

---

This is the **accepted version** of the journal article:

Ballart, Xavier. «Transformational leadership, basic needs satisfaction and public service motivation: evidence from social workers in Catalonia». *International Journal of Public Administration*, Vol. 47 Núm. 12 (2023), p. 820-830. DOI 10.1080/01900692.2023.2209826

---

This version is available at <https://ddd.uab.cat/record/305817>

under the terms of the  license

**Transformational leadership, basic needs satisfaction and public service  
motivation: evidence from social workers in Catalonia**

**Ballart, X.; Ripoll, G. 2023**

**Abstract**

This study tests the relationship between transformational leadership and public service motivation (PSM), as well as the role that the basic needs of autonomy, competence and relatedness play in this relationship. Using a sample of 439 social workers in Barcelona and the Catalonia region, the results support a positive effect of transformational leadership on PSM. Of the three basic psychological needs, the satisfaction of the need of relatedness appears to be the primary driver in developing PSM, as relatedness has been recognized as a source of intrinsic motivation and is the only one of the three basic needs with a collective character. These results have clear practical implications. Transformational leaders designing their organizations to promote mutual support and encourage feelings of relatedness among their employees can contribute to increasing employees' PSM.

## Introduction

Leaders can have a direct influence on the environment of their organizations and affect their employees' motivation. In the public administration literature, the study of this relationship has mainly focused on transformational leadership (TL) and public service motivation (PSM) (Park and Rainey 2008, Wright et al. 2012, Bellé 2013, Vandenaabeele 2014, Krogsgaard 2014, Caillier 2015, Wright et al. 2016, Jensen and Bro 2018, Marques 2021, Høstrup and Andersen 2022). Following the advice of TL critics like Knippenberg and Sitkin (2013), those studying the relationship between TL and PSM have centered on the visionary element of TL, arguing that orienting vision toward society is a precondition for a positive association between TL and PSM (Wright et al. 2012, Jensen and Bro, 2018, Høstrup and Andersen 2022). Assuming that at least for some public services, like social services, the ultimate goal is clear and based on the shared belief that they are improving the well-being of those in need, leaders practicing a more transformational style—reasserting the collective contribution of day-to-day activities to social inclusion and caring about the individual members of their units—can influence social workers' motivation.

Leaders can shape social workers' motivation, which is dynamic and can change over time. Most previous studies explain the connection between TL and PSM through self-determination theory (SDT). Leadership with a transformational style is supposed to instill intrinsic forms of motivation by satisfying the basic psychological needs of autonomy, competence and relatedness (Deci and Ryan 2000). According to Gagné (2003), relatedness, autonomy and competence are associated with greater engagement in prosocial activities, and PSM energizes employees to take on tasks with prosocial consequences (Perry and Hondeghem 2008).

Among the few who have studied these processes in detail, Vandenberghe (2014) found that the satisfaction of the three basic needs is a moderating mechanism between TL and PSM, while Jensen and Bro (2018) found it to be a mediating mechanism. Whereas Vandenberghe (2014) found that PSM increases when the basic needs of autonomy and competence are satisfied, Jensen and Bro (2018) found that satisfying competence and relatedness increases PSM, thus mediating the effect of TL.

The first aim of this study is to confirm that TL has a positive effect on PSM. The second aim is to assess the role that autonomy, competence and relatedness play in this relationship. According to Deci and Ryan (2000), humans are optimally motivated and experience well-being when their three basic psychological needs are satisfied. Under TL, social workers generally need less guidance and control, have more confidence in their abilities and feel a stronger sense of membership. However, are these three basic psychological needs equally responsible for developing a willingness to help others or contribute to society? A significant difference among the three needs is that autonomy and competence have a more individual character, while relatedness depends on mutual support and entails the idea of membership and collective responsibility. In the context of social services, which have a clear vision of social inclusion, relatedness thus appears to be crucial to increasing PSM.

The present study used a database consisting of survey responses from 439 social workers in Barcelona and the Catalonia region. Using structural equation modeling, the article examines the direct and indirect paths between aggregated measures of TL, the satisfaction of the three basic needs and employees' PSM.

We first quickly review the defining components of TL and the basic ideas of SDT and PSM. Then, we present the theoretical arguments explaining why the satisfaction of the basic needs mediates the relationship between TL and PSM. Next, we present our data

and methods, explain our results and conclude with a discussion of their contribution to theory and their implications for management practice, as well as the limitations of our study and avenues for future research.

## **Theoretical framework**

### ***Transformational leadership and basic psychological needs***

The transformational style of leadership is based on the ability to inspire and motivate employees by articulating a vision that raises awareness of the importance of the organizational mission, values and goals (Wright et al. 2012). This is particularly important in the management of public services, like social services, where public organizations and other entities tend to have attractive and worthwhile goals with community-oriented missions (Wright and Pandey 2010).

Bass's original model of TL identifies four dimensions. Two of them—idealized influence and inspirational motivation—refer to the vision, mission and strong sense of purpose, while the other two—intellectual stimulation and individual consideration—focus on the personal attention of employees. The debate on TL's conceptual basis and measurement alternatives (Knippenberg and Sitkin 2013) has led a significant number of researchers to concentrate on vision content. The main argument is that a vision can imbue day-to-day activities with purpose and inspire employees to transcend their own self-interest. However, for TL to influence employees to make a difference for society, this vision must be itself oriented toward society (Wright et al. 2012, Bro and Jensen 2020). From this perspective, having a vision focused on contributing to society is considered a precondition for the association between TL and PSM (Høstrup and Andersen 2022).

