational leadership and PSM was non-significant for both OCBO and OCBI ($\beta = 0.001$, $p = .974$ and $\beta = -0.007$, $p = .943$ respectively), suggesting that PSM has no moderating influence on the association between transformational leadership and follower OCBs. Thus, when collective and individual goals aligned only weakly, PSM did not reduce the motivational effects of transformational leaders; the two influences acted independently of each other. Nevertheless, the pro-social nature of PSM suggest that the desire to serve, be it customers, clients, community or society should be considered both a sort-after, and portable quality of employees, regardless of sector (see discussion for more detail).²

¹ Further analysis revealed that the slope coefficients of transformational leadership and PSM had significantly different regression weights in the public and private sector samples. While PSM had a greater association with OCBI and OCBO in the public rather than private sector ($Z = 6.98$ and 3.18 , p 's $< .001$), transformational leadership had a greater association with both OCBI and OCBO in the private rather than public sector ($Z = 4.72$ and 3.08 , p 's $< .01$).

² A follow-up analysis replacing PSM with each of its facets in turn, revealed similar results. Compassion was positively associated with both OCBI and OCBO ($\beta = 0.281$ and 0.109 ; p 's $< .001$), and similarly commitment to the public interest ($\beta = 0.283$ and 0.247 ; p 's $< .001$).

Discussion

This paper advances current research by considering whether the role of transformational leadership is contingent on followers' individual characteristics. Our main contribution is introducing public service motivation (PSM) as an important moderator of the influence of transformational leadership on followers' organisational citizenship behaviours (OCBs), particularly among public sector employees. Though prior research attests to the independent contribution of transformational leadership and PSM on beneficial employee outcomes, their roles together in combination have not been examined. This is a little surprising given the centrality of prosocial motivation, as evident by PSM, coupled with the plaudits that transformational leadership has received from public sector scholars.

Our primary and follow-up studies provide convergent evidence that the relationship between transformational leadership and followers' OCBs is conditioned by the role of employees' PSM. In the primary study, with Mexican public sector employees, the positive association between transformational leadership and OCBs was stronger for those lower in PSM while this positive association was weaker for those higher in PSM. In the follow-up study with private sector employees, the positive association between leadership and OCBs was again evident, but no longer contingent on whether individuals had higher or lower PSM.

So consistent with prior public and private research (Judge and Piccolo 2004; Trottier et al. 2008; Oberfield 2012), transformational leadership appeared to motivate followers to exert discretionary effort. In our case, such discretionary efforts were directed at both the organisation (OCBO) and co-workers (OCBI). More importantly, PSM moderated the strength of this relationship in public sector organisations, consistent with substitutes-for-leadership logic. In Kerr and Jermier's (1978) classic study, situational factors (e.g., highly-standardised

tasks) reduced the motivational effects of leadership behaviours as they provided followers direction to effectively undertake their work. We also found a ‘trade-off’. In the public sector, for individuals with higher PSM, work is assumed to have a greater sense of purpose as individual and organisational goals are more consistent, thereby reducing the motivational effects of leadership behaviours. In contrast, for individuals with lower PSM, work has a lower sense of purpose, as individual and organisational goals are less consistent, thereby increasing the motivational effects of leadership. Finally, in the private sector, again leadership and PSM motivated employee performance, but because such organisations are assumed to have less concern for the communities in which they operate, and leaders exhibit prosocial behaviours that are more in line with customer rather than community service, there was no longer an interaction.

More broadly, this study responds to calls for a more nuanced understanding of the positive role of leadership (e.g. Wang et al. 2013; Li et al. 2012). Prior studies on followers’ characteristics have found that leadership is less effective at promoting cooperation among those inclined to be civil (De Cremer 2002), innovation among those naturally creative (Gilmore et al. 2012), and effectiveness among those self-efficacious (Den Hartog and Belshack 2012). We also found that leadership in the public sector is less effective at promoting prosocial behaviours (OCBs) when followers are higher in prosocial motivations directed at the community (PSM). Thus when followers’ goals align with those of their organisations, as is the case of PSM with the public (but not private) sector, the motivational effects of leaders’ behaviours are reduced.

