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Leadership & Employee Behaviour in Organizations:

the mediating effect of regulatory focus on the relation between leadership style and employees creativity and in-role performance

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Abstract

The aim of this research was to investigate the effect of transformational and transactional leadership on employee creativity and in-role performance. And to determine whether regulatory focus plays a mediating role in this matter. Data was collected from 118 pairs, consisting of managers and employees working in three hospitals. It was expected that the transformational leadership style has a positive relation to the creativity of employee due to its positive relation to the promotion focus of the employee. Transactional leadership style, on the other hand, was expected to have a positive relation to in-role performance where employee prevention focus would function as a mediator. As expected, the results confirms the positive relation of transformational leadership with creativity and transactional leadership with in-role performance. However, the hypothesis that employee regulatory focus mediates this relationship could not be confirmed. Employee promotion focus has a positive relation to creative behaviour but no significant relation was determined between employee regulatory focus and in-role performance. Moreover, promotion focus seems to have a moderating role in the relation between transformational leadership and creativity.

Samenvatting

Het doel van deze studie was het bestuderen van de invloed van de stijl van leidinggeven op het gedrag van medewerkers. Daarbij is gekeken of de regulatory focus van de medewerkers een mediërende rol vervult. Data is verkregen door vragenlijsten af te nemen bij 118 manager-medewerker paren in drie ziekenhuizen. De eerste hypothese stelt dat de stijl van leidinggeven invloed heeft op het gedrag van medewerkers. De tweede hypothese stelt dat de regulatory focus van de medewerkers een mediërende rol vervult voor de relatie tussen de stijl van leidinggeven en het gedrag van medewerkers. Uit het onderzoek kwam naar voren dat leiderschapstijl een positieve invloed heeft op het gedrag van medewerkers. Er is geen mediator effect gevonden op deze relatie. De promotiegerichte regulatory focus blijkt als moderator functie te werken voor de relatie tussen leiderschapstijl en creativiteit.

Introduction

Enhancing creativity is essential for organisations to achieve a competitive advantage (Amabile, 1988; Shalley, 1995). Amabile (1988) defines creativity as the “production of novel and useful ideas”. Employees are important for organisational outcomes such as innovation, survival and effectiveness (Amabile, 1996). When employees use their creativity at work they can produce useful ideas about organisational products, procedures, or services. The importance of creativity and the level of creativity required will differ depending on the positions or responsibilities in question, but most managers would agree that there is room, in almost every position, for employees to be more creative (Shalley & Gilson, 2004).

A lot of research has been done about creative behaviour in organisations and about how to enhance it (e.g., Amabile, 1988; Mumford, Scott, Gaddis, & Strange, 2002; West & Anderson, 1992). There is a long list of factors that can enhance creativity, examples are climate (Shalley & Gilson, 2004) and group interactions (Mumford, Feldman, Hein, & Nago, 2001). Another way to enhance creativity is by using effective leadership (Mumford, et al., 2002). Leaders can provide all levels of an organisation with vision and motivation which will facilitate the transfer of knowledge into competitive advantages.

Also extensive research is done on the effects of leadership styles on the behaviour of employees. A great deal of these studies seem to share their preference for the full range leadership theory (Bass, 1985). This theory offers a theoretical framework for analysis of various leadership styles. One of those styles, namely transformational (TF) leadership, is often associated with creative behaviour (Jung, 2001; Jung, Chowb, & Wuc, 2003; Shin & Zhou, 2003). TF leaders elicit performance beyond expectations by instilling pride, communicating personal respect, facilitating creative thinking, and providing inspiration (Bass & Avolio, 1994). TF leadership is the key to find the balance between the so called soft issues of human relations and the harder issues of budget management in the health care environment (Dixon, 1999). And according to several studies, TF leadership has a positive influence on creative behaviour (Jung, 2001; Shin & Zhou, 2003).

Another style, transactional (TA) leadership is associated with setting goals, describing desired outcomes, providing feedback, and exchanging rewards and recognition for accomplishing specified goals (Bass, 1985). One can state that TA leaders desire in-role performance from their employees. In-role performance in this study is defined as “behaviours that are recognised by formal reward systems and are part of the requirements as described in job descriptions” (Williams & Anderson, 1991).

Kark and Van Dijk (2007) proposed an interesting framework about leadership style and followers' behaviour. They integrate theories of motivation and leadership to develop a conceptual framework. This framework states that the chronic regulatory focus from the leaders, in conjunction with their values, influences their leadership style (Kark & Van Dijk, 2007). Different forms of leadership, such as TF and TA, will lead to different outcomes. The style of leadership influences the employees' regulatory focus which in turn influences the behaviour of the employees.

