

Only if we agree?

How value conflict moderates the relationship between transformational leadership and public service motivation

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Abstract

Given that public service motivation (PSM) has been shown to increase performance in public organizations, it is very relevant to ask what managers can do to enhance their employees' PSM. In this paper, we investigate whether and under what conditions transformational leadership is positively related to PSM. The existing literature has found positive associations between transformational leadership and PSM, but we do not know whether value conflict between employees and managers moderates the relationship. This is investigated for Danish University Colleges, using a mixed-methods design. These colleges educate teachers, pedagogues, nurses and social workers, and their strong public service oriented missions and potentially conflicting public values make this sector a well-suited case to test whether (at least some) consensus on public values is a precondition for a positive association between transformational leadership and PSM. Based on qualitative interviews concerning specific public values, we used a survey among 968 employees to investigate the employees' PSM and public values combined with managers' values and leadership style. We found that the less value conflict, the stronger is the positive relationship between the direct managers' level of transformational leadership and the employees' PSM. This is also the case for the top management. This implies that transformational leadership might be a way for managers to enhance PSM, but only if there is not severe value conflict. In other words: Only if employees and managers agree on key public values.

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Panel 17: Public Service Motivation, Public Values, and Red Tape

Introduction

In recent years, there has been an increased focus on how public managers can improve the quality of public services by ensuring highly motivated employees. Public service motivation (PSM), which refers to the motivation to serve others and improve the well-being of society at large (Perry and Wise 1990), is especially important, because it has been shown to increase performance in public organizations (Brewer, 2008; Petrovsky & Ritz 2010, Andersen, Heinesen & Pedersen 2012). It is thus highly relevant to investigate how public managers can increase their employees' PSM.

Transformational leadership is a promising potential answer to this question, because it is intended to change and transform people by appealing to the importance of collective and/or organizational outcomes (Northouse, 2010:171; Moynihan et al. 2012: 147). Transformational leaders are supposed to "develop, share and sustain a vision to elevate follower motivation to higher levels of performance" (Jung and Avolio 2000: 949). This sense of vision (and mission and purpose) among employees is expected to provide confidence and direction about the future of the organization and to encourage the employees to transcend their own self-interest for the sake of the organization and its clientele. Given that PSM is also about transcending self-interest to serve society and others, it is highly relevant to investigate whether public managers succeed in making their employees look beyond self-interest and be "motivated by experiences and identities that are 'other regarding'" (Paarlberg & Lavigna 2010: 710). Existing research has consistently found that transformational leadership is positively associated with employee performance in the public sector (Dvir et al. 2002; Trottier et al. 2008; Wofford et al. 2001), and this might be because it affects PSM. Oberfield (2012) has shown that improvements in transformational leadership are positively associated with follower cooperation, satisfaction, and perceptions of work quality, and this may also be the case for PSM. Furthermore, the current global crisis increases the relevance of studying PSM and public values in combination with transformational leadership, because transformational leadership "is more likely to emerge in times of distress and change" (Bass, 1985:154).

Until recently, transformational leadership was primarily investigated in private organizations (Bass, 1985), but we agree with Wright and Pandey (2010:77) when they argue that the "emphasis on mission may make transformational leadership particularly useful in public and nonprofit organizations given the service and community oriented nature of their missions". This also implies that transformational leadership is relevant for PSM, because PSM is related to a subset of public values connected to the common good and public interest (Andersen, Jørgensen, Kjeldsen, Pedersen & Vrangbæk 2012).

The few existing empirical studies of transformational leadership and PSM (Vandenabeele, forthcoming; Wright et al. 2011; Park & Rainey 2008) find a positive relationship between the two concepts, but we need to know more about how and under what conditions transformational leadership has a potential to motivate employees in the public sector, before we can use this knowledge to improve public management. Specifically, we argue that it cannot be assumed that leadership has the same effect regardless of the level of value conflict. As argued by Paarlberg and Lavigna (2010: 712), motivating employees to act on a shared vision is dependent on alignment between the employees' values with those of the collective. For transformational leadership, it is expected to be crucially important that there is a basic agreement about mission and vision, i.e. no serious value conflict. It is therefore highly possible that the relationship between transformational leadership and employees' PSM depends on the level of value conflict, but none of the existing studies included value conflict as a moderator. The research question in this paper is accordingly *whether value conflict between employees and managers moderates the relationship between transformational leadership and PSM.*

This is investigated for Danish University Colleges, using a mixed-methods design. These colleges educate teachers, pedagogues, nurses and social workers, and they are very well-suited to test whether public values moderate the transformational leadership-PSM relationship, because they have strong public service oriented missions, and because conflicting public values exist in these organizations. We find that the positive relationship between transformational leadership and employees' PSM is in fact moderated by the degree of conflict between the employees' and the managers' public values. The less conflict between these values, the stronger is the positive relationship between the direct managers' level of transformational leadership and employees' PSM. This is also the case for top management, although we show that conflict over different values moderates this relationship.

The structure of the paper is as follows: First, we explain why we theoretically expect the association between transformational leadership and PSM to depend on the level of value conflict. Second, we describe how we investigate this, using qualitative interviews and a survey to 968 Danish University College employees followed (third) by our results. In the final section, we discuss our findings and the implications of these.

