FOSTERING PUBLIC SERVICE MOTIVATION THROUGH WORKPLACE TRUST: EVIDENCE FROM PUBLIC MANAGERS IN TAIWAN

CHUNG-AN CHEN, CHIH-WEI HSIEH AND DON-YUN CHEN

The existing literature addressing antecedents of public service motivation (PSM) focuses on personal predisposition and institutional shaping. The authors offer a focus that differs from previous studies, arguing that workplace trust as a result of human interaction and personal choice has a bearing on PSM. It is postulated that public managers' trust in citizens, trust in colleagues, and trust in agency leaders enhance their PSM. The authors test this proposition by using data collected from middle managers working in the Taiwan central government and it receives strong support. This study brings trust into the study of PSM, facilitates interdisciplinary dialogues, and thus helps make PSM a type of knowledge that pushes back the boundaries of public administration.

INTRODUCTION

Public service motivation (PSM), first proposed by Perry and Wise (1990), has raised attention levels for the study of motivation in public organizations. PSM refers to one's predisposition to serve the community and public interest (Brewer and Selden 1998; Rainey and Steinbauer 1999). The concept is also defined as 'the belief, values, and attitudes that . . . concern the interest of a larger political entity and that motivate individuals to act accordingly whenever appropriate' (Vandenabeele 2007, p. 547). PSM is currently all the rage. It, as an internal motive, helps enhance worker job satisfaction and organizational commitment; promotes reform support and organizational citizenship behaviour; and has important implications on turnover intention and perceived red tape (Scott and Pandey 2005; Pandey *et al*. 2008; Giauque *et al*. 2012; Taylor 2013). It also determines whether one prefers government employment to business employment (Vandenabeele 2008).

Given the importance of PSM, scholars have tried to identify its antecedents through two approaches. The first approach centres on a person's inherent predispositions. Strong monetary preferences are incompatible with PSM (Bright 2005), whereas a desire for job security, functioning as a crowding-in motivational factor, can lead to extra effort in public service (Frank and Lewis 2004; Chen and Hsieh 2012).

The second approach focuses on institutional shaping (Perry and Vandenabeele 2008). Institutional shaping can occur in organizations where structural settings such as red tape and hierarchical control stifle one's PSM (Moynihan and Pandey 2007). It can appear in a society where people's gender, age, and education are embedded in social structures and expectations such that demographic factors determine one's PSM (Vandenabeele 2011). It is also possible that institutional shaping happens in families and religious gatherings where individuals nourish PSM through parental modelling, voluntary work, and religious socialization (Perry 1997; Perry *et al*. 2008; Vandenabeele 2011). The institutional approach perfectly reflects Perry's (2000) assertion that PSM as a type of motivation is grounded in cognitive and affective responses to social contexts.

Chung-An Chen is in the Public Policy and Global Affairs Programme, Nanyang Technological University, Singapore. Chih-Wei Hsieh is in the School of Public Administration, University of New Mexico, Albuquerque, New Mexico, USA. Don-yun Chen is in the Department of Public Administration, National Chengchi University, Taipei, Taiwan.

Despite considerable empirical evidence, both approaches give little attention to human processes: while the dispositional approach lays too much emphasis on context-free psychology, the institutional approach assumes that individuals passively react to institutional demands with little choice. In the present study, we propose a new approach by introducing civil servants' interpersonal trust at work into PSM research as interpersonal trust connotes individual choice as well as the dynamics of human interaction. We ask whether public managers' perceived trustworthiness of various social actors in their worksite including citizens, colleagues, and agency leaders enhances their PSM.

Our speculation is not anecdotal, but instead, is endorsed by existing research. Interpersonal trust is not an uncharted terrain in public administration. Empirical evidence shows that public managers' trust in supervisors enhances organizational commitment and reduces turnover intention (Nyhan 2000; Albrecht and Travaglione 2003); trust in colleagues leads to helping behaviours such as knowledge sharing (Kim and Lee 2006); trust in citizens results in more citizen participation, and accordingly more democracy (Yang 2005). Because PSM closely pertains to commitment to the public sector, altruism, helping, and public values such as democracy (Camilleri 2006; Kim *et al*. 2013), we can reasonably anticipate a nexus between interpersonal trust at work (hereafter workplace trust) and PSM.

Examining the role of workplace trust first advances the theory of PSM antecedents. Workplace trust delineates a dynamic process in which individuals modify their beliefs according to human interactions, unlike the view of static influence mentioned in both dispositional and institutional approaches. This study also facilitates interdisciplinary dialogue by allowing the influx of theories in political science, sociology, and psychology into PSM research. For example, we need the theory of social capital (Putnam 2001) and attraction–selection–attrition (De Cooman *et al*. 2009) to capture how public managers' trust/distrust in citizens influences PSM. We need the theory of social learning and social cognition (Bandura 1977, 1989) to understand how public managers learn from their colleagues' benevolence and transform it into PSM. We need the theory of politics–administration dichotomy and strategic alignment (Andrews *et al*. 2011; Berman *et al*. 2012) to comprehend why trust in agency leaders reinforces PSM.

The findings of the present study shed light on practices as well. When social interactions foster civil servants' PSM, their service propensity is more likely to transcend 'cheap talk' (Farrell and Rabin 1996) and be transformed into real actions (Houston 2006), as trust represents well-established collective commitment (Robertson and Tang 1995) that provides a psychological buffer for civil servants to serve the public interest with little reservation.

We test our hypotheses using data collected in 2010 from public managers working in Taiwan, a country where the separation of powers resembles other democratic presidential systems in the world. We first briefly review the literature on interpersonal trust and explain why we expect the main causality to be trust leading to PSM. Next, we develop three hypotheses, discussing how PSM is reinforced by civil servants' trust in citizens, colleagues, and agency leaders, respectively. This section is followed by analysis and implications.

INTERPERSONAL TRUST AND PSM: THE CAUSALITY ISSUE

Trust is a source of constructive social relations on which compromise and cooperation can be developed (Brown and Ferris 2007). Contemporary theories suggest that trust influences participation in political and civic life (Brehm and Rahn 1997; Scholz and

Lubell 1998). It is also deemed to be a social virtue, as Fukuyama (1995) describes. Given its importance, increasing discussion on trust emanates from sociology, political science, and psychology. Focusing on interpersonal trust, the topic of the present study, psychologists and sociologists provide competing views regarding its source (Delhey and Newton 2003). Psychological theories suggest that a person's propensity to trust in strangers (i.e. generalized trust) (Yamagishi and Yamagishi 1994) is a result of certain personality traits such as optimism (Allport 1961). By contrast, sociological theories claim that interpersonal trust is a product of experience (Hardin 2006) because individuals constantly modify trustful and distrustful feelings in response to changing circumstances (Delhey and Newton 2003).

Although both views seem plausible, Newton (2001) offers reasons why interpersonal trust is more likely to be a cognitive process grounded in rational choices (Uslaner 1999; Castelfranchi and Falcone 2001). He first argues that trust statistics in any given society often increase or decrease rapidly, probably not as a result of personality or childhood socialization, but instead, as a rational response to variations in the external world. In addition, if trust stems from personality traits, it has to be constant not only over time but also across the board, and therefore we should expect little difference between an individual's interpersonal trust and political trust (i.e. trust in political regime and authorities; see Mishler and Rose 2001). However, empirical evidence shows a weak or non-existent relationship between them (Kaase 1999; Uslaner 2002; Zmerli and Newton 2008), implying that personality and childhood learning are not the primary determinants of trust. Thus, trust is more a social response, a concept beyond a reflection of inherent or early-learned nature (Newton 2001).

Following this line, we argue that the main causality between trust and PSM should be trust causing PSM. When we treat trust as a source causing PSM, the causal mechanism should be interpreted as 'individuals form their trust in workplace actors through interactions and learn benevolence from them, accordingly enhancing their PSM'. This logic hints that PSM as a socially grounded predisposition (Perry and Hondeghem 2008) can be fostered by workplace trust nourished through social interactions. By contrast, if we deem PSM to be a source causing trust, the causal mechanism should be interpreted as 'individuals first have a propensity to serve the public interest, and the belief in serving people increases one's tendency to trust people'. In this situation, trust is merely a reflection of an inherent personality trait or early-learned value, incompatible with Newton's (2001) view of trust as a social response. In sum, trust is not only an inherent nature but a core element of civic culture (Inglehart 1990), so we adhere to the main causality of workplace trust causing PSM.[1] In some cases, the enhanced PSM can in turn reinforce one's workplace trust. We elaborate on this reciprocal relationship in the next section.

HYPOTHESES

Public managers' workplace trust is often reflected in their trust in citizens, trust in colleagues, and trust in agency leaders. While they are all positively predictive of PSM, the underlying mechanisms are different. We start from the discussion of trust in citizens.