The regulatory focus theory (Higgins, 1998) states that there are two types of self-regulating systems namely promotion focus and prevention focus. Promotion focus concerns the advancement, personal growth and accomplishment whereas prevention focus deals with feelings of security, safety and responsibility (Crowe & Higgins, 1997). Regulatory focus can be chronic and influenced by personality (Wallace & Chen, 2006) and early life experience or a psychological state primed by situational cues (Friedman & Förster, 2001). The style of leadership can influence the regulatory focus of employees (i.e. promotion or prevention), which affects their behaviour. A promotion focus can result in followers' creativity, eagerness and willingness to take risks and a prevention focus can result in followers' preference for stability, risk aversion behaviour and attentiveness to negative outcomes (Kark & Van Dijk, 2007).

This study takes a closer look at a specific part of the theoretical framework as proposed by Kark and Van Dijk (2007), namely the influence of leadership style on employee behaviour. The focus will be on both TF and TA leadership as leaders can display both types of leadership style simultaneously (Bass, 1985). Antonakis and House (2002) suggest that more research should be devoted to establish TF leaders' actual ability to transform organizations and followers. Focussing solely on the health care sector, gives insight into how leadership can enhance creativity in this particular type of organisation.

Theory and Hypotheses

Leadership and followers behaviour

The full-range leadership theory consists of three leadership styles: transformational, transactional and laissez-faire (Bass & Avolio, 1994). According to the theory the charisma of leaders has a positive influence on the work of their followers because they actively evaluate followers' goals and help them to reach their full potential (Bass & Avolio, 1993; Campbell, Ward, Sonnefeld, & Agle, 2008). In Davidhizar's (1993) framework for transformational leadership in health care, there is a great emphasis on charisma (idealised influence) almost

leaving out other transformational dimensions. Others state that TF leaders should be better equipped to motivate followers, via inspirational motivation, to be more creative in their efforts and products (Sosik, Kahai, & Avolio, 1998, 1999). Mumford and colleagues state that the role of today's workgroup leaders has shifted from being the source of the group's innovation to being the keyfactor in stimulating creativity and evaluating followers' creative products (Mumford, Connely, & Gaddis, 2003; Mumford, et al., 2002). According to Jung, Chow and Wu (2003), TF leaders inspire creativity and encourage followers to think of alternative ways by stimulating them intellectually. Jung (2001) studied the influence of different leadership styles and brainstorming conditions on group member's divergent thinking. The group with a TF leader scored higher on the measurement of flexibility (adaptation, addition and substitution) and fluency (the total number of unduplicated ideas generated) compared to the TA leadership group in brainstorming sessions. Sosik, Avolio, and Kahai (1997), found that compared to other forms of leadership, TF leadership was more effective at encouraging followers to think more divergent and to adopt generative and exploratory thinking processes that yielded more creative ideas and solutions. Although most of these studies were not performed in health care organisations, it seems likely that similar effects could be found among hospitals. According to the above literature, one could state that TF leadership is positively related to the creative behaviour of employees. To be precise, by stimulating employees intellectually and encourage them to think of alternative ways, a TF leader has a positive effect on the creativity of employees. This takes us to the following hypothesis:

H1a: TF leadership style is positively related to employee creativity.

TA leaders and their employees have an exchange relationship based on a contract that involves positive reinforcement for a higher level of performance (Avolio & Bass, 1988). The TA leadership style aspires to achieve solid, constant performance that meets fixed goals (Bass, 1985). TA leaders work with their team members to develop those goals and ensure that employees get the reward promised for meeting them (Bryant, 2003). TA leaders strive for high effectiveness with which employees carry out their formally prescribed job responsibilities, the so-called in-role performance of the employees (Turnley, Bolino, Lester, & Bloodgood, 2003). According to the literature above, one could state that TA leadership is positively related to in-role performance. This takes us to the following hypothesis:

H1b: TA leadership style is positively related to employee in-role performance.

Leadership and Regulatory Focus

The Regulatory Focus Theory states that there are two types of regulation systems; a promotion focus concerning the advancement, growth and accomplishment and a prevention focus dealing with security, safety and responsibility (Crowe & Higgins, 1997). Both these systems are present within each individual at any point in time, yet one system dominates the other due to situational triggers (Crowe & Higgins, 1997) or a chronic tendency when strong situational signals are absent (Higgins, Roney, Crowe, & Hymes, 1994). The behaviour of individuals is simultaneously affected by chronic and situational regulatory focus (Shah, Higgins, & Friedman, 1998).

