Leadership and fulfillment of the three basic psychological needs at work

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Abstract

Purpose – The purpose of this paper is to explore the relationship between transformational leadership and a transactional leadership component (management by exception-active), and fulfillment of the basic needs of autonomy, competence and relatedness.

Design/methodology/approach – The paper is based on cross sectional data from 661 employees who completed validated questionnaires such as the the multifactor leadership questionnaire (MLQ) and the basic need satisfaction at work (BNSW). The data were analysed using structural equation modeling in AMOS 18.0.

Findings – The results show that both transformational leadership and the transactional behavior management by exception active are significantly related to fulfillment of the basic needs. Significant regression weights of 0.50 ($p < 0.01$) 0.46 ($p < 0.01$), and 0.21 ($p < 0.01$) from transformational leadership to relatedness, autonomy and competence were also found. Negative and smaller paths were revealed from management by exception to relatedness ($= -0.12$, $p < 0.01$), competence ($= -0.12$, $p < 0.05$), and autonomy ($= -0.18$, $p < 0.01$). Squared multiple correlations (R^2) for relatedness, competence and autonomy were 0.28, 0.06, and 0.27, respectively.

Originality/value – The paper empirically addresses the theoretically suggested link between transformational leadership and need fulfillment.

Keywords Transformational leadership, Transactional leadership, Management by exception-active, Need fulfillment, Autonomy, Competences, Relatedness, Leadership, Behaviour

Paper type Research paper

A basic assumption of self-determination theory is that human beings are motivated by three inherent psychological needs; the needs for autonomy, competence and relatedness, respectively (Deci and Ryan, 2000). Several work-related factors could be important for fulfillment of these psychological needs. However, questions concerning potentially relevant work factors related to psychological need fulfillment are still unresolved.

There is reason to believe that leadership could be of special importance in providing a feeling of relatedness, autonomy, and sense of competence at the workplace (Hetland *et al.*, 2010). Especially leadership involving inspiration, support, positive role modeling, and empowerment has been hypothesized to be related to need satisfaction (Bass and Riggio, 2006). Although need fulfillment has been suggested as central in leadership processes (Bono and Judge, 2003; Gagne and Deci, 2005), the empirical evidence on this issue is limited. Consequently, the focus of this article is to investigate how leadership is related to fulfillment of the three basic psychological needs in a work setting.

Needs and leadership
The work place is an arena which clearly can both meet and thwart employees' needs in terms of autonomy, competence and feelings of relatedness to others. The need for autonomy implies that people have a universal urge to be causal agents and to experience volition (deCharms, 1968). The need for competence concerns people's inherent desire to be effective in dealing with the environment (White, 1959) and the need for relatedness or belongingness reflects the universal propensity to interact with, be connected to, and experience caring for other people (Baumeister and Leary, 1995). Within this context, needs are regarded as universal necessities that constitute nutriments required for proactivity, optimal development, learning (Deci *et al.*, 1996), as well as for psychological health of people (Deci and Vansteenkiste, 2004). Within specific domains, especially those central to people's lives, such as work settings, satisfaction of the needs is also suggested to be related to general well-being (Deci and Ryan, 2000). Along this line, a recent study revealed that need satisfaction in a work setting was positively related to enjoyment of work (Andreassen *et al.*, 2010).

Interestingly, research on leadership shows that some leadership styles seem to be better suited to increase motivation and well-being among employees than others (Yukl, 2006). In line with self-determination theory, proponents of transformational leadership theory claim that a key feature of transformational leaders, is that they are able to meet followers' needs (Bass and Avolio, 2004). Leaders have a unique position through which they can substantially influence crucial factors concerning employees' motivation and health (Gagne and Deci, 2005; Nielsen *et al.*, 2008).

Transformational leadership and the basic needs
Bass and his colleagues (Bass, 1985, 1997, 1999) have suggested that transformational leadership represents an outstanding and especially motivating leadership style. Transformational leadership implies that the leader acts as an ideal who influences through visions, uses inspirational motivation, shows individual consideration and intellectually stimulates followers (Bass and Avolio, 1995). This type of leadership comprises four main components "Idealized influence" and "Inspirational motivation" reflect that the leader provides followers with a clear sense of purpose that is energizing, and serves as a role model for ethical conduct which builds identification with the leader and his/her articulated vision. "Intellectual stimulation" means that the leader gets followers to question the traditionally and common ways of solving problems; encourages them to question the methods they use to improve on them, whereas "Individualized consideration" signifies that the leader focuses on understanding the needs of each follower and works continuously to get them to develop to their full potential (Bass and Avolio, 2004).

