

Putting Public Service Motivation into Context. A Balance between Universalism and Particularism.

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**Abstract:**

Research on Public Service Motivation (PSM) has increased enormously in the last 20 years. Besides the analysis of the antecedents of PSM and its impact on organisations and individuals, many open questions about the nature of PSM itself still remain. This paper argues that the theoretical construct of PSM should be contextualised by integrating the political and administrative contexts of public servants when investigating their specific attitudes towards working in a public environment. It also challenges the efficacy of the classic four-dimensional structure of PSM when it is applied to a specific context. The findings of a confirmatory factor analysis from a dataset of 3754 employees of 279 Swiss municipalities support the appropriateness of contextualising parts of the PSM construct. They also support the addition of an extra dimension called, according to previous research, *Swiss democratic governance*. With regard to our results, there is a need for further PSM research to set a definite measure of PSM, particularly in regard to the international diffusion of empirical research on PSM.

Keywords: public service motivation; contextualisation; democratic governance; scale analysis.

## **Introduction**

The popularity of research on Public Service Motivation (PSM) amongst American public management academics (Perry and Hondeghem 2008b) has spread all over the world (Vandenabeele and Van de Walle 2008). Nowadays, PSM research projects are at a turning point with the international diffusion of the approach on the motivations of public servants. Consequently, the original US PSM construct, along with its measurement, continues to be applied in Europe and in other continents. However, like most management theories and empirical studies (Clark and Pugh 1999), the PSM perspective mainly stems from an understanding of the Anglo-Saxon context and culture. As a result, European scholars might find that PSM studies are under an ethnocentric influence that leads to a standardised use of its measurement. The measure developed by Perry (1996) is considered to be universally applicable, even if most research teams face problems when operationalising PSM outside of US.

This study, conducted in the wake of the cross-cultural perspective, aims at questioning how the definition and operationalisation of the PSM construct can be adapted to particular cultural settings. On the basis of an empirical study done in Switzerland using the four original PSM dimensions as a baseline model, we found strong evidence for the necessity of adapting the measure of PSM to fit with the cultural and institutional context of interest. This process is twofold. First, at the item level, researchers have to deal with translation and interpretation issues to create relevant and understandable items for the population under study. Second, at the dimensional level, we follow Vandenabeele's advice to explore the complementary dimension of PSM that focuses on administrative values (Vandenabeele 2008a). National culture shapes public institutions (content and values of the public service) as well as individuals' perceptions (cognitive understanding of concepts and desirable values).

Therefore, we argue that the content of additional dimensions should be culturally contingent in order to reflect the relevant values of the particular public service under scrutiny. Hence, the translation of items must be rigorous in reinterpreting the original content and meaning so as to be fully comprehensible to the population that is under study.

Therefore, the research question addressed by this article deals with several conceptual and measurement issues: Does the PSM scale have a persistent dimensional structure when applied to a specific (national) context, and does the addition of a contextualised dimension enhance the relevance of the construct? The core of this research question concerns the generalisability and applicability of the PSM construct in different countries.

The article is structured as follows: Section one (1) focuses on the various definitions of the PSM construct and on its operationalisation. The following section (2) is based on cross-cultural management literature. It deals with the contextualisation issues of the PSM measurement. Section three (3) describes the context of Swiss Public Service, leading us to the identification of the contents of a supplementary contextualised dimension to the PSM construct that is labelled: *Swiss democratic governance*. The subsequent section (4) turns to the empirical part of the study. We present the measures used, the characteristics of our sample and the statistical methodology. Section five (5) presents the results of the tested models, ending with a five-PSM dimensions model consisting of the four original and the additional dimension. Section (6) discusses our results in comparison with previous studies, and section seven (7) sets forth the limitations of the study. Finally, section eight (8) consists of our concluding remarks and opens the discussion to the possibilities for this strand of research in further studies.

## 1. The PSM construct

The PSM perspective was launched in the early 1990s in the wake of a strong research stream showing that public employees behave differently from private ones (Rainey 1982; Jurkiewicz, Massey et al. 1998; Lyons, Duxbury et al. 2006; Buelens and Van den Broeck 2007). Some studies showed that a specific ethos supports the daily actions of civil servants (Pratchett and Wingfield 1996; Duvillier, Genard et al. 2003; Horton 2006; Egger-Peitler, Hammerschmid et al. 2007; John and Johnson 2008). Concretely, their motives are founded in the will to promote public values in a disinterested way (Perry and Porter 1982; Rainey 1982; Perry and Wise 1990). In a nutshell, PSM is an intention “to do good for others and shape the well-being of society” (Perry and Hondeghem 2008b: 3).