We found a positive association between PSM and OCBs in both sectors. Given that PSM and prosocial motivation are both ‘other focused’ and highly correlated ($r = +0.8$; Wright, Christensen and Pandey 2013), our finding that public service orientated individuals desire to engage in prosocial behaviour is consistent with Grant’s (2008) private sector study which

revealed a positive relationship between prosocial motivation and OCBs'. Thus, it is perhaps not surprising to find that the effects of PSM extend across sectors.

Implications, Limitations, and Directions for Future Research

So, what do these results mean for public and private sector organisations? By presenting a compelling vision and aligning individual with organisational goals, transformational leaders engender followers with a sense of collective pride linked to organisational membership (Shamir et al. 1993). Consistent with these theoretical notions, leader behaviours appeared to motivate employees to 'go the extra mile', measured here in terms of OCBs, in both private and public sectors. An alternative way to motivate and imbue work with meaning and purpose is to recruit individuals who have already 'seen the light'. Under such circumstances, the motivational effect of leaders' behaviours is reduced as followers' values are already closely aligned to organisational goals. To some extent then, followers' characteristics substitute for the motivational effects of transformational leadership. Therefore, public managers should not anticipate receiving double the benefits when investing in both leadership training programmes and sophisticated employee recruitment and selection processes. In essence, this can be considered a trade-off between recruitment and socialisation.

However, there was no such trade-off among private sector workers. Here organisations and leaders within are less likely to stress prosocial motivation directed at the community, but the customer. While the interaction of leadership with PSM was absent, each still independently enhanced desirable employee outcomes (OCBs). So, public sector organisations might wish to recruit employees with high PSM as they are likely to have more consistent goals, but private sector organisations might also wish to hire such individuals as they are inherently 'other-oriented'. Their concern for the broader wellbeing of citizens and society will include the segments of society important to private organisations, namely customers and clients. Indeed,

there is good empirical evidence among service-sector workers to suggest that those higher in OCBs are more customer-orientated (Donovan, Brown and Mowen 2004), and by inference, more pro-social and other-oriented.

As always, these insights must be discussed in light of the study's limitations which highlight avenues for future research. First, the cross-sectional nature of the data precludes any definitive conclusions regarding causality. Hence, it is possible that followers who were more likely to help colleagues and the organisation (OCBs) came to view leaders as more transformational. Future research with longitudinal or experimental designs could address this issue. That said, the casual direction proposed is consistent with the majority of prior studies (e.g., Trottier et al. 2008; Oberfield 2012; Li et al. 2013).

Perhaps more important are questions about the source and stability of followers' prosocial motivation (PSM). Recently, public sector scholars, including Wright and Grant (2010), have begun to debate the degree to which PSM should be conceptualised as a trait-like construct that remains relatively stable over time, or a state-like process that continually fluctuates in response to situational and managerial influences. We suspect PSM is malleable, as even personality (archetypal trait), evolves with age and life-role transitions (Trzesniewski et al. 2003; Orth et al. 2012), as does the importance employees place on work values (Johnson 2001). So, if PSM slowly waxes-and-wanes, our results suggest that on occasions when an individual is 'feeling' more prosocial, leadership will have less of a motivational role to play, while on occasions when an individual is 'feeling' less prosocial, leadership will have more of a motivational role to play. Similarly, an individual's current level of PSM may be the result of prior socialisation by the transformational leader rather than socio-historical reasons. If so, leaders' behaviours and associated influence may be particularly important during the initial phases of the leader-follower relationship. These dynamic issues and model extensions await longitudinal analysis.

Wright and Christensen's (2010) longitudinal study of recently graduated lawyers revealed no differences in mean levels of PSM based on destination (public versus private) of *first* job. But, there were sector differences in PSM when comparing lawyers' *current* and *subsequent* jobs. Kjeldsen and Jacobsen's (2013) study of newly graduated Danish physiotherapists confirmed these results. Thus, it appears that although public service motivated individuals may *desire* to work in the public sector, such desires go unfulfilled due to either a shortage of job opportunities or lack of relevant work experience. Also, workers may have more immediate and pressing priorities when choosing their first job upon graduation, such as paying off college debts, rather than aligning their individual values (PSM) with those of the sector or organization. Our study did not permit us to further investigate these issues, but future work may wish to consider whether 'desired' sector choice, rather than actual destination, provides a more insightful view of sector differences in levels of PSM. Also, matched comparisons between sectors on the basis of job-role might also provide a more nuanced understanding of our findings, namely whether or not PSM acts as a substitute for leadership - is it the job or is it the sector?³