In public organizations, the mission tends to be socially important, as they provide services to the community, often for vulnerable people. This is the case for social services, which deal with people experiencing difficulties because of serious problems related to poverty, unemployment, health or housing, all of which may be aggravated when they belong to certain population groups. Employees should be aware of the purpose of their organization and of their contribution to society. However, organizations can emphasize other, more instrumental purposes or engage employees in activities that do not necessarily highlight a prosocial purpose. Public organizations can also practice *laissez-faire* leadership, which can be considered the absence of leadership. For these reasons, it is important to have leaders who convey a sense of collective mission, instill pride to belong to the organization, give a good example and care about their employees. These actions can contribute to shifting employees' motivation from self-interest to collective interest (Paalberg and Lavigna 2010).

However, how can leadership practices shape motivation and inculcate PSM?

Answering this question requires reviewing motivation theories like SDT. This theory proposes a continuum of motivations based on the distinction between intrinsic and extrinsic motivation. According to SDT, performing an activity for external consequences is a “controlled” activity (Deci et al. 1999) whereas an “autonomous” behavior requires that the individual internalizes and attributes a value to the behavior (Roth et al. 2006). When the value associated with an activity is internalized, it can take on three different types of motivation. With introjection, the individual accepts a value and the regulation of behavior but does not accept them as their own. With identification, the individual sees the importance of the activity and identifies with the values, but they consider the behavior unpleasant. And with integration, the individual identifies completely with the value and the regulation.

The more autonomous forms of motivation (identified and intrinsic) are associated with having one's basic psychological needs satisfied. Research on basic psychological needs is central to SDT theory because humans are optimally motivated and experience well-being when their basic psychological needs are met. These needs are autonomy, competence and relatedness. They are the most important constructs within SDT, and they are consistent with other concepts in organizational design. Autonomy refers to "being the perceived origin or source of one's own behavior" (Ryan and Deci 2004:8) and "acting with a sense of volition and having the experience of choice" (Gagné and Deci, 2005:333). Competence refers to "feeling effective in one's own interaction with the social environment and experiencing opportunities to exercise and express one's capacities" (Ryan and Deci 2004:7). Relatedness is defined as "caring for and being cared for by others, and having a sense of belongingness to groups, communities or organizations" (Ryan and Deci, 2004:7).

### ***The relationship between TL, PSM and the satisfaction of basic needs***

The PSM literature has established that leaders can have an impact on the degree to which individuals internalize public values and develop a public service identity in the form of PSM (Perry and Vandenabeele 2008). Although the only study to use a field experimental design (Jensen et al. 2019) found that PSM levels declined after leaders were given TL training, a number of observational studies have shown that TL and similar forms of leadership like ethical and collaborative leadership lead to an increase in PSM (Park & Rainey 2008, Wright et al. 2012, Bellé 2013, Vandenabeele 2014, Krogsgaard 2014, Caillier 2015, Wright et al. 2016, Ritz et al. 2016, Jensen and Bro 2018, Høstrup and Andersen 2022). Given this large body of research, our first hypothesis is that this relationship will hold.

H1. TL will have a positive influence on PSM.

The relationship between TL and PSM is explained recurring to SDT arguments. In the first place, PSM is a prosocial motivation that reflects an interest in delivering public services that do good for others and for society (Perry et al. 2010). From the perspective of SDT, PSM is an autonomous type of motivation (Pedersen 2015), although PSM can also be considered extrinsically autonomous (Gagné and Deci 2005) because the external positive consequence does not affect the person performing the activity and the individual will perform it even if it involves efforts that are not pleasant or interesting.

Following the logic of SDT, when leaders set goals and objectives that encourage their employees to make a difference for society (Wright et al. 2012, Bro and Jensen 2020), it is likely that these leaders contribute to satisfying employees' basic psychological needs. When there is a consensus on goals and leaders stress the unit's collective work to achieve those goals while also caring about individual team members, employees may require less guidance (i.e., more autonomy), feel confident in their abilities and capable of doing a good job (i.e., competence) and sense that they are part of a group with a collective responsibility to achieve the program outcomes (i.e., relatedness).

Therefore:

H2. TL will have a positive influence on the satisfaction of autonomy, competence and relatedness.

Anticipating the same relationship, Gagné (2003) and Pedersen (2015) argue that employee behavior should be more autonomous and collectively engaged. However, recent empirical evidence shows a discrepancy. On one hand, Vandenabeele (2014) found that the increase of PSM in a TL context is moderated by the satisfaction of the basic needs of autonomy and competence, but not relatedness. On the other hand, Jensen and Bro (2018) found that the relationship between TL and PSM is mediated by the satisfaction of the needs of competence and relatedness, but not autonomy. Given



this discrepancy, this study assumes that the three basic needs can mediate the relationship between TL and PSM. However, if there is one of the three basic psychological needs that has a major role in developing PSM, it is likely to be relatedness, for two reasons. First, the social psychology literature has already proved the strong relationship between the satisfaction of the need of relatedness and intrinsic motivation (Van den Broeck 2010). Second, relatedness is crucial for social workers to work collectively, which often is a precondition to be able to help others. When heads of social services transmit a sense of collective mission, instilling pride to belong to the unit, they promote collective action in ways that may be not so present when leaders contribute to satisfying the other two basic needs, which are essentially individualistic.

H3. The satisfaction of the needs of autonomy, competence and relatedness will mediate the relationship between TL and PSM.

## **Data, methods and results**

### ***Data***

The data used in this study were collected from social workers employed by all the counties in Catalonia and from the City Council of Barcelona. Workers from both contexts were included because in Barcelona County, it is the City that employs social workers. Since these social services can be externalized, respondents were employed either by public, private or third sector organizations.

Social services units at the local level are appropriate for this kind of research because they provide public services and because in the Catalan context, they typically perform two types of tasks. In some of their activities, they have a community approach, normally based in a neighborhood. Or, when they do not participate in community projects, they address the needs of individuals. Irrespective of the type of task, their

stated ultimate goal is to improve social inclusion. A particularity of the local context is that heads of social services units do not need to underscore the main mission and goals because they are very clear. In informal talks with heads of services and social workers at the time the survey was implemented, researchers identified a rather flat structure and collegial environment where leaders show concern for employees. The discourse is centered on the collective character of social work and on the need for teamwork to be effective.