The motives encompassed by PSM and highlighted by public management scholars are not unique, neither to the public sector, nor to the American context. Rather, such motives are close to other constructs studied in different academic fields: “altruism” in sociology (Piliavin and Grube 2002); “pro-social behaviours” in organisations study (Grant 2008); and “disinterested motivations” in experimental economics (Fehr and Gintis 2007; François and Vlassopoulos 2008). Those perspectives support the idea that individuals do not strictly behave according to “a canny maximization of self-interest” (Sen 1995: 2) as they seek jobs that benefit a larger entity than themselves. On the other hand, worldwide, public management scholars working on this particular set of motives use some national concepts to describe the commitment of civil servants to the public service values. Besides the PSM construct that applies to the American context, the notion “*Ethique du bien commun*” (Chanlat 2003) is appropriate for the French-speaking countries, the “*Beamtenethos*” notion fits the traditional *Rechtsstaat* in Germanic countries (Egger-Peitler, Hammerschmid et al.

2007), and the term "*Public service ethos*" is used in the British context (Pratchett and Wingfield 1996; Horton 2006; John and Johnson 2008).

The well-known definition of Perry and Wise describes PSM as "an individual's predispositions to respond to motives grounded primarily or uniquely in public institutions and organizations" (Perry and Wise 1990: 368). Using the term "predispositions" focuses on the individuals' propensity to fulfil the expectations of the public service work and enables the identification of employees who are likely to perform well in the American public service. In an attempt to encompass close constructs (Brewer and Selden 1998; Rainey and Steinbauer 1999) and to bridge disciplinary gaps, Vandenabeele has defined PSM as "the belief, values and attitudes that go beyond self interest and organizational interest, that concern the interest of a larger political entity and that motivate individuals to act accordingly whenever appropriate" (Vandenabeele 2007a: 547). This definition of PSM is centred not on the individual, *per se*, but on the values that he/she carries. It has the advantage of enlarging the scope of PSM and reinforcing its link to values as motivators (Perry 2000). This latter definition goes beyond the individual's predispositions and focuses on his/her values. Those, in turn, perform as norms of behaviour that are, as we shall see later on, culturally embedded.

Six years after their seminal article, "The Motivational Basis of Public Service" (Perry and Wise 1990), Perry constructed and empirically tested a measurement scale (Perry 1996). Drawing upon a literature review, the author suggested a set of operational dimensions. And empirical tests have led to several revisions of the scale ending with four dimensions: *Attraction to policy making, Commitment to the public interest, Compassion, and Self-sacrifice.*

In American research, there are three general types of measures of PSM (Wright 2008)<sup>1</sup>. The results of Wright and Pandey's meta-analysis suggest "that although the different measures of PSM seem to be related, each measure seems to capture relatively distinct aspects of PSM (...); these findings also suggest that the different PSM measures used in the literature are not completely interchangeable" (Wright and Pandey 2005: 20).

When the PSM perspective was first applied to Europe, a team built by Annie Hondeghem did an extended comparative study of public service values in four European countries (France, the Netherlands, Germany, and the UK), with the American case used as a paragon. Those reviews show that if the four core dimensions of the PSM concept are likely to be found among the public agents of these countries, then they might have specific meaning or content. Against the background of institutional and historical analysis, they raised a call to complete the American PSM concept with European relevant public service values such as *equality of treatment, neutrality, formalism, continuity, or adaptation of public services*. (Hondeghem and Vandenabeele 2005; Vandenabeele, Sheepers et al. 2006). The first empirical study answering this call has led to the development of a five-dimensional measure of PSM (Vandenabeele 2008a). The content of the supplementary dimension labelled "*Democratic governance*" focuses on general public administration work values and reassesses the cognitive elements of publicness (Antonsen and Jorgensen 1997) of PSM (Vandenabeele 2008a). Following the same procedures, other European scholars have developed new dimensions containing the specific values guiding the administrative work for their country: "*Duty bureaucratic governance – public service ethos*" for Italy (Cerase and Farinella 2009); "*Support for a universal welfare state*" for Denmark (Hansen 2009). The present study

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<sup>1</sup> Single item measures about reward preferences or value statements (mostly used in early studies); replication of Perry's instrument (very few scholars have extensively used it); subset of Perry's items not always covering the four dimensions (most used approach).

follows the same track and proposes a path for identifying the relevant public values of a given country such as Switzerland.