Previous research has linked transformational leadership to an extensive list of outcome variables such as job satisfaction, motivation and well-being (Hetland and Sandal, 2003; Hetland *et al.*, 2007; Judge and Piccolo, 2004; Podsakoff *et al.*, 1990). These relationships have also been confirmed in different cultural setting (Den Hartog *et al.*, 1999; Den Hartog *et al.*, 1997).

Supportive leadership has been shown to be important for self-determination (Deci *et al.*, 1989). A central component of transformational leadership is as mentioned providing individual consideration and support. One could therefore also expect transformational leadership to be positively related to fulfillment of the three basic psychological needs (Bass, 1985).

Especially relevant to the need for autonomy, transformational leadership is postulated to develop and encourage employees (Bass, 1997), and could as such be linked to fulfillment of this need. Moreover, a recent study revealed a positive relationship between transformational leadership and perceived autonomy in the work climate (Hetland *et al.*, 2010). Although the latter study did not address need fulfillment *per se*, it suggests that transformational leaders provide followers with choice and decision opportunities.

Regarding fulfillment of the competence need, transformational leaders use intellectual stimulation to encourage followers to question the tried and true ways of solving problems and encourages them to question the methods they use in order to improve on them. They also use individualized consideration to ensure that the needs of each follower are met, and continuously help them to develop to their full potential. An empirical study in the IT sector revealed an association between perceptions of transformational leadership and a sense of professional efficacy in employees (Hetland *et al.*, 2007). In line with this, opportunities to develop and to be creative have also been related to transformational leadership (Hetland *et al.*, 2010).

The need for relatedness/belongingness encompasses the social part of us. The workplace is an arena that can provide social support, especially as we spend a substantial amount of our time and effort at work. Consequently, relatedness to our leaders, colleagues and subordinates is essential. Transformational leadership is suggested to enhance commitment to the group and to the leader (Avolio *et al.*, 2004). Along this line, two rather unique investigations addressing charismatic leadership (a style parallel to transformational leadership) and the need for relatedness or belongingness exist in literature (De Cremer and van Knippenberg, 2002; Den Hartog *et al.*, 2007). The first study revealed a relationship between charismatic leadership and the need to belong/relatedness through use of an experimental design (De Cremer and van Knippenberg, 2002). Building on these findings, the second study also showed a direct link between charismatic leadership and the need to belong using survey data (Den Hartog *et al.*, 2007). Thus, we argue that a positive relationship between transformational leadership and relatedness is likely to exist.

Finally, findings from a recent study (Hetland *et al.*, 2010) have revealed a positive relationship between transformational leadership and perceived learning climate at work. Especially the findings on transformational leadership and autonomy support, opportunities to develop, and a supportive team style, are of interest in relation to basic need fulfillment, as the outcomes parallel the needs emphasized in the present study. So far, no study has to our knowledge investigated the relationship between transformational and transactional leadership and basic psychological needs in a

work setting. Both theory and previous research indicate that there should be a positive link between need fulfillment and transformational leadership (Mayer *et al.*, 2008). On the basis of this we conducted a study exploring the relationship between these concepts. We hypothesize (*H1*) that transformational leadership is positively related to fulfillment of the needs of autonomy, competence and relatedness.

Transactional leadership and the basic needs

Within the full-range theory of leadership, transformational leadership is often contrasted with transactional leadership, which implies leadership based on exchange processes. Transactional leadership basically consists of rewards contingent on requested performance, as well as more corrective and monitoring behavior, through the components "contingent reward" and "management by exception" respectively. Whereas contingent reward and similar exchange processes are mainly based on positive reinforcement, the transactional component management by exception (active) is implies an active search for deviations from rules and standards by use of corrective action, and is even in line with descriptions of controlling motivation (Deci and Ryan, 2000; Vansteenkiste *et al.*, 2004).

In the present study we exclusively address this component, as we wish to investigate contrasting transformational and transactional leadership behaviors.

In relation to need fulfillment, transactional behaviors are described to meet followers' needs when they comply with the demands and requirements of the leader (Bass and Avolio, 2004). In transactional leadership, need fulfillment is not unconditional, as there are clear conditions for obtaining rewards from the leader (Bass and Avolio, 2004). Furthermore, the leader is in control of the rewards and is suggested to be less concerned with developing followers through empowering them and inspiring them to go beyond self-interest (Bass, 1990).