Theory: Transformational leadership, PSM and value conflict

The key theoretical argument in the paper is that value conflict between employees and managers can be expected to moderate the association between managers' transformational leadership and employees' PSM. This section explains why this is

expected to be the case by outlining the existing knowledge about transformational leadership, PSM and the association between these concepts followed by a discussion of public values as a concept and the reasons why value conflict should be expected to moderate the association between transformational leadership and PSM.

First conceptualized by political scientist James Burns (1978), transformational leadership has become one of the most prominent leadership theories (Northouse 2010; Antonakis et al. 2003). Transformational leadership is managerial behaviour intended to change and transform people by appealing to the importance of collective and/or organizational outcomes (Northouse 2010:171; Moynihan et al. 2012: 147). To direct and inspire individual effort, transformational leaders try to transform (and motivate) their followers by raising their awareness of the importance of the organization's vision. As mentioned, this sense of vision (and mission and purpose) among employees is expected to provide confidence and direction about the future of the organization and to encourage the employees to transcend their own self-interest for the sake of the organization and its clientele. Transformational leadership can thus be seen as an operationalization of the soft side of the basic distinction between "hard" leadership based on stick or carrot and "soft" leadership based on increasing the employees' motivation to achieve organizational goals. This distinction has been conceptualized in many different ways. For example, McGregor (1960) developed Theory X and Theory Y, where Theory X assumes employees are inherently lazy and will avoid work if they can and therefore need to be closely supervised, while Theory Y assumes that employees are self-motivated. We have chosen to focus on transformational leadership, because transformational leadership theory specifies a number of concrete mechanisms through which managers can affect the motivation and performance of their employees, including being a role model for the employees and connecting their sense of identity to the collective identity of the organization. This makes the theory much more plausible and has enabled the literature to measure the concept specifically as discussed in the method section. Transformational leadership has also been shown to affect performance positively in public organizations (Dvir et al. 2002; Trottier et al. 2008; Wofford et al. 2001), and Nielsen and Cleal (2011) have demonstrated the empirical relevance of investigating transformational leadership in the Danish public sector.

PSM can be defined as "an individual's orientation to delivering service to people with the purpose of doing good for others and society" (Hondeghem & Perry 2009: 6). It can be seen as a specific type of prosocial motivation linked to delivery of public services. Perry (1996) argues that four dimensions constitute PSM. *Self-sacrifice* represents the basic pro-social origins of PSM and implies a willingness to deliver services without

tangible personal rewards (Kim and Vandenabeele 2010). *Compassion* is seen as affective motives to provide public service based on identification and commitment to/concern for the needs of specific individuals and groups. *Attraction to public policy making* can be seen as based on instrumental/rational motives combined with an understanding of how means and measures can be combined in order to contribute to the delivery of public services. Finally, *commitment to the public interest* is norm-based and is related to conforming with values and social norms regarding appropriate behavior and societal contributions. All the PSM dimensions are about transcending self-interest to serve society and others, and this makes it highly relevant to investigate whether public managers change their employees' PSM through transformational leadership, because this would indicate that they succeed in making their employees look beyond self-interest and be "motivated by experiences and identities that are 'other regarding'" (Paarlberg & Lavigna 2010: 710). The literature expects PSM to be positively affected by transformational leadership (Paarlberg & Lavigna 2010), and the existing empirical studies of transformational leadership and PSM (Vandenabeele, forthcoming; Wright et al. 2011; Park & Rainey 2008) also find a positive relationship between the two concepts. This general expectation is expressed in hypothesis 1.

H1: Employees with managers who use transformational leadership do, *ceteris paribus*, have higher public service motivation (PSM) than other employees.

This is not, however, enough: We need to know more about under what conditions transformational leadership has a potential to motivate employees in the public sector. In this paper, we focus on how value conflict can moderate the association. A value is a "conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means, and ends of action" (Kluckhohn, 1962:365). We focus specifically on public values understood as "the principles on which governments and policies should be based" (Bozeman 2007: 13). In other words, we see public values as the desirable way for government to deliver public service. When we look at public organizations, the most relevant public values are the desirable principles for delivering the services, which the organization is responsible for. Additionally, there can easily be value conflicts in relation to these delivered services. Especially after New Public Management, different values co-exist in public organizations, and many of these values, for example efficiency and equality, can easily be incompatible in a specific context (van der Wal et al. 2011:335). Bozeman (2007:14) also argues that "to say that public values are held in common does not mean that they are universally embraced or that people agree on the exact nature or content of public values". Public

managers do, in other words, have to deal with value conflicts (Beck Jørgensen 2003:63), and the question is what this means for their chances for succeeding with transformational leadership in terms of increasing their employees' PSM.