In addition, the surveyed social workers are appropriate for this study because they interact daily with their direct supervisors, which makes it possible to collect opinions about the leaders. We assume that supervisors can make a substantial impact on these social workers' prosocial motivation (Vandenabeele 2014) because they often discuss the content and method of their daily work as well as community projects.

This research uses data from a survey not specifically designed for this study. The wider project was conducted with the support of the heads of social services in each of the counties and in the City Council of Barcelona, who in turn facilitated contact with 859 professionals. A 73-item standardized questionnaire was distributed with a letter of presentation signed by the appropriate head. There were 530 responses, for a response rate of 61%. Discarding incomplete responses left 439 questionnaires (51.11%). Table 1 shows the characteristics of the final sample, which corresponds with those of the target population. A majority were women, had completed some university studies and worked for a public organization. The questionnaire used a 7-point Likert scale to measure all the items of the latent constructs included in the Appendix.

*Table 1 about here*

## ***Methods***

The transformational style of leadership was measured with four items that are similar to those used in previous studies (Bass and Avolio 2003, Park and Rainey 2008 Wright et al. 2012, Caillier 2015). The items capture the collective dimensions as well the dimensions focusing on the individual attention of employees. PSM was measured with the scale proposed by Kim et al. (2013), which has been validated by numerous studies, including a few in the same country. The scale includes 16 items and four dimensions: attraction to public participation, commitment to public values, compassion and self-sacrifice. This study used the aggregate measure of PSM.

The basic psychological needs were measured with three items. This study used as a reference the work-related basic needs satisfaction scale developed by Van den Broeck et al. (2010), which is an adaptation of the previous scale by Deci et al. (2001). The items ask workers whether they feel competent, whether they can make decisions about the tasks they do at their job and whether other colleagues help them. The questionnaire included a minimum number of questions to avoid survey fatigue, but single-item measures are acceptable in this case because basic needs are unidimensional and clearly defined and because items give an overall impression (Wanous et al. 1997, Diamantopoulos et al. 2012). Each need is independent from the other two. The literature discusses whether it is appropriate to create an index of overall need satisfaction. Some studies average the three needs into a single score (Deci et al. 2001) while others do not (Van den Broeck 2010). Due to the research interest of this study, each need was treated separately. However, the latent construct of need satisfaction emerges when the three items are aggregated to justify the selection of the items used.

Latent variables were validated through a measurement model (see Appendix). We report acceptable results as falling inside the cut-off points proposed by Hu and Bentler (1999). All factor loadings are significant, and the standardized coefficients are above 0.5. Moreover, internal reliability of the latent variables is correct, as indicated by their Cronbach's alpha and Joreskog's rho values. Results and correlations between the main variables are shown in the Appendix.

The analysis controls for sociodemographic job-related characteristics (gender, age, level of studies) and for organizational variables (sector, tenure, management tasks) because they are considered antecedents of PSM (Pandey and Stacyk, 2008, Perry 1997, Perry et al. 2008, Moynihan and Pandey 2007). We also include direct contact with beneficiaries because this is an important relational aspect that has a significant effect on prosocial motivation (Grant 2012).

Common method bias may be present because leaders and employees were not separated in the survey (Podsakoff et al. 2003). However, broad sources of this type of bias are controlled as the survey provides enough psychological separation, protection of anonymity and evaluation apprehension reduction (Podsakoff et al. 2003, 2012, Favero and Bullock 2015). Following van Loon et al. (2015), we loaded all the items of the latent constructs into one common factor and compared the fit indices of this model with the measurement model. The common latent variable model showed a worse fit (Satorra-Bentler scaled  $\chi^2$  [df = 230] = 2408.973,  $p \leq 0.01$ , CFI = 0.359, TLI = 0.294, RMSEA = 0.147, and SRMR = 0.157) compared to the full measurement model, suggesting that the reported results are not strongly affected by common method bias (Podsakoff et al. 2003).

## ***Results***

The study applies a full structural equation model using robust maximum-likelihood estimation. We performed the analysis with Mplus version 6. The method corrects for non-normality of the observed items and simultaneously tests the effects of various dependent variables (Kline 2016). Figure 1 and Table 2 show the results, along with standardized coefficients. A full model without control variables **was run** to rule out the possibility of confounding effects (see Appendix for results). Common fit indices suggest that the overall fit of the structural model is **acceptable** except for the significant chi-square. The model explains 6.8% of the variance of PSM, 14% of relatedness, 28% of competence and 30% of autonomy.

*Figure 1 about here*

Regarding the hypothesized paths (Figure 1), TL is associated with an increase in the satisfaction of the three basic needs, and it appears to have a significant and positive impact on PSM. Relatedness is also significantly associated with increased PSM, while autonomy and competence have a negative but not statistically significant effect on PSM. Additionally, TL appears to have a significant and positive indirect effect through relatedness (Table 3). Regarding the direct effects of the control variables (Table 2), older employees have a lower satisfaction of the need of relatedness, and employees with management tasks have a lower satisfaction of the needs of autonomy and competence.

*Table 2 about here*

*Table 3 about here*

The analysis confirms the first hypothesis, which refers to the positive influence of TL on PSM. The second hypothesis is also confirmed: TL is positively associated with the satisfaction of the three basic needs. Finally, the third hypothesis is only confirmed with regard to the satisfaction of the need of relatedness. This result is different from the findings of Vandenberghe (2014) and partially coincides with the results reported by Jensen and Bro (2018).

## **Discussion and conclusions**

### **Theoretical contribution**

This study responds to calls to merge leadership styles and the development of different types of motivation (Eyal and Roth, 2011) by investigating TL and PSM, a specific type of prosocial motivation. The first aim was to investigate whether TL supports PSM, and the second was to assess the role that the satisfaction of basic psychological needs plays in this process.

