

**UNDERSTANDING PUBLIC AND NONPROFIT MANAGERS' MOTIVATION  
THROUGH THE LENS OF SELF-DETERMINATION THEORY**

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## **Abstract**

Contemporary public and nonprofit management research has disproportionately emphasized the importance of intrinsic motivation (especially service motivation) but has given comparatively little attention to non-intrinsic motivation. According to self-determination theory (SDT), non-intrinsic motivation moves from identified motivation, introjected motivation, external motivation, to amotivation, depending on their disparate levels of self-determination. The authors examine empirically whether public managers differ from nonprofit managers on these intrinsic and non-intrinsic motivational styles. The findings show that public managers exhibit stronger service motivation, identified motivation, external motivation, and amotivation when compared to their nonprofit peers. In addition, public managers' strong external motivation and amotivation compromise their overall level of self-determination, suggesting that they may be less motivated by their work requirements than are nonprofit counterparts.

## **Introduction**

Contemporary motivation studies in the field of public and nonprofit management have strongly emphasized the importance of intrinsic motivation, perhaps due to the mission-oriented nature of these two sectors. In public management, the upsurge of public service motivation (PSM) research in recent decades has been widely embraced, in part because it helps public administration scholars carve out a disciplinary identity. The PSM literature includes many scholarly tasks, such as building constructs, developing methodological approaches, and examining antecedents and consequences of PSM (Coursey & Pandey, 2007; Giauque, Ritz, Varone, & Anderfuhren-Biget, 2012; Moynihan & Pandey, 2007; Perry, 1996; Perry & Hondeghem, 2008; Steen & Rutgers, 2011). On the side of nonprofit management, although research efforts do not converge as seamlessly as public management does on PSM, nonprofit management has been associated with factors such as volunteering (Brudney, 2010; Rotolo & Wilson, 2006), altruism (Rose-Ackerman, 1996, 1997), pro-social behaviors (Mathews & Kling, 1988; Tidwell, 2005), ideological currency (Thompson & Bunderson, 2003), and many others.

In the literature of public management, topics pertaining to non-intrinsic motivation have of late received less attention perhaps because intrinsic motivation and PSM provide an “aspirational theory” (Bozeman, 2012) validating the distinctiveness of public management whereas non-intrinsic motivation is somewhat less exciting. However, the allure of PSM and intrinsic motivation, while certainly understandable, does not diminish the empirical reality of pervasive and behaviorally relevant non-intrinsic motivation. Many cross-sector comparison studies have repeatedly indicated that public managers’ “top three” needs often include externally-controlled motivational objectives such as job security, pay, and promotion (Jurkiewicz, Massey, & Brown, 1998; Karl & Sutton, 1998; Khojasteh, 1993); their desire for

job security is much stronger than that of their private sector peers (Houston, 2000; Lewis & Frank, 2002; Lyons, Duxbury, & Higgins, 2006; Wittmer, 1991) and in some cases even stronger than their own service motivation (Frank & Lewis, 2004; Jurkiewicz, et al., 1998); their desire for pay and promotion is almost as strong as that of business sector workers (Crewson, 1997; Houston, 2000; Lyons, et al., 2006).

Regarding non-intrinsic motivation in nonprofit management literature, the conventional wisdom suggests that nonprofits provide limited external incentives (Alatriza & Arrowsmith, 2004; Cunningham, 2008; DeVaro & Brookshire, 2007). For example, nonprofit owners cannot keep residual funds and distribute financial surplus to stakeholders, leading to a low level of financial rewards and benefits for employees. Nonprofits' relatively small size accompanied by a flattened hierarchy decreases the possibilities of promotion (Jason, 2005). A small size also implies a lack of resource, a factor associated with less personal career development. These features result in the "self-sorting" of managers (Moore, 2000), meaning that nonprofits are less likely to attract individuals seeking instrumental rewards. Indeed, evidence shows that nonprofit workers demonstrate less concern about self interests and more about "care" and "making a difference" than their public and private sector peers (Baines, Cunningham, & Fraser, 2011; Light, 2002). However, evidence also shows that nonprofit and for-profit employees demonstrate similar desires for benefits, job security, and a pleasant physical environment (De Cooman & Pepermans, 2012). Looking at nonprofit workers only, we even find that their desire for financial security and benefits is almost as high as their altruistic motivation (De Cooman, De Gieter, Pepermans, & Jegers, 2011; Lyons, et al., 2006).

Despite these findings, discussion of non-intrinsic motivation has of late been less prominent in the public and nonprofit management literature. Clearly non-intrinsic motivations

are important to virtually all worker groups and this relative neglect seems to us unwarranted. To fill the knowledge gap, the present study employs self-determination theory (SDT) (Deci & Ryan, 1985; Gagné & Deci, 2005; Ryan & Deci, 2000b), widely used in psychology but quite uncommon in public and nonprofit management, to more carefully analyze intrinsic motivation and multiple non-intrinsic motivations.

Our research asks the following questions. First, SDT goes beyond traditional intrinsic-extrinsic dichotomy and identifies four non-intrinsic motivational styles: identified motivation, introjected motivation, external motivation, and amotivation. Do public managers differ from nonprofit managers on intrinsic motivation and various non-intrinsic motivations? Second, SDT suggests that the aforementioned five motivational styles lead to hierarchical (i.e. moving from strongly positive to strongly negative) behavioral and attitudinal outcomes such as job satisfaction, organizational commitment, and the intention to stay. Do they hierarchically predict public and nonprofit managers' work motivation as well? Finally, SDT proposes that the five motivational styles can be integrated into a single motivation index, called Self-Determination Index (SDI), because these motivational styles simultaneously and jointly influence a manager. If the five motivational styles differ between public and nonprofit managers, is it possible that public and nonprofit managers are differently self-determined, and accordingly, one group's work motivation is higher than the other group? We select work motivation as the main dependent variable in part because it requires a unique distinctive research agenda to broaden the knowledge base of the motivational context in the public sector (Wright, 2001, 2007).