Next, common method bias is a concern to the extent that the same individuals completed measures of transformational leadership, PSM, and OCBs. While, we found evidence of only limited influence, the effect when present is more likely to enhance the 'main effects' of the model, rather than their interaction, our primary focus (Podsakoff et al. 1993). Nevertheless, collecting performance data from multiple sources would strengthen the research design and reduce such concerns. In keeping with the logic of '360 degree' feedback, supervisors might provide more accurate measures of OCBO, given their organisational interests, while peers might provide more accurate measures of OCBI as individuals may behave differently toward colleagues, helping some more than others. Li et al. (2013) found that collective identification

³ We should like to thank our anonymous reviewer for highlighting this point.

with colleagues and the team can provide an alternative source of motivation and reduce the motivational effects of transformational leaders' behaviours. Thus, future studies should examine both individual and collective levels of PSM. For instance, knowing that PSM forms part of a shared culture, an '*esprit du corps*', may further reduce the motivational effects of transformational leadership as this role will be naturally provided 'horizontally' by work colleagues.

Finally, our results are based on Mexican public and private sector employees and may not be generalizable to other contexts. Nevertheless, studies of leadership are broadly consistent across different national contexts (Avolio et al. 2009). Further empirical evidence is needed to determine whether our results apply in other collectivistic societies or individualistic countries, beyond. Likewise, in the spirit of substitutes-for-leadership theory, scholars should investigate other organisational factors linked with the public sector, such as red tape, bureaucracy and hierarchical structure, to gain a more nuanced understanding of the effects of transformational leadership.

In spite of these limitations, the present study shows that transformational leadership and PSM provide *alternative* means to motivate employees and imbue work with meaning and purpose, at least in the public sector where individual and collective goals broadly align. However, the motivational benefits of transformational leadership and higher PSM amongst followers should be considered in combination, as their interplay suggests that ' $1 + 1 < 2$ '.

References

- Aiken, L. S., and S. G. West (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park: Sage.
- Anderson, J. C., and D. W. Gerbing (1988). 'Structural equation modelling in practice: A review and recommended two-step approach', *Psychological Bulletin*, 103(3), pp. 411-423.
- Armstrong, J. S., and T. S. Overton (1977). 'Estimating nonresponse bias in mail surveys', *Journal of Marketing Research*, 14(3), pp. 396-402.

- Avolio, B. J., F. O. Walumbwa, and T. J. Weber (2009). 'Leadership: Current theories, research, and future directions', *Annual Review of Psychology*, 60, pp. 421–449.
- Bagozzi, R. P. and Y. Yi (2012). 'Specification, evaluation and interpretation of structural equation models', *Journal of the Academy of Marketing Science*, 40(1), pp. 8-34.
- Bass, B. M. (1985). *Leadership and performance beyond Expectations*. New York: Free Press.
- Bass, B. M. (1996). 'Is there universality in the full range model of leadership?', *International Journal of Public Administration*, 19, pp. 731–761.
- Bass, B. M. (1999). 'Two decades of research and development in transformational leadership', *European Journal of Work and Organizational Psychology*, 8(1), pp. 9–32.
- Bass, B. M., and B. J. Avolio (2000). *Technical report for the MLQ* (2nd edn). Redwood, CA: Mind Garden.
- Bolino, M. C. (1999). 'Citizenship and impression management: Good soldiers or good actors?', *Academy of Management Review*, 24(1), pp. 82-98.
- Borman, W. C., and S. J. Motowidlo. (1993). 'Expanding the criterion domain to include elements of contextual performance'. In N. Schmidt and W. C. Borman (Eds.), *Personnel selection in organizations*. San Francisco, CA: Jossey-Bass.
- Brislin, R. W. (1970). 'Back-translation for cross-cultural research', *Journal of Cross-Cultural Psychology*, 1(3), pp. 185-216.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Christensen, R. K., S. W. Whiting , T. Im , E. Rho, J. M. Stritch and J. Park . (2013). 'Public Service Motivation, Task, and Non-task Behaviour: A Performance Appraisal Experiment with Korean MPA and MBA Students', *International Public Management Journal*, 16 (1), pp. 28-52.
- Cole, M. S., A. G. Bedeian, and H. Bruch (2011). 'Linking leader behaviour and leadership consensus to team performance: Integrating direct consensus and dispersion models of group composition', *Leadership Quarterly*, 22(2), 383-398.
- Coursey, D. H., and S. K. Pandey. (2007). 'Public service motivation measurement: Testing an abridged version of Perry's proposed scale', *Administration and Society*, pp. 39(5), 547-568.
- Crewson, P. E. (1997). 'Public-Service Motivation: Building Empirical Evidence of Incidence and Effect', *Journal of Public Administration Research and Theory*, 7(4), pp. 499 – 518.
- De Cremer, D. (2002). 'Charismatic leadership and cooperation in social dilemmas: A matter of transforming motives?', *Journal of Applied Social Psychology*, 32(5), pp. 997-1016.
- Den Hartog, D. N., and F. D. Belschak. (2012). 'When does transformational leadership enhance employee proactive behaviour? The role of autonomy and role breadth self-efficacy', *Journal of Applied Psychology*, 97 (1), pp. 194-202.