As anticipated by a significant number of studies (Park and Rainey 2008, Wright et al. 2012, Bellé 2013, Vandenberghe 2014, Krogsgaard 2014, Caillier 2015, Wright et al. 2016, Jensen and Bro 2018, Marques 2021, Høstrup and Andersen 2022), this study found that TL contributes to the development of PSM. While this result contradicts the only study to use a field experimental design (Jensen et al. 2019), it is in line with

various observational studies showing that TL and similar forms of leadership like ethical and collaborative leadership appear to maintain or increase PSM.

If we consider PSM a public service identity grounded in public institutions, this identity and the behavior linked to it can be promoted by transformational leaders.

According to the literature, an organizational vision that raises employees' awareness of providing a service oriented toward society is a precondition for a positive relationship between TL and PSM (Wright et al. 2012, Bro and Jensen 2020, Høstrup and Andersen 2022). In the local context of the social services examined in this study, the goals were clear, and heads of services tended to emphasize the collective nature of their tasks and team work. Consciously or unconsciously, these social services are pursuing a form of public interest, and leaders practice a style of leadership that their employees perceive as a form of TL.

In doing so, some social services units contribute to satisfying the basic psychological needs of their employees. TL appears to nurture employees' sense that they are competent, that they can make decisions and that colleagues will help when asked. Following the logic of SDT theory, the satisfaction of these basic needs is a key factor underlying intrinsic motivation. However, in our study, employees' PSM appears to increase through the satisfaction of their need for relatedness, but not autonomy or competence.

The social psychology literature has already proved the strong relationship between the satisfaction of the need of relatedness and intrinsic motivation (Van de Broeck 2010). But what might be the logic for this exceptional role of relatedness in the development of PSM? What defines PSM is the interest to perform activities that benefit others and that do not positively affect the material welfare of the individual practicing them (Le Grand 2003). Its key feature is that it is directed to others and to society. The predictive

character of prosocial motivation connects with some of the propositions from the social psychology literature. People have a fundamental need to belong (Baumeister and Leary 1995), and when that need goes unmet, it leads to a reduction in cooperative behavior (Twenge et al. 2007). In an organizational environment that promotes the feeling of relatedness, employees will experience a sense of connectedness to others (Pavey et al. 2011) and, consequently, they may engage in further prosocial action. Providing a social benefit will in turn contribute to increasing the feeling of connectedness to others.

In sum, this study provides some evidence that justifies pulling employees together and promoting mutual support in the context of TL with the aim to increase the prosocial motivation of social workers. These strategies may produce a sense of collective responsibility in ways that may not be present when heads of services respond to the two other basic needs, which are essentially individualistic. It is also possible that the basic psychological need of relatedness is more important for social workers than for other groups of public servants. In previous studies, Vandenabeele's (2014) sample included civil servants from central ministries, and Jensen and Bro (2018) worked with teachers. In the local context where this study was conducted, social workers have a professional culture that strongly emphasizes collective interest, community work and mutual help.

### **Practical implications**

The research presented in this article can be useful for leaders and managers working in public service-oriented organizations since it provides evidence about human resources practices that can contribute to maintaining and developing PSM. If public leaders of all administrative levels want their employees to accept organizational values and behaviors as their own, they can adopt a transformational leadership style and pay attention to employees' basic needs of autonomy, competence and relatedness.



According to the present results, designing organizations to facilitate mutual support and taking actions to promote teamwork and connectedness among employees can be an effective strategy to increase their identification with organizational goals and values, thereby helping them develop a PSM identity, attitudes and behaviors. With this purpose, leadership training in TL can be an effective way to improve leadership performance and organizational effectiveness (Seidle et al. 2016), particularly in public services where heads of services have not been very active to take on a leadership role.

### **Limitations and suggestions for future research**

Although this research shows interesting results regarding the relevance of TL and relatedness in developing PSM, we are aware of its limitations, some of which have already been indicated. All reported variables are perceptions of employees, which may give rise to common method bias problems. Although procedural and statistical remedies were taken into consideration, it is not possible to rule out the possibility of having biased results. The solution to this problem requires either using different surveys for leaders and employees or adopting an experimental approach. A second limitation is the accuracy of the measures used in the survey, particularly in relation to single-item measures for basic psychological needs and the relatively low Cronbach's alpha value for the satisfaction of these needs. Although we imitated the method of previous studies, it is recommended to include the whole set of indicators proposed by Van den Broeck (2010) if the length of the survey allows it. Finally, the unique characteristics of the sample can impact the findings and, therefore, the generalization of the results. In this study, the sample was mostly female. Because women tend to be more concerned about the need of relatedness, it is possible that there is a gender factor.

An interesting avenue for further research would be to study the relationship between women, leadership styles and prosocial motivation, particularly in social services, where

gender imbalance is so prevalent. The same logic can be applied to the comparison between social workers and other groups of public servants since the former tend to be engaged in community work and have a stronger sense of collective responsibility. A more fundamental research line would be to compare the consequences of having a transactional or transformational style of leadership. Various authors (Waldman et al. 1990, O'Shea et al. 2009) have argued in favour of a combined leadership strategy. However, in the context of public services, where public organizations and other third sector entities tend to have attractive and worthwhile goals with community-oriented missions, it is necessary to disentangle the consequences in terms of not only effectiveness but also personnel motivation and well-being.