We examine variables from the National Administrative Studies Project-III (NASP-III) dataset to help us answer our research questions. Since SDT, the main focus of the present study,

is not a well-known theory in the field of public and nonprofit management, we first briefly introduce the theory and existing empirical studies grounded in SDT.

### **SDT: Beyond the Intrinsic-Extrinsic Dichotomy**

Conventional wisdom suggests that motivation styles are either intrinsic or extrinsic, and extrinsic motivation and intrinsic motivation are viewed as separate dimensions. Herzberg's (1966) two-factor theory and McGregor's (1960) Theory X and Theory Y are typical examples of intrinsic-extrinsic dichotomy. Both Herzberg and McGregor laid more emphasis on Maslow's (1954) "higher-order needs" such as growth, development, and actualization.<sup>1</sup> This tradition leads later organizational behavior (OB) studies to disproportionately address intrinsic motivation and intrinsically motivated people's attitudes and behaviors (Brief & Aldag, 1975; Hackman & Lawler, 1971; Hackman & Oldham, 1975; Lawler & Hall, 1970). Non-intrinsic motivational factors appear in the literature as well, but the discussion mainly centers on whether the influx of extrinsic incentives undermines individual intrinsic motivation (Deci, 1971; Deci, Koestner, & Ryan, 1999; Frey & Jegen, 2001), not on behavioral patterns of people motivated by non-intrinsic factors. To the extent that non-intrinsic motivation receives focus, it tends to be in the literature of pay-for-performance or efficiency wages (Langbein, 2010; Taylor & Taylor, 2011; Weibel, Rost, & Osterloh, 2010), work especially popular among labor economists and work usually giving short shrift to psychological aspects of motivation.

The dearth of studies aiming at non-intrinsic motivation also stems from the belief that non-intrinsic motivation pertains to behaviors performed in the absence of self-determination, such that people driven by non-intrinsic factors can only be prompted by external contingencies (Vallerand & Blssonnette, 1992). This stereotype leads scholars to treat non-intrinsic motivation as a unidimensional category (i.e. extrinsic motivation). Not until the late 1980s did Deci and

Ryan (1985) examine multiple genres of non-intrinsic motivation and carefully differentiate them. Their self-determination theory (SDT) (Ryan & Deci, 2000b), unlike earlier perspectives that view non-intrinsically motivated behavior as invariantly non-autonomous, holds that various non-intrinsically motivated people have different levels of autonomy. In other words, the SDT motivational typology is constructed on the concept of hierarchical autonomy.

### Autonomy and Motivational Typology

SDT views motivational styles as a spectrum moving from intrinsic motivation, different levels of extrinsic motivation, to amotivation, as displayed in Figure 1. A fundamental element that makes each motivational style distinctive is autonomy, a concept connoting “an inner endorsement of one’s actions, the sense that they emanate from oneself and are one’s own” (Deci & Ryan, 1987, p. 1025). Taking intrinsic motivation as an example, the measurement of intrinsic motivation in previous research has rested primarily on the “free choice” measures (Ryan & Deci, 2000a), implying that intrinsically motivated people enjoy absolute autonomy: they consider themselves as initiators of their own behavior, select desired outcomes, and choose their own ways to achieve them (Deci & Ryan, 1987). Therefore, SDT infers that intrinsically motivated people are the most self-determined and have a strong internal locus of control, a psychological term referring to whether individuals believe that they are active causal agents (Spector, 1982, 1988). Those having a strong internal locus of control believe that they have full control over consequences of their choices and behaviors.

[Insert Figure 1 Here]

Autonomy of extrinsically motivated activities is characterized by inflexibility and the presence of pressure. For example, some students do homework because they fear parental sanctions; workers take the current job because they have a basic security requirement.

Individual autonomy is low in both cases. However, autonomy of extrinsic motivation can vary. Students may also do homework because it is valuable for their chosen career; workers may take the current job because the position provides more opportunities for advancement and training opportunities. Autonomy is relatively higher in latter two cases because terminating current tasks will not trigger immediate pressure and negative sanctions.

The logic of hierarchical autonomy induces Ryan and Deci (2000a, 2000b) to develop a more encompassing typology of extrinsic motivation. Just to the left of intrinsic motivation is *identified motivation*.<sup>2</sup> People having identified motivation accept the regulation because the activity is judged valuable and partly integrated into their value system. That is, the locus of control is internal. For example, a manager may join training programs because she sees new abilities as necessary for her job. It is also possible that training implies potential advancement in an organization's hierarchy, which brings her prestige and self-esteem. Identified motivation resembles intrinsic motivation with respect to perceived autonomy as people falling into these two categories feel fully self-endorsing of the behavior (Sheldon, et al., 2003). Therefore, both intrinsic motivation and identified motivation belong to autonomous motivation.

*Introjected motivation* is the second type of extrinsic motivation. People falling into this category perform an action out of obligation in order to avoid anxiety, shame, and pressure (Vallerand & Ratelle, 2004). Therefore, introjected behaviors are not experienced as a part of the self and thus are associated with an external locus of control. For example, a manager may have a desire for fewer conflicts or less red tape so she can enjoy more freedom. Although she is obligated to work, her main concern is to buffer herself from the vexation and pressure originating from a conflicting environment. The last form of extrinsic motivation is *external motivation*, the type that is generally portrayed in the generic management literature (Vallerand

& Ratelle, 2004). When people are externally motivated, their behaviors are performed to satisfy an external demand or obtain an external reward contingency. Strong desires for bonus pay or job security (as a positive end state) and avoiding reprimands (as a negative end state) are typical examples. The locus of control is purely external for people having external motivation.<sup>3</sup> Both introjected motivation and external motivation belong to controlled motivation.

Not everyone can be motivated by intrinsic or extrinsic factors. Some people show no motivation at all toward certain behaviors that others may perceive as instrumental to desired outcomes. SDT identifies it as *amotivation*, a regulatory style implying “not valuing an activity” and consequently “not believing it will yield a desired outcome” (Ryan & Deci, 2000a, p. 61). Amotivated people frequently feel helpless and question the usefulness of engaging in an activity, so they are likely to quit the current task or activity. An illustration of amotivation is “students who cannot see what staying in school will bring to their future decide to drop out of high school” (Vallerand & Ratelle, 2004). Amotivation appears at work as well. Under the pressure of economic recession, a manager can be forced to choose a repugnant job among extremely limited alternatives. As a result, this manager will neither value this job nor expect much reward from accomplishing a task. The locus of control for amotivated people is accordingly not only external but impersonal.