## **2. Contextualisation issues for PSM**

Besides America, research studies on PSM are currently carried out in most European countries where all research teams are confronted with a typical range of cross-cultural issues (Hondeghem and Vandenabeele 2005; Vandenabeele, Sheepers et al. 2006; Egger-Peitler, Hammerschmid et al. 2007). The cross-cultural perspective, which applies to all social sciences involved in the study of human behaviours (Vinsonneau 2003), questions the extent to which the nature, antecedents, correlates and consequences of a given concept differ or are similar across cultures (Vandenberghe, Stinglhamber et al. 2001). It also asks under which conditions concepts are universal or culturally contingent (Pike 1954). Theoretically, one may consider two opposite trends as to whether culture is a prevalent dimension. According to the "etic" perspective, human behaviours and cognitive process are culture-free. Consequently, theories, constructs and their measurement are universal. Conversely, the "emic" view considers that because cognitive process, values and behaviours are culturally contingent, theories, constructs and measurement should also be culturally specific (Ho and Cheung 2007). However, both views have drawbacks: measurements are not maximised for the studied population in the etic perspective, whilst the emic questions the replication and prediction of identified behaviours across cultures (Triandis, McCusker et al. 1993).

In relation to PSM studies, the cross-cultural perspective addresses two complementary issues. An important strand of comparative studies shows that culture has an effect on behaviours and preferences (in eg. Hofstede 1980; Mueller, Hattrup et al. 2009). This concern is just beginning to be addressed with comparative research on its impact across different

countries (for an overview see: Vandenabeele, Steijn et al. 2008; Vandenabeele and Van de Walle 2008). On the other hand, such a perspective questions the cross-cultural validity of particular concepts (Vandenberg and Lance 2000). This second issue deals with the cognitive impact of culture. European studies on PSM have shown that the understanding of the PSM concept and its measures (items) culturally differs. For instance, the Austrian team argued that "[c]oncepts of identity, ethics and motivation have an important cultural dimension and cannot be transferred easily from one socio-historical context to the next" (Egger-Peitler, Hammerschmid et al. 2007: 2). This also applies to the concept of *community*, as referred to in Perry's conceptualisation of PSM, which does not have the same meaning in Europe (Hondegem and Vandenabeele 2005). In addition, the PSM perspective relies on the broad category of need theories of motivation<sup>2</sup>. In this respect, public employees are motivated by intrinsic factors, or by the fulfilment of higher order needs which are (contrary to lower-order needs) socially defined on the basis of what is culturally valued (Child 2002; cited by Pudelko 2006). Furthermore, it has been shown empirically that PSM-like values are more sensitive to measurement differences, as compared to goals such as high income, advancement opportunities and interest in the work itself (Hatrup, Mueller et al. 2007).

In summary, national cultures can be seen as a collective mental programming (Hofstede 1983), which also influences individuals' perceptions of work norms and values (Steers and Sanchez-Runde 2002). Values are structured by social institutions and can be apprehended both at the individual and at the societal level. Individual values are transmitted through

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<sup>2</sup> Need theories of motivation are diverse. Some state that needs are hierarchically ordered (Maslow 1954), implying in this sense that PSM fulfils higher order needs. Others argue that the fulfilment of different types of needs has differentiated effects on motivation, such as the bi-factorial theory of motivation (hygienic and motivators) (Herzberg, Mausner et al. 1959), or the famous intrinsic-extrinsic dichotomisation set by (Deci and Ryan 1985). For PSM studies, public agents are intrinsically motivated since they perform their job for its own sake, and not for personal utility purposes.



socialisation processes<sup>3</sup> (family, educational system, religion, profession, social participation in various groups like parties, trade unions, voluntary associations, etc). But we also know that both institutions and socialisation processes are rooted in a given national culture. Therefore, individuals' values, as well as social institutions (in our case public service), are likely to be influenced by national cultures (Jorgensen and Bozeman 2007). At the societal level, conceptions of public service are intrinsically related to state conceptions and therefore differ from one national state to another (Mangenot 2005). In this respect, the national political-administrative features of public services and their effects on the components of the PSM scale do not seem to have been thoroughly taken into consideration so far.

In this study, we argue that, when transposed from one context to another, a contextualisation of PSM is required. By contextualisation we mean that items used to measure PSM must be adapted in order to take into account the heterogeneity of the national approaches of the "public service" notion, bearing in mind the nature of the values endorsed and promoted by a particular national state. Such a process is threefold. First, it is necessary to identify the nationally pertinent public service values. Second, items should be designed to reflect those public values. Third, a rigorous factorial analysis must test whether or not the structure of the scale has been improved.