## References

- Baumeister, R.F. & Leary, M.R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychological Bulletin*, 117 (3): 497-529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Bass, B.M. & Avolio, B.J. (2003). *Multifactor Leadership Questionnaire: Manual Leader Form, Rater, and Scoring Key for MLQ*. Redwood City, CA: Mind Garden.
- Bass, B.M. & Bass, R. (2008). *The Bass Handbook of Leadership. Theory, Research and Managerial Applications*. 4th edition, New York, NY: Free Press.
- Bellé, N. (2013). Leading to Make a Difference: A Field Experiment on the Performance Effects of Transformational Leadership, Perceived Social Impact, and Public Service Motivation. *Journal of Public Administration Research and Theory*, 24 (1): 109–136. <https://doi.org/10.1093/jopart/mut033>.
- Bro, L.L. & Jensen, U.T. (2020) Does transformational leadership stimulate user orientation? Evidence from a field experiment. *Public Administration*, 98 (1):177– 193. <https://doi.org/10.1111/padm.12612>
- Caillier, J. G. (2015). Transformational Leadership and Whistle-Blowing Attitudes: Is This Relationship Mediated by Organizational Commitment and Public Service Motivation? *The American Review of Public Administration*, 45 (4): 458–175. <https://doi.org/10.1177/0275074013515299>.
- Deci, E. L., Koestner, R. & Ryan, R.M. (1999). A Meta-analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivation. *Psychological Bulletin*, 125 (6):627-668. <https://doi.org/10.1037/0033-2909.125.6.627>.
- Deci, E. L. & Ryan, R.M. (2000). The ‘What’ and ‘Why’ of Goal Pursuits: Human Needs and the Self- Determination of Behavior. *Psychological Inquiry*, 11 (4):227–268. [https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01).
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need Satisfaction, Motivation, and Well-Being in the Work Organizations of a Former Eastern Bloc Country: A Cross-Cultural Study of Self-Determination. *Personality and Social Psychology Bulletin*, 27(8): 930–942. <https://doi.org/10.1177/0146167201278002>
- Diamantopoulos, A., *et al.* (2012). Guidelines for choosing between multi-item and single-item scales for construct measurement: a predictive validity perspective. *J. of the Acad. Mark. Sci.*, 40, 434–449. <https://doi.org/10.1007/s11747-011-0300-3>
- Eyal, O. & Roth, G. (2011). Principals’ Leadership and Teachers’ Motivation. Self-determination Theory Analysis. *Journal of Educational Administration*, 49 (3): 256-275. <https://doi.org/10.1108/09578231111129055>.

Favero, N. & Bullock, J.B. (2015). How (Not) to Solve the Problem: An Evaluation of Scholarly Responses to Common Source Bias. *Journal of Public Administration Research and Theory*, 25 (1):285–308. <https://doi.org/10.1093/jopart/muu020>.

Gagné, M. (2003). The Role of Autonomy Support and Autonomy Orientation in Prosocial Behavior Engagement. *Motivation and Emotion*, 27: 199-223. <https://doi.org/10.1023/A:1025007614869>.

Gagné, M. & Deci, L.E. (2005). Self-Determination Theory and Work Motivation. *Journal of Organizational Behavior*, 26 (4):331–362. <https://doi.org/10.1002/job.322>.

Grant, A.M. 2012. Leading with Meaning: Beneficiary Contact, pro-social Impact and the Performance Effects of Transformational Leadership. *Academy of Management Journal*, 55 (2): 458-476. <https://doi.org/10.5465/amj.2010.0588>

Høstrup, M. & Andersen, L.B. (2022). Leading to make a difference for whom? How vision content moderates the relationship between transformational leadership and public service motivation, *International Public Management Journal*, 25(4): 585-599. Doi:[10.1080/10967494.2020.1795015](https://doi.org/10.1080/10967494.2020.1795015)

Hu, L. & Bentler, P.M. (1999). “Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives.” *Structural Equation Modeling: A Multidisciplinary Journal*, 6 (1):1–55. <https://doi.org/10.1080/10705519909540118>.

Jensen, U. T., Andersen, L. B. & Jacobsen, C. B. (2019). Only When We Agree! How Value Congruence Moderates the Impact of Goal-Oriented Leadership on Public Service Motivation. *Public Administration Review*, 79 (1): 12-24. <https://doi.org/10.1111/puar.13008>

Jensen, U.T. & Bro, L.L. (2018). How Transformational Leadership Supports Intrinsic Motivation and Public Service Motivation: The Mediating Role of Basic Need Satisfaction. *American Review of Public Administration*, 48 (6): 535-549. <https://doi.org/10.1177/0275074017699470>.

Kim, S., Vandenabeele, W., Wright, B.E., Andersen, L.B., Cerase, F.P., Christensen, R.K. *et al.* (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*, (1): 79-102. <https://doi.org/10.1093/jopart/mus027>

Kline, R.B. (2016). *Principles and Practice of Structural Equation Modelling*. New York, NY: The Guilford Press.

Knippenberg D. & Sitkin, S.B. (2013). A Critical Assessment of Charismatic—Transformational Leadership Research: Back to the Drawing Board?. *Annals*, 7 (1): 1-60, <https://doi.org/10.5465/19416520.2013.759433>

