Activating the Forces of Public Service Motivation: Evidence from a Low-Intensity Randomized Survey Experiment

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Abstract: Employees with higher public service motivation (PSM) are likely to perform better in public service jobs. However, research on how practitioners may capitalize on this knowledge is sparse. This article expands the understanding of how to activate employee PSM, which is understood as a human resource that is present in the work environment. Using a randomized survey experiment with 528 law students, this article shows how low-intensity treatments may activate PSM and how the effect of PSM activation efforts compares with efforts to activate another, less self-determined type of motivation (relating to the need for feelings of self-importance). The findings are robust and suggest that low-intensity efforts to activate PSM have a positive effect on an individual’s behavioral inclinations. However, efforts toward the activation of motivation relating to feelings of self-importance appear to engender an effect of similar size.

Practitioner Points
• Using a survey experimental design, this research shows how simple external interventions may engage individuals’ public service motivation (i.e., motives that are largely altruistic and grounded in public institutions) and thereby increase the time and effort they are willing to spend on a task.
• This finding suggests that employee PSM is an organizational resource that can be actively engaged through relatively low-cost managerial efforts.
• Managers may capitalize on other forms of employee motivation as well: this research finds that external interventions targeting individuals’ feelings of self-importance may result in positive outcomes similar to those of external PSM interventions.

Since the early 1990s, public service motivation (PSM) has received growing research attention within the field of public administration and management (Perry and Hondeghem 2008a). Considerable research evidence supports a basic assumption in PSM research: that employees with greater PSM are likely to perform better in public service jobs (Perry and Wise 1990). Numerous studies find a positive relationship between PSM and work performance (Alonso and Lewis 2001; Andersson and Serritzlew 2012; Brewer and Selden 2000; Frank and Lewis 2004; Kim 2005; Naff and Crum 1999; Vandenabeele 2009), and a recent field experiment finds a positive causal effect of PSM on performance (Bellé 2013).

Given that employee PSM is a contributing factor to performance, a salient research question relates to how public managers might take advantage of and profit from this knowledge. Some scholars emphasize the role of work environments and how organizational features may promote employee PSM by organizational socialization and adaptation processes (Cable and Parsons 2001; Moynihan and Pandey 2007). Other scholars suggest the use of organizational attraction and selection policies when looking to recruit a high-PSM workforce (Leisink and Steijn 2008).

Research on how to capitalize on the positive effects of PSM has thus focused primarily on PSM cultivation (how to foster and sustain high PSM). In contrast, this article examines the effect of PSM activation (how to actively engage an individual’s present level of PSM). Although they are related constructs, PSM cultivation and PSM activation refer to distinct motivational processes and therefore should be studied separately. Whereas PSM cultivation relates to the socialization of public service values and norms, PSM activation is more about the external priming of public service motives, which, in turn, promotes the saliency of PSM as the motivational basis for action.
priming of public service motives, which, in turn, promotes the saliency of PSM as the motivational basis for action. The cultivation–activation distinction is relatively novel to PSM research (at the very least, the notion has not been fully explicated before). For the purpose of theoretical grounding, this article further explains and embeds the concept in terms of a motivation theory by Perry and Vandenebeeke (2008).

Research addressing PSM activation is pertinent. PSM research finds that public employees exhibit higher PSM than private sector workers (Houston 2006; Lewis and Frank 2002; Pedersen 2013; Steijn 2008; Vandenebeeke 2008). However, all people are driven by a mix of different types of motivations (Ryan and Deci 2000). Even the most PSM-oriented individual is occasionally guided by other motivations—for example, motivation relating to external rewards, such as pay (Crewson 1997; Maidani 1991), maintaining a functional work–family life balance (Buelens and Van den Broeck 2007), or self-achievement needs concerning peer recognition and interesting work (Houston 2000; Karl and Sutton 1998). As public employees generally exhibit relatively high PSM, a unidimensional research focus on PSM cultivation is valuable but suboptimal: research on how to foster, promote, and sustain employee PSM is commendable, but examining how PSM can be actively engaged is equally beneficial. Ultimately, public managers may stimulate the performance of their organization using a combination of PSM-related practices—some directed at PSM cultivation, others at activating the human resource of employee PSM that is already present in the work environment.

Specifically, this article asks the following questions: Can we capitalize on the positive effects of PSM by means of external activation efforts? (i.e., interventions aimed at engaging an individual’s present level of PSM). Can even low-intensity interventions activate the forces of PSM? And how does the effect of efforts aimed at activating PSM compare with that of similar efforts to activate other types of internal motivation?

The research focus in the article is partly motivated by a study by Bellé (2013). In a field experiment involving 90 Italian nurses, he shows how employees’ contact with the beneficiaries of their work and self-persuasion interventions1 may improve performance through PSM activation mechanisms. Consistent with Bellé (2013), this article explicates the PSM activation concept and offers randomized controlled trial evidence on whether less intensive treatments (i.e., lower-cost interventions with reduced treatment intensity) may activate the PSM forces. Additionally, scholars have called for more experimental PSM research (Wright and Grant 2010). In line with broader experimental work on PSM (Bellé 2013, 2014; Brewer and Brewer 2011; Christensen et al. 2013), this article contributes to this end.

More specifically, the present study exposed 528 law students to a randomized survey experiment.2 The experimental treatments consisted of subtle text distinctions in a survey item on the amount of time that each individual would be willing to spend on the task of completing a future research survey—a relatively simple and voluntary task involving no external rewards (e.g., money). The article uses two separate treatments to identify the causal effect of PSM activation efforts on individuals’ time expenditure willingness. The two treatments refer to the two PSM dimensions of “public interest” and “compassion” identified by Perry (1996).

Moreover, for examining the relative effect of PSM activation efforts compared with that of efforts to activate another type of internal motivation, the article operates with a treatment targeting a non-PSM type of motivation specifically relating to a need for feelings of self-importance. To clarify the conceptual distinction between PSM and this particular type of self-importance motivation, the present study uses self-determination theory (SDT) (Deci and Ryan 1985, 2000, 2004; Gagné and Deci 2005), a widely used theory of human motivation and behavior in the field of social psychology. As elaborated later in this article, PSM is conceptually related to the identification with, or full internalization of, public service values and motives. In contrast, self-importance motivation is more concerned with behavioral self-regulation based on a need for approval from the self or other. In terms of SDT, both types of motivation are internal, but PSM is more volitional and involves a lesser degree of self-pressure. PSM therefore represents a more self-determined form of motivation.