Trust in citizens

The relationship between trust in citizens and PSM can best be captured through the lens of social capital (Putnam 2001). Social capital refers to core values and norms of social organizations that facilitate cooperation for mutual benefit (Putnam 1995), and interpersonal

trust – portrayed by mutuality, empathy, reciprocity, civility, respect, solidarity, tolera-tion, and voluntarism (Newton 2001) – serves as the foundation of collective behaviour, on which social capital is accumulated (Putnam 1993). Trust in strangers (citizens are usually strangers in civil servants' eyes) makes people accommodate others' preferences and facilitates a healthy society (Yamagishi and Yamagishi 1994). Sociologists indicate that people who trust strangers tend to engage in voluntary actions, community issues, giving to charity, and many other civic duties such as serving on a jury (Putnam 1995).

Considering that PSM is a synergy of compassion, self-sacrifice, and public interest, trust in citizens as a moral and altruistic tendency (Mansbridge 1999) should be in line with the growth of PSM for public managers. Yang (2005) defines administrators' trust in citizens as 'administrators' belief that the citizens who are affected by their work, when they are involved in the administrative process, will act in a fashion that is helpful to administrators' performance' (p. 276). In the same article, Yang (2005) also shows that the interaction between citizens and public administrators can go beyond private exchange because both citizens and public administrators have a democratic orientation and public administrators require a sense of civic duty as their public service ethic (Mosher 1982).

However, trust in citizens involves risks as citizens may act opportunistically by taking advantage of rules not clearly specified. If public managers perceive that citizens are not honest and trustworthy, they may lose their motivation to serve the public interest as their devotion could be in vain, as Blau (1960) indicates in his argument about public sector workers' reality shock. This reality shock may trigger the effect of attrition (De Cooman *et al.* 2009) and eventually reorient public managers to attach less importance to intrinsic and serving values and greater importance to instrumental rewards (Buurman *et al.* 2009).

While public managers' perceived trustworthiness of citizens enhances their PSM, the ameliorated PSM can in turn foster their trust in citizens (i.e. reciprocity). According to Hosmer (1995), trust is often directed by informal obligations, norms, as well as the belief in kindness and compassion. From this perspective, commitment to the public interest as norm-based PSM, compassion, and self-sacrifice as affective PSM can improve civil servants' trust in citizens.

Hypothesis 1: Trust in citizens is positively correlated with PSM.

Trust in colleagues

The impact of trust in colleagues on PSM should be understood through the lens of social learning and modelling (Bandura 1977, 1986). Indeed, a theory of PSM is premised on not only endogenous self-concepts but also preferences learned in social processes (Perry 2000). We suspect that civil servants can learn good will from co-workers. Their trust in colleagues' benevolence, sincerity, and professional ethics should constitute a pivotal part of their value system, foster their willingness to repay, and nourish their belief in altruism (the effect of modelling; see Ormrod 2008), eventually leading to a higher level of PSM.

This speculation is further endorsed by evidence from empirical studies in edu-cational psychology, showing that trust is contagious (Hoy and Tschannen-Moran 1999; Tschannen-Moran 2001). School teachers who demonstrate a strong faith in their colleagues also trust the principal and students, implying the spillover effect of trust in workplaces. A more recent study even shows that teachers' trust in colleagues is predictive of their commitment to students through the function of collective efficacy, meaning that teachers' trust in colleagues results in collective beliefs in organizing teaching practices

to make a positive difference for their students (Lee *et al*. 2011). In the case of public managers, trust in colleagues can reinforce their trust in citizens through a spillover effect and accordingly enhances their PSM. Or alternatively, trust in colleagues may form collective efficacy among public managers and strengthen their commitment to the general public.

Self-determination theory (SDT) (Ryan and Deci 2000; Sheldon *et al*. 2003) helps conceptually link PSM and trust in colleagues as well. SDT first distinguishes autonomous motivation from controlled motivation. Autonomous motivation includes intrinsic motivation (the activity itself is an internal reward) and identified motivation (the activity is judged valuable or useful), whereas controlled motivation comprises introjected motivation (the activity helps avoid anxiety, shame, and pressure) and external motivation (the activity satisfies an external demand or obtains an external reward contingency).[2] PSM, apparently, is a type of autonomous motivation.

Not everyone chooses a public sector job because of greater opportunities to serve the public interest. In many cases, a high level of job security and high pay, two controlled motivations, are more important than serving people (Crewson 1997; Jurkiewicz *et al*. 1998). However, it does not mean that their PSM can never be enhanced. According to SDT, satisfaction with relatedness can help individuals internalize their extrinsic work values and thus transform controlled motivation into autonomous motivation. Public sector workers may gradually perceive the value of PSM once their need for relatedness is met. Relatedness, a need for being connected to others, is often captured by questions asking people whether they feel close to, attached to, and valued by their colleagues or teammates (Richer and Vallerand 1998; Hollembeak and Amorose 2005), resembling the meaning of trust in colleagues. Since relatedness helps transform controlled motivation into autonomous motivation, public managers' perceived trustworthiness of colleagues as a symbol of relatedness should enhance PSM, a type of autonomous motivation.

Enhanced PSM can promote organizational citizenship behaviour (OCB) (Kim 2006). The underlying logic is that a compassionate response and self-sacrifice at work often take the form of prosocial and altruistic behaviours (Choi and Mai-Dalton 1999; Lilius *et al*. 2008). Given that trust in colleagues and OCB are inseparable (McAllister 1995), we expect that improved PSM can in turn reinforce civil servants' trust in colleagues.

Hypothesis 2: Trust in colleagues is positively correlated with PSM.

Trust in agency leaders

Public managers' trust in agency leaders (political appointees) should be positively correlated with their PSM. This positive association is first found in the literature of trust in leadership rooted in generic management. The literature suggests that civil servants' trust in organizational leaders and higher level managers is triggered when people perceive procedural and distributive justice, organizational support, substantial feedback, and a leader's integrity and capability (Nyhan 2000; Dirks and Ferrin 2002; Albrecht and Travaglione 2003). Typical consequences include positive work attitudes, improved job performance, and organizational citizenship behaviours such as altruism, civic virtue, and conscientiousness (Dirks and Ferrin 2002). Altruism and civic virtue can spill over to the general public. A recent study of PSM shows that public managers' PSM increases when they perceive that leaders and higher level managers empower them and cut red tape for them in reforms (Moynihan and Pandey 2007).

In addition to providing support as senior public managers do to their subordinates, agency leaders can foster service excellence through the mechanism of political–managerial alignment (Berman *et al*. 2012). As Meier and O'Toole (2006) claim, high performance in the public sector results from the effort of both politicians and managers. However, conflicts often exist between them as principal–agent theory suggests. While agency leaders generally have a bird's eye view of organizations and pay greater attention to the compromise among stakeholders, public managers holding their professional and technical views can feel frustrated by the consequence of such compromise–ambiguous goals (Chun and Rainey 2006). We suspect that poor political–managerial alignment, as represented by public managers' distrust in agency leaders, will not only bring detrimental effects to organizational performance (Boyne *et al*. 2012), but also compromise public managers' work morale and service motivation.

We expect a reciprocal relationship between PSM and trust in agency leaders as well. Why? In a modern democratic regime, agency leaders are called on to play the role of the conservator/steward of public service values (Terry 2002; Kee and Newcomer 2008). While exercising conservatorship/stewardship, they hold public managers accountable for their actions so that commitment to the mission and goals of the organization is secured. Improved PSM, especially the interest in policy making and commitment to the public interest, can orient public managers to exhibit more trust in agency leaders' virtue, morality, and adherence to public benevolence (Terry 2002).

Hypothesis 3: Trust in agency leaders is positively correlated with PSM.

DATA

Data used in the current study were collected from middle managers working in central government in Taiwan. Taiwan, a developed nation situated near the south-eastern shores of Mainland China, employs the system of separation of powers that resembles other democratic presidential systems in the world, such as that in the United States. We emphasize that the goal of the present study is the advancement of the general theory instead of international comparison. Similar to many studies conducted outside the USA or UK (e.g. Ritz 2009; Kjeldsen and Jacobsen 2013), we do not examine the context of Taiwan in detail.

In a 14-grade hierarchy, the grades of middle managers are generally between 7 and 9. The project was funded by the National Science Council (NSC-96-2414-H-004-037-SS2) and obtained contact information for all 1,189 middle managers working in central government from the Directorate-General of Personnel Administration, Executive Yuan in Taiwan. We selected middle managers as survey targets because the flow of information and the exchange of knowledge occur intensively at the middle level in most bureaucracies.