- Krogsgaard, J. A., Thomsen, P. & Andersen, L. B. (2014). Only if We Agree? How Value Conflicts Moderate the Relationship Between Transformational Leadership and Public Service Motivation”. *International Journal of Public Administration*, 37 (12): 895-907. <https://doi.org/10.1080/01900692.2014.928315>
- Marques, T.M. (2021). Research on Public Service Motivation and Leadership: A Bibliometric Study, *International Journal of Public Administration*, 44 (7): 591-606. Doi:[10.1080/01900692.2020.1741615](https://doi.org/10.1080/01900692.2020.1741615)
- Moynihan, D.P. & Pandey, S.K. (2007). The Role of Organizations in Fostering Public Service Motivation. *Public Administration Review*, 67 (1):40–53. <https://doi.org/10.1111/j.1540-6210.2006.00695.x>
- O’Shea, P.G., Foti, R.J., Hauenstein, N.M. & Bycio, P. (2009). Are the Best Leaders Both Transformational and Transactional? A Pattern-oriented Analysis. *Leadership*, 5 (2):237-259 <https://doi.org/10.1177/1742715009102937>
- Paarlberg, L.E. & Lavigna, B. (2010), Transformational Leadership and Public Service Motivation: Driving Individual and Organizational Performance. *Public Administration Review*, 70 (5): 710-718. <https://doi.org/10.1111/j.1540-6210.2010.02199.x>
- Pandey, S. & Stazyk, E.C. (2008). Antecedents and Correlates of Public Service Motivation. In: Perry, J. and Hondeghem, A. (eds). *Motivation in Public Management: The Call of Public Service*. Oxford: Oxford University Press.
- Park, S. M. & Rainey, H.G. (2008). Leadership and Public Service Motivation in U.S. Federal Agencies. *International Public Management Journal*, 11 (1):109–42. <https://doi.org/10.1080/10967490801887954>.
- Pavey, L., Greitemeyer, T. & Sparks, P (2011). Highlighting Relatedness Promotes Prosocial Motives and Behavior. *Personality and Social Psychology Bulletin*, 37 (7): 905–917. <https://doi.org/10.1177/0146167211405994>.
- Pedersen, M. J. (2015). Activating the Forces of Public Service Motivation: Evidence from a Low-Intensity Randomized Survey Experiment. *Public Administration Review*, 75 (5):734–746. <https://doi.org/10.1111/puar.12325>
- Perry, J. L. (1997). Antecedents of Public Service Motivation. *Journal of Public Administration Research and Theory*, 7 (2): 181-197. <http://www.jstor.org/stable/1181709>
- Perry, J. L. & Hondeghem, A. (2008). Building Theory and Empirical Evidence About Public Service Motivation. *International Public Management Journal*, 11 (1): 3-12. <https://doi.org/10.1080/10967490801887673>.
- Perry, J.L., Hondeghem, A. & Wise, L.R.. (2010). Revisiting the Motivational Basis of Public Service: Twenty Years of Research and an Agenda for the Future. *Public Administration Review*, 70 (5):681-690. <https://doi.org/10.1111/j.1540-6210.2010.02196.x>.

Perry, J. L. & Vandenabeele, W. (2008). Behavioral dynamics: Institutions, identities, and self-regulation. In *Motivation in public management: The call of public service*, ed. J. L. Perry and A. Hondeghem, 56–79. Oxford, UK: Oxford Univ. Press.

Perry, J.L., Brudney, J.L., Coursey, D., Littlepage, L. (2008). What Drives Morally Committed Citizens. *Public Administration Review*, 68 (3) :445-458.  
<http://www.jstor.org/stable/25145623>.

Podsakoff, P. M., MacKenzie, S.B., Jeong-Yeon, L. & Podsakoff, N.P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology* 88 (5):879–903.  
<https://doi.org/10.1037/0021-9010.88.5.879>.

Podsakoff, P. M., MacKenzie, S.B. & Podsakoff, N.P. (2012). Sources of Method Bias in Social Science Research and Recommendations on How to Control It. *Annual Review of Psychology*, 63 (1):539–569. <https://doi.org/10.1146/annurev-psych-120710-100452>.

Ritz, A., Brewer, G. A., and Neumann, O. (2016). Public Service Motivation: A Systematic Literature Review and Outlook. *Public Administration Review*, 76 (3), 414-426. <https://doi.org/10.1111/puar.12505>

Roth, G., Assor, A., Kanat-Maymon, Y. Kaplan, H. (2006). Assessing the Experience of Autonomy in New Cultures and Contexts. *Motivation and Emotion*, 30 (4): 361-372.  
<https://doi.org/10.1007/s11031-006-9052-7>.

Ryan, R. M. & Deci, E.L. (2004). An Overview of Self-Determination Theory: An Organismic Dialectic Perspective in Deci, E.L. and Ryan, R.M. (eds). *Handbook of Self-Determination Research*. Rochester NY: The University of Rochester Press.

Seidle, B., Fernandez, S., and Perry, J. L. (2016). Do Leadership Training and Development Make a Difference in the Public Sector? A Panel Study. *Public Administration Review*, 76 (4), 603-613. <https://doi.org/10.1111/puar.12531>

Twenge, J.M., Baumeister, R.F., DeWall, C.N., Ciarocco, N.J. & Bartels, J.M. (2007). Social Exclusion Decreases Prosocial Behavior. *Journal of Personality and Social Psychology*, 92: 56-66. doi: 10.1037/0022-3514.92.1.56.

Van den Broeck, A., Vansteenkiste, M. De Witte, H., Soenens, B. & Lens, W. (2010). Capturing Autonomy, Competence, and Relatedness at Work: Construction and Initial Validation of the Work-Related Basic Need Satisfaction Scale. *Journal of Occupational and Organizational Psychology*, 83 (4):981–1002.  
<https://doi.org/10.1348/096317909X481382>.

Van Loon, N. M., Vandenabeele, W. & Leisink, P. (2015). Clarifying the Relationship Between Public Service Motivation and In-Role and Extra-Role Behaviors: The Relative Contributions of Person-Job and Person-Organization Fit. *The American Review of Public Administration*, 47(6): 699-713.  
<https://doi.org/10.1177/0275074015617547>.

Vandenabeele, W. (2014). Explaining Public Service Motivation: The Role of Leadership and Basic Needs Satisfaction. *Review of Public Personnel Administration* 34 (2):153–73. <https://doi.org/10.1177/0734371X14521458>.

Waldman, D.A., Bass, B.M. & Yammarino, F.J. (1990). Adding to Contingent-Reward Behavior: The Augmenting Effect of Charismatic Leadership. *Group & Organization Management*, 15 (4):381-394.  
<https://doi.org/10.1177/105960119001500>

Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures? *Journal of Applied Psychology*, 82(2):247–252. <https://doi.org/10.1037/0021-9010.82.2.247>

Wright B.E, Moynihan, D.P. & Pandey, S.K. (2012). Pulling the Levers: Transformational Leadership, Public Service Motivation, and Mission Valence. *Public Administration Review*, 72(2): 206–215. <https://doi.org/10.1111/j.1540-6210.2011.02496.x>.