Researching the relative effects of PSM is a salient matter. As employees are guided by a combination of different motivations (Ryan and Deci 2000), the real-life implementation of any PSM policy should be based on more than expectations of a positive effect. Ideally, research should also test the extent to which managerial policy efforts could be better spent elsewhere, as in interventions activating forms of motivation other than PSM. In line with this notion, Chen and Bozeman (2013) suggest that contemporary public management research has disproportionally emphasized the importance of more self-determined forms of motivation (intrinsic motivation and PSM). In this sense, they encourage more SDT-based research examining the relative effects of different forms of motivation.

**Theory**

From the perspective of the general work motivation literature (Kanfer, Chen, and Pritchard 2008; Latham 2007), PSM refers to a distinct type of motivation—that is, “motives that are largely, but not exclusively, altruistic and are grounded in public institutions” (Perry and Hondeghem 2008b, 6). This PSM definition captures the content domain of other PSM definitions (e.g., see Brewer and Selden 1998, 417; Rainey and Steinbauer 1999, 23; Vandenebeeke 2007, 547). PSM thus converges and overlaps with the constructs of altruism and prosocial motivation (Perry and Hondeghem 2008b; Perry, Hondeghem, and Wise 2010).

However, whereas altruism and prosocial motivation are cast in general terms regarding objects of motivation, the PSM concept is more particular. Perry, Hondeghem, and Wise note how “the boundaries placed on the scope of PSM suggest that it is a particular form of altruism or prosocial motivation that is animated by specific disposition and values arising from public institutions and missions” (2010, 682).
Public Service Motivation: Cultivation–Activation and Effect Expectations

As mentioned earlier, PSM cultivation and PSM activation refer to distinct motivational processes. Building on prior theory developments (Perry 2000; Vandenabeele 2007), Perry and Vandenabeele (2008) provide an institutional theory of motivation grounding the conceptual distinction.

Perry and Vandenabeele emphasize how institutions—defined as “social structures infused with values and rules” (2008, 58)—are social constructs pervading all layers of society. Institutions not only identify and constrain behavioral alternatives but also model individual preferences and guide behavior by a “logic of appropriateness” (March and Olsen 1989). According to Perry and Vandenabeele (2008), PSM originates from the public content of institutions, with socialization and social learning processes constituting the mechanisms that transmit a public institutional logic to the individual.

Institutions, however, do not direct and govern an individual’s motivation per se. Rather, the relationship between institutional content and individual motivation is mediated by an individual’s self-concept (i.e., a person’s collection of beliefs about himself or herself) and self-identities. Social identity theory (Stryker 1980; Tajfel and Turner 1986) explains this bridging. Basically, the notion is that people have multiple social identities (e.g., a gender identity, a job identity, an identity as an altruistic-spirited individual) and that different situations promote (or demote) the salience of a given identity (Deaux 1996; Hogg and Abrams 1998; Hogg, Terry, and White 1995). In other words, the salience of a given social identity is situation specific and may be affected by external factors or events (Stryker and Serpe 1994). When an identity is salient, an individual tends to act in line with the cognitive schemata connected with that identity (Stryker and Burke 2000). Perry and Vandenabeele (2008) thus suggest that in situations in which salient identities invoke the public content of institutions, individuals are likely to behave accordingly. In other words, inasmuch as a situation promotes the salience of an individual’s PSM-oriented identity, that individual is likely to act based on PSM. In terms of Perry and Vandenabeele (2008), PSM cultivation thus has to do with the socialization of institutional public service values and norms. It concerns the transmission of a public institutional content to the individual. In contrast, PSM activation relates to an external (instrumental) regulation of a situation that encourages the salience of PSM as the motivational basis for action.

Moreover, Perry and Vandenabeele’s (2008) theory helps explain why the external activation of PSM may engender behavioral changes. External appeal to individuals’ PSM may actively invoke the salience of their PSM-oriented identities. Because identity salience regulates and guides individual preferences and action, PSM activation efforts may have a direct impact on an individual’s behavioral inclinations and effort in relation to a given task or mission.

As to the specific direction of PSM activation effects, Perry and Wise (1990) suggest that PSM is positively related to individual performance. PSM guides the direction, effort, and persistence of work behavior toward the achievement of public task goals or mission—in part because it increases the commitment and prospects for reliable role behaviors, and in part because PSM makes individuals embrace work tasks marked by task significance (Perry, Hondeghem, and Wise 2010), defined as “judgments that one’s job has a positive impact on other people” (Grant 2008, 108). The external activation of PSM may thus increase the time and effort that an individual is willing to spend on tasks or missions marked by some level of task significance.

This notion of a positive effect of external PSM activation on time expenditure willingness is consistent with person–environment fit theory (Edwards 2008; Kristof-Brown, Zimmerman, and Johnson 2005). While person–environment fit theory encompasses a number of subsets, including person–organization (Kristof 1996) and person–job fit (Kristof-Brown and Guay 2011), the basic argument is that the fit between a person’s characteristics and those of a specific situation may result in positive outcomes, such as improved job satisfaction, well-being, and performance (Ostroff and Schulte 2007). According to this perspective, PSM activation efforts may stimulate a situational match to an individual’s PSM and therefore direct and energize that individual’s behavioral inclinations and work in positive ways. Spending more time on a task reflects, all else being equal, increased effort directed at accomplishing a particular task goal or mission. Therefore, the expectation concerning the effect of PSM activation efforts is as follows:

**Hypothesis 1**: The external activation of PSM increases the amount of time that a person is willing to spend completing a task.

Some elaboration of this article’s research design is required before proceeding further. First, the two experimental PSM treatments refer to PSM “public interest” and PSM “compassion.” Of Perry’s (1996) four PSM dimensions, these are, by far, the two most commonly studied ones (Wright 2008, 93). Still, this research focus entails that the findings of this article do not encompass the full PSM construct. Importantly, however, this circumstance does not affect the internal validity of the results. No hypothesis is formulated on the relative effects of the two PSM treatments. In line with the PSM literature (Perry 1996; Perry and Wise 1990), “public interest” and “compassion” are both expected to reflect positively on time expenditure willingness.