The questionnaire was originally designed in the summer of 2009. On 27 December 2009, a professional focus group was called to examine the validity of the questionnaire. We finalized the questionnaire in early January 2010, and soon after, we sent pre-contact letters to all potential respondents. The mail survey officially started on 5 January 2010. To boost the response rate, we sent follow-up postcards on 18 January to those who had not replied. The survey was concluded on 31 January. Among all collected responses, we found eight cases where surveys were not answered by middle managers. The error was a result of the misplacement of non-middle managers in the survey list or subordinates answering

TABLE 1 *Exploratory factor analysis*

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Policy making (PM) 1	0.128	0.031	−0.075	0.112	0.121	−0.058	0.689
Policy making (PM) 2	0.089	0.070	0.095	−0.097	0.006	0.036	0.768
Policy making (PM) 3	0.052	0.012	0.024	0.134	0.052	0.216	0.668
Public interest (PI) 1	0.054	0.056	0.133	0.088	0.099	0.658	0.335
Public interest (PI) 2	0.110	0.210	0.023	0.057	−0.014	0.748	−0.045
Public interest (PI) 3	0.111	0.304	0.385	0.029	0.008	0.636	0.004
Public interest (PI) 4	0.047	0.277	0.398	−0.017	0.078	0.580	0.070
Compassion (COM) 1	−0.030	0.110	0.795	0.017	−0.019	0.265	−0.013
Compassion (COM) 2	0.056	0.205	0.804	0.033	0.005	0.242	−0.003
Compassion (COM) 3	0.043	0.179	0.782	0.101	−0.006	−0.032	0.057
Self-sacrifice (SS) 1	0.052	0.783	0.096	0.095	0.029	0.179	0.043
Self-sacrifice (SS) 2	0.103	0.812	0.097	0.072	0.046	0.212	−0.005
Self-sacrifice (SS) 3	0.061	0.624	0.335	0.104	0.050	0.321	0.049
Self-sacrifice (SS) 4	0.091	0.692	0.189	0.030	0.100	0.030	0.069
Trust in citizens (Trust1) 1	0.066	−0.012	0.046	0.149	0.572	0.141	0.115
Trust in citizens (Trust1) 2	0.026	−0.022	−0.048	0.085	0.786	0.033	0.150
Trust in citizens (Trust1) 3	0.154	0.236	0.027	0.046	0.665	0.039	−0.103
Trust in citizens (Trust1) 4	−0.032	0.047	−0.021	0.050	0.827	−0.105	0.026
Trust in colleagues (Trust2) 1	0.089	0.184	0.070	0.772	0.006	−0.022	−0.014
Trust in colleagues (Trust2) 2	0.168	0.192	0.100	0.735	−0.008	0.018	−0.016
Trust in colleagues (Trust2) 3	0.125	−0.078	−0.046	0.660	0.264	0.074	0.070
Trust in colleagues (Trust2) 4	0.190	−0.042	0.038	0.718	0.159	0.096	0.157
Trust in agency leaders (Trust3) 1	0.877	0.024	0.059	0.107	0.010	0.058	0.070
Trust in agency leaders (Trust3) 2	0.897	0.033	0.075	0.110	0.036	0.032	0.086
Trust in agency leaders (Trust3) 3	0.839	0.161	−0.004	0.171	0.120	0.043	0.122
Trust in agency leaders (Trust3) 4	0.713	0.103	−0.029	0.195	0.070	0.139	0.061
Eigenvalue	2.992	2.626	2.430	2.301	2.237	2.169	1.750
Variation explained (%)	11.508	10.101	9.347	8.850	8.603	8.343	6.731

for their supervisors. After deleting these invalid cases, we successfully collected 774 responses. The response rate reached 65.1 per cent.

Because the data came from a self-reported questionnaire with a cross-sectional design, Harman's single-factor test was used to assess whether common method variance was a concern (Podsakoff and Organ 1986). Thus, all indicators (including all workplace trust and PSM items) were entered into a single factor using confirmatory factor analysis (CFA); an exploratory factor analysis with the VARIMAX rotational method was also conducted to verify the test result (see table 1). The poor fit statistics (e.g. Comparative Fit Index = 0.380) as well as the proportion of variance explained by each factor reported in table 1 (the highest is 11.508 per cent) provide evidence against the presence of common method variance as there is no one general factor that accounts for a majority of the total variance. The measures of dependent and independent variables are discussed next.

VARIABLES

Perry (1996) first explored the dimensionality of PSM and proposed a four-dimension construct, which includes attraction to policy making, commitment to the public interest, compassion, and self-sacrifice. The authors selected 14 items (three for attraction to

policy making and compassion; four for commitment to the public interest and self-sacrifice) with 1 = strongly disagree and 6 = strongly agree from the original PSM scale developed by Perry (1996).[3] The most fundamental criterion applied to item selection was translation – whether an item could be translated into Chinese with little tweaking of the meaning. The factor analysis presented in table 1 lends support to the view that the four constructs of PSM are salient and distinct. Cronbach's alpha for each construct is between 0.58 (attraction to policy making) and 0.81 (compassion). Cronbach's alpha for the global PSM index (the summation of 12 items) is 0.80.

Several ordinal questions with 1 = strongly disagree and 6 = strongly agree were employed to measure workplace trust. Items used to measure trust in citizens and trust in agency leaders were adapted from Yang (2005) and Nyhan (2000), respectively. Cronbach's alpha values for both constructs are over 0.70. The construct of trust in colleagues consists of four items asking about the situation for information sharing, the sincerity of interaction, and faith in the colleagues' professional ethics. Cronbach's alpha for this construct also reaches 0.74. In table 1, all of the workplace trust items appear to load heavily onto the corresponding factor, indicating the validity of these constructs.

To further ensure convergent and discriminant validity of these PSM and workplace trust constructs, CFA was performed (see figure 1). Overall, the model yields an acceptable fit to the data (McDonald and Ho 2002) as the Comparative Fit Index is 0.906 and the Root Mean-Square Error of Approximation is 0.048.[4] The result also illustrates that these constructs are significant in terms of discriminant validity (the extent to which a construct is truly distinct from other constructs) and convergent validity (the extent to which indicators of a specific construct share a high proportion of variance in common) (Hair 2006). For example, in figure 1, none of the correlations between any pair of latent variables is larger than 0.9 (the highest score is 0.69), which indicates that each of these constructs captures a certain concept that others do not. In addition, the CFA result also reveals evidence of convergent validity. It is suggested that the size of factor loading for each survey item is an important consideration for convergent validity (Hair 2006). It is preferable that the standardized factor loading be 0.5 or higher. As shown in figure 1, most standardized factor loadings exceed the value of 0.5,[5] which demonstrates convergent validity for the constructs used in this study. Please refer to the Appendix for more details regarding measurement of variables.

There are several control variables in the current study: age, gender, job tenure, agency function, span of control, a position obtained through competitive internal or external promotion/recruitment, private sector experience, inflexible formalization, and the pursuit of pay as a reason for job selection. Age is treated as a statistical control because it is thought to be predictive of public employee motivation (Jurkiewicz and Brown 1998). Empirical evidence also lends support to the view that gender and service tenure are correlated with PSM (Perry 1997; Moynihan and Pandey 2007). Because empirical studies of job tenure often separate current job tenure from service tenure or organizational tenure (Bedeian *et al*. 1992), this study follows this approach by controlling for current job tenure.