- Donavan, D. J., T. J. Brown, and J. C. Mowen. (2004). 'Internal benefits of service-worker customer orientation, job satisfaction, commitment and organisational citizenship behaviors', *Journal of Marketing*, 68 (1), pp. 128-146.
- Dumdum, U. R., K. B. Lowe, and B. J. Avolio. (2002). 'Meta-analysis of transformational and transactional leadership correlates of effectiveness and satisfaction: An update and extension'. In *Transformational and charismatic leadership: The road ahead*, eds. Bruce J. Avolio and Francis J. Yammarino. New York: JAI Press.
- Fong, K. H. and E. Snape. (2013). 'Empowering Leadership, Psychological Empowerment and Employee Outcomes: Testing a Multi-level Mediating Model', *British Journal of Management*, doi: 10.1111/1467-8551.12048.
- Fornell, C., and D. F. Larcker. (1981). 'Evaluating structural equation models with unobservable variables and measurement error', *Journal of Marketing Research*, 18(1), pp. 39-50.
- Geldhof, G. J., S. Pornprasertmanit, A. M. Schoemann and T. D. Little. (2013). 'Orthogonalizing through residual centering: Extended applications and caveats', *Educational and Psychological Measurement*, 73 (1), pp. 27-46.
- Gilmore, P. L., X. Hu, F. Wei, L. E. Tetrick, and S. J. Zaccaro. (2012). 'Positive affectivity neutralizes transformational leadership's influence on creative performance and organizational citizenship behaviours', *Journal of Organizational Behaviour*, doi: 10.1002/job.1833.
- Gould-Williams, J. S., A. M. Mostafa, and P. Bottomley. (2013). 'Public service motivation and employee outcomes in the Egyptian public sector: Testing the mediating effect of person-organization fit', *Journal of Public Administration Research and Theory*, doi: 10.1093/jopart/mut053
- Grindle, M. S. (2007). *Going local: Decentralization, democratization, and the promise of good governance*. Princeton: Princeton University Press.
- Herrmann, D. and J Felfe. (2014). 'Effects of leadership style, creativity technique and personal initiative on employee creativity', *British Journal of Management*, 25, pp. 209-227.
- Hoffman, B. J., B. H. Bynum, R. F. Piccolo, and A. W. Sutton. (2011). 'Person-organization value congruence: How transformational leaders influence work group effectiveness', *Academy of Management Journal*, 54(4), pp. 779-796.
- Judge, T. A., and R. F. Piccolo. (2004). 'Transformational and transactional leadership: A meta-analytic test of their relative validity', *Journal of Applied Psychology*, 89, pp. 755-768.
- Jung, D. I., and B. J. Avolio. (1999). 'Effects of leadership style and followers' cultural orientation on performance in groups and individual task conditions', *Academy of Management Journal*, 47(2), pp. 208-218.
- Kerr, S., and J. M. Jermier. (1978). 'Substitutes for leadership: Their meaning and measurement', *Organizational Behaviour and Human Performance*, 22, pp. 375-403.
- Kidder, D. L. (2002). 'The Influence of Gender on the Performance of Organizational Citizenship Behaviours', *Journal of Management*, 28(5), pp. 629-48.