Kark and Van Dijk's model (2007) state that leaders can influence the regulatory focus of their followers, which will mediate different followers' outcomes. Examples of the different followers' outcomes they name in their study are creativity, risk taking, non creative receptiveness and accuracy. In their theoretical framework TF leadership is aimed at promotion goals and TA leadership is aimed on prevention goals. For example, TF leaders actively encourage employees to take innovative and creative approaches rather than conventional and traditional ones while attempting to solve problems (Avolio & Bass, 1988; Howell & Avolio, 1993). TA leaders use rewards and punishments to encourage performance. This makes the relationship between the leaders and employees essentially an economic transaction (Bass, 1985). A consequence of this transaction is that employees are not motivated to give anything beyond what is clearly specified in their contract (Bryant, 2003). Prevention focus is characterised by the concern details, obligations, safety and security. This corresponds with the characteristics of TA leaders such as values of security and conformity (Friman, 2001).

Regulatory Focus and Behaviour

According to Crowe and Higgins (1997), the employee's promotion focus is associated with creativity. Their study showed that individuals with a promotion focus had better results of the various tasks they had to do and showed more creativity. Also they concluded that regulatory focus could be induced using a contingency framing manipulation. Friedman and Förster (2005) found similar findings with their maze experiments. The results of their study showed that prevention focussed individuals tend to be more conservative and

less open to creativity, whereas individuals who are promotion focussed tend to exhibit creative behaviour (Friedman & Förster, 2005). Prevention focussed individuals are likely to follow rules and value safety and security (Kark & Van Dijk, 2007). They attempt to fulfil their duties and obligations rather than pursue their aspirations (Higgins, 1997) and produce strategic vigilance and concern themselves with accuracy (Förster, Higgins, & Bianco, 2003). Wallace and Chen (2006) suggest that the prevention focus has a positive relation with safety performance because there is a sensitivity towards the presence of punishment that in turn favours a strategy to complete tasks in a safe and secure manner. Based on the above literature, one can state that prevention focussed employees will have a high in-role performance, because they fulfil their work obligations and avoid making errors. Employees with a high promotion focus will have a higher level of creativity because they tend to take risks and try new directions (Friedman & Förster, 2001; Kark & Van Dijk, 2007).

The Mediating Effect of Followers Regulatory Focus

Liberman, Idson, Camacho and Higgins (1999) examined the preferences of individuals for stability or change. In their study they found that individuals in a prevention focus were more prone to resume a broken up task, rather than do a new and different substitute task, than individuals in a promotion focus were. With these findings they show that prevention focus is associated with preference for stability and promotion focus is associated with openness to change. Van Dijk and Kluger (2004) found similar findings. They show that people who hold stimulation values and self-direction are more motivated by positive feedback. Negative feedback motivates people who hold security and conformity values. The first is a pattern of promotion focused individuals whereas the latter characterises prevention focused individuals (Van Dijk & Kluger, 2004).

Neubert, Kacmar, Carlson and Chonko (2008) studied the influence of leader-induced situational regulatory focus on employee behaviour. They found that prevention focus mediated the relationship of initiating structure to employees' in-role performance. Promotion focus, on the other hand, was found to mediate the relation of servant leadership to creative behaviour. Servant leadership shares similarities with TF leadership (Stone, Russell, & Patterson, 2003). Similarities in both types of leadership are idealised influence and intellectual stimulation (Liden, Wayne, Zhao, & Henderson, 2008). Initiating Structure is a leadership style which focuses on defining goal and role expectations and structuring and directing subordinates tasks (Fleishman, 1998). It can be considered transactional in

emphasising expectations and consequences (Neubert, et al., 2008). TA leadership is, according to Burns (1978), based upon both consideration and initiating structure.

Brockner and Higgins (2001) suggest that leadership style may be perceived as an organisational endorsement of promotion focussed or prevention focussed concerns. This perception may influence employee behaviour as it brings forth a congruent state of regulatory focus.

Concluding from the above literature regulatory focus will mediate the relationship between leadership style and the behaviour of the employees. This expectation is part of the framework as designed by Kark and Van Dijk (2007). Employees' promotion focus will lead to more creativity and prevention focus will lead to better in-role performance. This takes us to the following hypotheses:

H2a: Promotion focus mediates the relationship between TF leadership style and creativity.

H2b: Prevention focus mediates the relationship between TA leadership style and in-role performance.

Method

A cross-sectional survey was conducted in hospitals in the Netherlands. The data is collected by using a questionnaire. Leaders and the employees had to fill out a questionnaire. Managers were asked to assess the creativity and in-role performance of each of their employees. The employees were asked to fill out questions about their own regulatory focus and about their managers' leadership style.