Wright, B. E., Hassan, S. & Park, J. (2016). Does a Public Service Ethic Encourage Ethical Behaviour? Public Service Motivation, Ethical Leadership and the Willingness to Report Ethical Problems. *Public Administration*, 94 (3):647–663.  
<https://doi.org/10.1111/padm.12248>

Wright B.E. & Pandey, S.K. (2010). Transformational Leadership in the Public Sector: Does Structure Matter? *Journal of Public Administration Research and Theory*, 20 (1):75-89. <https://doi.org/10.1093/jopart/mup003>

**Table 1.** Sample characteristics.

<b>n = 439</b>	<b>%</b>
Gender (female)	89.1
Age	
22-40	43.28
41-60	55.35
61-64	1.37
Level of studies (University)	90.21
Work sector	
Public	92.48
Third	7.52

**Table 2.** Control effects of observed variables.

<b>Variable(s)</b>	<b>Autonomy</b>	<b>Competence</b>	<b>Relatedness</b>	<b>PSM</b>
Gender (female)	0.005 (0.045)	0.056 (0.044)	0.055 (0.042)	-0.012 (0.049)
Level of Studies (university)	-0.040 (0.045)	0.002 (0.041)	0.081 (0.052)	0.041 (0.051)
Tenure (more than 3 years)	-0.030 (0.043)	-0.039 (0.041)	-0.006 (0.045)	0.006 (0.054)
Age (43)	-0.045 (0.045)	-0.026 (0.042)	-0.087* (0.050)	0.095 (0.062)
Work Sector (public)	0.019 (0.047)	0.041 (0.047)	0.029 (0.045)	0.034 (0.052)
Direct attention to beneficiaries (yes)	-0.037 (0.050)	0.006 (0.042)	0.001 (0.044)	-0.029 (0.046)
Management tasks (yes)	-0.154*** (0.046)	-0.132*** (0.044)	0.036 (0.047)	-0.044 (0.058)

*Note:* The standardized coefficients are reported. Standard errors in parentheses.

\*\*\*p≤0.01, \*\*p≤0.05, \*p≤0.1



**Table 3.** Mediation effects, full model with controls.

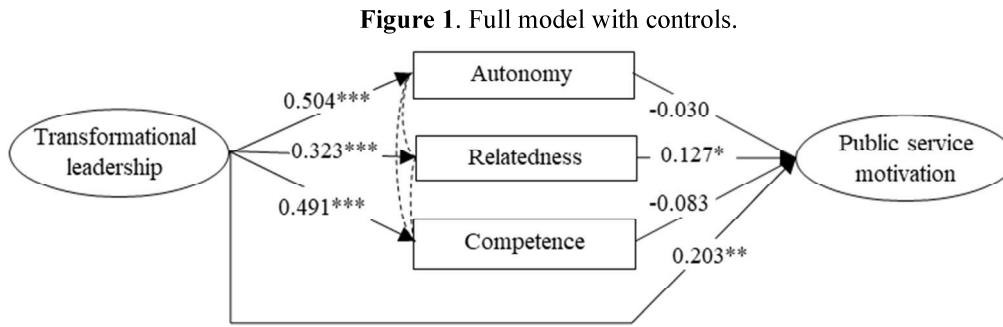
Variable(s)	Indirect effect
TL → Autonomy → PSM	-0.017 (0.035)
TL → Competence → PSM	-0.044 (0.034)
TL → Relatedness → PSM	0.042* (0.022)

*Note:* The standardized coefficients are reported.

Standard errors in parentheses.

\*\*\* $p \leq 0.01$ , \*\* $p \leq 0.05$ , \* $p \leq 0.1$

TFL = Transformational leadership



Fit statistic	Satorra-Bentler scaled $\chi^2$	Population error RMSEA	S-B Baseline comparison		Size of residuals SRMR
			CFI	TLI	
<b>Model results</b>	(352) 608.117 $p \leq 0.01$	0.041	0.936	0.925	0.049

*Note:* Standardized coefficients are reported. \*\*\* $p \leq 0.01$ , \*\* $p \leq 0.05$ , \* $p \leq 0.1$

Correlations: autonomy-relatedness = 0.229\*\*\*, autonomy-competence = 0.405\*\*\*, relatedness-competence = 0.162\*\*\*

Controls = gender, level of studies, job tenure, age, work sector, direct attention to beneficiaries, management tasks.

## Appendix

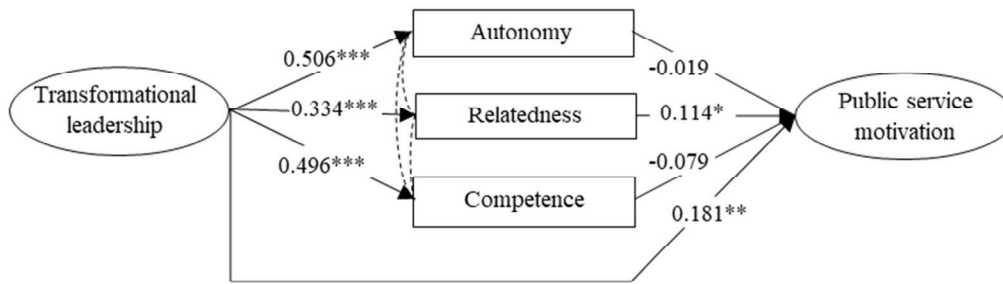
### Measurement Model and Original Survey Items