The authors also suspect that managers in service delivery agencies (i.e. line organizations) express stronger PSM due to the nature of their work, in comparison to those holding a position in non-street level institutions (e.g. staff organizations). Span of control as measured by the number of employees supervised should be negatively related to PSM as managers need to sacrifice time and energy spent on public service for supervision of subordinates. A position obtained through promotion may give
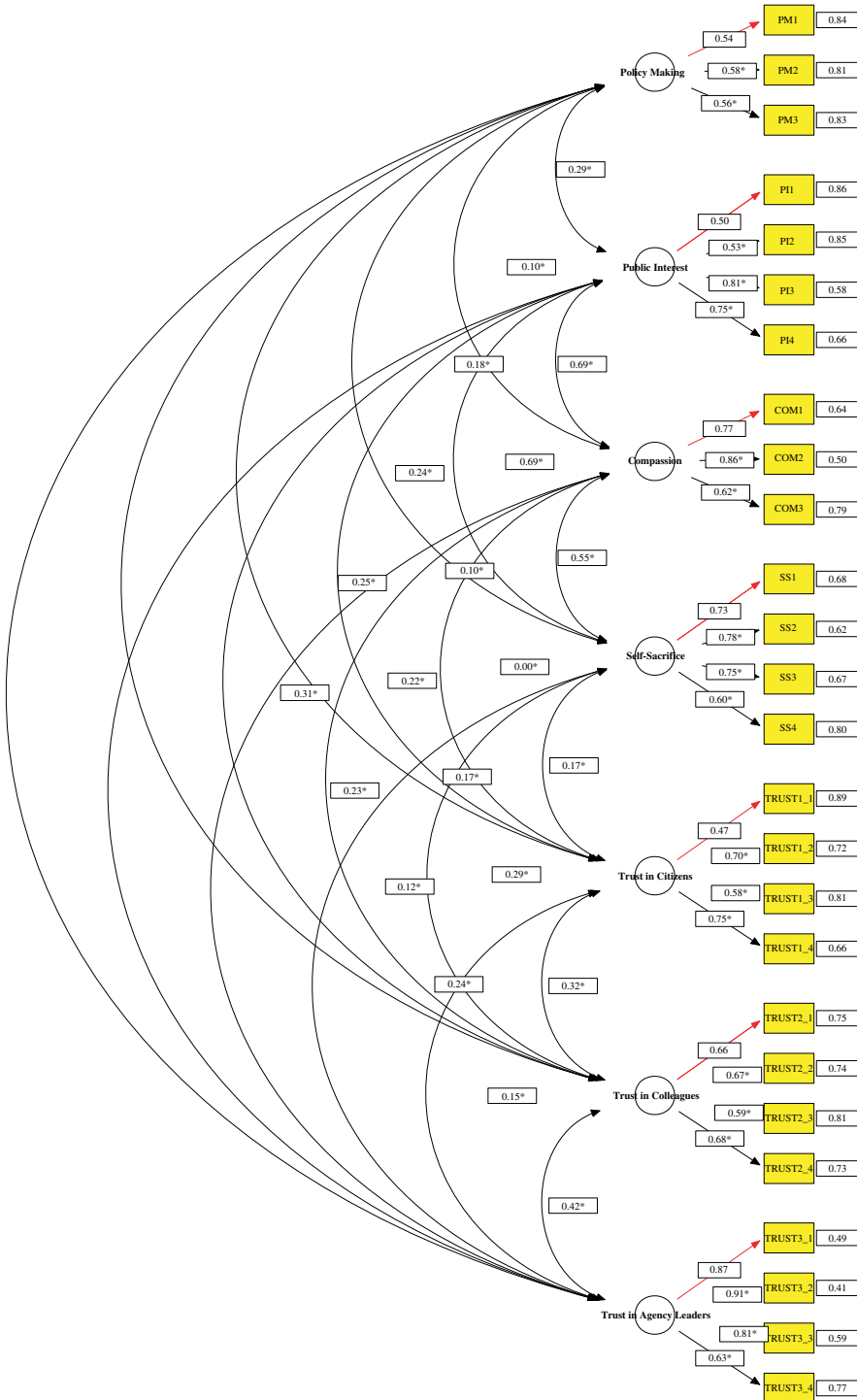
FIGURE 1 *Confirmatory factor analysis*

TABLE 2 *Descriptive statistics*

	N	Mean	SD	Min	Max
PSM-0 Global index	742	4.68	0.50	2.93	5.93
PSM-1 Policy making	766	4.10	0.84	1.33	6
PSM-2 Public interest	761	4.80	0.66	2	6
PSM-3 Compassion	770	5.39	0.57	1.67	6
PSM-4 Self-sacrifice	756	4.45	0.78	1.75	6
Trust in citizens	762	3.48	0.72	1	6
Trust in colleagues	765	4.30	0.75	1	6
Trust in agency leaders	755	3.95	0.99	1	6
Age	749	46.66	6.66	24	65
Male	757	0.55	0.50	0	1
Job tenure	760	5.27	5.07	0	41
Agency function: serving the public	774	0.27	0.44	0	1
Span of control	762	7.29	7.56	0	109
Post attained through promotion	768	0.75	0.43	0	1
Private sector experience	747	0.05	0.22	0	1
Inflexible formalization	755	3.21	0.54	1	4.75
High pay as a reason for job selection	767	3.44	1.06	1	6
Stable pay as a reason for job selection	767	4.78	0.71	1	6

individuals a positive emotional status and accordingly enhance PSM. Additionally, those switching into the public sector from private industry and non-switchers may exhibit different levels of PSM due to the sector imprinting effect (Boardman *et al*. 2010; Chen 2012). Inflexible formalization, resembling red tape, can destroy PSM (Moynihan and Pandey 2007). Finally, we control for the pursuit of pay as a reason for job selection. According to a recent empirical study (Chen and Hsieh 2012), pursuing a high salary implies the love of money, evil, and motivation crowding out, thus undermining PSM. However, pursuing stable pay implies basic competence and motivation crowding in, thus enhancing PSM. We report descriptive statistics for all the above-mentioned variables in table 2.

STATISTICAL FINDINGS

This study aims to explore whether public managers' trust in different segments of society is related to the variance of PSM. The pairwise correlation coefficients of the main variables presented in table 3 provide some preliminary evidence. As predicted, the global index of PSM is positively correlated with all workplace trust variables. Although the correlations between workplace trust and the four facets of PSM are seemingly positive, trust in citizens does not significantly relate to compassion. Thus, whether the four PSM dimensions are uniformly influenced by interpersonal trust at work requires further investigation.

The nature of the dependent variable, PSM, enables this study to model variable relationships with OLS regression. However, the violation of homoscedasticity was detected as the Breusch–Pagan post-regression test suggested the model to be heteroscedastic. As a result, the authors fixed this problem with robust standard errors. Table 4 displays the results of OLS regression. In general, trust variables are related to PSM positively, which is in line with our conjecture. Additionally, the results for each single dimension of PSM, as dependent variables, slightly differ from the results in the global index model (Model 5), so they are placed in table 4 for comparison. It is worth mentioning that the

TABLE 3 *Bivariate correlation coefficients*

	Policy making	Public interest	Compassion	Self-sacrifice	PSM global index
Trust in citizens	0.187**	0.124**	0.018	0.164**	0.186**
Trust in colleagues	0.182**	0.174**	0.128**	0.221**	0.256**
Trust in agency leaders	0.245**	0.229**	0.095**	0.238**	0.303**

**$p < 0.01$.

TABLE 4 *OLS regression: trust enhancing PSM*

	Model 1 DV: Policy making		Model 2 DV: Public interest		Model 3 DV: Compassion		Model 4 DV: Self-sacrifice		Model 5 DV: PSM global index	
	Coef	p	Coef	p	Coef	p	Coef	p	Coef	p
Trust										
Trust in citizens	0.147	0.002**	0.072	0.031*	−0.027	0.365	0.105	0.012*	0.076	0.002**
Trust in colleagues	0.088	0.075	0.088	0.010*	0.087	0.006**	0.155	0.001**	0.105	0.000**
Trust in agency leaders	0.117	0.005**	0.153	0.000**	0.047	0.073	0.172	0.000**	0.128	0.000**
Controls										
Age	−0.004	0.501	0.010	0.006**	0.010	0.003**	0.022	0.000**	0.011	0.000**
Male	0.065	0.301	0.115	0.024*	−0.093	0.032	0.097	0.092	0.051	0.164
Job tenure	−0.009	0.296	−0.003	0.635	−0.002	0.626	0.002	0.668	−0.003	0.473
Service agency	0.002	0.979	0.137	0.006**	0.075	0.090	0.179	0.004**	0.101	0.012*
Span of control	0.000	0.974	0.002	0.422	0.003	0.110	0.001	0.787	0.001	0.389
Post attained through promotion	0.149	0.045*	0.066	0.227	0.041	0.401	−0.106	0.100	0.032	0.424
Private sector experience	0.083	0.547	0.082	0.376	0.112	0.211	0.155	0.207	0.123	0.101
Inflexible formalization	0.044	0.506	−0.201	0.000**	−0.141	0.001**	−0.204	0.001**	−0.130	0.000**
Pursuing high pay	−0.031	0.361	−0.036	0.140	−0.010	0.637	0.027	0.347	−0.011	0.566
Pursuing stable pay	0.115	0.018*	0.127	0.004**	0.115	0.001**	0.042	0.386	0.091	0.005**
Constant	2.224	0.000**	3.094	0.000**	4.355	0.000**	2.031	0.000**	2.903	0.000**
N	673		672		677		669		658	
F	4.72**		8.30**		5.00**		10.50**		12.24**	
R-square	0.091		0.147		0.090		0.181		0.202	

*$p < 0.05$; **$p < 0.01$.

variance inflation factor (VIF) test does not detect any multicollinearity problems in these models as all VIF values are lower than 2.

In table 4, Model 1 (attraction to policy making as the dependent variable) and Model 3 (compassion as the dependent variable) show opposite results on the workplace trust–PSM relationship. In Model 1, trust in citizens ($B = 0.147$, $p = 0.002$) and trust in agency leaders ($B = 0.117$, $p = 0.005$) are both positively related to an increase in attraction to policy making. Trust in colleagues is found to be insignificant, although it is approaching the significance level at $\alpha = 0.05$ ($B = 0.088$, $p = 0.075$). In Model 3, however, only trust in colleagues is significant among the three workplace trust variables ($B = 0.087$, $p = 0.006$). Trust in agency leaders is not significant, but is approaching the significance level at $\alpha = 0.05$ ($B = 0.047$, $p = 0.073$). The coefficient of trust in citizens is surprisingly negative but not statistically significant ($B = −0.027$, $p = 0.365$). This last finding calls for more in-depth discussion.