- Kim, S. (2006). 'Public service motivation and organizational citizenship behaviour in Korea', *International Journal of Manpower*, 27 (8), pp. 722-740.
- Kim, S. (2009). 'Testing the Structure of Public Service Motivation in Korea: A Research Note', *Journal of Public Administration Research and Theory*, 19(4), pp. 839-851.
- Kirkman, B. L., G. Chen, J-L. Farh, Z. X. Chen, K. B. Lowe. (2009). 'Individual power distance orientation and follower reactions to transformational leaders: A cross-level, cross culture examination', *Academy of Management Journal*, 52, pp. 744–764.
- Kjeldsen, A. M., and C. B. Jacobsen. (2013). 'Public service motivation and employment sector: Attraction or socialization?', *Journal of Public Administration Research and Theory*, 23(4), pp. 899-926.
- Kovjanic, S., S. C. Schuh, K. Jonas, N. Van Quaquebeke, and R. Van Dick. (2012). 'How do transformational leaders foster positive employee outcomes? A self-determination-based analysis of employees' needs as mediating links', *Journal of Organizational Behaviour*, 33(8), pp. 1031-1052.
- Lee, K., and N. J. Allen. (2002). 'Organizational citizenship behaviour and workplace deviance: The role of affect and cognitions', *Journal of Applied Psychology*, 87(1), pp. 131–142.
- Le Pine J.A., A. Erez, and D. E. Johnson. (2002). 'The Nature and Dimensionality of Organizational Citizenship Behavior: A Critical Review and Meta-Analysis', *Journal of Applied Psychology*, 87(1), pp. 52–65.
- Lewis, G. B., and S. A. Frank. (2002). 'Who wants to work for the government?', *Public Administration Review*, 62 (4), pp. 395-404.
- Li, N., D. S. Chiaburu, B. L. Kirkman, and Z. Xie. (2013). 'Spotlight on the followers: An examination of moderators of relationships between transformational leadership and subordinates' citizenship and taking charge', *Personnel Psychology*, 66, pp. 225–260.
- Little, T. D., J. A. Bovaird, and K. F. Widaman. (2006). 'On the merits of orthogonalizing powered and product terms: Implications for modeling interactions among latent variables', *Structural Equation Modeling*, 13(4), pp. 497-519.
- MacKenzie, S. B., P. M. Podsakoff, and G. A. Rich. (2001). 'Transformational and transactional leadership and salesperson performance', *Journal of Academy of Marketing Science*, 2, pp. 115–134.
- Marsh, H. W., Z. Wen, K-T. Hau, T. D. Little, J. A. Boivard, and K. F. Widaman. (2007). 'Unconstrained structural equation models of latent interactions: Contrasting residual and mean-centered approaches', *Structural Equation Modeling*, 14, pp. 570-580.
- Messersmith, J. G., P. C. Patel, D. P. Lepak, and J. S. Gould-Williams. (2011). 'Unlocking the Black Box: Exploring the Link between High-Performance Work Systems and Performance' *Journal of Applied Psychology*, 96(6), pp. 1105–1118.