Value conflict is seen as the differences between employees' and managers' priority of what is seen as desirable in specific service production, and incongruence here is expected to make it much harder for the managers to succeed in their appeals to the importance of organizational goals. These goals are often results of compromises between coalitions of individuals or groups, which include politicians, managers, employees, users and so on (Cyert and March 1963). This can mean that employees in organizations with a high level of value conflict are less committed to the goals compared to employees in organizations with lower value conflict. Congruence between employee and management values is therefore seen as an important prerequisite for the association between transformational leadership and PSM. Employees are only expected to respond to organizational mission statements and other strategic communications to the extent that the communicated values fall within the employee's zone of existing values (Paarlberg and Perry 2007). This is especially important for PSM, because Thompson and Bunderson (2003) argue that employees' participation in an organization is dependent on the extent to which employees perceive that the organization provides opportunities to contribute to a larger cause or principle. Kjeldsen and Andersen (2012) also show that the perceived opportunity to do "the desirable" is important for the relationship between PSM and job satisfaction. For these reasons, it is expected to be crucially important for the effect of transformational leadership on PSM that there is a basic agreement about mission and vision, i.e. no serious value conflict. Our most important expectation, which is also expressed in hypothesis 2 below, is therefore that value conflict moderates the association between transformational leadership and employee PSM in the sense that the relationship is only positive when the level of value conflict is low.

Hypothesis 2: The degree of value conflict moderates the association between managers' transformational leadership and their employees' PSM.

How the theoretical expectations are tested is discussed below.

Research design, data and methods

The research design is a cross-sectional, mixed method study of employees in Danish University Colleges, which educate teachers, pedagogues, nurses and social workers. We have chosen to test whether public values moderate the transformational leadership-PSM

relationship in this sector, because the Danish University Colleges have strong public service oriented missions, and because conflicting public values exist in these organizations (for more information about these colleges, see Rectors' Conference - University Colleges Denmark 2012 and Krogsgaard & Thomsen 2012). Our data combines a survey of 968 university college employees with five qualitative interviews and seven mission statements as explained in further detail below.

The respondents in the survey are frontline workers, that is, direct producers of educational services, and we contacted all relevant employees from 63 of the 64 Danish university college educations, which educate teachers, pedagogues, nurses or social workers (the last relevant education was unwilling to participate). Organizationally, these educations belong to seven different university colleges. The survey was sent out to the respondents' individual email addresses and obtained answers from 49 percent of the relevant employees. It was open between May 30 and June 15 2012 and included two reminders to respondents who had not answered after 5 and 10 days, respectively. All respondents were ensured complete anonymity. The distribution of respondents on the four types of university college educations can be seen in table 1.

Table 1 Distribution of respondent on the different types of university college educations

	Teacher education	Pedagogue education	Social worker education	Nurse education	Total
Number of respondents	316	308	75	269	968
Percent of all respondents	32,64%	31,82%	7,75%	27,79%	100,00%

For the qualitative part of investigation, we interviewed five front line workers from university colleges with varying size, also ensuring that all four types of university college educations were represented. The interviews were conducted between April 11 and May 23 2012. We also collected mission statements from all seven university colleges. Interviews and mission statements were used both to gain an in-depth knowledge of the workings of the university colleges and to be able to find relevant public values to ask about in the following survey.

Value conflict is, as mentioned, seen as the degree of difference in priority between employee and management in what is seen as desirable in the specific service production. Operationally, we asked the respondents in the survey to rank seven public values in two ways: How they themselves prioritized the values and how they perceived

that the management prioritized the same values. The selection of the seven values was based on qualitative coding of both interviews and mission statements (as suggested by Bozeman (2007: 142)). Our criteria were (1) how relevant the values appeared to be for employees and managers, and (2) whether the values were potentially conflicting. Table 2 shows the investigated public values, which will also be discussed below.

Table 2 Investigated public values

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1. Compliance with professional norms
 2. Optimal resource allocation
 3. General societal responsibility
 4. Equal, rule-based treatment of students
 5. Student completion of education
 6. Interorganizational cooperation
 7. Practice orientation
-

The first value, “compliance with professional norms”, was included, because frontline workers at the university colleges are professionals (Andersen & Pedersen 2012), making it plausible that the norms within their occupations are strong and may clash with other public values. This could for example be the second value, “optimal resource allocation”, which has been highlighted in recent mergers of university colleges and is expected to be highly prioritized by the management (see also Andersen, Jørgensen, Kjeldsen, Pedersen & Vrangbæk 2012 for discussion of potential value conflict between these values). The third value, “general societal responsibility”, was inspired by Vrangbæk’s (2009:14) analysis of Danish public sector values, the general literature on public values and PSM (Andersen, Jørgensen, Kjeldsen, Pedersen & Vrangbæk 2012) and statements from the interviewees. The fourth value, “equal, rule-based treatment of students”, is also inspired by the Danish public value literature (Vrangbæk 2003), and it may conflict with both optimal resource allocation and student completion, because these considerations suggest that resources are used unequally (because the effect of the resources often varies between students). The fifth value, “student completion of the education”, reflects the political focus on the decreasing completion rates of the university colleges (Danske Regioner et al. 2009:2). Especially the mission statements confirm that this is a relevant value. The sixth value, interorganizational cooperation, was also found in the mission statements. Many university colleges thus emphasise development of cooperation and networks with other educational institutions (e.g. universities and vocational colleges).

Finally, the seventh value, "practice orientation", has been included, because several interviewees expressed that this was important.