Concerning the need for autonomy, transactional leadership could be more closely linked to controlled motivation, as opposed to autonomous motivation, especially for the more corrective and controlling components of transactions, such as active management by exception. As noted, controlled motivation is a function of external contingencies of reward or punishment, and regulation of action by for instance approval or contingent self-esteem (Deci and Ryan, 2008). When people are controlled, they experience pressure to think, feel, or behave in particular ways (Deci and Ryan, 2008), which is clearly a threat to the need for autonomy. Consequently, active management by exception does not seem compatible with a sense of autonomy in followers.

Regarding the need for competence, as the transactional leader is in control of the rewards and conditions surrounding the exchange process, subordinates' autonomy and experience of competence could be undermined by use of such leadership behaviors, compared to transformational leadership. As active management by exception implies a search for deviations from rules and standards by use of corrective action and active monitoring of employees, such transactional behavior is meant to anticipate problems and take corrective actions before creates serious difficulties (Judge and Piccolo, 2004). However, such leadership can easily create fear of failure and a sense that control and monitoring is necessary to ensure good performance, which is again in line with descriptions of controlling motivation (Deci and Ryan, 2000). Consequently, active management by exception appears to be rather incompatible with a feeling of competence at work.

Relatedness is also dependent on a leader's abilities to provide social support, and should be more apparent in transformational than transactional leadership. As active management by exception is more task than relation oriented, it could threaten the need for relatedness. Moreover, it could create insecurity and feelings of insufficient social support, as it is based on avoiding mistakes and not deviating from prescribed standards (Bass and Avolio, 1995; Bass and Avolio, 2004). A study on leadership and learning climate in a work setting recently addressed passive management by exception, as part of a passive leadership style (Hetland *et al.*, 2010). Significant negative associations were found between passive-avoidant leadership, embedding passive management by exception, and perceptions of a less supportive work team (Hetland *et al.*, 2010). This study only included the passive management by exception component, as part of passive-avoidant leadership. Transactional leadership or the component active management by exception were not included, and remains unexplored in this context. Further, the operationalization of the concepts did not comprise need fulfillment *per se*. Consequently, investigations including active management by exception, as well as the standardized scales assessing need fulfillment, are warranted.

In all, we argue that compared to transformational leadership the active management by exception component is not based on a focus on the needs of followers, but rather on external control mechanisms which limit autonomous decision processes among followers. Moreover, such an approach towards employees could possibly threaten fulfillment of their needs for competence, autonomy, and relatedness. Along this line, a meta-analysis of active management by exception showed that it was inconsistently related to a range of outcome criteria (Judge and Piccolo, 2004), suggesting that it is in many ways not perceived as a specifically constructive leadership behavior. As the focus of the present study is on need fulfillment, we postulate that for this particular outcome, there is most likely a negative relationship, since corrective action and control behavior can be a threat to fulfillment of the basic needs. Hence, we hypothesize negative associations between active management by exception and basic need fulfillment (*H2*).

Method
Sample
Internet-based questionnaires were administered to 1,300 Norwegian cross-occupational employees. A total of 661 subjects responded, yielding a response rate of 51 per cent. The sample comprised leaders of a major national pharmaceutical company ($n = 127$), employees of a regional healthcare sector company ($n = 96$), a national TV station ($n = 172$), two different HR consultancy companies ($n = 80$), and employees from two university faculties ($n = 186$). In the final sample 301 respondents (46 per cent) were female, and the mean age was 42.6 years.

Instruments
Transformational leadership and transactional leadership behavior were measured by the Multifactor Leadership Questionnaire (MLQ – form 5X). The MLQ consists of 45 items and several subscales (Avolio *et al.*, 1999). Transformational leadership (20 items, subscales: idealized influence/charisma, inspirational motivation, intellectual stimulation and individual consideration) and active management by exception (4 items) were used in the present study. Although the components contingent reward

consists of highly motivating leadership behaviors, the scale shows a substantial overlap with transformational leadership (Bycio *et al.*, 1995; Tejeda *et al.*, 2001). As we aimed at contrasting transformational and transactional behaviors in the present study, we excluded the contingent reward subscale. Prior to analysis, sum-scores representing the five subscales of transformational leadership were computed. Reliability (Cronbachs alpha) of these sub-scales was 0.80, 0.64, 0.83, 0.82, and 0.84 for charisma/idealized influence, inspirational motivation, intellectual stimulation and individual consideration, respectively. In order to also use composite scores in the measurement of the active management by exception, two and two of the four items were computed into two parcel scores.