The five motivational styles in SDT differ from each other with respect to people’s perceived autonomy as well as self-determination, as Figure 1 shows. Intrinsically motivated people demonstrate the strongest self-determination. The extent of self-determination decreases gradually when motivational styles move from intrinsic motivation to identified motivation, introjected motivation, and external motivation. Amotivation is associated with the weakest self-determination.

## Behavioral and Attitudinal Outcomes of Different Motivational Styles

Behavioral scientists and psychologists in various disciplines have obtained fruitful findings about behavioral and attitudinal outcomes of different motivational styles in SDT. Studying college students taking a French language course, Vallerand and Blssonnette (1992) find that those who exhibit intrinsic and identified motivations reveal strong behavioral persistence, whereas those who exhibit introjected and external motivations do not. Hayamizu (1997) studies coping behaviors of high school students. He finds that active coping is positively related to intrinsic, identified, and introjected motivations but not related to external motivation, and amotivated students demonstrate the weakest active coping behaviors. Pelletier and his colleagues (Pelletier, et al., 1995) investigate how university athletes perceive their own competence, effort, and attention. These factors are negatively related to amotivation but positively related to both intrinsic and identified motivations. External motivation and introjected motivation fail to significantly predict these factors. A study of the quality of couples' relationships (Blais, Sabourin, Boucher, & Vallerand, 1990) shows that intrinsic and identified motivations positively predict dyadic adjustment and marital happiness, but intrinsic motivation has a greater impact. Introjected, external, and amotivated styles negatively predict these factors, but amotivation has the strongest impact.

Management scholars have made efforts to link SDT to organization studies (Gagné & Deci, 2005; Sheldon, et al., 2003). Grounded in earlier conceptual work, two recent studies (Gagné, et al., 2010; Tremblay, Blanchard, Taylor, Pelletier, & Villeneuve, 2009) examine how different motivational styles influence work attitudes and behaviors such as job satisfaction, affective commitment, and the intention to stay in the current job. The findings show that these factors are negatively related to amotivation and external motivation but positively related to

intrinsic motivation and identified motivation. Introjected motivation is positively related to affective commitment and job satisfaction but negatively related to the intention of staying.

The following inferences can be derived from earlier empirical findings. First, both intrinsic motivation and identified motivation (i.e. autonomous motivation) lead to positive behavioral and attitudinal outcomes, while the influence of intrinsic motivation is more significant. Second, amotivation and external motivation lead to negative outcomes, while the influence of amotivation is more significant. Finally, the outcomes of introjected motivation are sometimes positive but sometimes negative. Behavioral and attitudinal outcomes of these five motivational styles resemble a spectrum, moving from strongly positive, positive, marginally negative, negative, to strongly negative.

### **Using SDT to Understand Public and Nonprofit Managers**

As yet, there is no published empirical research applying SDT to study management and motivation in government and nonprofit contexts. Such research vacuum is unfortunate because SDT, we believe, helps scholars more precisely analyze motivational similarities and differences between public and nonprofit managers. We elaborate our arguments below.

#### Examining Motivational Similarities and Differences

There is every reason to anticipate some motivational similarities between public and nonprofit managers. Evidence shows that they both exhibit a stronger tendency than business sector managers to participate in voluntary work (Rotolo & Wilson, 2006), implying that they often have less interest in personal gain, but instead, seek to serve and to engage in prosocial behaviors (Houston, 2006). Evidence also shows that they are more likely than their business sector peers to be driven by social service or public service (De Cooman, et al., 2011; Steijn, 2008), implying that they both exhibit strong service motivation.

Despite the similarities, the contexts of these two respective sectors are by no means identical. The most distinctive difference is the presence of merit protection in the public sector. Merit systems are an important source of employees' feeling of job security (Chen, 2012). In addition to job security, government employment in the United States is also famous for attractive benefits such as paid vacation days, routine employer pension contributions, earlier retirement, among others (Cox & Brunelli, 1994). Comparatively, fringe benefits in the nonprofit sector are inferior to those in the public sector (Mirvis & Hackett, 1983; Preston, 1989). Therefore, external motivation should be stronger among public managers than among nonprofit managers as a result of job selection and person-environment fit (De Cooman, et al., 2009). From another perspective, merit systems are often accompanied by intensive rules and personnel inflexibility, generally referred to as red tape (Bozeman & Feeney, 2011; Feeney & Rainey, 2010). Operating without merit protection, nonprofits suffer less from red tape and are more likely than governmental agencies to attract managers who intend to avoid red tape, possibly enhancing nonprofit managers' overall introjected motivation.

In addition, public organizations are generally larger, older, and have more resources routinely at their disposal compared to their nonprofit counterparts (Berman, 1999). This leads to the fact that (i) the public sector has more potential to provide training opportunities for one's career development and that (ii) the public sector has more job openings, a longer vacancy chain, and accordingly more opportunities for advancement in a hierarchy (White, 1970). By contrast, nonprofits are usually smaller in size and from time to time suffer from constrained funding and a need to rely on flexible staffing. As a result, managers working in these two respective sectors may exhibit different levels of identified motivation.