In the questionnaire, the respondents were asked to rank the values from 1 to 7 (1 being the highest priority) for them and their management (as a whole). The degree of value conflict was then calculated as the difference between the priorities. Specifically, we calculated the *general value conflict* as the sum of differences in points for the seven values divided by the maximum possible value conflict and then multiplied with 100 to make the measure go from zero to 100. If a respondent for example had the same priority as the management on five values, but differed with one point for each of the last two values (e.g. giving compliance with professional norms being first priority in his own priority and second priority in the management's priority and oppositely for optimal resource allocation) his difference between priorities (2 points) was divided by the maximum possible difference (24 points) and multiplied with 100, leaving him with the score 8 on the index from 0 to 100. If respondents did not use all the priorities between 1 and 7, their priority difference was divided by the maximum possible score, given the used priorities. We also calculated an alternative measure as a robustness test, assuming that the respondents could use all seven priorities for all values, because a few respondents answered the question in this way, and we wanted to make sure that the calculation of the measure did not affect the results. In the alternative calculation, the difference in priority was divided by the maximum possible difference under the assumption that all priorities could be used (meaning that the difference between employee and management could be 6 for all seven values, resulting in a maximum difference of 42 points). For the measures of *value conflict on the individual values*, the main strategy was to calculate the difference (in points) between respondent and manager and then divide by the maximal possible number of points given the priorities used by the individual ($7-1=6$ points if they used the scale correctly). For the alternative strategy, we divided by 6 for all respondents (and, like for the other indexes, multiplied by 100). There is no substantial difference between the results based on the main strategy for calculating value conflict and the alternative strategy.

PSM is measured as an unweighed index consisting of the four dimensions "commitment to the public interest", "compassion", "self-sacrifice" and "attraction to policy making". The items, which we use to measure these dimensions are strongly inspired by Perry (1996), but also adjusted to the Danish context (Andersen et al. 2011; Andersen & Pedersen 2012). The factor analysis (table A1 in the Appendix) shows the expected dimensions, and Cronbach's alpha is also highly satisfactory except for attraction to policy making where it is only 0.55. Otherwise, measurement validity and

reliability is high for the PSM measures (see table A1 in the appendix for factor loadings, Cronbach alpha values and exact wording of the items).

In line with Wrigth et al. (2011), the items used to measure transformational leadership were selected from four socialized charismatic leadership subscales: Vision, role modeling, inspirational communication, and intellectual stimulation (House 1998). The three last-mentioned scales reflect inspirational motivation, idealized influence, and intellectual stimulation, and we used one item from each scales, while we used two items from the vision scale. We also included two new items, adapted to the specific Danish context based on the interviews. The reason for this priority was the high importance that transformational leadership places on organizational goals and vision. The information about the managers' leadership style comes from the employees, meaning that it is their perception of this. We asked the same questions for both direct managers and top management and made a sum index for each. The exact wording of the items and the factor analysis can be seen in table A2 and A3 in the appendix. The reliability is highly satisfactory with Cronbach's alpha= 0.922 for direct managers and 0.882 for top management.

The analyses are OLS regressions controlled for age, gender and type of university college education. The reason for including gender and age is that "neglecting control for these variables will almost certainly render biased results" in PSM research (Vandenabeele 2010:101), and we include the type of university college education, which the individual was teaching at, because it is highly possible that PSM varies between these difference fields. If there is also variation in the level of transformational leadership between the types of university college educations (and this is possible), neglecting this control could potentially confound the analysis. We also tested for the following variable, although we did not include them in the final analysis: Employees educational background, tenure of the direct manager and interaction terms between these variables and transformational leadership of the investigated manager. The reason for omitting them in the final analysis was parsimony, given that we found no significant associations for these variables, and that there was no change in any of the other associations.

To test the robustness of our results (not shown, but available from the authors), we estimated the regressions with dummy variables for each university college. There was no difference (substantively or statistically) between models with these variables and the shown results. This was also the case for models with alternative calculation of value conflict and for models with each PSM dimension as dependent variable (patterns were the same for all the dimensions, indicating that it is sensible to treat PSM as one concept in this connection). Finally, we split the data on type of university college education and

did the analyses for individuals educating teachers, nurses, pedagogues and social workers, respectively. This last test had, as a consequence of the lower number of respondents in each of the four analyses, a lower level of statistical significance, but we found the same basic results for all four types of university college educations.

Results

As discussed above, we analyse hypothesis 1 and 2 for both the direct manager and for the top management of the organization. Table 3 shows the results of the analyses of the associations between the *direct manager's* transformational leadership and employee PSM. Model 1 shows the association between transformational leadership and PSM without considering the level of value conflict (but still controlling for gender, age and type of university college education). There is a statistically significant, positive association, indicating that hypothesis 1 can be accepted. Employees with managers who use transformational leadership tend to have higher PSM than other employees. We will later discuss in depth whether this can be interpreted as a causal relationship (i.e. whether transformational leadership affects PSM).

Both model II and III include the general degree of value conflict, and the difference between the two models is that model III also includes an interaction term between the direct manager's transformational leadership and the general degree of value conflict. Model II indicates that value conflict in itself is not associated with PSM. Although we did not form expectations about this, it is hardly surprising that we find no relationship. One interpretation is that there is no direct causal relationship between value conflict and PSM. An alternative interpretation is that high value conflict decreases PSM, but that high PSM means that employees easier get to disagree with management about values. This is not the relevant issue here: The important thing is to find out whether the present level of value conflict moderates the association between transformational leadership and PSM as expected in hypothesis 2. And this is actually the case. There is a statistically significant negative interaction in model III.