The remainder of the OLS regression models are virtually identical and provide supporting evidence for the hypotheses of this study. In Model 2, trust in citizens ($B = 0.072$, $p = 0.031$), trust in colleagues ($B = 0.088$, $p = 0.010$), and trust in agency leaders ($B = 0.153$, $p = 0.000$) are positively related to commitment to public interest, as expected. Model 4 (self-sacrifice as the dependent variable) demonstrates that trust in colleagues ($B = 0.105$, $p = 0.012$), trust in democracy ($B = 0.155$, $p = 0.001$), and trust in

agency leadership ($B = 0.172$, $p = 0.000$) are all positively associated with self-sacrifice at $\alpha = 0.05$. Finally, the global index of PSM is used as the dependent variable in Model 5. As shown, the coefficients of trust in citizens ($B = 0.076$, $p = 0.002$), trust in colleagues ($B = 0.105$, $p = 0.000$), and trust in agency leaders ($B = 0.128$, $p = 0.000$) are all positive and statistically significant, which yield remarkable support for Hypotheses 1, 2, and 3.

Concerning the influence of control variables, male respondents demonstrate higher levels of commitment to public interest, while a post obtained through competitive internal or external promotion/recruitment is related to attraction to policy making, a rational motive. Those who work in a service agency are inclined to show the virtue of self-sacrifice and the commitment to serve the public interest. Pursuing stable pay is associated with all PSM constructs except self-sacrifice. Additionally, age yields a positively significant coefficient in most models except Model 1, meaning that older managers tend to express higher levels of PSM than their younger counterparts. Inflexible formalization is also uniformly but negatively associated with commitment to public interest, compassion, and self-sacrifice. The rest of the control variables are, however, not statistically significant.

Generally the findings support our hypotheses. Although the OLS results show that coefficients of trust in colleagues in Model 1 and trust in agency leaders in Model 3 fail to reach the significance level of $\alpha = 0.05$, their bivariate correlation coefficients in Table 3 are significant at the level of $\alpha = 0.01$. There is, however, an unexpected finding: trust in citizens fails to predict compassion. One of the possible reasons is that the construct of trust comprises trust in citizens' ability ('Citizens don't understand what you are doing'), good will ('Citizens want to help you with your job'), and honesty ('You cannot rely on citizens to always tell the truth') (Hoy and Tschannen-Moran 1999). Compassion may be related to citizens' good will and honesty but not their ability, accordingly leading to an insignificant correlation. Another possible reason is 'real world miseries'. Citizens' selfishness and dishonesty may discourage public servants and destroy their compassion. However, many selfish and lying citizens, such as prostitutes, drug addicts, or even the homeless, may have various stories that are miserable enough to arouse civil servants' compassion. In other words, the negative impact of selfishness, dishonesty, and refusing to cooperate on civil servants' compassion may be countervailed by the positive effect of 'real world miseries'. Of course, the conjecture of 'real world miseries' is not well grounded in theories and thus requires further evidence to prove it.

IMPLICATIONS

Unlike conventional views that investigate PSM antecedents through the lens of either institution shaping or personal predisposition, this study introduces workplace trust into the study of PSM. We ask whether public managers' trust in citizens, colleagues, and agency leaders fosters their PSM. Answering this question is a breakthrough in developing the theory of PSM antecedents. First, while conventional perspectives emphasize that PSM is passively influenced by either institutions or inherent predispositions, the present study holds a view that public managers interact with people, modify their trust, and accordingly form their PSM. Therefore, PSM is not only a result of environmental or dispositional determination but also a result of personal choices of trust. Public managers' PSM is not static, and depends on how they interact with citizens, colleagues, and agency leaders in their daily life.

Second, our approach fills in some of the gaps left by those who found a change in PSM at work over time. Indeed, scholars have demonstrated the change in PSM by

examining time-series data (Kjeldsen and Jacobsen 2013) or organizational tenure in cross-sectional data (Moynihan and Pandey 2007), but their methods do not allow them to further pinpoint the reasons leading to the change. Although arguing that workplace trust determines the change in PSM at work is not entirely precise, we offer possible factors in the present study for scholars to further investigate how organizational socialization and interpersonal dynamics matter in modifying public managers' PSM over time.

Finally, bridging workplace trust and PSM allows the influx of multidisciplinary theories into research on PSM. We use the theory of social capital and attraction–selection–attrition to connect the dots between trust in citizens and PSM; we link trust in colleagues to PSM with the use of social learning theory and self-determination theory; we construct the relationship between trust in agency leaders and PSM on the politics–administration dichotomy and political–managerial alignment. The current approach creates an interface between public administration and other disciplines, increases interdisciplinary dialogue, and integrates PSM research with knowledge in psychology, sociology, and political science simultaneously. This approach also provides a new channel that allows public administration scholars to introduce their own research to other disciplines. This is particularly important when public administration has long faced an identity crisis.

The present study contributes to practice as well. A strong tie between trust and PSM acts as a catalyst that enables public managers to transform their service propensity into real actions. The main reason is that trust represents well-established mutual commitment (Robertson and Tang 1995) in collective actions and thus provides a psychological buffer for civil servants to pursue the public interest with little hesitation. With evidence of this tie, public administration scholars may be more confident in arguing that PSM is not only 'cheap talk' (Farrell and Rabin 1996). Public civil servants with high PSM can really talk the talk and walk the walk (Houston 2006). Therefore, facilitating a trust environment enhances not only civil servants' PSM but also the possibility to transform their motivation into practice.

SUGGESTIONS FOR FUTURE RESEARCH

Some limitations exist in this study. More effort should be made in the future to improve the quality of research. The first limitation appears in the use of the PSM construct. We designed the questionnaire back in 2009 and happened to miss Kim's (2009) revised measurement scale of PSM published in the *American Review of Public Administration*. In this article, Kim (2009) questions whether items used to measure attraction to public policy making in Perry's (1996) original design are valid in the Korean context and thus develops new items to more precisely capture the essence of interest in policy making in Korea.[6] Given that Taiwan and Korea share similar cultural backgrounds (e.g. Confucianism) and democratic experiences (e.g. transition from authoritative rule to modern democracy), Kim's revisions may be more suitable for the context in Taiwan. Indeed, a low Cronbach's alpha for attraction to policy making in the present study (0.58) confirms Kim's doubts. More recently, Kim *et al*. (2013) developed an international instrument of PSM and included public values in addition to the original four dimensions. This is another interesting angle that researchers may consider.

Trust measurement can be improved as well. The existing literature shows that the facets of trust are multi-dimensional, including willingness to risk, benevolence, reliability, competence, and honesty (Hoy and Tschannen-Moran 1999; Grimmelikhuijsen 2012). In the present study, we simply adopt trust measures used in previous studies

(e.g. Yang 2005), but unfortunately, these previous studies failed to carefully differentiate the content of trust. As we shown, trust in citizens' competence may have relatively minor influences on PSM whereas trust in citizens' good will and honesty may have a more direct and strong impact on PSM. Future research should go beyond the scope of the current study and address different facets of trust to more precisely uncover the influence of different facets of trust.

Finally, according to the literature reviewed in the present study, the main causality between workplace trust and PSM is trust causing PSM, but meanwhile, reciprocity also exists. Methodologically, OLS is not the most ideal modelling solution for reciprocal relationships. OLS was employed for the following reasons. First, so far no method can concurrently capture three reciprocal relationships in one model. In addition, not all reciprocities concern every single dimension of PSM. For example, asserting that attraction to policy making enhances trust in colleagues does not sound very reasonable. However, the fact remains that we fail to statistically examine reciprocity in the present study, and this should be improved. Future studies may consider using simultaneous equation modelling methods, but the prerequisite is that scholars need to narrow down the research scope (i.e. focus on one type of trust) and select the most reasonable PSM dimensions for modelling. With the evidence from simultaneous equation modelling, scholars may be able to provide more accurate answers to the chicken-and-egg problems embedded in the research of both trust and PSM.

In sum, unlike existing research that focuses on either predispositions or institutional shaping, we studied public managers' workplace trust as a result of human interaction and personal choice. The present study only scratches the surface of interpersonal dynamics in PSM. New research agendas in the future should cross the boundary of public administration, bring more workplace and even societal factors in, and make PSM a type of interdisciplinary knowledge.

NOTES

[1] It is not our intent to entirely rule out the possibility that some public servants are inherently more compassionate, and because of this, they exhibit stronger trust in people. As Delhey and Newton (2003) contend, research on trust often involves chicken-and-egg problems and social scientists are unable to make much progress if cross-sectional data are used. In fact, the causality issue is common in PSM research as well (Wright 2008). Given that there is no general rule about how to determine the direction of causality, plausibility is so far the best standard on which researchers can rely (Delhey and Newton 2003).

[2] In fact, the SDT typology proposed in 2000 by Ryan and Deci (2000) has *integrated motivation* between intrinsic and identified motivation. However, SDT-based conceptual studies (Sheldon *et al.* 2003) and empirical studies (Gagné *et al.* 2010) exclude integrated motivation as it is hard to measure and hard to distinguish from either intrinsic or identified motivation. The present study follows this line.