### **3. The specificities of the PSM concept in Switzerland**

#### *Characteristics of the Swiss civil service*

Swiss civil service has not traditionally been characterised by closed recruiting and a rank-in-person system as civil service can be elsewhere (Kim 2009a). The recruitment system is very

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<sup>3</sup> This is why social institutions, such as family, religion, and profession, are known to shape the PSM degree of an individual (Perry 1997)

open and civil servants are chosen above all else for their professional and social skills rather than on the basis of a specific course of studies or a centralised competition (Emery and Giauque 2005a; Emery and Giauque 2007). State employees are consequently a relatively heterogeneous group. Furthermore, at present, the status of public employees is changing following a hybridising trend (Emery and Giauque 2005a). Employees of Swiss public services have an employment situation that is rather similar to that of their private sector counterpart, and this is particularly so at the municipal level (Steiner 2000). This does not mean that the employees of the public sector in Switzerland are always managed by the standards of private law, but their working conditions are broadly identical to those in the private sector (Wisard 2007). Once civil servants are appointed, they do not expect a life-long tenure and periodic promotions even though life-long tenure does exist for some positions (e. g. professors, judges) (Ritz 2009). In this respect, we can identify a move towards the individualisation of public human resources management. This kind of change corresponds to a general trend in OECD countries, and Switzerland is no exception (Cayer 2007).

Swiss public employees do not benefit from a specific process of socialisation before their recruitment. Unlike France, there is no specific educational institution such as the National School for Public Administration<sup>4</sup> to instil public values. Public employees are recruited and they advance in their careers on the basis of their competencies and not via national competitive entry examinations. For those reasons, Swiss public employees primarily identify themselves with their profession and do not share an “esprit de corps” (Emery, Wyser et al. 2008). Furthermore, civil servants are not dependent on the “government of the day.” Besides their professional knowledge, they are faithful above all to the Constitution and to the administrative procedures, which guide their professional activities and their behaviour.

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<sup>4</sup> Free translation of Ecole Nationale d'Administration (ENA).

Furthermore, being a civil servant in Switzerland does not really correspond to a privileged social status in the same way that it does for public servants in such countries as France (Rouban 1997; Rouban 2001). Therefore, the constitutional principles in Switzerland are considered to be an important guideline for administrative behaviour. These principles, in a way, establish the cement of public service. Moreover, in a multicultural country such as Switzerland, the constitutional principles play an important role in that they link different communities and, furthermore, different levels of the governance of the federal state. Another particularity of municipal bodies is that they have little room for manoeuvre in terms of political strategies. They are mostly concerned with the implementation of public policies that are decided at the cantonal or federal levels.

### *The Swiss public service values*

As the concept of PSM was first developed in the United States, it clearly retains the Anglo-Saxon "public service" notion. Conversely, in Europe, national legal traditions have led to a strong diversity of notions related to "services of general interest"<sup>5</sup>, but also with regards to the nature and the concrete modality of supplying or financing these services (for a systematic review of national differences in Europe, see Mangenot 2005: 41-101). Moreover, countries where the PSM construct was first developed are characterised by a common law type of state where there are no legal definitions of concepts such as "public service" or "services of general interest". Public services are organized and provided according to particular principles. An institutional perspective on public service calls for the analysis of its underlying values and principles. Because public services are so diverse, the contextualization

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<sup>5</sup> "The term «*services of general interest*» cannot be found in the Treaty itself. It is derived in Community practice from the term «*services of general economic interest*», which is used in the Treaty. It is broader than the term «*services of general economic interest*» and covers both market and nonmarket services, which the public authorities class as being of general interest and subject to specific public service obligations". (CEC 2004: 22)

of the PSM scale must take into account the heterogeneity of the national approach to the "public service" notion, and include the values endorsed and promoted by the state.

In continental Europe, at least two ideal types of "services of general interest" coexist. In Germanic countries, on the basis of the *Rechtsstaat* (rule of law) tradition, the notion of *Daseinsvorsorge* (provision of existential needs) (Forsthoff 1969) is based on the concepts of the *Sozialrechtstaat* (social legal state) and of *Grundrechte* (basic rights). This notion focuses on the protection of the individual rights of the citizens who are endowed with "*subjective public rights*" (Jellinek 1905), enabling them to obtain the goods and services to which they are entitled. In this case, the notion of "service of general interest," relying on the highest level of the legal text, leads to an affirmative action of the state to attain goals such as "social justice." In France, *le Service Public* is emblematic; it is the foundation of the legal doctrine and administrative order, as well as a crucial component of the French national identity (Chevallier 2002). In Switzerland, there is no official definition of the public services in an extended way, and the term "service public" is used either in French or in German in academic discussions or in official documents (Knapp 1991; Häfelin 2002). Its definition, components, and scope seem to follow a middle path, taking parts from both the German and the French public service traditions. The Swiss model of public service has adopted the importance of the fundamental rights of the citizen and the focus on the necessity to provide "services of general interest" in order to maintain national cohesion and solidarity and, hence, social justice from the German *Rechtsstaat* tradition. From a French perspective, the model borrows the constitutional anchoring of the public service principles. Their content is specified by judicial precedents (Duguit 1913) and legal doctrine (Hauriou 1926). More details on the Swiss public service notion can be found in the administrative legal doctrine (Knapp 1991; Häfelin 2002).