Construct and Items	SFL	S-B SE
<b>Attraction to Public Participation, <math>\alpha = 0.760</math> <math>\rho = 0.765</math></b>		
1. I admire people who initiate or are involved in activities to aid my community <i>1. Admiro a la gente que inicia promueve actividades para ayudar a su comunidad</i>	0.704***	0.051
2. It is important to contribute to activities that tackle social problems <i>2. Es importante contribuir con actividades que afrontan problemas sociales</i>	0.767***	0.044
3. Meaningful public service is very important to me <i>3. Los servicios públicos son muy importantes para mí</i>	0.502***	0.057
4. It is important for me to contribute to the common good <i>4. Considero importante contribuir al bien común</i>	0.693***	0.072
<b>Commitment with Public Values, <math>\alpha = 0.692</math> <math>\rho = 0.703</math></b>		
1. I believe it is very important that citizens have equal opportunities <i>1. Creo que es muy importante que todos los ciudadanos tengan las mismas oportunidades</i>	0.640***	0.063
2. I consider important that citizens can rely on the continuous provision of public services <i>2. Considero importante que los ciudadanos puedan confiar en la provisión continua de servicios públicos</i>	0.645***	0.057
3. It is fundamental that the interests of future generations are taken into account when decisions on public policies are made <i>3. Es fundamental tener en cuenta los intereses de las generaciones futuras cuando se toman decisiones sobre políticas públicas</i>	0.614***	0.080
4. It is essential for public servants to act ethically <i>4. Actuar éticamente es esencial para los prestadores de servicios públicos</i>	0.538***	0.079
<b>Compassion, <math>\alpha = 0.839</math> <math>\rho = 0.850</math></b>		
1. I feel sympathetic to the plight of the underprivileged <i>1. Me preocupan las dificultades por las que pasan los más desfavorecidos</i>	0.813***	0.034
2. I empathize with other people who face difficulties <i>2. Siento empatía por las personas que pasan dificultades</i>	0.720***	0.040
3. I get very upset when I see other people being treated unfairly <i>3. Me enoja ver que hay personas que son tratadas de forma injusta</i>	0.691***	0.050
4. Considering the welfare of others is very important <i>4. Es muy importante tener en cuenta el bienestar de los demás</i>	0.833***	0.029
<b>Self-sacrifice, <math>\alpha = 0.839</math> <math>\rho = 0.846</math></b>		
1. I am prepared to make sacrifices for the good of society <i>1. Estoy dispuesto a hacer sacrificios por el bien de la sociedad</i>	0.762***	0.036
2. I believe in putting civic duty before self <i>2. Creo que es importante poner el deber cívico por delante de uno mismo</i>	0.672***	0.047
3. I am willing to risk personal loss to help society <i>3. Aceptaría alguna pérdida a nivel personal si es necesario para ayudar a la sociedad</i>	0.844***	0.032
4. I would agree to a good plan to make a better life for the poor, even if it costs me money <i>4. Estaría de acuerdo con un buen plan para mejorar la vida de aquellas personas más vulnerables, incluso si me tuviera que costar dinero</i>	0.757***	0.037
<b>Public Service Motivation, <math>\alpha = 0.704</math> <math>\rho = 0.851</math></b>		
1. APP	0.863***	0.041
2. CPV	0.807***	0.052
3. CMP	0.815***	0.036
4. SS	0.559***	0.059

<b>Transformational Leadership</b> , $\alpha = 0.942$ $\rho = 0.944$		
1. My supervisor sets a good example <i>1. Mi supervisor da un buen ejemplo</i>	0.886***	0.018
2. My supervisor makes employees feel proud of being part of the organization <i>2. Mi supervisor hace que los trabajadores nos sintamos orgullosos de formar parte de la organización</i>	0.893***	0.014
3. My supervisor is concerned about the development of employees <i>3. Mi supervisor se preocupa por el desarrollo de los trabajadores</i>	0.921***	0.012
4. My supervisor appreciates the work that employees do <i>4. Mi supervisor valora el trabajo que realizan los empleados</i>	0.898***	0.015
<b>Basic Needs Satisfaction</b> , $\alpha = 0.671$ $\rho = 0.689$		
1. At the place I work, my opinions count (Competence) <i>1. En mi puesto de trabajo, mis opiniones cuentan</i>	0.730***	0.040
2. Employees in my unit participate in the development of long-range plans (Autonomy) <i>2. Los trabajadores participan en la definición de planes de trabajo a largo plazo</i>	0.763***	0.039
3. If I have a problem in my job, I can count on the help from my coworkers (Relatedness) <i>3. Si tengo un problema en mi trabajo, puedo contar con la ayuda de mis compañeros</i>	0.443***	0.060
Note: The standardized coefficients and the Satorra-Bentler standard errors are reported. *** $p \leq 0.01$ .		

Fit statistic	Satorra-Bentler scaled $\chi^2$	Population error RMSEA	S-B Baseline comparison CFI TLI		Size of residuals SRMR
<b>Model results</b>	(223) 375.825 $p \leq 0.01$	0.040	0.955	0.949	0.046

### Full Model without Control Variables



Note: Standardized coefficients are reported. \*\*\* $p \leq 0.01$ , \*\* $p \leq 0.05$ , \* $p \leq 0.1$   
 Correlations: autonomy-relatedness = 0.229\*\*\*, autonomy-competence = 0.405\*\*\*,  
 relatedness-competence = 0.162\*\*\*

Fit statistic	Satorra-Bentler scaled $\chi^2$	Population error	S-B Baseline comparison		Size of residuals
		RMSEA	CFI	TLI	SRMR
<b>Model results</b>	(219) 369.275 $p \leq 0.01$	0.040	0.956	0.949	0.043

### Means, Standard Deviations and Correlations of Main Variables

	Mean	SD	1	2	3	4	5
1. PSM	6.225	0.477	—				
2. Relatedness	5.911	1.334	0.158*	—			
3. Autonomy	5.155	1.830	0.074*	0.341*	—		
4. Competence	4.706	2.517	0.027	0.297*	0.564*	—	
5. TL	5.088	1.415	0.171*	0.346*	0.505*	0.492*	—

Note: \* $p \leq 0.1$