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Abstract

The purpose of this study was to find support for McGregor's Theory X and Y. Our aim was to investigate whether the relationship between leaders' X/Y attitude would have a significant impact on employee work behaviour. Further, we wanted to see if this relationship were mediated by an ELMX/SLMX relationship. The surveys were completed by 25 leaders and 91 employees collected among 6 Norwegian organizations. By using self-evaluation questionnaires the leaders were measured on X/Y attitudes, and employees were measured on the variables turnover intention, intrinsic motivation, knowledge sharing, work effort and ELMX/SLMX. Factor-, correlation- and regression analyses were conducted using the statistical tool SPSS. None of our hypotheses were supported indicating that there is no direct direction between attitudes and behaviour. However our key findings indicate that leaders' educational level plays a greater part in employees' work behaviour than their inborn X/Y attitude. Implications of these findings are discussed. Nevertheless, the findings in this study must be seen in light of different limitations, hence more studies are needed within this field.

Introduction to the research topic

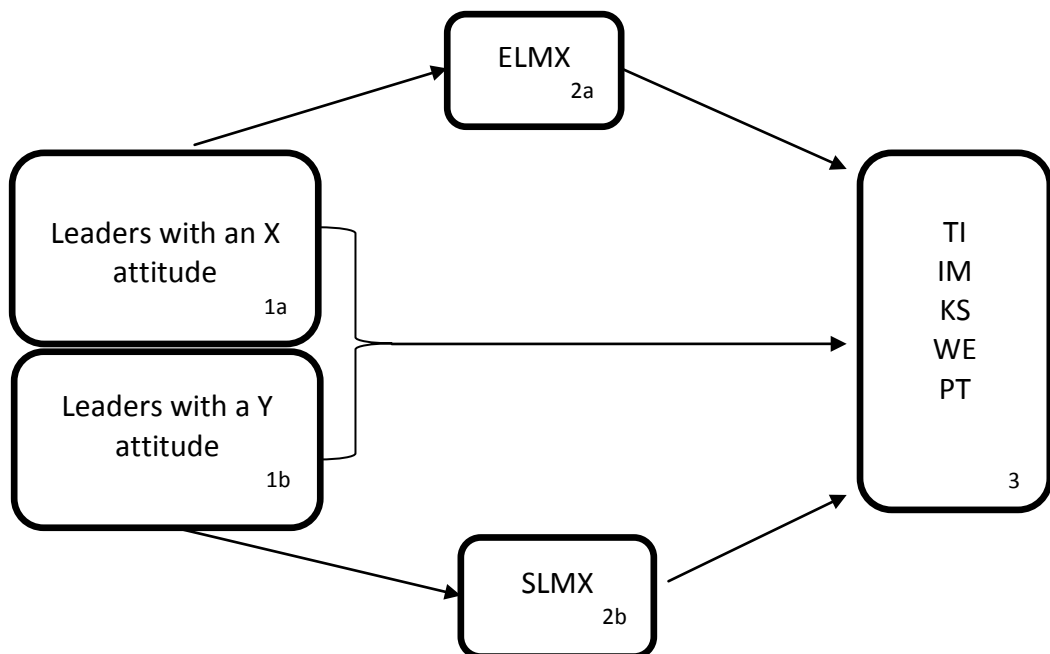
We find it fascinating that research all back to the 1920's show that people invest more effort in their work if they are given interesting work-assignments, are treated with respect, and given a certain amount of autonomy in their work-setting (Bratton and Gold 2007, Schmidt and Hunter 1998, Fiman 1973). At the same time we are not left with the impression that this is the standard procedure for management practice in reality. Several meta-analyses show a strong support for "soft" leadership style (Humphrey, Nahrgang and Morgeson 2007; Combs et al. 2006; Meyer et al. 2002; Sverke, Hellgren and Näswall 2002), but this seems to be contrary to the trends of the market where "hard" management style seems to be in the lead (Kuvaas 2009). In this relation, it is argued that 95 per cent of any worker population are intrinsically motivated to do a good job when entering a new job (Sirota, Mischkind and Meltzer 2005, Kuvaas 2009). Nevertheless, managers in most organizations behave as controlling and strict to all employees, even though only about 5 per cent of the employees should be managed this way, if the organization has done the mistake to hire them in the first place (ibid). To examine this contradiction of management theory and practice, this research study is based on articles within the field of motivation theory, leader-member exchange theory, trust and other existing theory within the field of X/Y leadership.