- Miao, Q., A. Newman, G. Schwarz, and L. Xu. (2013). 'Participative Leadership and the Organizational Commitment of Civil Servants in China: The Mediating Effects of Trust in Supervisor' *British Journal of Management*, 24(Supplement S1), pp. S76-S92.
- Moynihan, D. P., and S. K. Pandey. (2007). 'The role of organizations in fostering public service motivation' *Public Administration Review*, 67(1), pp. 40-53.
- Nahum-Shani, I., and A. Somech. (2011). 'Leadership, OCB and individual differences: Idiocentrism and allocentrism as moderators of the relationship between transformational and transactional leadership and OCB', *The Leadership Quarterly*, 22, pp. 353-366.
- Ngunia, S., P. Slegers, and E. Denessen. (2006). 'Transformational and transactional leadership effects on teachers' job satisfaction, organizational commitment, and organizational citizenship behaviour in primary schools: The Tanzanian case', *School Effectiveness and School Improvement*, 17(2), pp. 145-177.
- Oberfield, Z. W. (2012). 'Public Management in Time: A Longitudinal Examination of the Full Range of Leadership Theory', *Journal of Public Administration Research and Theory* doi:10.1093/jopart/mus060.
- Paarlberg, L. E., and B. Lavigna. (2010). 'Transformational leadership and public service motivation: Driving individual and organizational performance', *Public Administration Review*, 70, pp. 710-718.
- Pandey, S. K., B. E. Wright, and D. P. Moynihan. (2008). 'Public service motivation and interpersonal citizenship behaviour in public organizations: Testing a preliminary model', *International Public Management Journal*, 11(1), pp. 89-108.
- Perry, J. L. (1996). 'Measuring public service motivation: An assessment of construct reliability and validity', *Journal of Public Administration Research and Theory*, 6(1), pp. 5-23.
- Perry, J. L. (2000). 'Bringing society in: Toward a theory of public-service motivation', *Journal of Public Administration Research and Theory* 10(2), pp. 471-488.
- Perry, J. L., and A. Hondeghem. (2008). 'Editors' introduction'. In James L. Perry and Annie Hondeghem (Eds.), *Motivation in public management: The call of public service* (pp. 1-14). Oxford: Oxford University Press.
- Piccolo, R. F., and J. A. Colquitt. (2006). 'Transformational leadership and job behaviours: The mediating role of job characteristics', *Academy of Management Journal*, 49 (2), pp. 327-340.
- Podsakoff, P. M., S. B. MacKenzie, and W. H. Bommer. (1996). 'Transformational leadership behaviours and substitutes for leadership as determinants of employee satisfaction, commitment, trust, and organizational citizenship behaviours', *Journal of Management*, 22, pp. 259-298.
- Podsakoff, P. M., S. B. MacKenzie, J-Y. Lee, and N. P. Podsakoff. (2003). 'Common Method Biases in Behavioural Research: A Critical Review of the Literature and Recommended Remedies', *Journal of Applied Psychology*, 88(5), pp. 879-903.

- Rainey, H. G. (2003). *Understanding and managing public organizations*, 3rd ed. New York: Jossey-Bass.
- Ritz, A. (2009). 'Public Service Motivation and Organizational Performance in Swiss Federal Government', *International Review of Administrative Sciences*, 75(1), pp. 53- 78.
- Siemens, E., A. Roth and P. Oliveira (2010). 'Common Method Bias in Regression Models With Linear, Quadratic, and Interaction Effects', *Organizational Research Methods*, 13(3), pp456-476.
- Steen, T. (2008). 'Not a government monopoly: The private, nonprofit, and voluntary sectors'. In James L. Perry and Annie Hondeghem (Eds.), *Motivation in public management: The call of public service*. Oxford: Oxford University Press.
- Steinmetz, H., E. Davidov, and P. Schmidt. (2011). 'Three approaches to estimate latent interaction effects: Intention and perceived behavioural control in the theory of planned behaviour', *Methodological Innovations Online*, 6(1), pp. 95-110.
- Taylor, J. (2013). 'Goal setting in the Australian public service: Effects on psychological empowerment and organizational citizenship behaviour', *Public Administration Review*, 73(3), pp. 453–464.
- Tracey, J. B., and T. R. Hinkin. (1998). 'Transformational leadership or effective managerial practices?', *Group and Organization Management*, 23(3), pp. 220-236.
- Trottier, T., M. Van Wart, and X. Wang. (2008). 'Examining the nature and significance of leadership in government organizations', *Public Administration Review*, 68, pp. 319–333.
- van Knippenberg, D., and S. B. Sitkin. (2013). 'A critical assessment of charismatic-transformational leadership research: Back to the drawing board?', *The Academy of Management Annals*, 7(1), pp. 1-60.
- Van Wart, M. (2003). 'Public-sector leadership theory: An assessment', *Public Administration Review*, 63, pp. 214–228.
- Vigoda-Gadot, E., and I. Beerli. (2012). 'Change-oriented organizational citizenship behaviour in public administration: The power of leadership and the cost of organizational politics', *Journal of Public Administration Research and Theory*, 22, pp. 573–596.
- Walumba, F. O., J. J. Lawler, and B. J. Avolio. (2007). 'Leadership, individual differences, and work-related attitudes: a cross-cultural investigation', *Applied Psychology: An International Review*, 56(2), pp. 212–230.
- Wang, G., I-S. Oh, S. H. Courtright, and A. E. Colbert. (2011). 'Transformational leadership and performance across criteria and levels: A meta-analytic review of 25 years of research', *Group and Organization Management*, 36(2), pp. 223–270.
- Whittington, J. L., V. L. Goodwin, and B. Murray. (2004). 'Transformational leadership, goal difficulty, and job design: Independent and interactive effects on employee outcomes', *The Leadership Quarterly*, 15, pp. 593–606.