Fulfillment of basic needs (autonomy, relatedness, and competence) was measured by the Basic Needs Satisfaction at Work (BNSW) scale. The confirmatory factor analysis showed that the measurement model underlying the basic needs (Deci and Ryan, 2000) did not fit the data ($\chi2(186) = 987.9$, CFI $= 0.93$, TLI $= 0.92$, RMSEA $= 0.08$). In addition, the discriminant validity of the concepts was low as the correlations between the needs was higher than 0.6. To improve the measurement model several steps were taken. First, items loading less than 0.4 were discarded. Second, items that according to the modification indices showed important cross-loadings were not be kept in subsequent analyses. Third, we avoided items responsible for insufficient discriminant validity. Lastly, a balanced item set emerged; thus every concept was measured by a similar number of items. This plan of analysis resulted in a less comprehensive measurement model for basic needs that showed satisfactory fit ($\chi2(32) = 131.6$, CFI $= 0.96$, TLI $= 0.95$, RMSEA $= 0.069$), which had a satisfactory discriminant validity and was quasi-balanced, as each of the needs was measured by only three items, with loadings ranging from 0.43 to 0.82.

Analyses
Structural equation modeling was used in order to examine the adequacy of the overall measurement model of the study constructs and to model the relationship between leadership behaviors and the fulfillment of the psychological needs. The analyses were performed using AMOS 18.0. To evaluate the goodness of fit of the models the following indices were applied: root-mean-square error of approximation (RMSEA), comparative fit index (CFI), and The Tucker-Lewis coefficient (TLI) also known as the Bentler-Bonett non-normed fit index (NNFI). A value of RMSEA less than 0.05 indicates a good fit, while values as high as 0.08 represent reasonable errors of approximation in the population (Browne and Cudeck, 1993). Originally a CFI over .90 was considered to be representative of a well-fitting model (Bentler, 1992); however, a revised cut-off value close to .95 has more recently been advised (Bentler and Yuan, 1999). In the analysis, the different models were also compared by evaluating the change in chi-square relative to the change in degrees of freedom as all models were nested.

Results
Descriptive statistics
Table I shows mean, standard deviation, and inter-correlations for the study variables. The facets of transformational leadership showed significant inter-correlations in the range of 0.60 to 0.81, and a correlation of .48 was found between the two parcel scores

	x̄	sd	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. Attributed Charisma	3.49	0.82															
2. Idealized Influence	3.30	0.71	0.65**														
3. Inspirational Motivation	3.61	0.80	0.75**	0.71**													
4. Intellectual Stimulation	3.40	0.75	0.76**	0.60**	0.68**												
5. Individual Consideration	3.42	0.83	0.78**	0.62**	0.69**	0.81**											
6. Management by except. act.1	2.33	0.84	−0.09*	0.05	−0.08	−0.04	−0.08										
7. Management by except. act.2	2.59	0.84	−0.16**	0.06	−0.11**	−0.10*	−0.17**	0.48**									
8. BPNS 1	5.50	1.25	0.26**	0.19**	0.21**	0.28**	0.26**	−0.13**	−0.14**								
9. BPNS 2	5.72	1.17	0.41**	0.35**	0.39**	0.40**	0.44**	−0.08*	−0.11**	0.35**							
10. BPNS 3	6.05	1.23	0.07	0.08*	0.06	0.07	0.09*	−0.08*	−0.07	0.24**	0.22**						
11. BPNS 6	5.98	1.01	0.26**	0.24**	0.26**	0.23**	0.27**	−0.10*	−0.10**	0.23**	0.55**	0.15**					
12. BPNS 8	5.77	1.29	0.36**	0.29**	0.32**	0.36**	0.40**	−0.09	−0.13**	0.51**	0.46**	0.25**	0.36**				
13. BPNS 12	5.07	1.25	0.23**	0.27**	0.26**	0.23**	0.24**	−0.05	−0.05	0.29**	0.33**	0.20**	0.27**	0.32**			
14. BPNS 19	6.09	1.23	0.12**	0.13**	0.11**	0.12**	0.13**	−0.07	−0.08*	0.24**	0.20**	0.50**	0.17**	0.26**	0.28**		
15. BPNS 20	5.90	1.36	0.24**	0.16**	0.15**	0.21**	0.20**	−0.14**	−0.15**	0.43**	0.25**	0.24**	0.16**	0.40**	0.24**	0.27**	
16. BPNS 21	6.14	1.08	0.28**	0.20**	0.25**	0.25**	0.27**	−0.13**	−0.13**	0.19**	0.47**	0.15**	0.44**	0.42**	0.26**	0.15**	0.21**