The identification of the relevant public values of Switzerland has been carried out following the seminal work of Bozeman and Jorgensen. In their inventory of the public values universe, they argue that: "Founding documents of a legitimate government provide insight into the most fundamental public values" (Jorgensen and Bozeman 2007: 375). For that reason, we consider that the Swiss specificities of the PSM concept can be established from Switzerland's constitutional principles. Constitutional principles are a basic expression of the most fundamental values of a nation; they guide the actions of all public figures. Therefore, one can expect that the structure of PSM in Swiss municipalities has been influenced by constitutional values. With regards to our study, four constitutional principles were selected from the Swiss constitution to construct the "*Swiss Democratic Governance*" (SDG) dimension, which was then tested as a part of the Swiss PSM scale in addition to the four original dimensions.

## **4. Measures and Method**

### *Measures for PSM*

The main purpose of this study is to assess the PSM construct as operationalised in the Swiss context. Because every national public system is regulated by specific public service values, the research question states: Does the PSM scale have a persistent dimensional structure when applied to a specific (national) context, and does the addition of a contextualised dimension enhance the relevance of the construct? Consequently, the empirical account of the study is exploratory as well as confirmatory. It assesses the relevance of the addition of a supplementary contextualised dimension to the existing four-factor structure of PSM.

In this study, Perry's (1996) multidimensional measure was taken as baseline. We used 14 items from all four PSM dimensions chosen on the basis of previous research on their

psychometric properties (Coursey and Pandey 2007; Vandenabeele 2007a; Coursey, Perry et al. 2008; Kim 2009a) (see in appendix: List of the PSM items). The selected items were tested for validity in the specific Swiss context. We intended to keep the 14 items of Perry's instrument (1996) as similar as possible to their original design.

Nevertheless, some adjustments to the national context of Switzerland were considered useful. Major modifications were made in the "*Attraction to policy making*" (A2P) scale, taking into account several critics of other studies (Coursey, Perry et al. 2008; Kim 2009a; Ritz in press). The original item "Politics is a dirty word" was reworded to "I am interested in politics." The item "The give and take of public policy making does not appeal to me" was split into two items, one focusing on "power politics" and the other on "continuous search of compromises" (Konkordanzpolitik), which is very important in Swiss politics (Linder 1994; Kriesi 1998). As a fourth item for the "*Attraction to policy making*" (A2P) scale, we used an item developed by Kim (2009a), which identifies where the person's interest lies in discussing political subjects. In the *Compassion* dimension, the negatively worded item "I am rarely moved by the plight of the underprivileged" was changed to a positively worded one.

All items were translated with rigorous accuracy into German and French<sup>6</sup>. The wording of some items was slightly adapted to make them more suitable for the national context<sup>7</sup>. Furthermore, the questionnaire was previously tested with selected public agents from the Swiss-German and French parts of Switzerland. This process ensured the corresponding

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<sup>6</sup> To guarantee the quality of the items, all translations were done in three steps: first they were translated by German speakers, then by French speakers and finally they were cross-checked by double language speakers. This method was employed for the questions worded in English, as well as all the other questions contained in the questionnaire.

<sup>7</sup> For instance, the conceptual meaning of the term "Community" is particular to the American context and not relevant in Switzerland, and we have thus reinterpreted it with the term "Society".

meaning of the items and the general comprehensibility and appropriateness of the questions of the entire questionnaire.

As the general hypothesis of this study states, there might be an additional PSM dimension reflecting the relevant public values of a given national context in addition to the four original ones. This may be due to a variation in public values across countries and in their public service systems. Therefore, four constitutional principles were selected: "*Fair income distribution and social peace*"; "*Promotion of social cohesion and diversity*"; "*Protection of basic liberties and basic right*" and "*Promotion of equal opportunities.*" They build together their social importance from the second article of the Swiss constitution to construct the "*Swiss Democratic Governance*" (SDG). This second constitutional article is one of the most, if not the most important, as it sets the goals and roles of the Swiss confederation<sup>8</sup>. The questions of the SDG dimension take the form "I recognise myself in the State mission of ...". Finally, 18 items (14 classical, and 4 self-designed to reflect the Swiss Democratic dimension) compose the measures tested in the study. All responses were set on a 5-point Likert-type scale (1 = strong disagreement, 5 = strong agreement).

### ***Samples***

The data for this study were collected in a national survey of civil servants at the municipal level. Switzerland has 2636 municipalities as of January, 1st 2009. 1736 municipalities in the German- and French-speaking areas were contacted by mail inviting them to take part in a national survey on the motivation of Swiss public servants. 279 municipalities participated in the survey. Depending on their preferences, the survey was administered online or on paper.