Respondents

Three hospitals participated from the 78 hospitals that have been contacted by email. In total, 480 employees have been contacted by their managers and requested to participate and 156 returned the questionnaire. There is an overall response rate of 32.5%. From the returned questionnaires, 24 are from managers and 132 from employees. Not all returned questionnaires are complete, and one outlier has been identified. It results in 118 pairs of manager and employee. There is an average of seven participating employees per manager. The average age of the employees is 44 (range = 20-64). The average age of the manager is 48 (range = 24-59). 70,5% of the employees and 36,4% of the managers is female. On

average, employees have been working for 13 years and 3 months and the managers have been working for 16 years and 9 months for the organisation. Managers work an average of 34 hours a week and employees work on average 25 hours a week. The managers have a higher educational background (e.g. university of applied sciences) and the employees have a vocational educational background.

To test differences in the ratings of the managers an ANOVA test has been performed. The results are not significant for both creativity ($F(16,91) = 0.66, p = .828$) and in-role performance ($F(16,92) = 1.644, p = .07$) meaning that there are no differences between and within managers.

Measures

The translation-back translation procedure has been followed to make a Dutch version of the questionnaire (Brislin, 1980). The scales used for the questionnaires has been first translated to the target language (Dutch). A second translator, without having seen the original questionnaire, translated the questionnaire in the target language translation back to the original language (English). After this procedure the original questionnaire has been compared with the back-translated version. The quality of the translation has been evaluated in terms of how accurately the back-translated version agrees with the original translation (Brislin, 1980).

Leadership behaviour. To measure leadership behaviour, the Multi-factor Leadership Questionnaire developed by Bass and Avolio (1997) has been used. The scale consists of 24 items tapping eight conceptually distinct leadership factors and two leadership outcomes. Cronbach's alphas for the 15 TF and 9 TA items are .91 and .73 respectively. The employees had to fill out this questionnaire regarding their leader.

Regulatory focus. A scale developed by Neubert et al. (2008) was used to measure the regulatory focus of both employee and manager. The 18-item scale measures promotion ($\alpha = .80$) and prevention focus ($\alpha = .83$). Examples of items are "Fulfilling my work duties is very important to me" and "My work priorities are impacted by a clear picture of what I aspire to be". The scale captures the psychological state of a person at any point in time (Neubert, et al., 2008).

Creativity. A nine item scale by Tierney, Farmer and Graen (1999) was used to measure creativity ($\alpha = .91$). The managers had to rate how often the statements characterize each of their employees on a five-point scale ranging from 1 (not often at all) to 5 (very

often). Examples of items are “Is a good source of creative ideas” and “Suggests new ways of performing work tasks”.

In-role performance. In-role performance was assessed by using an adapted scale by Eisenberger, et al. (2001) from Williams and Anderson (1991). The scale consists of four items ($\alpha=.87$). The managers had to rate their employees on a five-point scale ranging from 1 (not at all characteristic) to 5 (very characteristic). Examples of items are “Performs tasks that are expected of him or her” and “Meets formal performance requirements of the job”.

Control variables. The following control variables were measured: year of birth, gender, highest education level, number of working hours per week and number of years of employment. These variables can be very interesting. The level of education and number of years employed at a certain organisation, for example, may affect domain-relevant knowledge or expertise that is eminent for creativity (Tierney et al., 1999).

Data Analysis

The correlations between the control variables, leadership style, employee regulatory focus and employee outcomes were analyzed and the results are displayed in Table 1. The mediator-effect is measured by means of regression analysis (Baron & Kenny, 1986). In order to establish a mediating function several steps have to be taken. First there has to be a significant relation between the independent and the dependent variable. Second, there has to be a significant relation between the independent variable and the mediator. In the third and fourth step of the analysis there has to be a significant relation between the mediator and the dependent variable, while the relation between the independent and the dependent variable becomes non significant (Frazier, Tix, & Barron, 2004).

Results

The TF leadership style has a significant relation with creativity ($r=.289$, $p<0.01$) and with the in-role performance ($r=.373$, $p<0.01$) of the employees. The TF leadership subscales Idealized Influence (II) and Intellectual Stimulation (IS) both relate with creativity (respectively $r=.262$, $p<0.01$ and $r=.346$, $p<0.01$). There is no significant correlation between other two factors, Inspirational Motivation (IM) and Individualized Consideration (IC), and creativity. All of the subscales of TF are related to in-role performance.

TA leadership is positively related to in-role performance ($r=.334$, $p<0.01$). There is no significant relation to creativity. Nor is there a relation between one of the subscales of TA leadership.