Notes: * $p < 0.05$; * $p < 0.001$

Table I.
Mean, standard
deviation, and
inter-correlations for
study variables

measuring active management by exception. The results showed significant positive inter-correlations for all the observed indicators of basic psychological need satisfaction (BPNS). The correlations were in the range of 0.11 to 0.55. Substantial positive correlations were found between the facets of transformational leadership and all the indicators, except for one (BPNS 3), of the BPNS dimensions. In contrast, significant small negative associations were detected between the two parcels scores of active management by exception active and the BPNS indicators.

Measurement model

An overall measurement model (CFA) of leadership behaviors, and the three psychological needs were tested. In the model, all the latent constructs were allowed to correlate. The overall measurement model showed adequate fit ($\chi^2(94) = 363.7$, CFI = 0.94, TLI = 0.92, RMSEA = 0.066). Moreover, acceptable factor loading in the range from .43 to .89 were found for all study constructs. As shown in Table II a significant negative correlation was found between transformational leadership and active management by exception ($r = -0.16$), while positive correlations were found between the three need fulfillment dimensions. The strongest correlations were found between autonomy and relatedness ($r = 0.67$), and between autonomy and competence ($r = 0.58$). The correlation between relatedness and competence was 0.44. Furthermore, Table II shows that transformational leadership was positively linked to relatedness, competence and autonomy. The strongest correlations were found between transformational leadership and relatedness and autonomy 0.49 and 0.53 respectively, while the corresponding correlation with competence was 0.23. In contrast, modest negative correlations were found between active management by exception active and relatedness ($r = -0.20$), competence (-0.15) and autonomy (-0.25).

Structural model

In order to test the structural paths between the study constructs, a structural model implying paths from the leadership styles to the need fulfillment dimensions was tested. The model showed, in accordance with the measurement model, adequate fit ($\chi^2(125) = 452.7$, CFI = 0.93, TLI = 0.92, RMSEA = 0.063), and significant paths were found between both the two leadership styles and the need fulfillment dimensions. The parameter estimates are presented in Figure 1.

As shown in Figure 1, significant regression weights of 0.51 ($p < 0.01$) and 0.46 ($p < 0.01$), where found from transformational leadership and relatedness, and transformational leadership and autonomy, respectively. The path from transformational leadership on autonomy was 0.21 ($p < 0.01$). In line with the

	1.	2.	3.	4.
1. Transformational leadership				
2. Management by exception	−0.16			
3. Relatedness	0.53	−0.20		
4. Competence	0.23	−0.15	0.44	
5. Autonomy	0.49	−0.25	0.67	0.58