Our research topic and model are inspired by Douglas McGregor's (1960) *The Human Side of Enterprise*. McGregor assumed that all leaders make certain assumptions about their employees even though they might not be aware of it. These assumptions can be divided into the somewhat pessimistic view of Theory X, or into the more positive view of Theory Y. The typical Theory X leader assumes that all employees are lazy, in possession of limited capacity for useful contributions and are to be seen as untrustworthy. On the other hand, the typical Theory Y leader assumes that employees are hardworking persons, possess important capacity for useful information and are to be seen as trustworthy. These widely different assumptions of employees will accordingly affect leaders' behaviour and further how they manage to motivate their employees. Lastly, a typical Theory X management style can lead to a self-fulfilling prophecy (Kopelman, Prottas and Falck 2010; Kuvaas 2009; Ferraro,

Pfeffer and Sutton 2005; McGregor 1960). Although leaders most commonly practise a “hard” X leadership style, most leaders see themselves as Theory Y leaders (Heil, Bennis and Stephens 2000, cited in Kopelman, Prottas and Falck 2010; Fiman 1973).

Research Model

Exaggerated exercise of X leadership and extrinsic motivation bias are well-established theories. In this relation, we want to study how leaders’ general belief in peoples’ work morale, as inspired from McGregor’s Theory X and Y (1960), (box 1a and 1b), will have implications for employees’ behaviour at work. This behaviour will be measured with the variables turnover intension (TI), intrinsic motivation (IM), knowledge sharing (KS), work effort (WE) and perceived trust (PT), (box 3). Further, we want to investigate whether X leadership attitudes and employee behaviour can be mediated by economic leader-member exchange (ELMX), (box 2a), and whether Y leadership attitudes and the different dependent variables can be mediated by social leader-member exchange (SLMX), (box 2b).



1a and 1b: Leader self-evaluation of X or Y attitudes

2a and 2b: Employee evaluation of their perceived relationship with their closest leader.

3: Employee evaluation of turnover intention; intrinsic motivation; knowledge sharing; work effort; and perceived trust.

Theoretical Background and Hypotheses

Existing theory within the field of management theory has proven support for Theory Y leadership. However, a broad use of extrinsic incentives and X leadership style approach seems to be the leading practice (Kuvaas 2009). Studying typical X leadership styles is assumed to contribute positively to the development of management theory. There is however scant research on how this type of leadership style influence employees' work behaviour (Kopelman, Prottas and Falk 2010).

There can be a thin line between the failing companies and those that succeeds, although an overload of studies seems to be conducted on success companies. Great success often demands high risk, which can also lead to great failures. To look at a broader range of success and failure will therefore strengthen the theory of organizational strategy. By increasing the focus on how organizations fail, it can provide useful information to organizational behaviour researchers about what helps them succeed (Pfeffer and Sutton 2006; Moore and Flynn 2008). Behaviour Decision Research (BDR) is relevant in the study of organizational behaviour. BDR offers little help when people act consistently with normative models, but contribute more in the tension between what is and what ought to be (Moore and Flynn 2008). Management based on facts, logic and reflection are more time consuming, and can be much more frustrating and difficult to implement than simply buying a fixed training program externally (Pfeffer and Sutton 2006). Although simplified training programs seems time saving as they are supposed to be quickly implemented, they are rarely preferable because they are not based on the right facts (ibid). There are many examples within the real human resource management where there is a gap between knowing what should be done, and the actual performance and action of it (Pfeffer and Sutton 1999; Argyris 1998). Moreover, it is central to understand what motives the leaders have to certain behavioural attitudes in order to explore leaders' ability to influence employees (Hakimi, van Knippenberg and Giessner 2010).