Second, the theoretical expectation is that PSM activation efforts may activate the PSM forces, but only in relation to work denoted by some measure of task significance (Grant 2008). To this end, the experimental design relates to the task of completing a future research survey. People may participate in an academic research survey for a number of reasons; some may participate because of personal interest or curiosity, others simply because they are asked to do so. Yet attention to the benefit of others (e.g., the survey researcher, the survey sponsor, or the beneficiaries of the knowledge gained from the survey) is a substantial motive for investing time in research surveys (see Cavusgil and Elvev-Kirk 1998; Groves, Cialdini, and Couper 1992; Kropf and Blair 2005). Survey participation is therefore an
appropriate task activity for testing the effect of PSM activation efforts.

**Public Service Motivation and Self-Determination Theory**

For examining how the effect of PSM activation efforts compares with that of effort to activate another type of internal motivation, the article operates with a treatment serving an individual’s need for feelings of self-importance. SDT (Deci and Ryan 1985, 2000, 2004; Gagné and Deci 2005) helps conceptualize the distinction between this type of self-importance motivation and PSM. Moreover, SDT serves to ground an expectation of finding a relative difference in activation effects.

At the overall level, SDT distinguishes between intrinsic motivation (doing something because it is inherently interesting or enjoyable) and extrinsic motivation (doing something because it leads to a separable consequence). Early motivation research (e.g., deCharms 1968; Deci 1971) suggests that extrinsic motivation is an impoverished (even if powerful) form of motivation that contrasts with intrinsic motivation. However, SDT proposes that there are varied forms of extrinsic motivation, some of which represent active, agent-istic states (Ryan and Deci 2000). In terms of SDT, both PSM and self-importance motivation thus represent extrinsic forms of motivation. Both are internal motivations, but neither of them involves people performing an activity because they derive intrinsic enjoyment from the activity itself. PSM relates to the importance or value that an activity represents to the individual. Similarly, self-importance motivation relates to the satisfaction of the need for feelings of self-importance to which an activity leads.

SDT identifies four different forms of extrinsic motivation, which differ in the degree to which they are self-determined by the individual (i.e., autonomous and volitional as opposed to forced or guided by a sense of pressure) (Deci and Ryan 2000; Gagné and Deci 2005). From least to most self-determined, the four extrinsic motivations are (1) external regulation, (2) introjected regulation, (3) identified regulation, and (4) integrated regulation. **External regulation** refers to external pressure, that is, behavioral self-regulation so as to obtain an external reward (money, promotion) or avoid an external constraint (demotion, dismissal). **Introjected regulation** refers to internal pressure, that is, behavioral self-regulation based on internal feelings of shame, pride, or a need for approval from the self or others. **Identified regulation** refers to the behavioral self-regulation that individuals carry out because of congruence with personal values and goals. As an individual chooses to go about a given activity, it is not a product of external or internal pressure. Finally, **integrated regulation** refers to identification with the value of a given activity to the extent that it becomes an internalized part of a person’s habitual functioning and self-identity.

In an SDT framework, PSM constitutes a specific type of identified or integrated regulation. Classic PSM literature supports this notion. For example, Perry and Wise offer an understanding of PSM in terms of “predispositions to respond to a specific set of public service motives that an individual feels an inner compulsion to satisfy” (1990, 368). They implicitly underline the role of identification and the internalization of public service values to the PSM construct. Perry and Vandenabeele (2008) enforce this argument by stating how PSM originates from the public content of institutions—social structures infused with public values and rules that individuals internalize into a public service identity. Similarly, Vandenabeele (2007) notes how PSM can be understood as a public service identity.

In contrast, motivation relating to a need for feelings of self-importance constitutes a specific type of introjected regulation. Whereas PSM guides behavior based on perceived importance and volitional choice, self-importance motivation directs behavior based on a sense of internal pressure. In line with this notion, Gagné and Deci (2005) note how examples of introjected regulation include contingent self-esteem, which pressures people to behave in order to feel worthy, and ego involvement, which pressures people to behave in order to buttress their fragile egos (Nicholls 1984; Ryan 1982).

More than three decades of SDT research finds that individual performance may differ inasmuch as individuals act based on intrinsic as opposed to extrinsic motivation (Deci and Ryan 2004; Ryan and Deci 2000). Importantly, research also finds that the extent of self-determination in extrinsic motivation is predictive of behavioral effort and outcomes. More self-determined forms of extrinsic motivation are associated with greater engagement (Connell and Vandenabeele 2007; Perry and Vandenabeele 2008) and performance (Baard, Deci, and Ryan 2004; Burton et al. 2006; Miserandino 1996).

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**Greater self-determination makes people experience a work task or mission as more important and meaningful, in turn energizing emotions such as joy and excitement and promoting task commitment and focus.**

But why do more self-determined forms of extrinsic motivation reflect positively on behavior? SDT suggests that greater self-determination makes people experience a work task or mission as more important and meaningful, in turn energizing emotions such as joy and excitement and promoting task commitment and focus. Moreover, more self-determined forms of motivation reduce the potential for interpersonal conflict (e.g., contrasting preferences and goals) and may provide full access to personal effort resources. Additionally, doing a task based on greater self-determined motivation may reflect positively on an individual’s self-efficacy in relation to the task (Gagné and Deci 2005; Ryan and Deci 2000; Ryan, Kuhl, and Deci 1997).

External activation efforts are expected to replicate the positive effects of more (as opposed to less) self-determined extrinsic motivation. For tasks marked by some extent of task significance, the expectation for the relative effect of PSM activation efforts is as follows:

**Hypothesis 2:** The amount of time that a person is willing to spend completing a task is greater for the external activation of PSM than for the external activation of motivation relating to a need for feelings of self-importance.

**Data and Methods**

The data set comprises Danish undergraduate and postgraduate law students at Aarhus University. In agreement with Department
of Law faculty members, a survey was administered to the students in mid-April 2013, at the beginning of a 15-minute break between two-hour lectures. The students were asked to complete the survey during the break while not talking among themselves about their survey responses.4

The survey was administered at four lectures covering separate law subjects. Three of the subjects are compulsory for the bachelor's degree program in law (LLB)—tort law, administrative law, and property law—placed as second-, fourth-, and sixth-semester subjects, respectively. The fourth subject is tax law, one of the most popular subjects among the postgraduate law students in the master's degree program in law (LLM).5 For each subject, the students were visited at the last lecture before the summer exam. This timing helped ensure that the greatest possible number of students would receive the survey in each subject.