It is notable that TF leadership has neither a significant relation to promotion focus nor to prevention focus. From the TF leadership subscales, only Intellectual Stimulation has a significant relation to promotion focus ($r=.214$, $p<0.05$). TA leadership on the other hand has a relation to promotion focus ($r=.20$, $p<0.05$) and prevention focus ($r=.183$, $p<0.05$).

Other notable relations are the significant relation between creativity and in-role performance ($r=.333$, $p<0.01$), promotion focus and prevention focus ($r=.224$, $p<0.01$) and between TF leadership and TA leadership ($r=.491$, $p<0.01$). The ages of the employees is related to both their creativity ($r=-.279$, $p<0.01$) and in-role performance ($r=-.213$, $p<0.05$). The number of hours worked by employees is positively related to promotion focus ($r=.249$, $p<0.01$) and negatively related to prevention focus ($r=-.271$, $p<0.01$). Employees who work between 20 and 31 hours a week have the strongest prevention focus and employees who work more than 32 hours have the strongest promotion focus. Younger employees score higher on promotion focus, creativity and in-role performance. Employees who work between 11 and 20 years for the organisation have the strongest prevention focus. Finally, education has a positive significant relation to promotion focus and a negative significant relation to prevention focus. Next to assessing mediation using the Baron and Kenny (1986) criteria, the Sobel (Sobel, 1982) test was performed as well as the bootstrapping approach.

Hypothesis testing

Hypothesis H1a predicts that TF leadership is positively related to employee creativity. The results ($\beta=.335$, $p<0.01$) support this hypothesis. In addition, hypothesis H1b, which predicts that TA leadership has a positive relationship to in-role performance, is supported ($\beta=.345$, $p<0.01$) as well.

The second hypothesis predicts that followers' regulatory focus operates as mediating variable between the leadership style and employee behaviour. The hypothesis 2a states that promotion focus will operate as a mediator in the relation between TF leadership and creativity. Hypothesis 2b states that the relation between TA leadership and in-role performance will be mediated by prevention focus of the employees. The results of the regression analysis with creativity as dependent variable can be found in Table 2. Table 3 contains the results of the regression analysis with in-role performance as the dependent variable.

For both mediators the first step can be confirmed, as transformational leadership is significantly related to creativity and transactional leadership is significantly related to in-role performance. For H2a, the second step cannot be confirmed. Analysis of the data shows no

significant relation between the TF leadership style and employees promotion focus. Model 4 in Table 2 confirms that promotion focus does not have a mediating role. Notable is the unique and independent relation between promotion focus and creativity ($\beta = .210, p < 0.05$). For H2b step two can be confirmed. There is a significant relation between transactional leadership and prevention focus. The third step cannot be confirmed. The data analysis shows no significant relation between prevention focus and in-role performance. The mediating role of prevention focus, as expected in H2b, cannot be confirmed.

The results of the Sobel (1982) test suggest no mediation of promotion focus ($z = 0.63, p > 0.05$) nor of prevention focus ($z = -1.25, p > 0.05$). The results of the bootstrapping test show no mediation either. As shown in table 10 zero is in the 95% confidence interval of all the tested mediation models. One can conclude that there is no significant indirect effect if this is the case (Preacher & Hayes, 2004).

In several studies regulatory focus operates as a moderator, for example for emotional response to goal attainment (Higgins, Shah, & Friedman, 1997), for feedback signs to motivation (Van Dijk & Kluger, 2004) and for the benefits of TF leadership to virtual environments (Whitford & Moss, 2009). A moderating function of employee regulatory focus has been studied because there was no support for the second hypotheses a and b. It is found that employee promotion focus operates as a moderator in the relation between TF leadership style and creativity ($\beta = .277, p < 0.01$). In Figure 1 the moderating role of employee promotion focus is visualised. The results are displayed in Table 2, model 4. The moderating role of prevention focus in the relation between TA leadership and in-role performance cannot be found. The results are displayed in Table 3, model 4. Alternative models show a significant moderating role for TA leadership in the relation between TF leadership and in-role performance ($\beta = .201, p < 0.05$). These results are displayed in Table 4 and in Figure 2. A moderating role for TF leadership in the relation between TA leadership and creativity was not found. The results are displayed in Table 5.

Discussion

Summary of Main Findings

The aim of this research is to provide insight into the relation between leadership style and followers' behaviour. The main hypotheses states that TF leadership has a positive relation to the creativity of employees and that TA leadership has a positive relation to in-role

performance of employees. These relations are expected to be mediated by employee regulatory focus.