Williams, L. J., and S. E. Anderson. (1991). 'Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviours', *Journal of Management*, 17(3), pp. 601–617.

Wright, B. E., and R. K. Christensen. (2010). 'Public Service Motivation: A Test of the Job Attraction-Selection-Attrition Model', *International Public Management Journal*, 13(2), pp. 155-176.

Wright, B. E., and S. K. Pandey. (2010). 'Transformational Leadership in the Public Sector: Does Structure Matter?', *Journal of Public Administration Research and Theory*, 20(1), pp. 75-89.

Table 1: Means, Standard deviations, inter-correlations and reliability estimates for study 1

Construct	Mean	SD	1	2	3	4	5	6	7	8
1. Transformational leadership*	2.65	0.68	0.88, (0.80)							
2. Public service motivation	3.69	0.81	0.31	0.61, (0.66)						
3. OCBO	3.94	0.79	0.51	0.59	0.91, (0.84)					
4. OCBI	3.58	0.77	0.41	0.58	0.65	0.84, (0.75)				
5. Age	36	10	0.04	0.15	0.12	0.06	-			
6. Gender (Female=1)	0.46	0.50	0.03	0.06	0.01	0.05	-0.11	-		
7. Education	3.66	0.84	-0.007	-0.006	0.04	0.04	-0.09	0.03	-	
8. Organisational Tenure	7.43	7.16	0.03	0.10	0.09	0.02	0.62	0.00	0.00	-

Sub-diagonal entries are the latent construct inter-correlations. The first entry on the diagonal is square root of the AVE, whilst the second entry in parenthesis is the composite reliability score.

**All items were measured on a 1-5 scale, with the exception of transformational leadership, 0-4.*

Table 2: Means, Standard deviations and inter-correlations for study 2

Construct	Mean	SD	1	2	3	4	5	6	7
1. Transformational leadership**	2.61	0.64							
2. Public service motivation	3.48	0.72	0.42*						
3. OCBO	2.77	0.81	0.64	0.41					
4. OCBI	2.43	0.77	0.52	0.49	0.68				
5. Age	29.72	10.14	0.04	0.08	0.08	0.00	-		
6. Gender (Female=1)	0.48	0.50	-0.02	0.11	-0.03	-0.00	-0.11	-	
7. Education	3.35	0.84	0.16	0.02	0.19	0.14	-0.27	0.03	-

**All correlations above 0.10 are significant at $p < 0.001$*

***All items were measured on a 1-5 scale, with the exception of transformational leadership, 0-4.*

Figure 1: Theoretical model showing the moderating role of PSM on the transformational leadership-OCBs relationship