Leader Attitudes

Heath (1999) consent with McGregor's Theory X and Y (1960), that unreasonably many leaders can be categorized as X leaders who generally hold lay theories that are biased. He conducted three laboratory studies and one field study to further investigate McGregor's assumptions. These studies found evidence that lay theories of motivation demonstrate both a self-serving bias and an extrinsic incentive bias. Independent of whether people are in leader positions or not, they generally hold lay theories that contain extrinsic incentive bias. In other words, people predict that others are more motivated than themselves by extrinsic incentives and less motivated by intrinsic incentives (Kuvaas 2009). This kind of bias can make leaders use wrong incentives and strategy to motivate for employee performance. Leaders can improve their employee predictions if they assume that others are motivated exactly like themselves (Heath 1999).

The theory of fundamental attribution error explains that when humans identify others' action, they attribute what is most salient to them self and are not able to take into account contextual and situational factors (Thaler and Sunstein 2009, Plous 1993, Stogdill 1948, cited in Northouse 2007). Hence, people tend to explain their own behaviour with situational causes, and other peoples' behaviour with personal causes (Malle 2006). In accordance with the theory of attribution error, Van Boven, Campbell and Gilovich (2010) found that people tend to stereotype based on observed behaviour. Also, they found that people tend to like people that are extrinsically motivated better than those that are intrinsically motivated, at the same time as they liked themselves better if they were mostly intrinsically motivated.

Malle's (2006) meta-analysis suggests that self-serving patterns were discovered in attribution, but no actor-observer asymmetry was found. It is suggested that actors and observers differ reliably in multiple and psychologically significant features of explanation, but these features are not captured by the classic person-situation distinction. It is evidenced that peoples' perception of self and others is biased by self-image motives that makes people analyse themselves to be nobler than others (Dunning 2007). This adds up to Pronin's (2007) theory where it is stressed that people assume that hard-working people are extrinsically motivated, whereas they claim that they personally are

motivated by internal incentives such as feeling of accomplishment. Pronin, Ross and Gilovich (2004) also confirm asymmetries between self-perception and social perception, but they explain this as a result of the fact that other peoples' actions, judgments, and priorities sometimes differ from one's own. This leads people not only to make more biased assumptions about others, but also to see others as more predisposed to innate cognitive and motivational biases. The blind spot regarding one's own biases may serve self-enhancement motives. In addition, people have a tendency to attach greater credence to their own introspections about potential influences on judgment and behaviour than they attach to similar introspections by others.

Leaders' Perception of Employees

In relation to the assumed overload of Theory X leaders, Lawrence (2010) states that leaders' ranges of ways to design jobs are larger than they often are aware of. Taylorism, where humans are seen as rational self-interested beings, still exists in today's modern society. To turn this negative attitude, managers should communicate that employees are expected to suggest relevant ideas within the realm of their work expertise. In addition, managers should let the employees know that they care about their welfare. On the other hand, one reason why it might be difficult for managers to delegate responsibility is that they may perceive work produced without their direct intervention as inferior to comparable work produced under their direction (Pfeffer et al. 1998). Also, leaders might perceive the threat of delegating responsibilities as too high, as they fright their job security and career progression might be at risk. Thus, leaders need to trust both employees' integrity and performance to be able to empower employees. Additionally, leaders' level of contentousness has also been found to have an impact on both leader effectiveness and leaders empowerment behaviour (Judge et al. 2002; Hakimi, van Knippenberg and Giessner 2010).

DeVoe and Iyengar (2004) examined the reciprocal relationship within the context of North America, Asia and Latin America. In accordance with Heath's (1999) findings; North American managers perceived employees as being more extrinsically motivated than intrinsically, while the employees perceived

themselves as being more intrinsically motivated than extrinsically. Also they found a strong association between managers' perceptions of motivation and appraisal of employee performance. However, Latin American managers perceived employees as being more intrinsically than extrinsically motivated, and Asian managers perceived employees as being equally motivated by extrinsic and intrinsic factors.