The results support the first hypothesis. The data analysis confirms the expectations that leadership style is positively related to employee behaviour and that TF leadership is positively related to creativity. The results of this study partly support Davidhizar's (1993) framework for transformational leadership in nursing, except she places the factor Idealized Influence almost to the exclusion of other TF factors. In this study there is also a significant relation between Intellectual Stimulation and creativity, but there is none between the TF factors IM and IC.

In the second hypothesis the promotion focus is expected to play a mediating role in the relation between TF leadership style and creativity and the prevention focus is considered the mediator in the relation between TA leadership style and in-role performance. In both cases the mediating effect of regulatory focus on the relation between leadership style and follower's behaviour can not be confirmed.

Therefore, the part of the Kark and Van Dijk (2007) framework that has been tested in this study cannot be confirmed either. This means that although this study has a relatively small sample size, it shows evidence for incorrectness in their framework.

A reason that the expected mediation has not been found could be because there is a variable that has a relation to both the mediator and the outcome. Organisational climate affects the employees regulatory focus (Brockner & Higgins, 2001) and their creativity (Shalley & Gilson, 2004). Another possible variable is group interaction which also affects both regulatory focus (Sassenberg, Jonas, Shah, & Brazy, 2007; Shah, Brazy, & Higgins, 2004) and creativity (Mumford, et al., 2001).

Promotion focus proves to be a moderator in the relation between TF leadership and creativity. A strong promotion focus of employees strengthens the relation between TF leadership and employee creativity. TA leadership has been found to moderate the relation between TF leadership and creativity. This effect could be explained by the unique combination characteristics of both leadership styles such as charisma and clear goal defining. The combined effect of both styles of leadership should be subjected to further study.

The correlation and regression analysis show some interesting results. Bass (1985) states that the TF leadership style and the TA leadership style can coexist in managers simultaneously. The results of this study indicate a strong relation between TF leadership and TA leadership. Managers who score high on TF leadership also score high on TA leadership.

The significant relation between creativity and in-role performance can be explained by the fact that managers have to assess their employees based upon their work performance. Employees who are creative will probably be rated as having a high work performance. Employees with a high work performance fulfil the tasks as demanded by their managers and therefore have a high in-role performance.

There is a negative relation between the age of the employee and the creativity of the employee. The younger employees are, the higher they score on creativity. Expected was that older people are more creative because age brings experience and in turn, experience may affect the domain-relevant expertise or knowledge that is important for creativity (Amabile, 1988; Tierney, et al., 1999).

There is also a negative relation between age and in-role performance. The younger the employee show a higher level of in-role performance. Avolio and Waldman (1994) suggest that age is negatively related to work performance, which can explain the fact that older employees are rated lower on in-role performance by their managers.

The number of hours per week worked by the employee is positively related to the promotion focus and negatively related to the prevention focus of the employee. If employees work more hours their promotion focus will get stronger whereas their prevention focus will be weakened. The opposite happens if employees work less hours. This can be explained by the fact that persons with a high promotion focus show more eagerness to reach their goals (Higgins, 1998) and to reach those goals they work longer hours. The promotion subscale Achievement is positively related to the number of hours worked. Employees with a higher education have a strong promotion focus whereas employees with lower education have a strong prevention focus. This can be explained by the same construction, employees with a higher promotion focus are more motivated to reach their goals. This mentality allows them to succeed better in higher education.

Managerial Implications for future practices

The main findings of this study may be helpful for organisations and their managers. Organisations which strive to enhance creativity among their employees should stimulate the TF leadership style among their managers. The result of this study and prior research (Jung, 2001; Shin & Zhou, 2003; Sosik, et al., 1999) indicate a positive relation between TF leadership style and the creativity of employees.

Expectations were that TA leadership has a positive relation to in-role performance. Although this proves to be right, the results also show that TF leadership has a stronger relation to the in-role performance of employees. This study looks at another way to stimulate creativity and in-role performance, namely the employee regulatory focus. Findings show a significant relation between employee promotion focus and creativity but not between prevention focus and in-role performance. According to Brockner and Higgins (2001), the more organisations focus on ideals (for example through leadership), the more likely employees develop a promotion focus. In contrast, the more organisations focus on responsibilities, the more likely employees are to develop a prevention focus. In general, relationship or people focused leadership styles, such as TF leadership contribute to improved outcomes for the productivity and effectiveness of healthcare organisations (Cummings, et al., 2010).