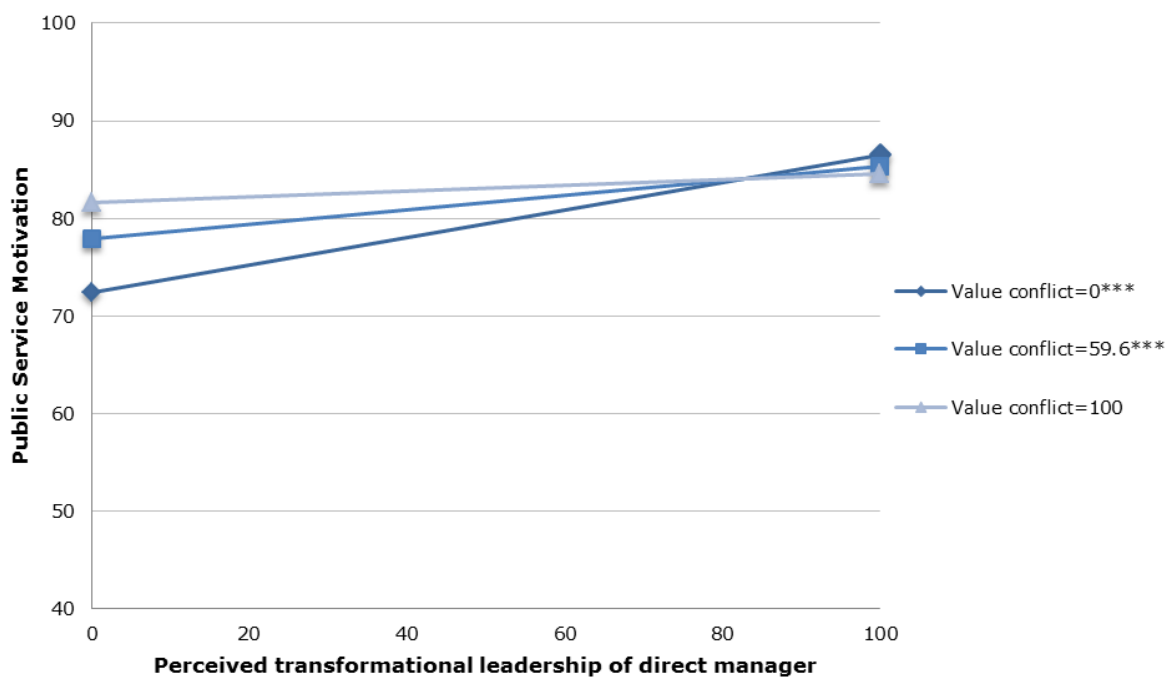
Table 3 OLS regressions of PSM and direct manager's transformational leadership. Unstandardized reg. coef. (st. errors)

	Model I	Model II	Model III	Model IV	Model V
Direct manager's transformational leadership (employee perceived)	0.066*** (0.014)	0.073*** (0.015)	0.141*** (0.035)	0.076*** (0.015)	0.182*** (0.043)
General value conflict		0.022 (0.013)	0.092* (0.035)		
Direct manager's tranf. leadership* general value conflict			-0.0011* (0.0005)		
Value conflict on compliance with professional norms				-0.004 (0.010)	0.013 (0.026)
Value conflict on optimal resource allocation				-0.012 (0.011)	0.011 (0.030)
Value conflict on general societal responsibility				0.019 (0.012)	0.079* (0.031)
Value conflict on equal, rule-based treatment of students				0.012 (0.013)	0.033 (0.033)
Value conflict on student completion of education				0.026* (0.010)	0.049† (0.028)
Value conflict on interorganizational cooperation				-0.011 (0.012)	-0.017 (0.031)
Value conflict on practice orientation				0.002 (0.012)	0.039 (0.031)
Tranf. Leadership*Value conflict on compliance with prof. norms					-0.0003 (0.0004)
Tranf. Leadership*value conflict on optimal resource allocation					-0.0003 (0.0005)
Tranf. Leadership*value conflict on general societal responsibility					-0.0010* (0.0005)
Tranf. Leadership*value conflict on equal,rule-based student treat.					-0.0003 (0.0005)
Tranf. Leadership*value conflict on student completion of education					-0.0003 (0.0004)
Tranf. Leadership*value conflict on interorganizational cooperation					0.0001 (0.0005)
Tranf. Leadership*value conflict on practice orientation					-0.0006 (0.0005)
Age	0.018 (0.042)	0.020 (0.041)	0.014 (0.042)	0.027 (0.042)	0.018 (0.042)
Gender (1=female)	0.313 (0.782)	0.297 (0.782)	0.214 (0.781)	0.312 (0.784)	0.203 (0.786)
Type of university college education (Ref. = Education of nurses)					
Education of social workers	4.629** (1.424)	4.708** (1.423)	4.575** (1.421)	4.671** (1.427)	4.300** (1.443)
Education of teachers	1.256 (0.919)	1.393 (0.921)	1.280 (0.921)	1.405 (0.921)	1.242 (0.923)
Education of pedagogues	1.712† (0.902)	1.824* (0.904)	1.736† (0.903)	1.962* (0.060)	1.823* (0.909)
Constant	65.56*** (2.546)	63.66*** (2.787)	59.70*** (3.352)	62.97*** (2.872)	56.41*** (3.804)
N	842	842	842	842	842
Adjusted R ²	0.025	0.027	0.031	0.032	0.035

Note: †; *; **; ***: p<0.1; 0.05; 0.01; 0.001.