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<sup>8</sup> RS 101. Article 2

The survey was given to 9852 civil servants. 3754 questionnaires were returned, yielding a response rate of 38.1%, of which 54.4% were completed by men and 45.6% by women. The average age of the respondents was 43 years. The vast majority of participants either held a professional apprenticeship (44.1%) or a college or university degree (38.9%). The sample includes employees of different hierarchical levels and those with different job tasks. As to the separation of the German-speaking and French-speaking parts of Switzerland, an adequate measure is the respondent's survey language. 79.0% of the respondents used the German questionnaire and 21% the French version. The latter corresponds approximately with data from 2000 on the relative language distribution among the Swiss population: 65 percent were German- and 20 percent French-speaking inhabitants<sup>9</sup> (Source: Federal Statistical Office of Switzerland). As to the language distribution among municipal employees, no accurate data is available.

In accordance with other authors on testing the PSM scale (Vandenabeele 2008a; Kim 2009; Kim 2009a), cross-validation was used to prevent the results from capitalising on chance when post hoc modifying a confirmatory model (Vandenabeele 2008a). Therefore, the data of this survey was randomly split into two samples after missing data had been excluded by listwise deletion. The first sample (n = 1636) was used for scale validation and scale extension with regard to the two additional dimensions introduced in this study. The second sample (n = 1634) was used to cross-validate the factor structure derived from the first sample.

### *Statistics used*

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<sup>9</sup> 15% being Italian speakers. Italian municipalities were not addressed in the survey.



As the purpose of this study is to assess to what extent a set of 18 items are a function of their respective five dimensions of PSM<sup>10</sup>, the statistical analysis applies second-order reflective confirmatory factor analysis (2<sup>nd</sup> order CFA) using Lisrel 8.80. Diagonally weighted least squares (DWLS) estimation was used given the Likert ordinal scale (Coursey and Pandey 2007; Vandenberg 2008a). Though a case can be made for understanding PSM as second-order formative (Wright 2008), this article adheres to a reflective measurement because this ensures a better comparability with other studies and keeps the substantial idea of a CFA.

Model fit was assessed by inferential  $\chi^2$  and several descriptive goodness-of-fit indices (RMSEA; SRMR; GFI; CFI; NFI; AGFI). Since the  $\chi^2$ -statistic is known to be inflated for samples with  $N > 200$  (Kelloway 1998),  $\chi^2$  is referred to here as descriptive information rather than a strong inferential test upon which a model is accepted or rejected.

In structural equation modelling, a strict confirmatory approach often has to be abandoned because the initially set and tested model is usually rejected due to low fit.<sup>11</sup> Models are then respecified with theoretical considerations to ensure and preserve the coherence between the substantial theory and the proposed model. In order to prevent the respecification and modification process leading to a model that fits only a specific sample, but veers away from

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<sup>10</sup> Contrary to an exploratory factor analysis that "is data driven and is best used when there is little preconception about how the items will factor" (Levine 2005: 336); in this study we have five posulated dimensions and their respective items to assess in a confirmatory perspective.

While exploratory factor analysis is data driven and is best used when there is little preconception about how the items will factor, confirmatory factor analysis is a useful statistical procedure for providing validity information when researchers have an a priori idea of which items measure which constructs (see Hunter & Gerbing, 1982, Levine 2005). Previous research on PSM measurement as well as the substantial reasons for the new dimension developed in this article suggest that CFA is an adequate method for this study.

<sup>11</sup> First, we checked if our analysis met the following requirements: a non-significant Chi-Square test for the whole model (for a perfect model), significant and high factor loadings, no modification indices (for a perfect model), and a good explanation of variance and fit-indices within threshold levels. In this sense, analysing fit indices is only one part of the overall evaluation of the model.

a more general model, cross-validation procedures are used. In this article, the following procedure is applied. An initial test and modifications are performed in the first sample, i.e. the calibration sample. This leads to a final model. Then the validation sample confirms or denies the (final) model found suitable for the first sample. An invariance approach to cross-validation is used.

## 5. Results

### *Calibration sample*

First, the full five-dimension model with all 18 items was established (Figure 1 in appendix). Even if all paths are found to be statistically significant, the second-order CFA suggested that the initial model with five factors did not fit the data well (see table 1). Above all, the reliability of our full 18-item-scale did not meet our criteria for internal consistency of factors.<sup>12</sup> But it mostly stayed within the ranges of other studies (Perry 1996; Camilleri 2006; Castaing 2006; DeHart-Davis, Marlowe et al. 2006; Vandenberg 2008a; Kim 2009a). Low reliability measures question the structure of a scale. A reduction of the number of items can help to increase the internal consistency of factors.