#### Comparing Work Motivation with the Use of Self-Determination Index (SDI)

In addition to comparing various intrinsic and non-intrinsic motivational styles between public and nonprofit managers, SDT also facilitates the analysis of examining public and nonprofit managers' overall levels of work motivation through the use of Self-Determination Index (SDI). SDI roots in the assumption that people are simultaneously influenced by the five motivational styles. To create a SDI, a different weight is allocated to each motivational dimension, with autonomous motivations having positive weights and non-autonomous motivations having negative weights. For example, intrinsic motivation carries the value of +3, identified motivation +1.5, introjected motivation -1, external motivation -2, and amotivation -3, corresponding to their different levels of locus of control and self-determination<sup>4</sup> (see Ryan & Connell, 1989 and refer to Figure 1 for this argument). A manager's work SDI can be obtained if we multiply the mean of each motivational dimension by weights:

$$SDI = (3 * \text{intrinsic}) + (1.5 * \text{identified}) - (1 * \text{introjected}) - (2 * \text{external}) - (3 * \text{amotivated})$$

Researchers of educational psychology and generic behavioral science have used SDI to study various issues such as environmental behaviors, academic motivation, eating regulation, and work attitudes (Fortier, Vallerand, & Guay, 1995; Green-Demers, et al., 1997; Pelletier, Dion, Slovinec-D'Angelo, & Reid, 2004; Tremblay, et al., 2009). These earlier studies show that SDI not only reflects one's self-determination, autonomy, and locus of control but also predicts one's behaviors and attitudes, such as work motivation in the present study. More precisely, higher SDI results in stronger work motivation.

One additional critical research query in this study is derived from SDI: Based on the literature reviewed earlier, public managers may differ from nonprofit managers on many

motivational styles, although some similarities exist. Does it imply that SDI differs between these two types of managers? If so, do public and nonprofit managers demonstrate different levels of work motivation because self-determination serves as an important source of work motivation (i.e. high SDI results in strong work motivation)?

### **Summary**

To recapitulate, self-determination theory (SDT) suggests the following key points. First, one's motivational styles fall into five categories: intrinsic motivation, identified motivation, introjected motivation, external motivation, and amotivation. Second, their associations with a person's behaviors and attitudes move from strongly positive to strongly negative (i.e. the associations are hierarchical). Third, they simultaneously influence a manager. Their joint influence can be integrated into the Self-Determination Index (SDI). By using SDT and SDI to study public and nonprofit managers, we examine the following four research queries:

1. Do public and nonprofit managers' motivational styles fall into the five categories as SDT suggests? If the answer is "yes," we then ask:
2. Are these motivational styles associated with work motivation hierarchically (i.e. moving from strongly positive to strongly negative)?
3. Do these two types of managers show similarities or differences with respect to the five motivational styles? If the result is "more different than alike," we then ask:
4. Do their differences in motivational styles generate a gap of their SDI, and accordingly, a gap of their work motivation?

In sum, although SDT originates from psychology, it is both appropriate and useful for the study of public and nonprofit management. Through the lens of SDT, we are able to go

beyond the traditional intrinsic-extrinsic dichotomy and examine contents and outcomes of public and nonprofit managers' multiple motivational styles.

### **Data and Variables**

The National Administrative Studies Project-III (NASP-III) dataset are employed in this study. NASP-III includes data on *public and nonprofit* managers. The population of NASP-III covers both the state of Georgia and Illinois. The population of public managers in Georgia was drawn from the list provided by the Department of Audit (DoA), in which people who have been on a state agency's payroll during 2003/2004 fiscal year were included. The population of public managers in Illinois was developed through a Freedom of Information Act request. The NASP-III research group purchased a list from Infocus Marketing, Inc. This list includes members of the American Society of Association Executives (ASAE) with titles such as operation managers, executive director, company president, development manager, education director, CEO, etc. This list provides 280 nonprofit managers from Georgia and 1048 from Illinois. At the end of this survey, the NASP-III research group obtained 790 responses out of 1849 reduced N with a response rate of 43% (47% in Georgia and 38% in Illinois) for public sector respondents, 430 out of 1307 reduced N with a response rate of 33% (39% in Georgia and 31% in Illinois) for nonprofit sector respondents, and the overall response rate of 39% for their study (for full discussion of the data, the sample, and procedures see Bozeman and Feeney, 2009).

Similar to educational psychologists who generally ask students why they go to school, do their homework, and study science, variables of SDT-based motivational styles in the NASP-III dataset were designed to solicit information about reasons for respondents to accept their current jobs. The original question was stated as: "We are interested in the factors that motivated you to accept a job at your current organization. Please indicate the extent to which the factors

below were important in making your decision to take a job at your current organization.”

Respondents were asked to score from very important (4), somewhat important (3), somewhat unimportant (2), to very unimportant (1). The authors selected twelve items that best represent all five motivational styles in SDT. Please refer to Appendix A for these items.

Work motivation, the dependent variable in this study, is the summation of the following four ordinal items with 4 referring to strongly agree and 1 referring to strongly disagree:

- I put forth my best effort to get the job done regardless of the difficulties
- Time seems to drag while I am on the job (inverse)
- It has been hard for me to get very involved in my current job (inverse)
- I do extra work for my job that isn't really expected of me

The four-item work motivation construct, which was first developed by Patchen and his colleagues (Patchen, Pelz, & Allen, 1965), asked respondents how involved they are in their work (attitude) and how hard they work (behavior). This construct has been repeatedly used in earlier studies (Baldwin, 1984, 1987; Wright, 2004, 2007). Although the Cronbach's alpha value ( $\alpha = .61$ ) is lower than the rule of thumb ( $\alpha = .70$ ), several fit indexes of confirmatory factor analysis (CFA) have reached or approached the cut-off level.<sup>5</sup> Moreover, Cronbach's alpha has severe limits as a test of the utility of factor dimensions.<sup>6</sup>

Several control variables related to work motivation are included: a Georgia/Illinois dummy, a promotional position, age, gender, education, number of children, marital status, absent days because “one could not face working,” and current job tenure. Civil service reform in Georgia accompanied by the expansion of at-will workers is a decisive predictor of work motivation (Battaglio & Condrey, 2006; Condrey & Battaglio, 2007; Nigro & Kellough, 2006). A promotional position, including internal promotion and upward move from external

organizations, denotes the success in one's job career and can enhance one's work motivation. Women often report higher levels of job stress and other factors related to job satisfaction (Feeney & Bozeman, 2009), so the effect of gender needs to be controlled for. Age represents differences of general values that influence work motivation (Jurkiewicz, et al., 1998). The days of absence because "you were not sick but couldn't face working" implies one's unwillingness to work, a deleterious antecedent for work motivation. Well educated people may be required to contribute more to organizations, so education level is controlled for. Marriage and children may drive one to work harder for their family. Current job tenure implies attrition and socialization (De Cooman, et al., 2009), two critical factors that influence work motivation. Please refer to Appendix A for variable measurement.