Making decisions on behalf of others might have great implications for the outcome (Hakimi, van Knippenberg and Giessner 2010). Social science theories can become self-fulfilling as a direct cause of what students learn, and later make practice of when they attend to the real work life (Ferraro, Pfeffer and Sutton 2005). By shaping organizational designs and management practices, as well as social norms and expectations about behaviour, it can create the behaviour that is predicted. Ferraro, Pfeffer and Sutton (2005) present three mechanisms through which theories can become self-fulfilling; institutional design; social norms; and language. They state that self-interested behaviour is learned behaviour, and people learn it by studying economics and business. Thus, individuals learn less from the outcome of the feedback because it is inconsistent with their mental model and is treated as noise rather than information (Krishnan, Luft and Shield 2005). One reason for peoples' inconsistency when attributing to self and others can derive from self-enhancement; the desire or observed reality of seeing oneself and by extension one's actions, traits, and attitudes in the most positive light (Pfeffer and Fong 2005). Increased awareness of this can be helpful in order to understand inconsistent behaviour (ibid). On the other hand, it is also important to be aware of situational and contextual factors that might influence both how the leaders behave and how employees will react to certain behaviour (Combs et al. 2006; Argyris 1998). Furthermore, Miller and Ratner (1998) conducted five laboratory student sample studies, and found evidence that people may not hold self-interested attitudes and may not act out from self-interest. At the same time as they expect others to act out from self-interest (ibid), -and to be motivated by extrinsic incentives (Heath 1999).

Employee Behaviour

In line with the presented theory we want to investigate how leaders' attitude impact employees' work behaviour. Due to the different practices investigated, sample characteristics, research designs and many different ways to measure organizational performance, the linkage between HPWS (high-performance work practices) and organizational performance are still in need for more research (Patall, Cooper and Robinson 2008; Combs et al. 2006; Kuvaas 2007; Sverke, Hellgren and Näswall 2002). HPWP's explain 20 per cent of the available value from forecasting performance differences among organizations, herein a great possibility for business advantages (Combs et al. 2006). Another important factor for employee behaviour is the strong relationship found between affective organizational commitment and both organizational justice and transformational leadership (Meyer et al. 2002). Work design explains about 43 per cent of variance in worker attitudes and behaviour (Humphrey, Nahrgang and Morgeson 2007; Kuvaas 2007), and we want to further contribute the investigation of the remaining factors. We have focused on five different employee construct already validated from earlier empirical research to explanation how employees evaluate their own work behaviour.

Turnover Intention

Turnover intention can be defined as "employee's readiness to seek employment elsewhere" (Loi, Mao and Ngo 2009, 407-408). A meta-analysis of turnover antecedent revealed that organizational commitment was a stronger predictor for turnover than job satisfaction (Griffeth, Hom and Gaertner 2000). Loi, Mao and Ngo (2009) found that both affective commitment and turnover intention is related to organizational social and economic exchange, which is also in line with Shore et al.'s study (2006). Further, Meyer et al. (2002) conducted a meta-analysis assessing the relationships among affective, normative and continuative organizational commitment. They found that all of these forms for commitment had a negative relationship to turnover intention while affective commitment had the strongest relationship. Due to a short-term relationship, economical exchange relationships were found to be more related to intention to leave than social exchange. Assumably, when employees feel a high social exchange

relationship, they are in general more satisfied with their job situation and feel that their work conditions are secure. There are also reasons to believe that employees, who see themselves in an economical leader-member exchange, are less engaged in OCB and holds higher intentions to leave their work places because of the nature of economic exchange (Arnulf, Kuvaas and Dysvik, not published). Therefore one can assume that if the relationship between leaders and employees are based on a more long-term social exchange, the turnover intention among the employees is low.