The sample size minimum was established by power analysis—with type I error at two-sided 5 percent, power (1-type II error) at 80 percent, and using Cohen's (1988) effect size index for observing “small” (0.2) to “moderate” (0.5) effects. As to minimize item nonresponse, the survey had a length (number of items) providing the students sufficient time to complete it during the lecture break (Dillman et al. 2002). The survey items and completion time were tested in a pilot study in early April 2013.

In all, 746 law students were present at these lectures, 663 of whom returned a completed survey questionnaire (89 percent). Sample size and response rate by lecture appear in the appendix, table A1. For the purpose of this article, eight observations were dropped because of item nonresponses (missing values). Four observations were dropped because of outlier responses in this article's outcome measure—that is, the number of minutes that the student is willing to spend on completing a future research survey. In particular, answers exceeding 120 minutes were dropped (i.e., one “2,000,” one “300,” and two “180” responses). All four outlier responses were given by treatment recipients. If anything, eliminating these observations works against the hypotheses. Finally, the original survey included an intrinsic motivation treatment. However, the recipients of the intrinsic motivation treatment were dropped (123 observations in total) because of (1) post hoc concerns about treatment reliability (whether the treatment, in fact, captures intrinsic motivation activation efforts), (2) SDT ambiguity about whether intrinsic motivation can be externally activated whatsoever, and (3) this article's focus on PSM activation relative to activation of a less self-determined form of extrinsic motivation. Given the random assignment of control and treatments, this unit deletion should not bias the results in any way. The finale sample consisted of 528 students.

**Design**

Using a randomized survey experiment, the article tests whether low-intensity efforts may activate the forces of PSM “public interest,” PSM “compassion,” and a less self-determined form of motivation relating to feelings of self-importance. Specifically, the sample students were asked the following question toward the end of the survey: “In the near future, you will be invited to participate in a survey about your daily life. How many minutes are you at most willing to spend on completing this survey?” The students were asked to state the number of minutes they were willing to spend, with zero signifying “will not participate.” By random assignment, each student was exposed to this exact question or to one of three variations.6 The students receiving the foregoing question constitute the control group, referred to as Z. The students receiving one of the three question variations constitute three separate treatment groups, referred to as PSM, PSMC, and IEM. The treatment groups received the same text as Z but were additionally exposed to the following text lines:

**Treatment PSM:** “Your participation will help ensure the development of society and thus serves the public interest.”

**Treatment PSMC:** “Your participation will help ensure that citizens in need are aided in the best possible way.”

**Treatment IEM:** “You have been chosen to participate because of your background and special knowledge.”

The additional text added to the PSM and PSMC treatment groups target the activation of identified and integrated extrinsic motivation relating to PSM. The PSM treatment emphasizes the societal benefits of survey participation. It thus appeals to an individual's PSM "public interest," a norm-based desire to serve the public interest (Perry and Wise 1990). The PSMC treatment emphasizes how survey participation will benefit the well-being of fellow citizens in need. It thus serves an individual's PSM “compassion,” an emotion-based motive for public service emanating from a “patriotism of benevolence” toward other people (Frederickson and Hart 1985, 549).

The IEM treatment targets the activation of introjected extrinsic motivation in the form of a need for feelings of self-importance. By suggesting that the student has been specially selected, the treatment engages a need for approval from the self and other. In terms of ego involvement (Nicholls 1984; Ryan 1982), the treatment text enforces an internal pressure, making individuals act so as to enhance and maintain their self-worth and self-esteem.

Irrespective of the assignment to control or treatment groups, the students' responses (i.e., the number of minutes they were willing to spend on completing a future research survey) constitute the dependent variable in this article. This measure captures the time and effort resources that an individual is willing to invest completing a survey—a relatively simple and voluntary task marked by task significance and no contingent external rewards (e.g., money). Descriptive statistics for the variable appear in the appendix, table A2. The distribution is slightly skewed (to the left) and leptokurtic. To accommodate outlier concerns, the article performs robustness analyses wherein all responses exceeding 60 minutes and 30 minutes, respectively, are dropped.

Any difference in time expenditure willingness across the four experiment groups is directly attributable to activation effects. Because of the randomized experimental design, only the text in a single survey item differs systematically across the groups. The four experiment groups should thus be balanced on all characteristics (including levels of PSM and self-importance motivation). Given an equal distribution of characteristics affecting students' responses across the groups, the treatment estimates are unbiased.
Nevertheless, as a construct validity check, the article employs a test providing evidence on whether the effects of the PSM treatments are, in fact, the result of PSM activation. The test requires measures of PSM “public interest” and PSM “compassion.” To this end, two separate scales are constructed using four items from Perry’s (1996) 24-item scale, which “are considered to closest reflect the altruistic and service-oriented content of PSM” (Kjeldsen and Jacobsen 2013, 909). The sample students were presented to the PSM items well ahead of the experimental item. To ensure comparability and ease the interpretation of the model estimates, both scales are standardized (mean = 0, standard deviation = 1). Further information about the scales appears in the appendix.

Results
The survey experiment yields unbiased results inasmuch as all of the characteristics affecting students’ time expenditure willingness are distributed equally across the four experiment groups.

Table 1 shows the distribution in gender, age, educational progress, PSM “public interest,” and PSM “compassion” for the full sample and for each experiment group. Gender is measured by a dummy variable (1 = female), age using a continuous variable, and educational progress by a set of dummy variables. For each variable, one-way analysis of variance (ANOVA) estimations test for differences in mean across the four groups. As column the labeled p > F shows, the results reveal no significant differences in gender, age, educational progress, or PSM, in turn suggesting that the sample groups are balanced.7

Table 2 shows the effect of the treatments on time expenditure willingness (number of minutes). Model 1 includes the three treatments (PSMP, PSMC, and IEM) as dummy variables, with control group, Z0, representing the reference group. Model 2 adds gender, age, and educational progress as control variables (for gender and educational progress, male students and second semester LLB students constitute the reference categories).8

For each treatment, the coefficient estimates are very similar across models 1 and 2. In support of the balance tests, this consistency shows that the treatment estimates are unbiased by the student characteristics of gender, age, and educational progress.