[3] The original item, 'Most social programmes are too vital to do without' (compassion) is translated as 'Many social welfare programmes are indispensable' in our PSM construct because 'too vital to do without' reads awkwardly in Chinese. In addition, 'social programme' is not a widely used term in Chinese, so we use 'social welfare programme'. The original item, 'I am one of those rare people who would risk personal loss to help someone else' (self-sacrifice) is translated as 'I would risk my career for the public good of society' in our PSM construct because 'one of those rare' is hard to translate into Chinese. 'I would like to know more about what people need in my community' is not in Perry's original design. However, it is very close to an item in the most recent JPART publication of Kim *et al.* (2013) on an international instrument of PSM: 'It is fundamental that public services respond to the needs of the citizens'.

[4] The normalized estimate of Mardia's coefficient was used to assess the multivariate normality of the data. Bentler (2006) suggested a value of 3 or less so that modelling statistics would not be affected. In our analysis, however, the resulting normalized estimate was 72.66. Because the data did not meet the requirement of multivariate normality, fit indices reported here were computed using the Satorra–Bentler robust method, a commonly used strategy for dealing with non-normal data (Finney and Distefano 2006).

[5] The measured variable, Trust1-1, is below 0.5 but is very close to the preferred value.

[6] Kim's (2009) revised measurement of attraction to policy making includes three items: 'I am interested in making public programmes that are beneficial for my country or community I belong to'; 'Sharing my views on public policies with others is attractive to me'; and 'Seeing people get benefits from the public programme I have been deeply involved in brings me a great deal of satisfaction.'

ACKNOWLEDGEMENTS

REFERENCES

Albrecht, S. and A. Travaglione. 2003. 'Trust in Public-Sector Senior Management', *International Journal of Human Resource Management*, 14, 1, 76–92.

Allport, G.W. 1961. *Pattern and Growth in Personality*. Oxford: Holt, Reinhart & Winston.

Andrews, R., G.A. Boyne, K.J. Meier, L.J. O'Toole and R.M. Walker. 2011. 'Vertical Strategic Alignment and Public Service Performance', *Public Administration*, 90, 1, 77–98.

Bandura, A. 1977. *Social Learning Theory*. New York: Prentice Hall.

Bandura, A. 1986. *Social Foundations of Thought and Action*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. 1989. 'Human Agency in Social Cognitive Theory', *American Psychologist*, 44, 9, 1175–84.

Bedeian, A.G., G.R. Ferris and K.M. Kacmar. 1992. 'Age, Tenure, and Job Satisfaction: A Tale of Two Perspectives', *Journal of Vocational Behavior*, 40, 1, 33–48.

Bentler, P.M. 2006. *EQS 6 Structural Equations Program Manual*. Encino, CA: Multivariate Software.

Berman, E., D.-Y. Chen, C.-Y. Jan and T.-Y. Huang. 2012. 'Public Agency Leadership: The Impact of Informal Understandings with Political Appointees on Perceived Agency Innovation in Taiwan', *Public Administration*, doi: 10.1111/j.1467-9299.2011.01979.x.

Blau, P.M. 1960. 'Orientation Toward Clients in a Public Welfare Agency', *Administrative Science Quarterly*, 5, 3, 341–61.

Boardman, C., B. Bozeman and B. Ponomariov. 2010. 'Private Sector Imprinting: An Examination of the Impacts of Private Sector Job Experience on Public Managers' Work Attitudes', *Public Administration Review*, 70, 1, 50–9.

Boyne, G.A., C.-S. Jung and R.M. Walker. 2012. 'Marching to Different Drums? The Performance Effects of Alignment between Political and Managerial Perceptions of Performance Management'. Paper presented at the 2nd PMRA-IRSPM Conference in Asia, Shanghai, China.

Brehm, J. and W. Rahn. 1997. 'Individual-Level Evidence for the Causes and Consequences of Social Capital', *American Journal of Political Science*, 41, 3, 999–1023.

Brewer, G.A. and S.C. Selden. 1998. 'Whistle Blowers in the Federal Civil Service: New Evidence of the Public Service Ethic', *Journal of Public Administration Research and Theory*, 8, 3, 413–40.

Bright, L. 2005. 'Public Employees with High Levels of Public Service Motivation: Who Are They, Where Are They, and What Do They Want?', *Review of Public Personnel Administration*, 25, 2, 138–54.

Brown, E. and J.M. Ferris. 2007. 'Social Capital and Philanthropy: An Analysis of the Impact of Social Capital on Individual Giving and Volunteering', *Nonprofit and Voluntary Sector Quarterly*, 36, 1, 85–99.

Buurman, M., R. Dur and S. Van den Bossche. 2009. 'Public Sector Employees: Risk Averse and Altruistic?' IZA Discussion Paper 4401, Institute for the Study of Labor (IZA), Bonn.

Camilleri, E. 2006. 'Towards Developing an Organisational Commitment–Public Service Motivation Model for the Maltese Public Service Employees', *Public Policy and Administration*, 21, 1, 63–83.

Castelfranchi, C. and R. Falcone. 2001. 'Social Trust: A Cognitive Approach', in C. Castelfranchi and Y.H. Tan (eds), *Trust and Deception in Virtual Societies*. Dordrecht: Kluwer Academic Publishers, pp. 55–90.

Chen, C.-A. 2012. 'Sector Imprinting: Exploring its Impacts on Managers' Perceived Formalized Personnel Rules, Perceived Red Tape, and Current Job Tenure', *American Review of Public Administration*, 42, 3, 320–40.

Chen, C.-A. and C.-W. Hsieh. 2012. 'Does the Pursuit of Pay Undermine Public Service Motivation? Comparing Motives for High Pay and Stable Pay'. Paper presented at the 5th International Conference on Public Management in the 21st Century: Opportunities and Challenges, Macau, China.

Choi, Y. and R.R. Mai-Dalton. 1999. 'On the Leadership Function of Self-Sacrifice', *Leadership Quarterly*, 9, 4, 475–501.

Chun, Y.H. and H.G. Rainey. 2006. 'Consequences of Goal Ambiguity in Public Organizations', in G.A. Boyne, K.J. Meier, L.J. O'Toole and R.M. Walker (eds), *Public Service Performance: Perspectives on Measurement and Management*. New York: Cambridge University Press, pp. 92–112.

Crewson, P.E. 1997. 'Public-Service Motivation: Building Empirical Evidence of Incidence and Effect', *Journal of Public Administration Research and Theory*, 7, 4, 499–518.

De Cooman, R., S. De Gieter, R. Pepermans, S. Hermans, C.D. Bois, R. Caers and M. Jegers. 2009. 'Person–Organization Fit: Testing Socialization and Attraction-Selection-Attrition Hypotheses', *Journal of Vocational Behavior*, 74, 1, 102–7.

Delhey, J. and K. Newton. 2003. 'Who Trusts? The Origins of Social Trust in Seven Societies', *European Societies*, 5, 2, 93–137.

Dirks, K.T. and D.L. Ferrin. 2002. 'Trust in Leadership: Meta-Analytic Findings and Implications for Research and Practice', *Journal of Applied Psychology*, 87, 4, 611–27.

Farrell, J. and M. Rabin. 1996. 'Cheap Talk', *Journal of Economic Perspectives*, 10, 3, 103–18.

Finney, S.J. and C. Distefano. 2006. 'Nonnormal and Categorical Data in Structural Equation Modeling', in G.R. Hancock and R.O. Mueller (eds), *Structural Equation Modeling: A Second Course*. Charlotte, NC: Information Age Publishing, pp. 269–314.

Frank, S.A. and G.B. Lewis. 2004. 'Government Employees: Working Hard or Hardly Working?', *American Review of Public Administration*, 34, 1, 36–51.

Fukuyama, F. 1995. *Trust: The Social Virtues and the Creation of Prosperity*. New York: Free Press Paperbacks.

Gagné, M., J. Forest, M.-H.H. Gilbert, C. Aubé, E. Morin and A. Malorni. 2010. 'The Motivation at Work Scale: Validation Evidence in Two Languages', *Educational and Psychological Measurement*, 70, 4, 628–46.

Giauque, D., A. Ritz, F. Varone and S. Anderfuhren-Biget. 2012. 'Resigned but Satisfied: The Negative Impact of Public Service Motivation and Red Tape on Work Satisfaction', *Public Administration*, 90, 1, 175–93.

Grimmelikhuijsen, S. 2012. 'Linking Transparency, Knowledge and Citizen Trust in Government: An Experiment', *International Review of Administrative Sciences*, 78, 1, 50–73.

Hair, J.F. 2006. *Multivariate Data Analysis*, 6th edn. Upper Saddle River, NJ: Pearson Prentice Hall.

Hardin, R. 2006. 'The Street-Level Epistemology of Trust', in R.M. Kramer (ed.), *Organizational Trust: A Reader*. Oxford: Oxford University Press, pp. 21–47.