Intrinsic Motivation

Intrinsic motivation involves people doing an activity based on the interest they find in it, that then gives them a feeling of pleasure. This type of motivation derives from a spontaneous satisfaction from the action in itself, in contrast to extrinsic motivation that derives from the motivation to perform an action based on the predicted consequences in form of tangible or verbal reward (Gagne and Deci 2005). It has also been found considerable support for the general hypothesis that extrinsic reward for an activity that is experienced as fun or interesting undermines the intrinsic motivation for completing or continue the task or activity (Deci, Ryan and Koestner 1999; Kuvaas 2009).

People are motivated by three groups of core needs; existence, relatedness and growth (Arnolds and Boshoff 2002). By identifying the need satisfaction that enhances self-esteem it may improve employees' job performance and thus improve the organizational profitability and effectiveness (ibid). When employees are provided with choice, their intrinsic motivation and other factors like effort, task performance and perceived competence tends to increase (Patall, Cooper and Robinson 2008). Further, recent empirical research has proven support that the relationship between perceived job autonomy and both line manager rated and self-report rating of work quality, was moderated by intrinsic motivation (Dysvik and Kuvaas 2011).

In line with Kuvaas' (2006a; 2006b) studies, Grant (2008) suggests that employees display higher levels of persistence, performance, and productivity when they experience prosocial and intrinsic motivation. A strong relationship between intrinsic motivation and both work quality and work effort has been

found in previous research (Arnulf, Kuvaas and Dysvik, not published). Further, Kuvaas (2006b) found that the relationship between level of base pay and work performance and the relationship between level of base pay and affective commitment was found to be mediated by intrinsic motivation. He states that many employees; especially those with high education, may be more motivated by intrinsic incentives.

Men's Wearhouse (O'Reilley and Pfeffer 2000) is an example of a success story where the company creates an environment where the employees develop high motivation and satisfaction as a result of the feeling of being valued. The employees feel as they are being invested in and showed trust, and in reciprocity they feel great commitment to the company. This makes the employees perform an outstanding customer service that again make the customers return to the company, and thus create a greater return for the shareholders.

Knowledge Sharing

Knowledge sharing is a vital part of creating a knowledge-based participative advantage (Foss et al. 2009; Tsai 2001; Nonaka and Takeuchi 1995). Knowledge sharing can be defined as "a fluid mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluation and incorporating new experiences and information" (Davenport and Prusak 2000, 5). Thus, knowledge is something that is both fluently and theoretical at the same time (ibid). Further, knowledge sharing is described as a process of mutually exchanging information and creating new knowledge together. Sharing explicit and tacit knowledge in teams is vital for organizations and is found to be a significant predictor of performance (Lee et al. 2010).

Empirical evidence has identified several factors influencing the degree and quality of knowledge sharing in organizations there among lack of trust; fear of loss of power; lack of leadership and lack of sharing opportunities in addition to lack of training opportunities and unsuitable IT systems. Further, it is the nature and value of the knowledge that will determine the motivation to share, in addition to the amount of effort needed to share knowledge (Gagné 2009). Increased employee autonomy expands the possibility that employees will become motivated and consequently generate new knowledge (Nonaka 1994).

HRM practices such as staffing; job design; performance appraisals and compensation systems; managerial styles; and training are predicted to influence attitudes, sharing norms and need satisfaction (Gagné 2009). Hence, these HRM practices strengthen basic psychological needs to promote autonomous motivation to share knowledge. In this relation, Foss et al. (2009) conducted research on how job design creates different types of individual motivation. They found evidence that job autonomy increase intrinsic motivation to share knowledge. Job design has also been found to have a moderating effect between HRM practices and knowledge sharing behaviour as research has shown that job design can protect employees against emotional stress and obnoxious leaders (Gagné 2009). Further, task identity has been found to be positively, but weakly linked to introjected motivation to share knowledge, whereas feedback on the job has a strong positive influence on motivation to share knowledge. External motivation, on the other hand, is found to be negatively correlated to knowledge sharing (Foss et al. 2009). This can be explained by the increased degree of internal competition searching for the same tangible rewards which adds up to research on extrinsic incentives and intrinsic motivation (Kuvaas 2006b; Deci, Ryan and Koestner 1999). Hence, performance appraisals need to have a developmental rather than an evaluative design (Gagné 2009; Kooij et al. 2009).