The findings show that recipients of the PSM treatments (PSMP and PSMC) are willing to spend more time completing a future research survey than those in the control group (Z0): 7 minutes and 35 seconds versus 8 minutes and 29 seconds. Similarly, the findings show that the IEM treatment yields a greater time expenditure willingness of 5 minutes and 18 seconds relative to Z0. The average time expenditure willingness is about 17 minutes for the full sample. The observed effect sizes are thus substantial and nontrivial.9 Wald tests reveal that the numerical differences in the coefficients across the three treatments are statistically insignificant (PSMP to PSMC: p > F = 0.75; PSMC to IEM: p > F = 0.54; PSMP to IEM: p > F = 0.22).

The findings thus confirm hypothesis 1. Both treatment PSMP and treatment PSMC increase the time a person is willing to spend completing a task. However, the findings do not lend support to hypothesis 2. The effects of the PSM treatments are not larger (or smaller) than the effect of the IEM treatment. Both of the PSM treatments and the IEM treatment appear to have a positive effect on time expenditure willingness, but the effect sizes are not significantly distinct in a statistical sense.

A critical question is whether the observed treatment effects are, in fact, the results of the external activation of the intended types of motivation.

Additional Evidence I: Within-Group Analysis
A critical question is whether the observed treatment effects are, in fact, the results of the external activation of the intended types of motivation. Did the PSM treatments increase the students’ time expenditure willingness through the activation of their PSM?

The data allow for a test providing some indication of whether PSM activation was at play or not. Specifically, the article estimates and

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### Table 1 Sample Characteristics: Mean, Standard Deviation (in Parentheses)

<table>
<thead>
<tr>
<th></th>
<th>Full Sample</th>
<th>Control (Z0)</th>
<th>Treatment PSMP</th>
<th>Treatment PSMC</th>
<th>Treatment IEM</th>
<th>p &gt; F</th>
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</thead>
<tbody>
<tr>
<td>Gender (female)</td>
<td>.64 (.48)</td>
<td>.57 (.50)</td>
<td>.69 (.46)</td>
<td>.66 (.47)</td>
<td>.66 (.48)</td>
<td>.16</td>
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<tr>
<td>Age (years)</td>
<td>22.39 (3.51)</td>
<td>22.45 (3.43)</td>
<td>22.74 (4.49)</td>
<td>22.03 (2.58)</td>
<td>22.36 (3.36)</td>
<td>.44</td>
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<td>Educational progress</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LLB, 2nd semester</td>
<td>.21 (.41)</td>
<td>.19 (.39)</td>
<td>.21 (.41)</td>
<td>.20 (.40)</td>
<td>.23 (.42)</td>
<td>.86</td>
</tr>
<tr>
<td>LLB, 4th semester</td>
<td>.30 (.46)</td>
<td>.31 (.46)</td>
<td>.32 (.47)</td>
<td>.30 (.46)</td>
<td>.29 (.45)</td>
<td>.96</td>
</tr>
<tr>
<td>LLB, 6th semester</td>
<td>.42 (.49)</td>
<td>.42 (.50)</td>
<td>.41 (.49)</td>
<td>.43 (.50)</td>
<td>.42 (.49)</td>
<td>.99</td>
</tr>
<tr>
<td>LLM</td>
<td>.07 (.26)</td>
<td>.08 (.267)</td>
<td>.06 (.24)</td>
<td>.07 (.26)</td>
<td>.06 (.25)</td>
<td>.96</td>
</tr>
<tr>
<td>PSM “public interest”</td>
<td>0 (1.00)</td>
<td>.10 (.99)</td>
<td>–.01 (1.08)</td>
<td>–.03 (1.00)</td>
<td>–.08 (.93)</td>
<td>.52</td>
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<tr>
<td>PSM “compassion”</td>
<td>0 (1.00)</td>
<td>.10 (.99)</td>
<td>.09 (1.05)</td>
<td>–.11 (1.03)</td>
<td>–.09 (.91)</td>
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<td>528</td>
<td>141</td>
<td>126</td>
<td>136</td>
<td>125</td>
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### Table 2 Effects of Treatments on Time Expenditure Willingness, Ordinary Least Squares Regression

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
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<tbody>
<tr>
<td></td>
<td>β</td>
<td>SE</td>
</tr>
<tr>
<td>Treatment PSMP</td>
<td>7.671***</td>
<td>2.039</td>
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<tr>
<td>Treatment PSMC</td>
<td>8.470***</td>
<td>2.308</td>
</tr>
<tr>
<td>Treatment IEM</td>
<td>5.346**</td>
<td>1.754</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LLB, 4th semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LLB, 6th semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LLM</td>
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<tr>
<td>Constant</td>
<td>11.674***</td>
<td>.909</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>.03</td>
<td>.04</td>
</tr>
<tr>
<td>N</td>
<td>528</td>
<td>528</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01; ***p < .001.
Robust standard errors. Control group (Z0) students and male students in a second-semester LLB course constitute the reference categories.
Model 1 simply adds the two PSM measures. Both PSM coefficients are significant and positive, suggesting an average positive association between PSM and time expenditure willingness—that is, regardless of the assignment of the students to the control group or one of the three treatments. In alignment with other studies on the PSM–performance relationship (Alonso and Lewis 2001; Andersen and Serritzlew 2012; Brewer and Selden 2000; Frank and Lewis 2004; Kim 2005; Naff and Crum 1999; Vandenabeele 2009), this finding indicates that PSM may have a direct, positive impact on individual effort and behavior.

Models 2 and 3 reveal the results of decomposing the association between PSM and time expenditure willingness by treatment group. Model 2 shows the results for PSM “public interest,” model 3 PSM “compassion.” The results are in line with expectations. “Public interest” is positively associated with time expenditure willingness within the PSMP treatment group ($\beta = 3.149$, $p < .05$) relative to $Z^0$. Similarly, PSM “compassion” is positively associated with time expenditure willingness within the PSMF treatment group ($\beta = 6.906$, $p < .01$) relative to $Z^0$. The two positive effect size estimates are not distinct from each other in terms of statistical significance ($at p < .1$).