Notes: [*] All correlations $p < 0.01$

Table II.
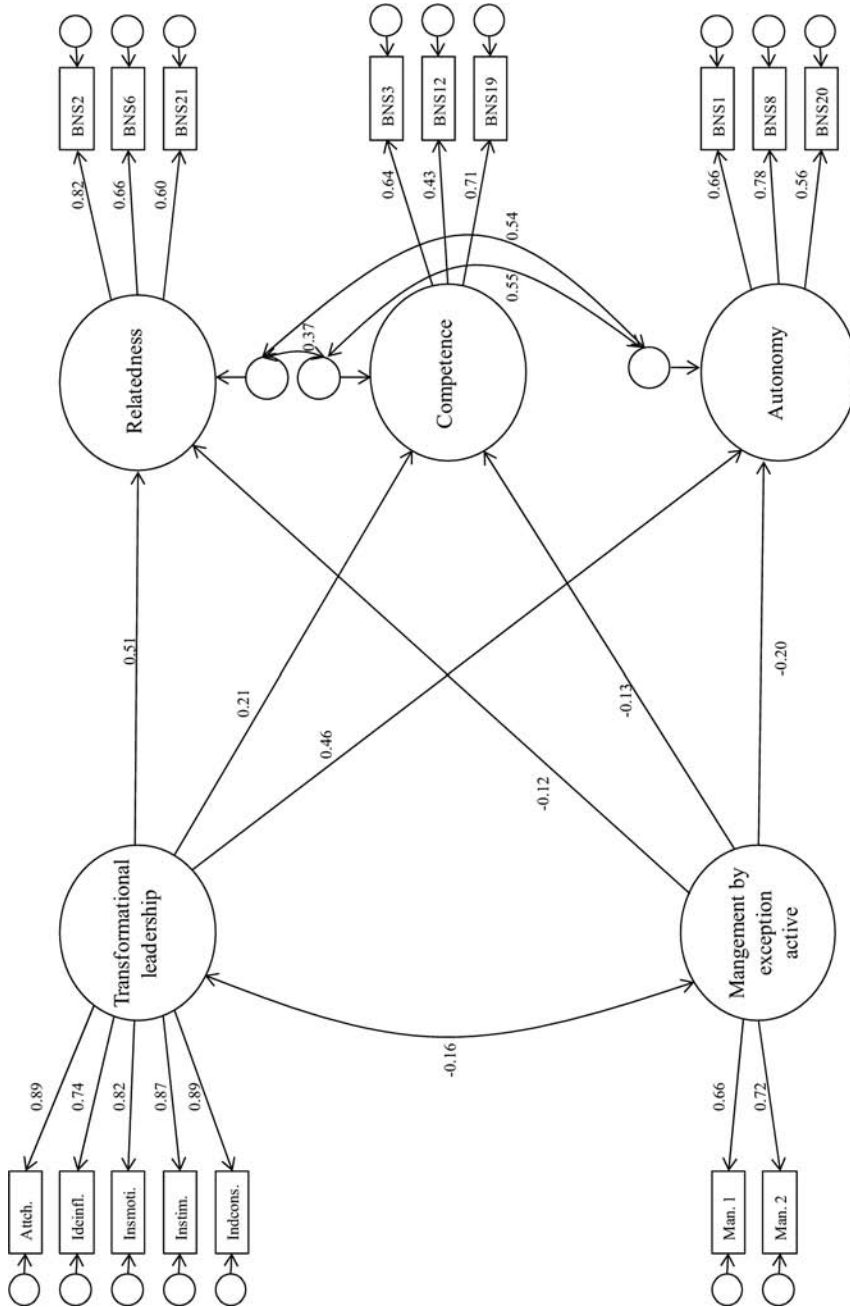Correlations between study constructs in measurement model

Figure 1.
Parameter estimates from
structural model

measurement model, negative and smaller paths where found from active management by exception to relatedness ($\beta = -0.12$, $p < 0.01$), active management by exception and competence ($\beta = -0.13$, $p < 0.05$), and active management by exception and autonomy ($\beta = -0.20$, $p < 0.01$). The squared multiple correlations (R^2) for relatedness, competence and autonomy were 0.30, 0.07, and 0.28, respectively).

Discussion

Our findings reveal substantial relationships between transformational and transactional leadership behaviors and fulfillment of the three basic needs of competence, autonomy and relatedness. The two main hypotheses of the paper were supported; that transformational leadership would be positively related to basic psychological need fulfillment (*H1*) and that active management by exception would be negatively related to basic psychological need fulfillment (*H2*).

Transformational leadership and the needs

Transformational leadership has been related to a great number of positive outcomes in empirical research (Judge and Piccolo, 2004). In our findings, transformational leadership revealed substantial relationships with fulfillment of the needs of relatedness, autonomy and competence, when controlling for a component of transactional leadership. This could indicate that part of the positive effects found from transformational leadership can be traced to the ability of these leaders to meet the basic needs of their employees, as suggested in literature (Hetland, 2005).

Especially the needs for relatedness and autonomy were strongly associated with perceptions of transformational leadership, indicating that social support as well as free will and choice and control over the environment, is encouraged through such leadership. We will start by discussing these two needs and continue with the need for competence.