Work Effort

Among researchers there has been called for work effort to be studied as a single construct whereas work effort and work quality most often have been measured as a combined construct with the intention to measure performance. In Arnulf, Kuvaas and Dysvik's (not published) study they developed a construct where they managed to separate work effort and work quality, which can give more precise research findings. In regards to leader attitude and employee behaviour, empirical evidence indicates that the relationship between perceived transformational leadership and work effort is mediated by intrinsic motivation. Furthermore, social exchange perception was found to be significantly positively related to work effort, whereas economic exchange perception was significantly negatively related to work effort (Arnulf, Kuvaas and Dysvik, not published). Relevant in this matter, Brockner, Tyler and Cooper-Shneider (1992) argue that

employees' perception of organizational or management fairness is vital to maintain employee motivation and effort. Also, the latter found that the employees who were the most committed also were the ones that were most concerned about fairness, and could possibly have the most negative reaction. Hence, there is a possibility to lose the best employees when the management or organization acts unfairly.

Interestingly, a direct positive relationship between work effort and perception of training programmes has been supported. Therefore, employees' prosocial motivation is stronger when they experience being cared for and invested in, hence this makes the employees want to increase their work effort (Dysvik, Kuvaas and Buch 2010). Further, research suggests that the relationship between perceived investment in employee development and work effort will be both mediated and moderated by intrinsic motivation (ibid). Buch, Kuvaas and Dysvik (2010) conducted a study among contract workers from temporary employment agencies in Norway. They found that perceived investment in contract workers developments was positively related to work effort for those who perceived a high level of support from their agencies. The results revealed that the correlation was higher between perceived support from both temporary employment agencies and client organization and work effort, than to the rational motivation to secure a permanent job position. Further, findings from an earlier meta-analysis found evidence that employees tend to prefer considerate leaders, but perform better work effort for structuring leaders (Judge and Piccolo 2004). Reflecting this, it is therefore interestingly to investigate whether leader attitude have an effect on employees' work effort.

Perceived Trust

Trust has been defined as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another" (Rousseau et al. 1998, 395). Employees who trust their leaders are considerably related to attitudinal, behavioural and performance outcome. Trust is most significantly related to work attitudes, then citizenship behaviour and lastly job performance (Dirks and Ferrin 2002).

A climate for care, concern and nurturance for the employees will benefit the organization with affective trust between employees and leaders (Yang and Mossholder 2010). Both cognitive and affective trust is found to impact job satisfaction. However, in contrast to cognitive trust, affective trust in the leader has beneficial outcomes in regards to affective organizational commitment, job satisfaction, and in-role and extra-role behaviour. Interpersonal interaction between the supervisor and the employee is central to increase motivation and positive work behaviour among the employees. Manager trustworthiness is related to higher perceptions of task significance, which thus enhance the association between performance and prosocial motivation (ibid).

Perceiving managers as trustworthy can increase the performance of prosocially motivated employees, since the employees feel that their efforts will influence others. When there is a lack of manager trustworthiness, inherent trust propensity becomes more important as a moderator of the association between performance and prosocial motivation (Grant and Sumanth 2009). Employees who perceived their leader as a trustworthy and ethical person is more likely to also trust others in the organization (Den Hartog and De Hoog 2009), and they also tend to view their leader as an ethical steward who honours a higher level of duty (Caldwell, Hayes and Long 2010). On the other hand, if employees view their leader as an untrustworthy person, they can be less motivated to stay in the relationship and their work effort might be reduced (Mayer and Gavin 2005).