For each of the two PSM dimensions, the specification in table 2, model 2, is reestimated, adding the two PSM scale measures and three interactions terms—each multiplying one of the treatment variables with that PSM dimension. Table 3 reports the results.

### Table 3: Effects of PSM on Time Expenditure Willingness within Experiment Groups, Ordinary Least Squares Regression

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>SE</td>
<td>$\beta$</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSMP</td>
<td>8.136***</td>
<td>2.056</td>
<td>7.089***</td>
</tr>
<tr>
<td>IEM</td>
<td>6.324**</td>
<td>1.833</td>
<td>5.975**</td>
</tr>
<tr>
<td><strong>Interaction terms</strong></td>
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<td></td>
<td></td>
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<tr>
<td>PSMP × PSM “public interest”</td>
<td>3.149*</td>
<td>1.411</td>
<td></td>
</tr>
<tr>
<td>PSMP × PSM “public interest”</td>
<td>6.829**</td>
<td>2.386</td>
<td></td>
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<td>PSMP × PSM “compassion”</td>
<td>2.347</td>
<td>1.873</td>
<td></td>
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<tr>
<td>IEM × PSM “public interest”</td>
<td></td>
<td></td>
<td>2.950</td>
</tr>
<tr>
<td>IEM × PSM “compassion”</td>
<td>6.906**</td>
<td>1.933</td>
<td></td>
</tr>
<tr>
<td>IEM × PSM “compassion”</td>
<td>7.906**</td>
<td>2.118</td>
<td></td>
</tr>
<tr>
<td>Background controls</td>
<td>$\sqrt{r^2}$</td>
<td>.10</td>
<td>$\sqrt{r^2}$</td>
</tr>
<tr>
<td>$N$</td>
<td>528</td>
<td></td>
<td>528</td>
</tr>
</tbody>
</table>

* $p < .05$; ** $p < .01$; *** $p < .001$.

Robust standard errors. Control group ($Z^0$) students constitute the reference category. Background controls include gender, age, and educational progress. For brevity, the control variable coefficients are not reported. The full models are available from the author upon request.

Figure 1 Marginal Effects of PSM on Time Expenditure Willingness within Experiment Groups
Postestimation marginal effects analyses are employed to identify the total association between PSM and time expenditure willingness within each group (i.e., the change in time expenditure willingness of a one unit increase in PSM). Figure 1 illustrates the results (the estimates are available from the author on request). The black squares mark the average marginal effects, while the vertical lines signify 95 percent confidence bands.

In line with expectations, the plots show that PSM “compassion” is positively associated with the time expenditure willingness within group PSM© but not within the other three groups. Similarly, PSM “public interest” is positively associated with time expenditure willingness for group PSM© but not for group Z© and IEM. However, "public interest" does appear to be related to the time expenditure willingness among students exposed to the PSM© treatment. This may suggest that efforts to activate emotion-based motives for public service (PSM©) may not only trigger PSM "compassion" but also PSM "public interest." As expected, no association is found between PSM and time expenditure willingness within the IEM treatment group.

In sum, the within-group findings thus support that the two PSM treatment effects are, in fact, the result of the external activation of PSM. At a minimum, they do not dismiss the notion that PSM activation was indeed at play.

**Additional Evidence II: Restricted Between-Group Analyses**

Moreover, all specifications in table 2 are reestimated on subsamples, wherein all observations with time expenditure responses exceeding 60 minutes and 30 minutes, respectively, are dropped. These tests contribute in two ways. First, they show whether the results are driven by outlier responses varying systematically across the experiment groups. Second, they constitute a “hard” test of hypothesis 1: by eliminating high-end responses, this article greatly delimits the magnitude of the effects that the data may reveal.

The findings are substantively identical to those reported in table 2. All three treatments (PSM©, PSM©, and IEM) yield a positive effect on time expenditure willingness relative to Z© (the model estimates appear in the appendix, table A3). These robustness analyses fully support the main results.

**Discussion**

In sum, the findings suggest that how an individual invests time and effort toward the accomplishment of a given task can be positively affected by relatively simple and low-cost external PSM interventions. However, the external activation of a less self-determined form of motivation appears to yield similar results: the findings show a positive effect of the IEM treatment that is similar in size to those of the PSM treatments. While the effect estimates are numerically larger for the PSM treatments relative to the IEM treatment, these differences are not statistically significant.

That being said, the finding of similar treatment effects should be viewed in the context of the task activity that the sample students were asked to consider. This article examines effects in relation to the task of survey participation. As previously discussed, participation in a research survey is marked by some measure of task significance (Cavusgil and Elvey-Kirk 1998; Groves, Cialdini, and Couper 1992; Kropf and Blair 2005). Survey participation is therefore an appropriate task activity for testing the effect of PSM activation efforts. Yet the task significance of a given task may moderate the relative effects of PSM activation and activation of less self-determined forms of motivation. For example, the external activation of employee PSM may yield greater effects than the external activation of self-importance motivation if the activation efforts relate to a task denoted by very high task significance. For general practitioners, the task of examining patients may benefit more from PSM activation than from the activation of less self-determined forms of motivation, while the reverse may be true for tedious paperwork.

Moreover, SDT suggests that more self-determined forms of extrinsic motivation are associated with greater effort persistency (Gagné and Deci 2005; Ryan and Deci 2000; Vallerand and Bissonnette 1992). Thus, while the immediate benefits of PSM activation efforts may be comparable to activation efforts toward less self-determined extrinsic motivation, PSM activation efforts may produce a more persistent direction of employee efforts over time.

As noted by Wright and Grant (2010), the choice of research design usually entails a trade-off among (1) the ability to make causal statements, (2) the ability to generalize those statements to other settings, and (3) the ability of a broader audience to apply them directly. With a focus on maximizing the potential for causal inference, this article therefore has its limitations. First, this article’s findings are marked by a relatively high internal validity, but the results may not be fully representative of the population of Danish law students. For example, a bias may occur if the students attending the lecture at the time of data collection differ systematically from their peers who (for some reason or another) did not attend the lecture and/or did not complete the survey. This issue presents a problem for most surveys. However, some design choices reduce the risk of sampling bias. For example, the administration of the survey in paper form is a best feasible approach, as the extent of sampling bias is likely minimized relative to the use of other survey sampling methods (Handwerk, Carson, and Blackwell 2000; Kwak and Radler 2002). Moreover, the faculty members stressed that most students attend the lectures—especially the visited lectures, as they were the last ones before the summer exam. Furthermore, the survey was short in length, thus encouraging participation among students with low response propensities (Ronckers et al. 2004; Roszkowski and Bean 1990).