### **Statistical Analysis**

Our first research query is whether public and nonprofit managers' motivational styles fall into intrinsic motivation, identified motivation, introjected motivation, external motivation, and amotivation as SDT suggests. Given that construct development of SDT motivational styles in public and nonprofit management is in the burgeoning stage, exploratory factor analysis (EFA) is an appropriate tool that helps sorting out variables selected from the NASP-III dataset. The results of EFA are reported in Table 1.

[Insert Table 1 Here]

The first factor has only one item (loading in excess of +/- .50): the ability to serve the public interest. This item represents public and nonprofit managers' service motivation, a typical form of intrinsic motivation. The second factor has three items: opportunity for advancement within the organization's hierarchy, opportunity for training and career development, and desire for increased responsibility. This factor should represent identified motivation (i.e. acting

because it is judged valuable). The third factor includes two items: desire for less bureaucratic red tape and desire for a low conflict work environment. This factor reflects introjected motivation (i.e. acting out of obligation to avoid anxiety and pressure) as respondents treat work as their obligation but their paramount concerns are less red tape and low conflict. The fourth factor is comprised of three items: job security, the organization's pension or retirement plan, and benefits. They are typical factors of external motivation. The last factor includes three items: few alternative job offers, relatively low cost of living in the region, and employment opportunities for spouse or partner. These job selection reasons reflect amotivation as being forced to choose a job among limited alternatives implies people's lack of ability, adaptability, and control over the current job. No incentive can be provided at the workplace to motivate those who are concerned about cost of living in the region and spouse/partner's opportunity as well. Therefore, the results of EFA support that public and nonprofit managers' motivational styles fall into the five categories in SDT.

Our second research query is whether the relationships between work motivation and these five motivational styles move from strongly positive to strongly negative (i.e. a hierarchical relationship). To test this, we first sum up items belonging to the same motivational category and have every sum-up value divided by the number of items in each respective category.<sup>7</sup> Using identified motivation as an example: we sum up three items in this category and have this value divided by 3. After repeating the same procedure for several times, we obtain five index variables that represent service motivation, identified motivation, introjected motivation, external motivation, and amotivation respectively. Next, we examine how each motivational style is related to work motivation by using Pearson's correlation coefficients. Results in Table 2 show that coefficients for each motivational style are .12, .10, -.07, -.11, and -.17 respectively with all

coefficients' statistical significance at the 99% confidence level ( $p < .01$ ). The results of Pearson's correlation are perfectly in line with the SDT pattern of "moving from strongly positive, positive, marginally negative, negative, to strongly negative."<sup>8</sup>

[Insert Table 2 Here]

The third research query in this study concerns whether public managers differ from nonprofit managers on five intrinsic and non-intrinsic motivational styles in SDT. We employ t-tests to compare public and nonprofit managers and report the results in Table 3.<sup>9</sup> We find that these five motivational styles are more different than similar between public and nonprofit managers ( $p < .00$  for four styles and  $p < .05$  for one style). Regarding the differences, the following points deserve our particular attention.

[Insert Table 3 Here]

First, some of these differences are in line with our conventional wisdom. For example, it may not be surprising to find that identified motivation and external motivation are stronger among public managers whereas introjected motivation is stronger among nonprofit managers, as we discussed earlier. Second, some differences are in conflict with our speculation and earlier empirical evidence. This is especially salient in the case of service motivation. We find that service motivation is weaker among nonprofit managers than among public managers, which contradicts Light's (2002) earlier finding and challenges the stereotype that "both public and nonprofit are equally driven by altruistic rewards." A possible explanation is that nonprofit managers still care about altruistic rewards and have a strong tendency to make a difference, but they mainly serve targeted groups instead of the public interest. Third, we find that amotivation is stronger among public managers than among their nonprofit peers. This difference may originate from nonprofit organizations' relatively clearer mission accompanied by lower salary, a

self-censoring mechanism that deters amotivated people from joining nonprofits. Finally, we note that the ranking of the five motivational styles differs between public and nonprofit managers. Public managers place the highest value on external motivation, but the same motivational style for nonprofit managers is ranked 3/5. Nonprofit managers place the highest value on identified motivation. The least important styles for both public and nonprofit managers are introjected motivation and amotivation with the ranking of 4 and 5 respectively.

Our last research query centers on whether public and nonprofit managers are differently self-determined and according they demonstrate disparate levels of work motivation. To conduct the analysis, we first capture public and nonprofit managers' overall self-determination with SDI. By using the equation provided in the literature review ( $3 \times \text{intrinsic} + 1.5 \times \text{identified} - 1 \times \text{introjected} - 2 \times \text{external} - 3 \times \text{amotivated}$ ), we obtain the mean of public managers' SDI = -0.46 (max=10; min=-11.33) and the mean of nonprofit managers' SDI = 0.67 (max=12; min=-12.83). The results of t-tests show that the gap of their SDI is statistically significant at the 99% confidence level (please refer to Table 2 for statistics). Following the calculation, we employ mediation tests with OLS regression to help us answer this last question. The mediating variable relationships are presented in Figure 2.

[Insert Figure 2 Here]

As Figure 2 shows, sector (public/nonprofit) affiliation represents the main independent variable (IV); SDI serves as the mediating variable (MV); work motivation is the main dependent variable (DV). Mediation occurs when (i) the relationship between IV and MV is statistically significant; (ii) the relationship between MV and DV is statistically significant; (iii) IV significantly predicts DV, but the impact of IV decreases after MV is entered into a regression model (Chen & Bozeman, 2012; Kenny, 2012). The percentage of decrease is

understood as the mediation effect (Preacher & Hayes, 2004). Given that the first condition has been met (i.e. SDI significantly differs between public and nonprofit managers), we examine the last two conditions using OLS regression. Regression results are reported in Table 4.