A feeling of reciprocity increase employees' motivation to put in an extra effort into the relationship in terms of both in-role and extra-role behaviour as the employees feels committed to the relationship (Dirks and Ferrin 2002). When employees' experience that they are trusted it will impact their behaviour, hence they will focus more on tasks that needs to be done to add value to their organization (Mayer and Gavin 2005). This will in turn have a positive impact on the organizational effectiveness (Dirks and Ferrin 2002). Thus, employees' behaviour may be formed by how much the employees trust their managers, and how much they are feeling trusted by the management (Salamon and Robinson 2008).

Few studies on Leader attitudes and Employee Behaviour

Even though McGregor's Theory X and Y is recognized as a classic, little research has been done due to the lack of prior construct-validity (Kopelman, Prottas and Falck 2010). DeVoe and Iyengar (2004) used a one-item measure, which can be prone to more potential biases than multi-item measures. Thus, they suggest future research to employ multi-item measures of managers' lay theories of subordinates. Hence a multi-item measure on managers within the Norwegian context can be conducted to see if this confirms their North American findings. To our notice, several previous studies on managers' beliefs about employees are based on lab experiments or student samples (Caldwell, Hayes and Long 2010; Hakimi, van Knippenberg and Giessner 2010; Kopelman, Prottas and Falk 2010; Judge and Piccolo 2004). Thus, empirical research in a real work-life context is in general scant, and more studies are needed to contribute to the development of management practices (DeVoe and Iyengar 2004). Hence, future studies should be conducted in a natural and reciprocal organizational context (Pfeffer et al. 1998).

Based on the presented theory we have reached to the following hypotheses:

H1: There is a positive relationship between X leadership attitudes and employees' (a) turnover intention, and a negative relationship between X leadership attitudes and employees' (b) intrinsic motivation, (c) knowledge sharing and (d) work effort, and (e) perceived trust.

H2: There is a negative relationship between Y leadership attitudes and employees' (a) turnover intention, and a positive relationship between Y leadership attitudes and employees' (b) intrinsic motivation, (c) knowledge sharing, (d) work effort and (e) perceived trust.

Employee Perception of LMX

Leader-member exchange (LMX) differs from exchanges on an organizational level, as “LMX is based on the employee’s working relationship with the supervisor and their mutual role expectations” (Loi, Moa and Ngo 2009, 405). In LMX theory, a unique exchange relationship is explained to be developed between leaders and their followers, ranging from a low-quality transactional relationship to a more high-quality relationship. Trust, mutual liking and respect are bases of the exchange, and it is the quality of LMX that in the end shapes the employees perception of the exchange and a possible reciprocation towards the whole organization. Thus, it is possible that a LMX relationship can have an influence on employees’ relationship to their organization (Loi, Moa and Ngo 2009). A field study conducted by Eisenberger et al. (2002) revealed that the supportiveness the employees’ experience from their closest leader can be attributed to the organization as a whole, and not merely as the leaders personal qualities. An effective leadership process will occur if the leaders and their employees manage to develop established relationships, as this can give them and the organization access to several benefits (Graen and Uhl-Bien 1991).

Social Exchange Theory

Social leader-member exchange (SLMX) is based upon a long-term orientation and the exchange between leader and followers are seen as a continuing relationship. Feelings of mutual trust, relatedness and thus an increase of intrinsic motivation are important factors of SLMX (Kuvaas, Buch and Dysvik, not published). Research on social exchange theory indicates that the relationship between justice perceptions and trustworthiness perception might be reliant on the nature of the exchange relationship between the subordinate and its closest leader, in addition to the context in which the exchange relationship exists (Frazier et al. 2010). Another study developed and tested a social exchange model of how employees reacted to electronic performance monitoring (EPM) in order to help managers use such monitoring programs more effectively (McNall and Roch 2009). This study revealed that when managers use such EPM systems, the employees will then, if they feel that they are treated fairly while they are being monitored; reciprocate with increased trust, performance and job

satisfaction. In line with Dirks and Ferrin's (2002) results, this study also found that trusting managers was significantly related to job performance.