**-Table 1 about here -**

As the initial model was not supported, the model was respecified. This iterative process involved the deletion of items with low factor loadings (below .40) and the exclusion of items

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<sup>12</sup> The measure used for internal consistency respectively composite reliability is coefficient alpha (Cronbach 1951). Coefficients above .90 are excellent, over .80 good, over .70 acceptable, over .60 poor but possibly acceptable depending on other reliability or validity measures (i.e. good cross validity of a measuring instrument), and alphas under .60 unacceptable (Kline 2000) In our analysis, we found coefficient alpha for attraction to public policy making: 0.379; commitment to public interest: 0.633; self-sacrifice: 0.509; compassion: 0.683; commitment to administrative principles: 0.693; commitment to constitutional principles: 0.853.

which loaded on more than one factor (as suggested by modification indices). First, the two A2P items referring to Perry's (1996) "the give and take in public policy does not appeal to me" item showed very low factor loadings (V47 [803]/V48 [804]). In spite of the low factor loadings, one can identify that the negative factor loadings correspond to the underlying theory. Critical cross-loadings were suggested for various items: V6 [301], V7 [302], V51 [807], and V52 [808]. These items were left out. These modifications ended up in a 12-item scale of five PSM factors with each dimension made up of two or three items having a substantial factor loading.

Although goodness-of-fit indices of this model were satisfying (alone  $\chi^2$  did not meet the above thresholds, but  $\chi^2$  is known to be insufficient to clearly assess goodness-of-fit because it is inflated for a big sample size as in this study), we proceeded our analysis based on another argument, which has been neglected in PSM scale research so far. In the 12-factor model, the dimensions differ in the numbers of indicators that they have: "*Commitment to public interest*" (CPI) and "*Self-sacrifice*" (SS) have 3 items each, whereas "*Attraction to policy making*" (A2P), "*Compassion*" (COM), and "*Swiss democratic governance*" (SDG) have two. Since the main purpose of this article is to identify a contextually adapted factorial structure of PSM, a similar number of items per factor is important because of its impact on the number of factors and respectively, the "fairness" between the factors (Muthén and Muthén 2008). Therefore, one item was deleted in the dimensions "*Commitment to public interest*" (CPI) and "*Self-sacrifice*" (SS): V57 [813] because of its mediocre factor loadings and V50 [806] because of still existing moderate M.I. The resulting "final" model (fig. 1 in appendix) achieves a better fit to the data than the intermediate model (see table 2) with standardised factor loadings ranging from .50 to .98 in all PSM dimensions, which means that the used PSM factors show solid reliabilities. All paths in the diagram are highly significant.

**- Table 2 about here-**

### ***Validation sample***

The five-factor second-order PSM model was tested with the validation sample. Since the researchers' main interest is the factor structure of PSM, the cross-validation is limited to testing for configural invariance (MacCallum, Roznowski et al. 1994). Stronger validation tests could be carried out, but with few additional insights for the question under study. Configural invariance means that the factorial configuration from the above presented final model is taken and the data of the second sample, the validation sample, is used.

In this way, it is possible to determine if the factorial structure of the model also fits the second sample and if it is not only an artificial product of fitting the model to the specific data of the calibration sample. The model estimation with both models fits the data of the second sample well. Looking at the differences of factor loadings of both models when comparing the two samples, we only find slight variations between 0.01 and 0.05. The cross-validation can therefore be considered successful for both models.

**- Table 3 about here -**

## **6. Discussion**

This study sought to test the validity of a contextualised PSM scale based on Perry's and Vandenberg's conceptualisation (Perry 1996; Vandenberg 2008a). Following our theoretical thoughts about the contextualisation of public service motivation, we developed our model with a view towards an integration of the four classic dimensions and a variation of Vandenberg's "*Democratic Governance*" dimension. We argued that the cultural context and institutional particularities of a given national public service must be included in PSM. Our results are in line with the five-dimensional scale of Vandenberg. However, as

hypothesised, this supplementary dimension reflects the particular principles of a given national public service. Therefore, the resulting five-factor model shows that national public values must be considered as an important dimension. Thus, we encourage European countries to further investigate the contextualisation postulate. Similar to other studies including public value dimension in their PSM scale (Vandenabeele 2008a; Cerase and Farinella 2009; Hansen 2009), our results suggest that a "core" PSM scale must be supplemented by a dimension reflecting particular public service values, and that this dimension should include culture-specific elements. The CFA procedure give clues that contextual factors, namely the "*Swiss democratic governance*" dimension, are part of the PSM scale applied to Switzerland, in addition to the four original dimensions.