Relatedness is a need that is well-described by Baumeister and Leary (1995). The need to belong addresses the social part of us and touches on basic psychological themes such as attachment (Bowlby, 1969), and fear of being excluded from a group. The issue of relatedness can also be traced back to the earlier times of leadership literature, when two main dimensions of leadership was the state of the art, task or relation oriented (Northouse, 2001). Transformational leaders combine the two as they set high standards, but still care for their employees. Interestingly, they also focus on change behavior, a third category suggested to be of importance in leadership literature (Yukl, 1999). Along this line, focus has recently shifted towards investigating leaders' abilities to address the people who face change, rather than the change itself. Constructive leaders in current work life need to explain who, what, where and why of a change (Moran and Brightman, 2001). Transformational leaders are known to empower employees in change processes and to create a sense of relatedness even in times of constant change (Avolio *et al.*, 2004).

The need for autonomy implies that people have a universal urge to be causal agents and to experience free will and choice (deCharms, 1968). The fact that transformational leadership is associated with fulfillment of this need supports the assumption that these leaders help followers develop and grow. Compared to transformational leaders some claim that charismatic leaders are more self-focused and tend to hinder followers' from developing and succeeding on their own (Yukl, 2006).

Our findings support that transformational leadership does in fact provide opportunities for employees to make free choices and trust their own decisions. This is also in line with recent findings concerning transformational leadership and autonomy as part of the learning climate (Hetland *et al.*, 2010).

Concerning competence, the path from transformational leadership and fulfillment of this need was significant in our final model, but the strength of the relationship was weaker than for the other two needs. However, still, according to our findings, transformational leadership is more closely linked to the competence need than active management by exception, especially seen in the correlations between the study constructs in the measurement model. Competent leaders can act as important role models and increase expectations of accomplishment in followers by being an inspirational ideal (Bandura, 1986; Scarnati, 2002).

The transformational leadership process is suggested to involve intrinsic motivation (Shamir *et al.*, 1993). A possible explanation for our finding of a weaker link concerning competence is that perceived competence is linked to any type of motivation, whereas perceiving autonomy is especially related to intrinsic motivation (Deci and Ryan, 2000). This could suggest that competence is in some manner different from the other two needs. One relevant question to ask in this respect is whether relatedness and autonomy are even more socially founded and perhaps even more basic than competence. Future studies specifically addressing competence will help clarify this issue.

In all, our findings are in line with recent literature (Hetland *et al.*, 2010), revealing a positive relationship between transformational leadership and autonomy support, opportunities to develop, and a supportive team style as part of the learning climate at work.

Transactional leadership and the needs

As shown in Figure 1, the associations between the transactional leadership component and the three basic needs were consistently weaker than for transformational leadership. Still, active management by exception was significantly negatively related to all the needs in the final model. Thus, our findings reveal that the need for autonomy can be threatened under forms of corrective and controlling leadership. Leadership based on actively searching for mistakes and monitoring followers work, seems to pose a special threat to fulfillment of the autonomy need. In a similar vein, research has shown that when people experience controlled motivation, where their behavior becomes a function of external contingencies of reward or punishment, it actually reduces the fulfillment of the autonomy need (Deci and Ryan, 2008).

Field studies, in work organizations (Deci *et al.*, 1989), and schools (Ryan and Grolnick, 1986), complement traditional laboratory studies and survey findings on autonomy support. These studies show that real-world settings providing autonomy support, as opposed to control, relate to more positive outcomes such as greater intrinsic motivation and increased satisfaction and well-being (Deci and Ryan, 2000). A threat to the need for autonomy in a work setting can have many negative consequences for employees; however, it is also a potential loss for the organization beyond the individual loss through lack of employee motivation, adverse health effects such as burnout, and possible loss of key personnel.

Moreover, active management by exception also had a negative relationship with the need for competence in our findings. This indicates that too much corrective and

controlling behavior by a leader can undermine one's sense of successful achievement at work, as we expected. Similar findings concerning a threat to employees' sense of personal accomplishment have also been related to passive management by exception, an even less intervening leadership component (Hetland, 2007). As society is increasingly based on knowledge creation and competent workers, leadership undermining workers' fulfillment of the competence need, can pose a risk to the working environment and have detrimental consequences. Related to this it should be noted that work life involves more changes than ever before, hence, recruiting and keeping a competent workforce with a sense of self efficacy and mastery, may give an organization a competitive advantage.

Concerning the need for relatedness, a leader who focuses only on the task, and not on relational aspects, could be a potential threat. A clear focus on mistakes and shortcomings can create uncertainty about one's position at a workplace and could even lead to feelings of loneliness (Aanes *et al.*, 2010).