Hollembeak, J. and A.J. Amorose. 2005. 'Perceived Coaching Behaviors and College Athletes' Intrinsic Motivation: A Test of Self-Determination Theory', *Journal of Applied Sport Psychology*, 17, 1, 20–36.

Hosmer, L.T. 1995. 'Trust: The Connecting Link between Organizational Theory and Philosophical Ethics', *Academy of Management Review*, 20, 2, 379–403.

Houston, D.J. 2006. ''Walking the Walk'' of Public Service Motivation: Public Employees and Charitable Gifts of Time, Blood, and Money', *Journal of Public Administration Research and Theory*, 16, 1, 67–86.

Hoy, W.K. and M. Tschannen-Moran. 1999. 'Five Faces of Trust: An Empirical Confirmation in Urban Elementary Schools', *Journal of School Leadership*, 9, 3, 184–208.

Inglehart, R. 1990. *Culture Shift in Advanced Industrial Society*. Princeton, NJ: Princeton University Press.

Jurkiewicz, C.L., T.K. Massey Jr and R.G. Brown. 1998. 'Motivation in Public and Private Organizations: A Comparative Study', *Public Productivity and Management Review*, 21, 3, 230–50.

Kaase, M. 1999. 'Interpersonal Trust, Political Trust and Non-Institutionalised Political Participation in Western Europe', *West European Politics*, 22, 3, 1–21.

Kee, J.E. and K.E. Newcomer. 2008. *Transforming Public and Nonprofit Organizations: Stewardship for Leading Change*. Vienna, VA: Management Concepts.

Kim, S. 2006. 'Public Service Motivation and Organizational Citizenship Behavior in Korea', *International Journal of Manpower*, 27, 8, 722–40.

Kim, S. 2009. 'Revising Perry's Measurement Scale of Public Service Motivation', *American Review of Public Administration*, 39, 2, 149–63.

Kim, S. and H. Lee. 2006. 'The Impact of Organizational Context and Information Technology on Employee Knowledge-Sharing Capabilities', *Public Administration Review*, 66, 3, 370–85.

Kim, S., W. Vandenabeele, B.E. Wright, L.B. Andersen, F.P. Cerase, R.K. Christensen and B. Liu. 2013. 'Investigating the Structure and Meaning of Public Service Motivation across Populations: Developing an International Instrument and Addressing Issues of Measurement Invariance', *Journal of Public Administration Research and Theory*, 23, 1, 79–102.

Kjeldsen, A.M. and C.B. Jacobsen. 2013. 'Public Service Motivation and Employment Sector: Attraction or Socialization?', *Journal of Public Administration Research and Theory*, doi: 10.1093/jopart/mus039.

Lee, J.C., Z. Zhang and H. Yin. 2011. 'A Multilevel Analysis of the Impact of a Professional Learning Community, Faculty Trust in Colleagues and Collective Efficacy on Teacher Commitment to Students', *Teaching and Teacher Education*, 27, 5, 820–30.

Lilius, J.M., M.C. Worline, S. Maitlis, J. Kanov, J.E. Dutton and P. Frost. 2008. 'The Contours and Consequences of Compassion at Work', *Journal of Organizational Behavior*, 29, 2, 193–218.

Mansbridge, J. 1999. 'Altruistic Trust', in M.E. Warren (ed.), *Democracy and Trust*. Cambridge: Cambridge University Press, pp. 290–309.

McAllister, D.J. 1995. 'Affect- and Cognition-Based Trust as Foundations for Interpersonal Cooperation in Organizations', *Academy of Management Journal*, 38, 1, 24–59.

McDonald, R.P. and M.-H.R. Ho. 2002. 'Principles and Practice in Reporting Structural Equation Analyses', *Psychological Methods*, 7, 1, 64–82.

Meier, K.J. and L.J. O'Toole. 2006. *Bureaucracy in a Democratic State: A Governance Perspective*. Baltimore, MD: Johns Hopkins University Press.

Mishler, W. and R. Rose. 2001. 'What Are the Origins of Political Trust?', *Comparative Political Studies*, 34, 1, 30–62.

Mosher, F.C. 1982. *Democracy and the Public Service*. New York: Oxford University Press.

Moynihan, D.P. and S.K. Pandey. 2007. 'The Role of Organizations in Fostering Public Service Motivation', *Public Administration Review*, 67, 1, 40–53.

Newton, K. 2001. 'Trust, Social Capital, Civil Society, and Democracy', *International Political Science Review*, 22, 2, 201–14.

Nyhan, R.C. 2000. 'Changing the Paradigm: Trust and Its Role in Public Sector Organizations', *American Review of Public Administration*, 30, 1, 87–109.

Ormrod, J.E. 2008. *Human Learning*, 5th edn. Upper Saddle River, NJ: Prentice Hall.

Pandey, S.K., B.E. Wright and D.P. Moynihan. 2008. 'Public Service Motivation and Interpersonal Citizenship Behavior in Public Organizations: Testing a Preliminary Model', *International Public Management Journal*, 11, 1, 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, 5–22.

Perry, J.L. 1997. 'Antecedents of Public Service Motivation', *Journal of Public Administration Research and Theory*, 7, 2, 181–97.

Perry, J.L. 2000. 'Bringing Society In: Toward a Theory of Public-Service Motivation', *Journal of Public Administration Research and Theory*, 10, 2, 471–88.

Perry, J.L. and A. Hondeghem. 2008. 'Building Theory and Empirical Evidence about Public Service Motivation', *International Public Management Journal*, 11, 1, 3–12.

Perry, J.L. and W. Vandenabeele. 2008. 'Behavioral Dynamics: Institutions, Identities, and Self-Regulation', in J.L. Perry and A. Hondeghem (eds), *Motivation in Public Management: The Call of Public Service*. New York: Oxford University Press, pp. 56–79.

Perry, J.L. and L.R. Wise. 1990. 'The Motivational Bases of Public Service', *Public Administration Review*, 50, 3, 367–73.

Perry, J.L., J.L. Brudney, D.H. Coursey and L. Littlepage. 2008. 'What Drives Morally Committed Citizens? A Study of the Antecedents of Public Service Motivation', *Public Administration Review*, 68, 3, 445–58.

Podsakoff, P.M. and D.W. Organ. 1986. 'Self-Reports in Organizational Research: Problems and Prospects', *Journal of Management*, 12, 4, 531–44.

Putnam, R.D. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.

Putnam, R.D. 1995. 'Bowling Alone: America's Declining Social Capital', *Journal of Democracy*, 6, 65–78.

Putnam, R.D. 2001. 'Social Capital: Measurement and Consequences', *Canadian Journal of Policy Research*, 2, 1, 41–51.

Rainey, H.G. and P. Steinbauer. 1999. 'Galloping Elephants: Developing Elements of a Theory of Effective Government Organizations', *Journal of Public Administration Research and Theory*, 9, 1, 1–32.

Richer, S.F. and R.J. Vallerand. 1998. 'Construction et validation de l'Echelle du Sentiment d'Appartenance Sociale (ESAS)', *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology*, 48, 2, 129–37.

Ritz, A. 2009. 'Public Service Motivation and Organizational Performance in Swiss Federal Government', *International Review of Administrative Sciences*, 75, 1, 53–78.

Robertson, P.J. and S.-Y. Tang. 1995. 'The Role of Commitment in Collective Action: Comparing the Organizational Behavior and Rational Choice Perspectives', *Public Administration Review*, 55, 1, 67–80.

Ryan, R.M. and E.L. Deci. 2000. 'Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being', *American Psychologist*, 55, 1, 68–78.

Scholz, J.T. and M. Lubell. 1998. 'Trust and Taxpaying: Testing the Heuristic Approach to Collective Action', *American Journal of Political Science*, 42, 2, 398–417.

Scott, P.G. and S.K. Pandey. 2005. 'Red Tape and Public Service Motivation: Findings from a National Survey of Managers in State Health and Human Services Agencies', *Review of Public Personnel Administration*, 25, 2, 155–80.

Sheldon, K.M., D.B. Turban, K.G. Brown, M.R. Barrick and T.A. Judge. 2003. 'Applying Self-Determination Theory to Organizational Research', in J.J. Martocchio and G.R. Ferris (eds), *Research in Personnel and Human Resources Management*, Vol. 22. Oxford: Elsevier Science, pp. 357–93.

Taylor, J. 2013. 'Public Service Motivation, Relational Job Design, and Job Satisfaction in Local Government', *Public Administration*, doi: 10.1111/j.1467-9299.2012.02108.x.

Terry, L.D. 2002. *Leadership of Public Bureaucracies: The Administrator as Conservator*. Thousand Oaks, CA: Sage.

Tschannen-Moran, M. 2001. 'Collaboration and the Need for Trust', *Journal of Educational Administration*, 39, 4, 308–31.