Figure 1 illustrates this interaction effect. For three different degrees of value conflict, the figure shows the estimated association between transformational leadership and PSM. It also shows that the association is statistically significant for value conflict degrees of zero (no conflict) and 59.6 (the average value conflict), while there is no statistically significant association between transformational leadership and PSM for the maximum level of value conflict (100). These results strongly support hypothesis 2 which expects that the degree of value conflict moderates the association between managers' transformational leadership and their employees' PSM. In other words, the direct manager's transformational leadership only seems to be positively related to employee PSM if there is not high value conflict.

Figure 1 Illustration of the association between transformational leadership of direct manager and PSM for different degrees of value conflict



Note: The illustration is for minimum, average and maximum value conflict and illustrates the associations shown in table 3, model III. All other variables are given average values in the illustration. The empirically observed minimum PSM is 40 as illustrated by the minimum on the vertical axis.

Model IV and V in table 3 differentiate between the different values. Model V shows that it is especially value conflict in relation to "general societal responsibility" which

moderates the relationship between the direct manager's transformational leadership and PSM. This is highly understandable, given that PSM can be interpreted as the motivation to contribute to society in the way the individual sees as desirable. If there is conflict concerning the priority of general societal responsibility as desirable, direct managers seem to be unable to affect the employees' orientation to take this responsibility in term of being motivated to deliver service to people with the purpose of doing good for others and society.

In terms of control variables, table 3 shows that neither gender nor age is statistically associated with PSM. This should not, however, be seen as a sign that these variables are not generally important for PSM: There is limited gender and age variation among the employees, and the inclusion of these variables was only done to make sure that gender or age effects did not confound the other associations. Concerning type of university college education, we find that employees who educate social workers have significantly higher PSM than employees who educate nurses (the reference category). Employees who educate pedagogues also seem to have slightly higher PSM than employees who educate nurses.

In table 4, the findings for the control variables are similar. Table 4 includes the transformational leadership of the top management and is constructed in the same way as table 3 (except that we look at the transformational leadership of the top manager (top managers if there are more than one) instead of the direct manager). The findings are also very similar. Again, model I supports hypothesis 1, given that there is a significant and positive association between the top management's transformational leadership and employee PSM. Model II and model IV support hypothesis 2, given that they show significant interaction between transformational leadership and the degree of value conflict. However, one difference between table 3 and table 4 is noteworthy: Model IV in table 4 shows that it is especially value conflict in relation to compliance with professional norms which moderates the relationship between the top management's transformational leadership and PSM while it was general societal responsibility for the direct managers (table 3, model IV). One interpretation could be that this has to do with shared professional identity between manager and employee. Based on the interviews, our impression is that the direct manager often belongs to the same profession as the employee, while top managers tend to belong to another profession than the employee. This could explain why conflict concerning professional norms is less significant in the relationship between employee and direct manager.

Table 4 OLS regressions of PSM and top management's transformational leadership. Unstandardized reg. coef. (st. errors)

	Model I	Model II	Model III	Model IV	Model V
Top management transformational leadership (employee perceived)	0.039* (0.017)	0.042* (0.017)	0.176*** (0.041)	0.044* (0.018)	0.173*** (0.048)
General value conflict		0.015 (0.014)	0.134*** (0.035)		
Top management tranf. Leadership* general value conflict			-0.0022*** (0.0006)		
Value conflict on compliance with professional norms				-0.005 (0.011)	0.072* (0.029)
Value conflict on optimal resource allocation				-0.015 (0.012)	-0.001 (0.032)
Value conflict on general societal responsibility				0.010 (0.013)	0.032 (0.033)
Value conflict on equal, rule-based treatment of students				0.005 (0.014)	0.057† (0.033)
Value conflict on student completion of education				0.025* (0.011)	-0.009 (0.029)
Value conflict on interorganizational cooperation				-0.009 (0.012)	0.030 (0.033)
Value conflict on practice orientation				0.002 (0.013)	0.038 (0.032)
Tranf. Leadership*Value conflict on compliance with prof. norms					-0.0015* (0.0005)
Tranf. Leadership*value conflict on optimal resource allocation					-0.0002 (0.0006)
Tranf. Leadership*value conflict on general societal responsibility					-0.0004 (0.0006)
Tranf. Leadership*value conflict on equal,rule-based student treat.					-0.0009 (0.0006)
Tranf. Leadership*value conflict on student completion of education					0.0007 (0.0005)
Tranf. Leadership*value conflict on interorganizational cooperation					-0.0007 (0.0006)
Tranf. Leadership*value conflict on practice orientation					-0.0007 (0.0006)
Age	0.013 (0.045)	0.014 (0.045)	0.011 (0.045)	0.0291 (0.045)	0.030 (0.045)
Gender (1=female)	0.439 (0.831)	0.445 (0.831)	0.457 (0.824)	0.548 (0.826)	0.334 (0.823)
Type of university college education (Ref. = Education of nurses)					
Education of social workers	3.224* (1.541)	3.261* (1.541)	3.340* (1.5291)	3.243* (1.526)	2.851† (1.522)
Education of teachers	1.188 (0.979)	1.275 (0.982)	1.281 (0.945)	1.315 (0.978)	1.130 (0.973)
Education of pedagogues	1.843 (0.976)	1.914 (0.978)	1.968* (0.9705)	2.007* (0.975)	2.052* (0.969)
Constant	67.92*** (2.710)	66.75*** (2.938)	59.40*** (3.541)	65.015*** (2.975)	58.50*** (3.913)
N	746	746	746	754	754
Adjusted R ²	0.005	0.005	0.021	0.007	0.023

Note: †; *; **; ***: p < 0.1; 0.05; 0.01; 0.001.