Second, the sample data comprises law students. While several studies use law students for examining salient PSM hypotheses (Christensen and Wright 2011; Vandenabeele 2008; Wright and Christensen 2010), this choice nevertheless raises questions about external validity, that is, the extent to which the results are generalizable to students in other disciplines. Using a sample of 3,506 Flemish civil servants, Vandenabeele (2011) finds greater PSM among individuals with a degree from the health or social sciences than a law degree. Similarly, using a sample of 3,843 Danish students from different education programs, Kjeldsen (2012) finds that law students exhibit lower PSM than students in disciplines aiming more at “core public service delivery” (e.g., medicine and vocational bachelor’s degree programs related to social work, education, and nursing). The effects observed in the present article may thus vary across academic disciplines. In line with SDT, however, the process whereby the experimental treatments engender motivational effects
is likely universal to human behavior rather than discipline specific. Consequently, the observed effects are likely “lower-bound” estimates in the universe of disciplines constituting prospective public sector jobs. In other words, analyses using non-law students, such as students from other disciplines within the fields of health and social science, may reveal greater effects than those observed in this article—simply because such non-law students may have more PSM for the treatments to activate. The generalizability of this study might therefore be somewhat bounded, but this limitation likely relates to the magnitude of the effects rather than their statistical significance.

A neighboring concern relates to the external validity in relation to practitioners. While the sampling of students reduces the potential for extrapolating the findings to public employees, this article relates to the psychological-motivational mechanisms that are likely universal to human motivation, that is, those that apply to adults at all stages in life. Moreover, the majority of experimental studies in the social sciences use students (Davis and Holt 1993; Kagel and Roth 1995), and the use of experimental methods is a widely accepted methodological approach to theory and policy analysis. Nevertheless, using students as surrogates for nonstudents is a somewhat controversial issue (Levitt and List 2007). As experiments among practitioners can be a cost-intensive endeavor, this controversy may help explain the underutilization of experimental methods in the literature on public administration and management. However, research on whether student behavior in experiments is representative of a broader population is limited, and the existing findings suggest that the experimental responses of students are seldom different from those of other subject pools (Ball and Cecc 1996; Plott 1987). Analyses of student responses to nonstudent responses in identical experiments (and the behavior of lab participants to real-world behavior) thus show that student responses are largely generalizable to nonstudents, both in and beyond the laboratory setting (Alm, Bloomquist, and McKee 2011). Thus, there is no strong empirical evidence suggesting that the cognitive processes of the sample students in the present article are fundamentally different from those of employees with similar higher educations.

Third, a relevant question relates to how practitioners may use these findings in their daily work. The findings are not directly convertible into organizational management practices (i.e., the experiment treatments must be translated into organizational interventions relating to real-life work tasks). Still, they offer an empirical foundation that encourages efforts regarding the actualization of low-cost management strategies targeting enhanced performance through PSM activation. For example, one could imagine randomized, controlled trials in real-world workplaces, with treatment comprising systematic efforts to remind the frontline employees of how their work impacts the lives of their clients and serves the public interest (e.g., through a weekly newsletter wherein clients voice how the organization’s services improve their lives or routine discussion of the main purposes of the public services provided by the organization).

Fourth, a possible concern relates to the construct validity of the experimental treatments. Are the positive treatment effects, in fact, the results of the external activation of the intended types of motivation? The treatments appear to have reasonable face validity, and the result of the within-group analysis does not reject that PSM activation was at play. Still, the within-group analysis does not offer direct proof of activation, and the data do not allow for tests in relation to the IEM treatment. The article’s findings should be taken with these caveats in mind.

Finally, this article tests the effect of the low-intensity activation of PSM in relation to behavioral inclinations rather than actual behavior. One concern is that the student’s time expenditure willingness (i.e., their behavioral inclination) and actual time usage (i.e., behavior) are marked by a systematic difference. Importantly, however, three factors help reduce this concern. First, the experimental design accounts for all general tendencies toward the overstatement of time expenditure willingness relative to actual behavior (i.e., the effects of PSM activation are estimated relative to a control group). Second, the estimated effects are relatively large and thus unlikely to be fully driven by the systematic overstatement of time expenditure willingness among the treatment group students. Third, social psychology research rejects that motives and preferences are somehow unrelated to behavior. For example, Shamir, House, and Arthur (1993) emphasize that, as human beings, we have a strong, inherent need to retain and increase a general consistency between our behavioral motives, preferences, and behavior. This article thus encourages future research addressing the effects of low-intensity PSM activation in relation to actual behavior. But while such research may (i.e., possibly but not necessarily) find smaller treatment effects than those observed in this article, the treatment effects for actual behavior are likely greater than zero.

Conclusion

Despite the limitations discussed in the previous section, this article expands our understanding of PSM in three important ways. First, in line with studies finding a positive association between PSM and work performance, the analyses support that PSM has a positive effect on individual behavior and effort. For more importantly, however, the findings offer novel experimental evidence suggesting that PSM cultivation is not the only feasible way of translating the forces of PSM into public performance gains; it is also possible to achieve increased employee effort and performance through organizational PSM activation efforts. PSM is an organizational human resource that can be directly activated.

This conclusion is fully aligned with the inferences that may be drawn from Bellé’s (2013) field experiment. Importantly, however, this article adds that successful PSM activation can occur through other means than employee contact with the beneficiaries of their work and self-persuasion interventions. In particular, the findings suggest that the forces of PSM may be activated by relatively low-intensity efforts—that is, lower-cost interventions with reduced treatment intensity. As previously mentioned, one example of a tangible PSM activation scheme would be a systematic effort to remind employees of how their work affects the lives of their clients and serves the public interest (e.g., weekly newsletters wherein clients voice how the organization’s services improve

The findings suggest that the forces of PSM may be activated by relatively lower-intensity efforts—that is, lower-cost interventions with reduced treatment intensity.
their lives or routine discussions of the main purposes of the public services provided by the organization).