[Insert Table 4 Here]

In Model 1, after controlling for several confounding variables, we find that sector affiliation significantly predicts work motivation ( $B = .16, p < .00$ ), meaning that nonprofit managers' work motivation is stronger than that of public managers. In Model 2, after entering SDI, we first find that SDI is statistically significant ( $B = .02, p < .00$ ), implying that it is an effective mediating variable. We also notice that the coefficient of sector affiliation decreases from .16 to .12. The percentage of decrease as the mediation effect is 25%. Therefore, the regression results support that “public managers are less self-determined than their nonprofit sector peers, and accordingly, they show weaker work motivation.” More precisely, 25% of the work motivation gap between these two types of managers can be explained by their different levels of self-determination. This finding to some extent complements Buchanan's (1974, 1975) claim that public managers' undermined work motivation is often a result of unfavorable external conditions such as ubiquitous red tape in the public sector. We learn from the present study that external red tape is probably not the only source that compromises public managers' work motivation. Their internal self-determination matters as well.

Concerning control variables, education, the state of Georgia, and number of children are less influential predictors. The statistical significance of marital status is approaching the 95% confidence level. A move-up position, age, female, current job tenure, and absent days because one could not face working are significantly associated with work motivation. The results imply that work motivation is higher among senior, married, and female individuals but lower among

individuals who could not face working. A negative sign of current job tenure implies that attrition is probably more influential than socialization. A positive sign of a move-up position means that recently promoted people may feel more pride working for their current employer.

### **Conclusion**

The discussion of non-intrinsic motivation has long been underemphasized in public and nonprofit management research, this despite indications that public and nonprofit managers are strongly motivated by several extrinsic factors such as guarantees of security. Self-determination theory (SDT), a theory that goes beyond the intrinsic-extrinsic dichotomy, serves as an appropriate tool that effectively captures multi-facet non-intrinsic motivations. With the use of SDT, we have obtained the following findings.

First, public and nonprofit managers' motivational styles fall into five categories: service motivation, identified motivation, introjected motivation, external motivation, and amotivation. Second, these five motivational styles differ with respect to their corresponding autonomy, locus of control, and self-determination. As a result, their relationships with work motivation move from strongly positive to strongly negative. Third, public managers are stronger than nonprofit managers in service motivation, identified motivation, external motivation, and amotivation but weaker than nonprofit managers in introjected motivation. External motivation is the most crucial motivational style for public managers, even more crucial than service motivation. Likewise, the findings show that serving the public interest is not the paramount concern for nonprofit managers. Finally, the five motivational styles generate a joint impact on managers, and this impact can be measured with the Self-Determination Index (SDI). Because public managers are stronger in external motivation and amotivation, their self-determination is weaker

than that of nonprofit managers. Public managers' lower level of self-determination further erodes their work motivation.

Findings grounded in SDT (and SDI) provide a new perspective for scholars to understand public and nonprofit managers' motivation at work. For instance, conventional wisdom holds that both public and nonprofit managers are more likely to be motivated by prosocial values than other instrumental factors partly because both the public and nonprofit sectors offer ample public service opportunities. This conventional view observes that public and nonprofit organizations suffer from the difficulty of measuring performance (Brooks, 2002; Campbell, 2002) and, related, that these sectors have limited capacity to provide attractive compensation such as bonus pay and performance-based pay. From these generally correct observations, many scholars go on to infer that those highly motivated by extrinsic rewards will tend to shun employment in either public or nonprofit organizations, preferring private sector work. However, *our findings do not support this inference*. We find that public and nonprofit managers care about both intrinsic and non-intrinsic rewards. In the case of public managers, their external motivation is even stronger than their service motivation. In the case of nonprofit managers, their external motivation is almost as strong as service motivation.

For another example, contemporary public management scholars tend to follow Buchanan's (1974, 1975) work and argue that public managers show a low level of work motivation because they are frustrated by unfavorable external conditions, particularly by prevalent red tape in the public sector. We offer an alternative perspective that complements Buchanan's view. We find that public managers' comparatively weak work motivation is in part a result of their typically lower levels of self-determination. The source of their compromised self-determination, according to our findings of SDT and SDI, is public managers' strong

external motivation and amotivation. More precisely, public managers' relatively weak work motivation originates from the fact that government agencies are more likely than nonprofits to attract those who have little interest in the public sector work (i.e. amotivation) and who care too much about external rewards such as security and benefits (i.e. external motivation).

Our study has important limitations. The most obvious imitation appears in the measurement of the five motivational styles. We extract variables from NASP-III, an existing dataset, that best represent five motivational facets in SDT. This excludes the possibility of employing other mature and fully-fledged motivation scales and measures. Looking at intrinsic motivation in the current study, we focus on public service, only one of the many facets of intrinsic motivation. In some earlier SDT-based empirical studies, however, scholars identify at least three different intrinsic motivations such as knowledge, accomplishment, and stimulation (Pelletier, et al., 1995; Vallerand, et al., 1992). Recently, some Canadian behavioral scientists have developed two sets of SDT-based motivation at work scales (Gagné, et al., 2010; Tremblay, et al., 2009). In their studies, they measure introjected motivation using items like "I have to be best in my job," "I don't want to fail," and "my reputation depends on it," an approach different from ours. Although our approach and measures are not inappropriate, it should be admitted that we fail to consider alternative measures.

By treating the present study as simply a point of departure, future efforts can improve on our findings. First, given the insufficiency of our measurement, scholars interested in SDT may consider adding more job selection motivation items, ones that more fully capture various motivational styles, especially intrinsic motivation and introjected motivation. For example, scholars can more deliberately differentiate intrinsic motivation and categorize them into public service, interesting work, and community orientation. Introjected motivation items used in

earlier studies (Gagné, et al., 2010; Tremblay, et al., 2009) can be taken into account as well. Second, because we use only one outcome variable, work motivation, in the present study, scholars may wish to examine more behavioral and attitudinal consequences in the future. Possible outcomes include organizational citizenship behavior, confidence in organizational performance, job satisfaction, turnover intention, socialization and attrition, and many others. Finally, since self-determination complements the view of external red tape in determining public managers' low levels of work motivation, scholars may consider using both red tape and self-determination as mediating variables and testing which one has a stronger explanatory power.