This discussion must be connected to theories of organisations that have expressed the prominence of an institutional framework in the explanation of organisational behaviour and structures (Di Maggio and Powell 1983; Meyer and Rowan 1991; Scott 1995; Perry and Vandenabeele 2008). "Institutional" organisation theory stresses that the structures of organisations must be considered as "rationalised myths and routines." In other words, organisational structures are built through symbolic actors' interactions, but these interactions cannot be possible without organisational structures. Thus, constitutional principles must be regarded as symbolic constructions that influence organisational structures and civil servants' behaviours. Therefore, the institutional context, operationalised in our study as constitutional principles, must be considered as a hard factor influencing organisational structures, but also as a soft factor defining the scope of actors' behaviours. In this vein, this study questions the universal value of the four-dimensional PSM scale. The statistical results confirm that the dimensions developed by Perry (1996) are relevant for studying PSM in the specific context of Swiss municipalities. But, either items or number of dimensions must clearly be adapted to

the context under investigation. For instance, for the *"Attraction to policy making dimension,"* the sub-dimension of policymaking had to be omitted, whereas the interest in politics was found to be relevant in the context of this study on municipal employees. This omission of this sub-dimension might result in the sample properties. Municipal employees do not have much "room for manoeuvre" to design policies, but they are in charge of implementing them and concentrate on public services. Comparison with employees from other governance levels (cantonal or federal) might provide further insights on this particular result. Our results, which prove to be in line with other research on the dimensionality issue of PSM, raise the question of a definitive factorial structure of the construct.

Our research confirms that the theoretical construct of PSM may be considered appropriate for understanding public service motivation in several national cultures, while at the same time exposing the difficulty of empirically measuring this PSM concept. This difficulty may be explained as follows. First of all, items must be translated and interpreted from English to other languages. This operation is of course delicate and requires precision so that the meaning can be correctly reflected in the construct. Secondly, national context of public organisations are worth being considered. Thirdly, scholars have to adapt the dimensions of PSM to the national context of their investigations.

## **7. Limitations**

As with all research, this exploratory study necessarily faces some limitations. Methodologically, the shortcomings of the use of such cross-sectional design are largely documented (Wright and Grant 2009). The number of items per dimension (two) can be seen as insufficient, and often at least four or five variables per factor are recommended (Muthén and Muthén 2008). This deficiency can partly be compensated with a large sample size, but a

high number of variables per factor and high sample size is the best combination for CFA procedures (Marsh, Hau et al. 1998). Nevertheless, the results should be interpreted with due caution and further empirical confirmation would not go amiss. Secondly, the data collected came from civil servants working in Swiss municipalities with the implication that structures, task characteristics, and organisational cultures may greatly differ if we compare municipal, cantonal and the federal level of governance. These differences should also be taken into account when the results of this study are compared to studies from other countries concentrating on state and federal level. Consequently, the next step of a comparative analysis should compare PSM measures according to the institutional characteristics of different levels of governance. There might be a different strategy to select and assess the relevance of the Swiss public values that constitutes the Swiss Democratic Governance dimension. Instead of deriving them directly from the Swiss constitution, we believe that exploratory methods like focus groups composed of a diverse sample of civil servants are also an appropriate way to identify relevant and contextualised public values. Of course, one of the next challenges for PSM scholars is to set a definitive strategy to measure PSM. When operationalising PSM outside America, should they overtake the contextualisation of all the items measuring the dimensions of PSM or contextualise the dimension that refers to public service values, as this study does? Is it possible to set a universal measure of PSM that is relevant for any kind, in any national context, and this for all the disaggregated parts of a public service system?

## **Conclusion**

This empirical study on the municipal level of Switzerland suggests that there might be five distinct factors of an underlying PSM. In this sense, our empirical study clearly sets forth three main arguments.

First, it confirms the accuracy of the PSM dimensions developed by Perry (1996) as a "core" PSM. Therefore, we share the same conclusion of the Chinese research team: "Our empirical study demonstrates that PSM is not a universal or etic concept, but that the construct dimensions of PSM are affected by the cultural and institutional context (emic)" (Liu, Tang et al. 2008, 696). Second, our exploratory investigation calls for a contextualisation of the PSM construct taking into account the institutional characteristics of the studied public service. Because public service values are nationally contingent, we stress the importance of identifying and measuring the national characteristics of public services. Therefore, the dimensionality issue of PSM measurement must be viewed as a challenge for scholars, especially if they are willing to address comparative and cross-cultural issues. In order to contextualise and make the PSM concept more aware of historicity, institutions and culture, it is necessary to integrate those aspects into future studies. Third, this study claims that it is useful to question the degree of publicness of the organisations under investigation. In this respect, researchers must take into consideration the national context of public organisations (constitutional and maybe also administrative principles such as the principles of legality, continuity or adaptability of public services) when they try to assess civil servants' PSM. In saying this, we point out the fact that the degree of publicness of public services differs enormously from country to country. Thus, if one wants to compare PSM in different countries, one also has to look for the equivalents of functional publicness of those countries.



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