Second, this article offers insights into how the effects of PSM activation efforts compare with those of effort toward the activation of a less self-determined form of motivation. The findings show that the positive effects of the PSM treatments and the IEM treatment are similar in size. This finding implies that practitioners may achieve similar benefits from PSM activation and activation toward other, less self-determined forms of motivation. This understanding is not least important in light of recent SDT-based research suggesting that the motivation of public employees for external rewards may be even stronger than their PSM (Chen and Bozeman 2013).

Third, this article advances the embedding of PSM in an SDT framework. The merits of such theory integration are substantial. While our understanding of PSM has been greatly expanded over the past two decades (Perry and Hondeghem 2008a), scholars should not neglect that human motivation is a multidimensional construct (Ryan and Deci 2000). While public employees may be strongly motivated by PSM (Perry and Wise 1990), they also base their work behavior on other forms of motivation, such as intrinsic motivation and other aspects of extrinsic motivation (Chen and Bozeman 2013). In light of SDT, future PSM research should examine how PSM relates to other forms of motivation, how the effect of different motivations on performance compare with one another, and how different management practices may promote and activate the different motivations. PSM research is thus maturing but remains a work in progress (Perry, Hondeghem, and Wise 2010).

Acknowledgments
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Notes
1. Treatment group nurses were asked to write a few lines—to be included in a presentation to all hospital departments and other hospitals belonging to the same local health authority—describing how their work would help improve the lives of their patients; moreover, the nurses were asked to promote their work within their department.
2. The survey experiment was conducted in line with a general research agreement with the Danish Data Protection Agency. According to this agreement, this particular form of survey experiment does not require separate Institutional Human Subjects Review Approval. All respondents were debriefed concerning the experimental nature of the survey.
3. In a reduced-form perspective, say that time expenditure on a task \( y \) is a function of PSM \( z \) and self-importance motivation \( z_2 \). In line with SDT, we expect that \( E(y|x, z) > E(y|x, z_2) \). We introduce two activation treatments \( Tx \) and \( Tz \) serving \( x \) and \( z \), respectively. Both treatments activate motivation (i.e., affect \( y \)) by a common factor. Therefore, the expectation would be that \( E(y|x, z, Tx) > E(y|x, z, Tz) \).
4. The students were politely asked to refrain from speaking among themselves so as to minimize the risk of design contamination (i.e., bias caused by the between-student comparison of survey items, allowing them to deduce the experimental design). Most of the students completed the survey immediately and did not talk to each other until after completing the survey. Many left the lecture hall immediately after completing it (stretching their legs, getting coffee). Some of the students approached me during the break with comments to some of the items after having handed in the completed survey. None had observed any differences in the items across the surveys. At the end of the visit lectures, the students were informed of the experimental nature of the survey.
5. In Denmark, the bachelor of laws (LLB) program is an undergraduate program of at least three years. The master of laws (LLM) program is a two-year postgraduate master’s degree program. Admission to the LLM program requires a bachelor’s degree in law or similar. Both in the Danish business and the academic worlds, an LLB is merely regarded as “the first half” of an LLM.
6. Each student was administered a survey from a survey pool comprising stacked blocks of 100 surveys, each containing an equal number of “control surveys” and “treatment surveys” for each treatment. The stack sequence of the survey questionnaires in each block was randomized.
7. For each variable, Bonferroni–Dunn multiple-comparison tests (as well as two-sample t-tests) were also used to check for differences in means for all pairwise constellations of groups. No differences in means were significant (at \( p < .1 \)).
8. Model 2 serves a dual purpose (see Angrist and Pischke 2009, 23–24). First, it provides a balancing check. If the control variables are uncorrelated with the treatments (as they should be), including them in the model will not affect the treatment coefficients. In other words, the treatment estimates in model 2 will be close to the treatment estimates in model 1. Second, although the control variables appear uncorrelated with the treatments, they may still hold explanatory power for time expenditure willingness. Therefore, including the control variables may reduce the residual variance in time expenditure willingness, thereby lowering the standard error of the treatment estimates.
9. In terms of standardized effect sizes (i.e., the difference in time expenditure willingness between each treatment relative to the control group described in standard deviation units), the treatment effects are 0.40 (PSM), 0.44 (PSMC), and 0.28 (IEM).
10. This finding is clearly circumstantial (i.e., nonexperimental). Unobserved characteristics correlating both with time expenditure willingness and PSM may bias the estimates. Still, the finding supports the notion of a positive PSM–outcome relationship.

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Appendix: PSM Measurement

For the purpose of validating the main findings, this article uses two scale measures capturing PSM “public interest” and PSM “compassion,” respectively (table A4). The item selection follows Kjeldsen and Jacobsen (2013), who measure PSM using four items from Perry’s (1996) 24-item scale. The four items use seven-point Likert-type scales (1 = “fully disagree,” 7 = “fully agree”). Cronbach’s alpha is .58 for the “public interest” scale and .66 for “compassion.” The alpha of the “public interest” items is somewhat low in terms of conventional threshold criteria. However, measurement validity is a general issue in PSM measurement (Kim 2009), and the alpha must be evaluated given the number of constitutive items: reliability is generally underestimated if the number of items is small (Graham 2006). The alpha of two-item computations are thus lower-bound reliability estimates (Cortina 1993). Moreover, the four items have been validated in other studies (Coursey and Pandey 2007; Perry 1996), and this article only uses the scales for validation purposes.

Confirmatory factor analysis (CFA) is often used for testing the reliability of PSM scale measures. Unfortunately, CFA with two items per latent variable is not unproblematic (Kline 1994). Still, CFA supports a data fit of each PSM item to its corresponding latent variable. The factor loadings of both the PSM “public interest” and PSM “compassion” items are significant (p < .001. Goodness of fit statistics: $X^2 = 0.69; p > X^2 = 0.41; RMSEA = 0.000; CFI = 1; SRMR = 0.006; CD = 0.94$).

Table A2 Descriptive Statistics, Time Expenditure Willingness

Table A3 Effects of Treatments on Time Expenditure Willingness, Subsample Estimations, Ordinary Least Squares Regression

Table A4 PSM Measurement Scale and Items

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PSM (no.) refers to Perry’s (1996) original items. In line with Kjeldsen and Jacobsen (2013), item PSM8 (“To me, patriotism includes seeing to the welfare of others”) has been altered slightly, as Danes are likely to perceive “patriotism” in a negative sense.