To sum up, we find that active management by exception is more negatively perceived than transformational leadership behaviors, apparently threatening both autonomy, competence, and relatedness in a work setting. Because the needs are so essential, people tend to orient toward those situations that allow satisfaction of the needs and away from those that thwart the need (Deci and Vansteenkiste, 2004). Subsequently, transformational leaders could be a means of attracting the best employees and could as such be a competitive advantage for an organization, while leadership solely based on transactions could be a disadvantage in this regard.

Leadership that thwarts basic need fulfillment of autonomy, competence, and relatedness is a potential risk for wellbeing (Deci and Ryan, 2000). Vice versa, leadership can also ensure that followers' needs are met and result in positive outcomes. Baard *et al.* (2004) showed that employee satisfaction of the needs for autonomy, competence and relatedness at the workplace predicted their performance and well-being at work. Further, learning and performance is also associated with intrinsic motivation and need fulfillment (Vansteenkiste *et al.*, 2006).

Both autonomous and controlled motivation is postulated to energize and direct behavior, but relate differently to the basic needs. While autonomous motivation is linked to need fulfillment, controlled motivation can threaten this process (Deci and Ryan, 2008). The differential relationships found for transformational and transactional leadership and fulfillment of the basic psychological needs in this study, underline once again the advantages of good leadership. Prior also support that transactional leadership is inferior to transformational leadership in many regards (Judge and Piccolo, 2004).

Limitations
The cross-sectional design of the present study prevents us from drawing conclusions about causality. However, only experiments can resolve cause and effect issues. For the purpose of this article, studying the phenomena linked to a real life context seemed most appropriate. We encourage future researchers to use other study designs.

Halo effects and common methods variance are common response biases in questionnaire research and also apply to our study. We cannot exclude the possibility of a general impression halo effect, whereby the rater's overall impression or evaluation of the leader leads the rater to evaluate all aspects in a manner consistent

with this general impression or evaluation. Common method variance, that is attributed to the measurement method rather then the constructs of interest, which may cause systematic measurement error and bias the estimates of the true relationship among theoretical constructs, may have influenced on the results of our study. Common method variance can either inflate or deflate observed relationships between constructs, thus leading to both Type I and Type II errors. Carefully assessing the research setting to identify the potential sources of bias and implementing both procedural and statistical methods of control are suggestions to address common method biases (Podsakoff *et al.*, 2003).

Our exclusion of contingent reward for methodological and theoretical reasons (see the method section) is a potential limitation. In the present study we address the component active management by exception, as we wanted to investigate the contrast between transformational and transactional leadership behaviors, specifically. The structure of the components within the full range leadership theory is basically under debate, and authors repeatedly find that contingent reward is more connected to transformational leadership and that there is in fact a higher correlation with these behaviors than with active management by exception (Bycio *et al.*, 1995). It should also be noted that the components laissez-faire and passive management by exception-passive have also been joined into one dimension due to reoccurring measurement issues (e.g. Hetland, 2007).

Although the components contingent reward consists of highly motivating leadership behaviors, this component has several problems related to it; mainly that it shows a substantial overlap with transformational leadership in many studies (Bycio *et al.*, 1995; Tejeda *et al.*, 2001). The structure of the MLQ raises some issues around several of the components and the measurement model. The fact that the transactional component contingent reward substantially overlaps with transformational leadership in several findings warrants further critical analyses of the structure of the MLQ. There has in line with this been expressed concern whether contingent reward is in fact is part of the transformational style (Bycio *et al.*, 1995), as this leadership style have been found to be very closely linked to transformational leadership (Tejeda *et al.*, 2001).

Conclusion
The postulation of basic needs helps explain why only some efficacious behaviors enhance well-being, whereas others do not (Deci and Ryan, 2008). The fact that need fulfillment is essential for optimal development and psychological health of people, and the finding that it is positively connected to transformational leadership, has several implications. Because the needs are so essential, transformational leaders could be a means of attracting the best employees and could as such be a competitive advantage, as people tend to orient toward those situations that allow satisfaction of the needs and away from those that thwart the need (Deci and Vansteenkiste, 2004).

A focus on increasing such leadership behaviors is possible, (Barling *et al.*, 1996) and can be encouraged based on our findings. Furthermore, results from the Globe study reveals that inspirational forms of leadership are universally endorsed as superior (Den Hartog *et al.*, 1999). An active recruitment of leaders who use idealized influence, inspirational motivation, intellectual stimulation and individual consideration could be among the key factors to ensure that followers' needs are met at work.

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