Uslaner, E.M. 1999. 'Democracy and Social Capital', in M.E. Warren (ed.), *Democracy and Trust*. Cambridge: Cambridge University Press, pp. 121–50.

Uslaner, E.M. 2002. *The Moral Foundations of Trust*. New York: Cambridge University Press.

Vandenabeele, W. 2007. 'Toward a Public Administration Theory of Public Service Motivation: An Institutional Approach', *Public Management Review*, 9, 4, 545–56.

Vandenabeele, W. 2008. 'Government Calling: Public Service Motivation as an Element in Selecting Government as an Employer of Choice', *Public Administration*, 86, 4, 1089–105.

Vandenabeele, W. 2011. 'Who Wants to Deliver Public Service? Do Institutional Antecedents of Public Service Motivation Provide an Answer?', *Review of Public Personnel Administration*, 31, 1, 87–107.

Wright, B.E. 2008. 'Methodological Challenges Associated with Public Service Motivation Research', in J.L. Perry and A. Hondeghem (eds), *Motivation in Public Management: The Call of Public Service*. Oxford: Oxford University Press, pp. 80–98.

Yamagishi, T. and M. Yamagishi. 1994. 'Trust and Commitment in the United States and Japan', *Motivation and Emotion*, 18, 2, 129–66.

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

Zmerli, S. and K. Newton. 2008. 'Social Trust and Attitudes toward Democracy', *Public Opinion Quarterly*, 72, 4, 706–24.

APPENDIX A: VARIABLE MEASUREMENT

Dependent variables: PSM (1 = strongly disagree; 6 = strongly agree)

Attraction to policy making (Cronbach's alpha = 0.58)

- PM1: Politics is a dirty word (rev)
- PM2: I don't care much for politicians (rev)
- PM3: The give and take of public policy making doesn't appeal me (rev)

Commitment to the public interest (Cronbach's alpha = 0.73)

- PI1: It is hard for me to be interested in what is going on in my community (rev)
- PI2: I consider public service my civic duty
- PI3: I unselfishly contribute to my community
- PI4: I would like to know more about what people need in my community

Compassion (Cronbach's alpha = 0.81)

- COM1: I am often moved by the plight of the underprivileged
- COM2: I am often reminded how dependent we are on one another
- COM3: Many social welfare programmes are indispensable

Self-sacrifice (Cronbach's alpha = 0.76)

- SS1: Making a difference in society means more to me than personal achievement
- SS2: I would risk my career for the public good of society
- SS3: Contributing to the society is my obligation
- SS4: I think people should give back to society more than they get from it

PSM global index (14 items) = 0.80

Independent variable: trust (1 = strongly disagree; 6 = strongly agree)

Trust in citizens: When you have contact with citizens in your work, . . . (Cronbach's alpha = 0.71)

- Trust1-1: They don't understand what you are doing (rev)
- Trust1-2: You cannot rely on them to always tell the truth (rev)
- Trust1-3: They want to help you with your job

- Trust1-4: Their only concern is whether their personal interests are well protected (rev)

Trust in colleagues (Cronbach's alpha = 0.74)

- Trust2-1: My colleagues share important information related to work with no reservation
- Trust2-2: I keep strong faith in my colleagues as they have a high level of professional ethics
- Trust2-3: In this organization, there seems to be an invisible barrier between people (rev)
- Trust2-4: My interaction with my colleagues is transactional and insincere (rev)

Trust in agency leaders (Cronbach's alpha = 0.88)

- Trust3-1: I have confidence that my chief executive is technically competent in the critical elements of his/her job
- Trust3-2: When my chief executive tells me something, I can rely on what s/he tells me
- Trust3-3: My chief executive will back me up in a tight corner
- Trust3-4: I feel that I can tell my chief executive anything about my job

Control variables

- Age (interval)
- Gender (male = 1; female = 0)
- Job tenure (interval)
- Agency function (serving the public = 1; other = 0)
- Span of control: Number of employees supervised in the current job (interval)
- Post attained through promotion: The current position is obtained through promotion in the same organization or advancement from another organization (yes = 1; no = 0)
- Private sector experience: At least one of the last three jobs is in the private sector (yes = 1; no = 0)
- Inflexible personnel formalization: An index variable combined by (i) formal rules make it hard to remove indolent workers; (ii) formal rules make it hard to reward good performers; (iii) the formal system for filing complaints is clear and easy to follow (rev); (iv) formal rules for promotion are clear and easy to follow (rev) (Cronbach's alpha = 0.65)
- High salary as a reason for job selection: How important is a high salary for you as a reason for choosing the current job? (very unimportant = 1; very important = 6)
- Stable pay as a reason for job selection: How important is stable pay for you as a reason for choosing the current job? (very unimportant = 1; very important = 6)

Appendix B Correlation matrix for measured and latent variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1. PM1	1.000																									
2. PM2	0.333	1.000																								
3. PM3	0.276	0.334	1.000																							
4. PI1	0.157	0.238	0.321	1.000																						
5. PI2	0.031	0.043	0.133	0.392	1.000																					
6. PI3	0.000	0.148	0.128	0.368	0.437	1.000																				
7. PI4	0.043	0.161	0.150	0.260	0.352	0.631	1.000																			
8. COM1	-0.075	0.070	0.081	0.277	0.225	0.444	0.465	1.000																		
9. COM2	-0.008	0.087	0.071	0.181	0.277	0.505	0.454	0.657	1.000																	
10. COM3	-0.012	0.072	0.102	0.186	0.179	0.300	0.282	0.477	0.541	1.000																
11. SS1	0.002	0.117	0.098	0.222	0.268	0.375	0.366	0.256	0.289	0.217	1.000															
12. SS2	0.028	0.044	0.095	0.312	0.315	0.411	0.369	0.274	0.325	0.219	0.627	1.000														
13. SS3	0.073	0.089	0.126	0.220	0.371	0.517	0.430	0.366	0.479	0.372	0.532	0.546	1.000													
14. SS4	0.029	0.073	0.080	0.166	0.217	0.280	0.284	0.231	0.285	0.279	0.417	0.507	0.427	1.000												
15. Trust1-1	0.156	0.079	0.107	0.137	0.073	0.087	0.116	0.077	0.053	0.041	0.140	0.070	0.131	0.092	1.000											
16. Trust1-2	0.187	0.081	0.139	0.105	0.006	0.015	0.062	-0.040	-0.015	-0.024	0.053	0.054	0.008	0.102	0.382	1.000										
17. Trust1-3	0.057	0.011	0.074	0.040	0.125	0.133	0.151	0.019	0.086	0.091	0.173	0.187	0.194	0.166	0.205	0.360	1.000									
18. Trust1-4	0.119	0.044	0.061	0.113	-0.039	-0.033	0.008	-0.060	-0.022	-0.019	0.005	0.063	0.050	0.071	0.314	0.522	0.485	1.000								
19. Trust2-1	0.110	-0.009	0.071	0.095	0.104	0.106	0.094	0.052	0.126	0.158	0.157	0.184	0.201	0.139	0.123	0.063	0.155	0.082	1.000							
20. Trust2-2	0.100	0.007	0.114	0.184	0.113	0.181	0.138	0.115	0.151	0.150	0.223	0.191	0.195	0.146	0.104	0.047	0.179	0.067	0.559	1.000						
21. Trust2-3	0.130	0.032	0.142	0.156	0.032	0.046	0.036	-0.003	0.027	-0.006	0.084	0.065	0.076	0.037	0.240	0.258	0.130	0.211	0.316	0.344	1.000					
22. Trust2-4	0.175	0.068	0.208	0.184	0.112	0.109	0.058	0.064	0.051	0.124	0.100	0.099	0.127	0.113	0.199	0.238	0.118	0.132	0.424	0.387	0.513	1.000				
23. Trust3-1	0.146	0.125	0.131	0.156	0.137	0.158	0.103	0.030	0.113	0.080	0.119	0.141	0.152	0.123	0.108	0.048	0.123	0.009	0.164	0.237	0.206	0.273	1.000			
24. Trust3-2	0.171	0.123	0.146	0.146	0.135	0.142	0.106	0.047	0.124	0.102	0.133	0.151	0.123	0.148	0.124	0.138	0.004	0.171	0.245	0.210	0.279	0.279	0.823	1.000		
25. Trust3-3	0.209	0.176	0.164	0.149	0.167	0.179	0.139	0.010	0.086	0.092	0.192	0.224	0.179	0.204	0.159	0.134	0.241	0.096	0.246	0.298	0.314	0.230	0.676	0.717	1.000	
26. Trust3-4	0.179	0.099	0.147	0.148	0.177	0.196	0.134	0.033	0.089	0.065	0.133	0.216	0.170	0.128	0.145	0.110	0.177	0.028	0.246	0.254	0.230	0.263	0.504	0.545	0.643	1.000

Note: PM = policy making; PI = public interest; COM = compassion; SS = self-sacrifice; Trust1 = trust in citizens; Trust2 = trust in colleagues; Trust3 = trust in agency leaders.