Discussion and conclusion

The key finding in the paper is that value conflict actually moderates the relationship between transformational leadership and PSM for both direct managers and top management. Only if there is limited value conflict, we find a positive relationship between transformational leadership and employee motivation. If we look at conflict on specific public values, we find that especially conflict on “general societal responsibility” moderates the relationship for direct managers’ transformational leadership, while it is “compliance with professional norms” for top management’s transformational leadership.

A very relevant question is whether these associations can be interpreted as causal relationships. This involves several challenges. The first challenge is that all three concepts (transformational leadership, value conflict and PSM) have been measured in the same questionnaire. This makes it possible that at least some of the correlation between transformational leadership and PSM is due to common source bias. More specifically, social desirability would make the same respondents answer high on both these variables. Still, there is no reason to believe that social desirability should affect the response concerning value conflict, given that we asked the respondents to prioritize between seven values which can all be seen as desirable. This is in line with lack of correlation between the degree of value conflict and PSM. Even if part of the association between transformational leadership and PSM should be due to common source bias, there is therefore no reason to think that the moderation is due to this bias.

The second challenge is that it is difficult to know whether transformational leadership affects PSM or the other way around. It is possible that the managers adjust their leadership to their employees, and they might choose a more transformational style if their employees have high PSM. Still, they typically have many employees (especially the top managers), so they can hardly fine-tune their leadership style to the individual employee. One could also argue that transformational leadership is less relevant for employees with high public service motivation because they would then already be highly motivated to work in university colleges with public service tasks (implying a negative association which is opposite to what we actually find). Here, it is relevant to remember that we measured transformational leadership as the employees’ perception of the leadership style of the direct manager and top management, respectively. This has several advantages such as the argument that leadership cannot theoretically be expected to affect anything if it is not transmitted to the employee and the aspect that social desirability bias is probably less important in evaluations of other people’s behaviour than in one’s own behaviour. Still, in terms of the challenge concerning

reverse causality, it should be noted that PSM may also affect the employees' perception of their managers' leadership style, regardless of the actual leadership style.

The third challenge is that transformational leadership could also be important for the degree of value conflict, at least in the long run. The analyses in this paper are based on an understanding of values as relatively stable (at least more stable than motivation), but other contributions suggest that transformational leadership also affects the values (Moynihan et al. 2011:8; Vandenabeele 2008:3). Actually, parts of the literature argue that transformational leadership is expected to increase the congruence between organizational and employee values by clarifying organizational goals (Paarlberg & Lavigna 2010; Ritz 2009; Bass & Riggio 2006). This may very well be the long time effect of transformational leadership, but only studies over time can determine this. In such a longitudinal study, Oberfield (2012) shows that transformational leadership matters, but he also argues that cross-sectional examinations may overvalue its effect, and we fully agree with his call for further longitudinal public management study. Based on this paper, we suggest that such studies should include the level of agreement on key public values. For now, the most important implication of our results is that the degree of value conflict is important, at least in the short run, as a moderator of the association between transformational leadership and PSM. Causal interpretations of the findings should await further studies, but this does not make the present study irrelevant. Having shown such a clear moderation of the association between transformational leadership and PSM, the results strongly suggest that future research should take value conflict into consideration, and it is also useful for practitioners to know that they should only expect a relationship between their employees' perception of their transformational leadership and the employees' PMS if there is no serious value conflict.

This brings us to another question, namely the generalizability of the moderated association. We have already shown that the mechanisms seem to be alike (but not totally similar) for different management levels. However, as long as we talk about moderation from public values the theoretical argument is clearly limited to public service provision. Furthermore, it should be remembered that university colleges were chosen, because we knew that some value conflict existed in these organizations. There might be public organizations with very limited value conflict, although the literature (e.g. Dixit 2002; Andersen, Jørgensen, Kjeldsen, Pedersen & Vrangbæk 2012) indicates that value/goal conflict is present in most public organizations. This study only includes Danish organizations, and it would be very interesting to study the same theoretical associations in another macro-institutional context, although there is no reason to assume that the basic mechanisms are not the same. Our study does, however, indicate

that it might be different value conflicts, which are relevant in different contexts, and we therefore urge future research to operationalize value conflict with sensitivity towards the studied context.

Our key finding is therefore that it is highly relevant to include public values in future studies of leadership and PSM, supporting the claim that motivation and values are related in many ways and that research should consider the concepts together.