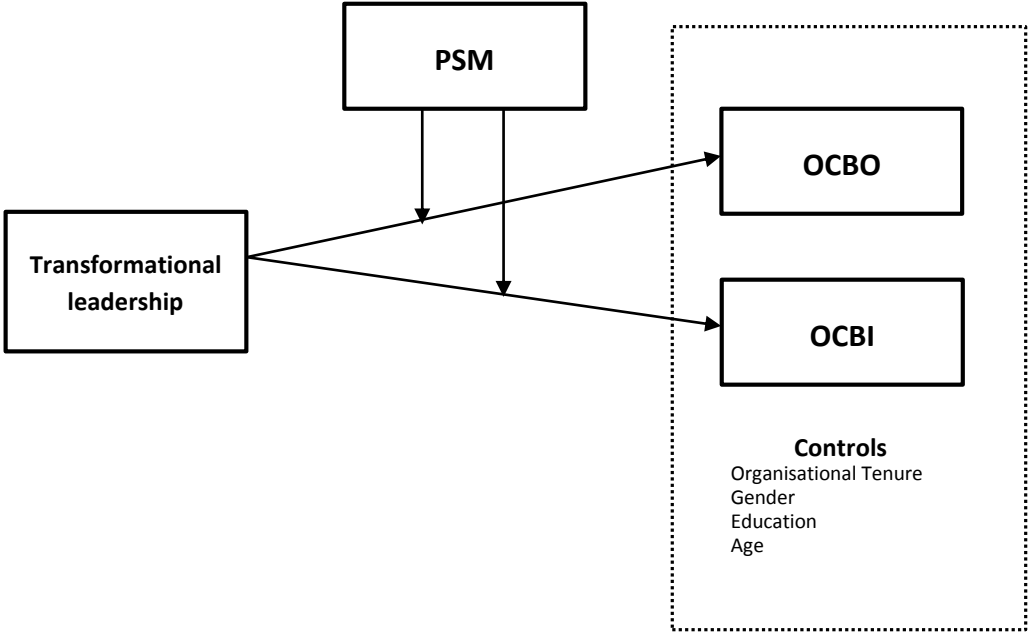


Figure 2a: Moderating effect of PSM on the Transformational Leadership–OCBO Relationship

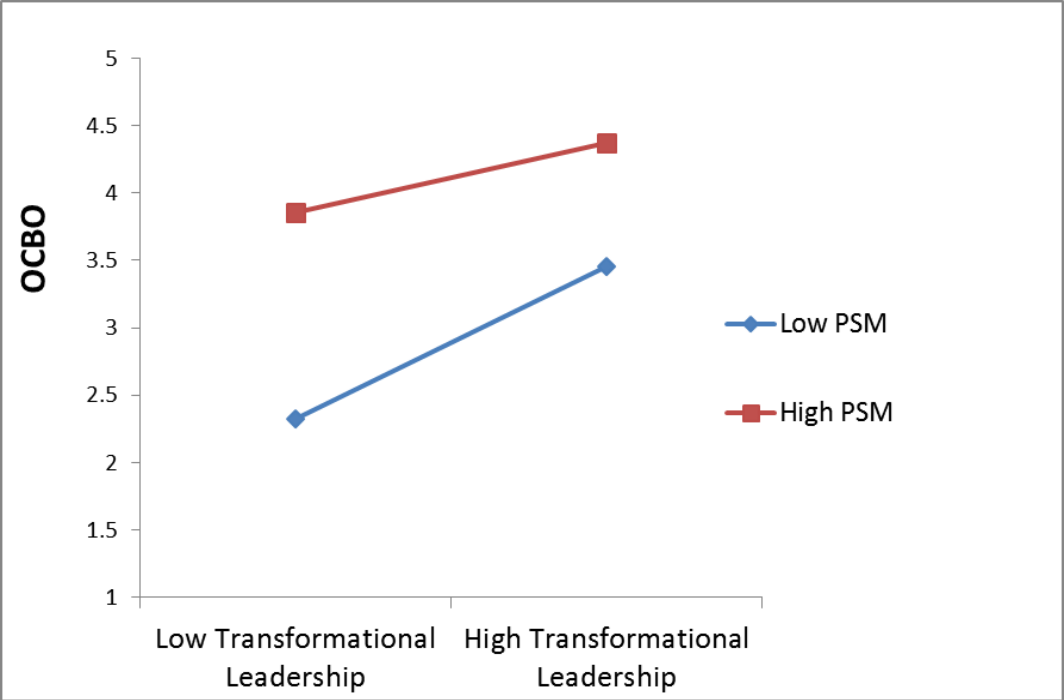


Figure 2b: Moderating effect of PSM on the Transformational Leadership–OCBI Relationship