Limitation and Future Research

There are some limitations to the findings of this study. As the data from the questionnaires is partly based on managers rating their followers, one can argue that managers could have some response bias. Another shortcoming is the length of the questionnaire. The managers have to assess the creativity and in-role performance of their employees; in total, the managers have to fill in 100 items on average. The employees have to answer 59 items. The length of the questionnaire can discourage the respondents to participate. This may have played a role in the low responds rate. The generalisation of the findings to other organisations might be limited since the data is collected from a specific type of organisations, namely hospitals. Another factor that should be considered is the cross-sectional nature of the study. Because both the outcome and the variables are measured at one and the same time, it is difficult to draw conclusions about causal relations . This diminishes the usefulness of the results. A longitudinal study could not be conducted due to time restrictions.

Several factors of this study seem of importance. As expected the style of leadership is related to employee behaviour. But no mediating function as proposed by Kark and Van Dijk (2007) has been found. As their framework is partly based on theoretical rationale it would be interesting to expand this research and to study other parts of the framework as well. Regulatory focus proves to have a moderating function in the relationship between TF leadership and creativity. How this construction work could be interesting for further studies. Also, in future research other variables should be included in order to understand to gain a

better understanding of the relation between leadership style and employee behaviour. Kark and Van Dijk (2007) propose several interesting variables like motivation, risk taking and commitment. In addition, group interactions and organisational culture could be interesting variables to study when researching regulatory focus and employee behaviour. In their study, Brockner and Higgins (2001) mention a remark made by an employee of a power plant. He says that the customers would never give a compliment to the plant when they come home and turn on the lights . But when the power fails , the plant gets loads of negative feedback. The same could partly count for employees of hospitals. Although they get compliments when they do well, the fact always remains that if they make a serious mistake the entire hospital will be shed in a negative light .

In short, this study proves to be interesting because of the results that were found. And despite the absence of a mediator in the relation between the regulatory focus and the leadership style, the results can hopefully be used as starting point for further studies.

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Appendix

Table 1: Correlation matrix of observed variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Age	45,04	9,70	1,000																	
2 Gender	1,34	,476	,241**	1,000																
3 Years in service	13,69	10,31	,590**	,134	1,000															
4 Hours a week	25,95	9,71	,142	,664**	,038	1,000														
5 Education level	3,24	1,84	,136	,172*	,133	,307**	1,000													
6 Transformational leadership	3,47	0,73	,086	-,070	,265**	-,097	,078	1,000												
7 <i>Idealized Influence</i>	3,26	0,88	,016	-,052	,223*	-,047	,140	,826**	1,000											
8 <i>Intrinsic Motivation</i>	3,61	0,83	,106	-,113	,227**	-,107	,071	,777**	,569**	1,000										
9 <i>Intellectual Stimulation</i>	3,33	0,74	,055	-,044	,154	,023	,127	,805**	,618**	,546**	1,000									
10 <i>Individual Consideration</i>	3,68	0,92	,038	-,074	,134	-,112	-,044	,730**	,444**	,426**	,482**	1,000								
11 Transactional leadership	2,82	0,63	-,073	-,109	,019	,074	-,076	,491**	,471**	,339**	,474**	,313**	1,000							
12 <i>Contigent Reward</i>	2,23	0,85	-,228**	-,235**	-,110	-,044	-,081	,335**	,431**	,157	,367**	,208*	,727**	1,000						
13 <i>Management by Exception passive</i>	3,16	0,73	-,010	-,111	,020	-,013	-,089	,421**	,374**	,299**	,322**	,313**	,813**	,406**	1,000					
14 <i>Management by Exception active</i>	3,07	0,85	,082	,108	,079	,228**	-,007	,344**	,263**	,292**	,366**	,205*	,725**	,191*	,593**	1,000				
15 Promotion_Focus	3,11	0,67	-,083	,045	-,142	,249**	,241**	,032	,120	-,119	,214*	-,011	,200*	,254**	,107	,117	1,000			
16 Prevention_Focus	3,55	0,71	,037	-,270**	-,017	-,271**	-,245**	,155	,173	,063	,043	,176	,183*	,189*	,126	,090	,224**	1,000		
17 Creativity	3,32	0,58	-,279**	,157	,024	,055	,044	,289**	,262**	,124	,346**	,160	,091	,156	-,010	,072	,209*	-,027	1,000	
18 Inrole Behaviour	4,09	0,62	-,213*	,154	,044	,057	,050	,373**	,296**	,305**	,365**	,192*	,334**	,231*	,206*	,242*	-,027	-,133	,333**	1,000

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 2: Regression analysis with creativity as dependent variable