In sum, SDT opens a new window for public and nonprofit management scholars to more closely examine managers' intrinsic and non-intrinsic motivational styles. It not only addresses distinctive behavioral outcomes of each motivational style but also offers a tool, namely SDI, to capture the joint impact of these motivational styles on managers. The current study is just a first step, and more SDT-based research is encouraged.

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## Tables and Figures

Table 1 Exploratory Factor Analysis

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
The ability to serve the public interest	0.88				
Opportunity for advancement in a hierarchy		0.79			
Opportunity for training and career development		0.82			
Desire for increased responsibility		0.59			
Desire for less bureaucratic red tape			0.86		
Desire for a low conflict work environment			0.83		
Job security				0.71	
Pension or retirement plan				0.86	
Benefits				0.86	
Few, if any, alternative job offers					0.64
Relatively low cost living in the region					0.77
Employment opportunities for spouse/partner					0.79

Factor 1: Service motivation as intrinsic motivation

Factor 2: Identified motivation

Factor 3: Introjected motivation

Factor 4: External motivation

Factor 5: Amotivation

Table 2 Pearson's Correlation: Work Motivation and Each SDT Motivational Style

	Amotivation	External motivation	Introjected motivation	Identified motivation	Service motivation
Work motivation	-0.17**	-0.11**	-0.07**	0.10**	0.12**

\*\*  $p < .01$

Table 3 T-Tests: Public-Nonprofit Comparison on Motivational Styles and SDI

	Public managers		Nonprofit managers		Comparison	
	Mean	Ranking	Mean	Ranking	Stronger	<i>p</i>
(a) Service motivation	3.27	2	2.98	2	Public	0.00**
(b) Identified motivation	3.10	3	3.02	1	Public	0.05*
(c) Introjected motivation	2.35	4	2.52	4	Nonprofit	0.00**
(d) External motivation	3.40	1	2.92	3	Public	0.00**
(e) Amotivation	1.91	5	1.50	5	Public	0.00**
Self-Determination Index (SDI) = (3*a + 1.5*b - 1*c - 2*d - 3*e)	-0.46	--	0.67	--	Nonprofit	0.00**

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

Table 4 OLS Regression and Mediation Tests

DV: Work motivation	Model 1		Model 2		
	<i>Coef.</i>	<i>p</i>	<i>Coef.</i>	<i>p</i>	<i>Mediation effect</i>
SDI	--	--	0.02	0.00**	
Sector (public=0; nonprofit=1)	0.16	0.00**	0.12	0.00**	(0.16-0.12)/0.16 = 25%
State of GA	0.04	0.20	0.00	0.92	
A move-up position	0.11	0.00**	0.12	0.00**	
Age	0.01	0.00**	0.01	0.00**	
Female	0.10	0.00**	0.09	0.00**	
Education	0.01	0.21	-0.01	0.65	
Married	0.06	0.07	0.06	0.06	
Number of children	0.02	0.07	0.02	0.16	
Absent days	-0.07	0.00**	-0.07	0.00**	
Current job tenure	-0.01	0.02*	-0.01	0.04*	
Constant	2.84	0.00**	2.99	0.00**	
N	1084		1039		
Adjusted R square	0.11		0.15		

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

Figure 1 Self-Determination Theory

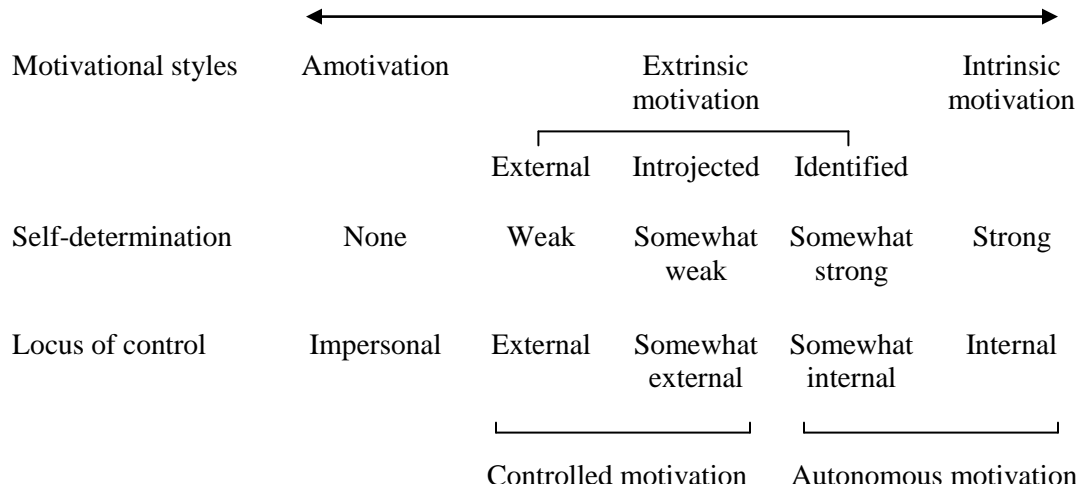
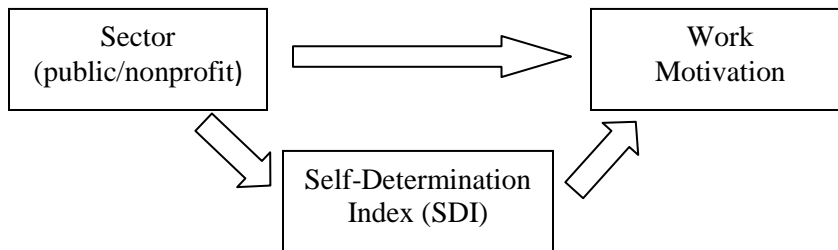