Appendix

Table A1 Explorative factor analysis of the PSM items

Dimension	Items	Factor loadings			
		1	2	3	4
Commitment to the public interest (CPI)	Meaningful public service is very important to me <i>Det er meget vigtigt for mig, at de offentlige ydelser er i orden</i>	-0.116	0.167	0.022	-0.559
	I would prefer seeing public officials do what is best for the whole community even if it harmed my interests <i>Jeg så helst, at offentligt ansatte gør det, der er bedst for hele samfundet, selvom det skulle gå ud over mine egne interesser</i>	0.226	-0.119	-0.005	-0.627
	I consider public service my civic duty <i>Det er min borgerpligt at gøre noget, der tjener samfundets bedste</i>	0.163	-0.039	-0.005	-0.752
	I feel that I contribute to the community <i>Jeg føler, at jeg bidrager til samfundet</i>	-0.039	0.134	0.098	-0.451
Compassion (COM)	It is difficult for me to contain my feelings when I see people in distress <i>Jeg bliver følelsesmæssigt berørt, når jeg ser mennesker i nød</i>	-0.004	0.669	-0.007	0.012
	To me, considering the welfare of others is very important <i>For mig er hensyntagen til andres velfærd meget vigtig</i>	0.006	0.827	0.037	-0.063
	I am often reminded by daily events about how dependent we are on one another <i>Daglige begivenheder minder mig ofte om, hvor afhængige vi er af hinanden</i>	0.154	0.585	-0.051	-0.039
Self-sacrifice (SS)	Making a difference in society means more to me than personal achievements <i>Det er vigtigere for mig at gøre en forskel i forhold til samfundet end at opnå personlig vinding</i>	0.499	0.152	-0.012	-0.101
	I feel people should give back to society more than they get from it <i>Jeg mener, at man skal bidrage med mere til samfundet, end man modtager</i>	0.528	-0.052	-0.025	-0.184
	I am willing to risk personal loss to help society <i>Jeg er villig til at risikere at skulle tilsidesætte mine personlige behov for samfundets skyld</i>	0.891	0.054	0.033	0.061
	I am prepared to make sacrifices for the good of society <i>Jeg er klar til at lide afsavn for samfundets skyld</i>	0.786	0.056	0.079	0.051
Attraction to policy-making (ATP)	I associate politics with something positive <i>Jeg forbinder generelt politik med noget positivt</i>	0.161	-0.002	0.710	0.057
	Here and there, it is necessary to cut corners to reach a decent result <i>Nogle gange er det nødvendigt at klippe en tå og hakke en hæl for at nå et ordentligt resultat</i>	-0.004	-0.016	0.229	-0.065
	I do not care much about politicians (R) <i>Jeg har ikke særligt høje tanker om politikere (R)</i>	-0.074	0.011	0.652	0.043

Note: Extraction method: Principal Axis Factoring. Rotation method: Oblimin with Kaiser Normalization. Cronbach's alpha for CPI is 0.726, for COM 0.744, for SS 0.802 and for ATP 0.552.

Table A2. Factor analysis of employees' perception of their direct managers' transformational leadership.

Items	Factor loadings
My direct manager clearly articulates a vision for the educational institution <i>Min nærmeste leder kommunikerer klart en vision for uddannelsesinstitutionen</i>	0.896
My direct manager clearly articulates a mission for the educational institution <i>Min nærmeste leder kommunikerer klart en mission for uddannelsesinstitutionen</i>	0.866
My direct manager has a clear sense of where the educational institution should be in the future. <i>Min nærmeste leder har en klar idé om, hvad der skal kendetegne uddannelsesinstitutionen i fremtiden</i>	0.862
My direct manager says positive things about being part of the educational institution <i>Min nærmeste leder taler positivt om det at være en del af uddannelsesinstitutionen</i>	0.664
My direct manager leads by setting a good example. <i>Min nærmeste leder går forrest som et godt eksempel</i>	0.828
My direct manager challenges me to think about old problems in new ways. <i>Min nærmeste leder opmuntrer mig til at anskue problemer på nye måder</i>	0.758

Note: Extraction method: Principal Axis Factoring. Only one factor med en Eigenvalue over 1 was extracted. Eigenvalue: 4,311. Cronbach's Alpha: 0.922.

Table A3. Factor analysis of employees' perception of their top management's transformational leadership.

Items	Factor loadings
The top management clearly articulates a vision for the educational institution <i>Den øverste ledelse kommunikerer klart en vision for uddannelsesinstitutionen</i>	0.832
The top management clearly articulates a mission for the educational institution <i>Den øverste ledelse kommunikerer klart en mission for uddannelsesinstitutionen</i>	0.869
The top management has a clear sense of where the educational institution should be in the future. <i>Den øverste ledelse har en klar idé om, hvad der skal kendetegne uddannelsesinstitutionen i fremtiden</i>	0.828
The top management says positive things about being part of the educational institution <i>Den øverste ledelse taler positivt om det at være en del af uddannelsesinstitutionen</i>	0.607
The top management leads by setting a good example. <i>Den øverste ledelse går forrest som et godt eksempel</i>	0.741
The top management challenges me to think about old problems in new ways. <i>Den øverste ledelse opmuntrer mig til at anskue problemer på nye måder</i>	0.588

Note: Extraction method: Principal Axis Factoring. Only one factor med en Eigenvalue over 1 was extracted. Eigenvalue: 3,793. Cronbach's Alpha: 0.882.

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