	Dependent variable		A mediaton model testing			A moderation model testing		
	Promotion focus	Prevention focus	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Age			-.321**	-.329**	-.298**	-.248**	-.329**	-.316**
Gender			.226	.272**	.268**	.228	.272**	.251**
Education			.039	.002	-.028	-.063	.002	-.009
Transformational leadership	.128			.335**	.323**	.406**	.335**	.321**
Promotion focus (PF)					.210*	.265**		
TF leadership - Promotion focus						.277**		
Prevention focus		.124					.001	.024
TF leadership - Prevention focus								.136
R ²			.128	.237	.279	.342	.237	.254
R ² Change			.128	.109	.042	.063	.000	.017

*=p<.05 **=p<.01

Table 3:Regression analysis with in-role performance as dependent variable

	Dependent variable		A mediaton model testing			A moderation model testing		
	Prevention focus	Promotion focus	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Age			-.330**	-.285**	-.271**	-.272**	-.293**	-.298**
Gender			.143	.194*	.161	.162	.196*	.182
Education			.008	.015	-.010	-.009	.026	-.045
Transactional leadership	.131			.345**	.363**	.355**	.358**	.366**
Prevention focus					-.147	-.139		
TA leadership - Prevention focus						.035		
Promotion focus		.177*					-.071	-.124
TA leadership - Promotion focus								-.103
R ²			.111	.223	.242	.244	.228	.236
R ² Change			.111	.112	.019	.002	.005	.008

*=p<.05 **=p<.01

Table 4: Regression analysis with in-role performance as dependent variable

	TA Leadership	Model 1	Model 2	Model 3	Model 4
Age		-.283**	-.242**	-.282**	-.300**
Gender		.188	.233*	.262**	.257**
Education		.003	.022	-.019	-.006
TF leadership	.570**		.364**	.186	.200*
TA leadership				.324**	.426**
TF leadership -TA leadership					.201*
R ²		.128	.282	.312	.366
R ² Change		.128	.154	.030	.054

*=p<.05 **=p<.01

Table 5: Regression analysis with creativity performance as dependent variable

	TF Leadership	Model 1	Model 2	Model 3	Model 4
Age		-.308**	-.289**	-.331**	-.347**
Gender		.247*	.262**	.285**	.287**
Education		.047	.055	.006	.022
TA leadership	.567**		.163	-.018	-.011
TF leadership				.352**	.414**
TA leadership -TF leadership					.144
R ²		.124	.149	.238	.254
R ² Change		.124	.025	.089	.016

*=p<.05 **=p<.01

Table 6: Tested mediation models (n=118, 2000 bootstrap samples)

x	y	m	95% CI		
			Point Estimate	Lower	Upper
TFL	Creativity	Promotion Focus	.015	-.0314	.0612
TAL	Creativity	Promotion Focus	.039	-.0134	.1195
TFL	In-role	Promotion Focus	.000	-.0269	.0202
TAL	In-role	Promotion Focus	.006	-.0531	.0369
TFL	Creativity	Prevention Focus	-.106	-.0788	.0145
TAL	Creativity	Prevention Focus	-.008	-.0543	.0231
TFL	In-role	Prevention Focus	-.024	-.0811	.0120
TAL	In-role	Prevention Focus	.031	-.0832	.0075

Figure 1: Moderation function of promotion focus in the relation between transformational leadership and creativity

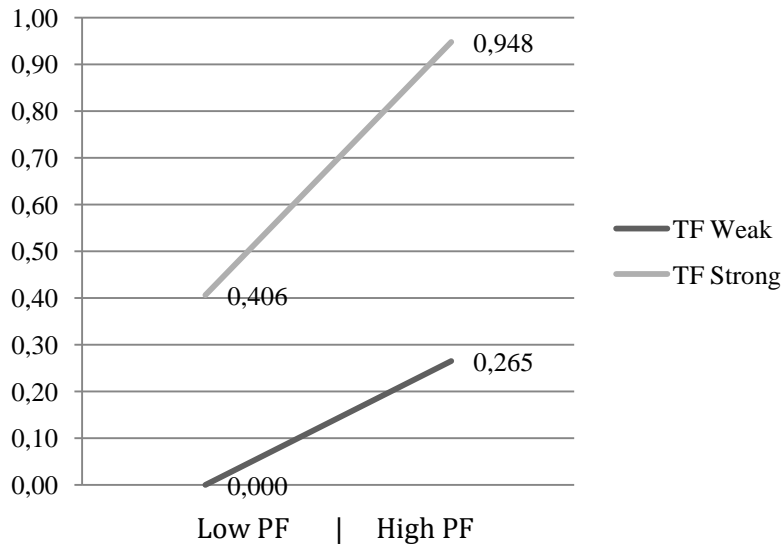


Figure 2: Moderation function of TA leadership in the relation between TF and creativity