Figure 2 Mediation: Sector, SDI, and Work Motivation



## Appendix A Variable Measurement

Variable	Measurement
<u>Dependent</u>	<u>All items measured by a 1-4 ordinal variable</u>
Work motivation	<ul style="list-style-type: none"> <li>• I put forth my best effort to get the job done regardless of the difficulties</li> <li>• Time seems to drag while I am on the job (inverse)</li> <li>• It has been hard for me to get very involved in my current job (inverse)</li> <li>• I do extra work for my job that isn't really expected of me</li> </ul>
<u>SDT</u>	<u>All items measured by a 1-4 ordinal variable</u>
Twelve different motivational styles	<ul style="list-style-type: none"> <li>• The ability to serve the public interest</li> <li>• Opportunity for advancement within the organization's hierarchy</li> <li>• Opportunity for training and career development</li> <li>• Desire for more responsibility</li> <li>• Desire for less bureaucratic red tape</li> <li>• Desire for a low conflict work environment</li> <li>• Job security</li> <li>• The organization's pension or retirement plan</li> <li>• Benefits (medical, insurance)</li> <li>• Few, if any, alternative job offers</li> <li>• Relatively low cost of living in the region</li> <li>• Employment opportunities for spouse or partner</li> </ul>
<u>Sector</u>	
Public-nonprofit	Nonprofit = 1; Public = 0 (dummy)
<u>Controls</u>	
State of GA	Georgia = 1; Illinois = 0 (dummy)
Move-up position	Upward move = 1; Flat move = 0 (dummy)
Age	2006 – the year born (interval)
Female	Female = 1; Male = 0 (dummy)
Education	Attended high school, but did not graduate = 1; High school graduate = 2; Attended college, but did not graduate from a 4-year college = 3; Graduated from a 4-year college = 4; Attended graduate or professional school, but did not graduate = 5; Graduated from a graduate or professional school (e.g. MBA, MPA, JD, MD) = 6 (ordinal)
Married	Married = 1; Not married = 0 (dummy)
Number of children	Number of children (interval)
Absent days	You were not sick or on vacation, but you couldn't face working (interval)
Current job tenure	2006 – the year the current job starts (interval)

## Endnotes

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<sup>1</sup> The use of intrinsic-extrinsic dichotomy exists ubiquitously in the classic literature of motivation research, both incentives and human needs. In addition to Maslow (1954), Herzberg (1966), and McGregor (1960), Lawler (1971) developed his extrinsic-intrinsic rewards dichotomy, indicating that rewards extrinsic to individuals reflect lower-order physiological, safety, and social needs whereas intrinsic rewards can satisfy higher-order self-esteem and self-actualization needs. Wilson's (1973) material/tangible incentives and solidary/intangible incentives were designed to satisfy extrinsic needs and intrinsic needs respectively.

<sup>2</sup> In the original SDT by Dyan and Deci (2000a, 2000b), *integrated regulation* exists between intrinsic motivation and identified motivation. Integrated motivation represents the most autonomous form of extrinsic motivation. Integration occurs when individuals bring new regulations into congruence with their values and needs, and integrated forms of motivation share some similarities with intrinsic motivation such as an internal locus of control and high autonomy. However, integrated motivation is hard to be differentiated from identified motivation. In providing examples, Vallerand and Ratelle (2004) used some cases of educational psychology. The example of integrated regulation is: "A ballet dancer might choose not to go to a party with friends in order to be in shape for dance class early on the next morning." The example of identified regulation is: "A boy in high school who decides to get up an hour earlier to review his chemistry notes because he feels it is personally important to do so." In both cases, the value of activities can be both identified by the actors and integrated into their value systems. As a result, many recent SDT studies do not discuss integrated motivation (Gagné, et al., 2010; Sheldon, Turban, Brown, Barrick, & Judge, 2003). The present study follows this line.

<sup>3</sup> Vallerand and Ratelle (2004) provided examples for introjected regulation and external regulation as well. The example of introjected regulation is: "A woman may vote municipal elections because she feels she has to, because it is her duty as a citizen." The examples of external regulation are "getting money" and "avoiding a parent's reprimands."

<sup>4</sup> The awarded values (+3, +1.5, -1, -2, -3) are not random, but instead, grounded in theories and previous studies. In two earlier studies using SDI (Green-Demers, Pelletier, & Ménard, 1997; Tremblay, et al., 2009), values assigned to intrinsic motivation, integrated motivation, identified motivation, introjected motivation, external motivation, and amotivation were +3, +2, +1, -1, -2, and -3 respectively. However, integrated motivation in the present study is deemed a part of identified motivation because of their conceptual similarity (please refer to Note 2). As a result, the value awarded to identified motivation in this study is  $(2+1)/2 = 1.5$ .

<sup>5</sup> RFI=.87 (suggested cut-off >.90); NFI=.96 (suggested cut-off >.90); FGI=.98 (suggested cut-off >.90); CFI=.93 (suggested cut-off >.90); RMSR=.01 (suggested cut-off <.08); RMSEA=.09 (suggested cut-off <.08).

<sup>6</sup> In fact, the value of Cronbach's alpha in most of the previous research of work motivation, such as Wright's (2004, 2007) empirical studies, was below .70. Cortina (1993) indicates that the level of alpha is a function of the size of the average correlations among items and can be large despite a wide range of item intercorrelations. For instance, for a 3-item scale with  $\alpha = .80$ , the average correlation is .57; for a 10-item scale with  $\alpha = .80$ , the average correlation is only .28. In other words, internal consistency estimates are relatively invariant when many items are pooled.

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<sup>7</sup> The alpha values for identified motivation, introjected motivation, external motivation, and amotivation are .64, .70, .79, and .61 respectively. There is no alpha value for service motivation as this category has only one item.

<sup>8</sup> Some statisticians treat the sum-up index as an ordinal variable and argue that Spearman's Rho is more suitable than Pearson's correlation. The Spearman's Rho values are .14, .08, -.09, -.11, and -.24 respectively, a pattern in line with the Pearson's correlation.

<sup>9</sup> Some statisticians treat the sum-up index as an ordinal variable and argue that Kruskal-Wallis equality-of-populations rank test is more suitable than t-tests. We conducted Kruskal-Wallis tests, generating results similar to t-tests.