Trusting the leader to make respectable decisions regarding outcomes affecting the employees, can be a reason why monitored employees with a high level of trust towards their leader tend to be more satisfied with their jobs (McNall and Roch 2009). Thus, this finding support SLMX theory because it indicates that when a leader establishes care and concern for the employees, the employees might respond by engaging in desirable behaviour, such as working harder, which in the end improve their performance. Trust is a vital part of a successful exchange (Blau 1964), and thus an important concept within SMLX (Brower et al. 2008). A field study conducted by Brower et al. (2008) revealed that when there was a high level of mutual trust, the highest level of individual-directed OCB occurred. They investigated the relationship and the importance of managers trusting subordinates as an extension of Dirks and Ferrin's (2002) study among other studies where subordinates trusting managers was found to be important. Trusting the employer in regards to fairness, respect and credibility has been seen as a foundation for more happy employees (Fisher 2010). A high quality LMX relationship has been found to strongly correlate with both job satisfaction and OCB (Gerstner and Day 1997), and supportive managers have a positive impact on employees work life (Deci, Connell and Ryan 1989). Hence, the fit between the employees' expectations, needs and preferences and what they actually are provided by the organization, will likely have implications for the degree of happiness among the employees and the perceived SLMX relationship (Fisher 2010).

Economic Exchange Theory

Economical leader-member exchange (ELMX) is based upon a relationship between leader and follower where the exchange is of a transactional and contractual character and thus is established upon a downward influence based on formal status differences and discrete agreements (Kuvaas, Buch and Dysvik, not published). Furthermore, perceptions of economic exchange seem to be related negatively to work effort and OCB (ibid). As ELMX is based upon short term and close ended obligations, the leaders and its followers are often less

obligated to exchange favours and the parties' tries to avoid situations where they might have to act in reciprocity (Uhl-Bien, Graen and Scandura 2000, cited in Loi, Moa and Ngo 2009). Employees perceiving an ELMX relationship are also more often focused on short-term benefits, and in return for their work effort they value immediate and tangible rewards (Wong et al. 2005).

Because ELMX is based on a low-quality relationship, the leader rarely invest in their followers, thus they often show merely basic supervision and do not offer their employees extra resources nor support. This affects both the employees and the organization, as the employees develops a lower attachment to and identification with the organization, and their trust in the organization might decrease (Loi, Moa and Ngo 2009). In this way, intention to leave can increase and the organization might lose valuable work resources. Considering the presented theory we propose that SLMX and ELMX will have an effect on the relationship between leaders' attitudes and employees' work behaviour, and we have reached the following hypotheses:

H3: The relationship between X leadership attitudes and employees' (a) turnover intention (b) intrinsic motivation, (c) knowledge sharing, (d) work effort and (e) perceived trust will be mediated by economic exchange perceptions (ELMX).

H4: The relationship between Y leadership attitudes and employees' (a) turnover intention (b) intrinsic motivation, (c) knowledge sharing, (d) work effort and (e) perceived trust will be mediated by social exchange perceptions (SLMX).

Methodology

Sample and Procedure

To maintain confidentiality and increase participation, questionnaires were distributed through e-mail to supervisors or administrative management with a link to the questionnaire and a letter with information. The link and letter was then distributed by e-mail from eight different organizations to its employees and their respective immediate supervisors. The different organizations sent one remainder two weeks after the first questionnaires were sent out and another remainder one week after the first remainder. By using a web-based tool (Confirmit), one type of questionnaire was sent out to 72 middle managers and another type of questionnaires to 723 employees. Respondents were in the end drawn from six different Norwegian companies in the retail; public; production; and service sector. In order to reduce the possible influence of variables such as company-specific leadership styles, organizational culture and incentive systems, several organizations were included in the sample (Dysvik, Kuvaas and Buch 2010).

The survey resulted in data from 91 employees and 25 of the employees' closest leaders, representing a response rate of 12.59 per cent for the employees and 34.72 per cent for the leaders. Two of the organizations that participated in the study can be categorized as medium to large sized organizations while the other organizations can be categorized as small to medium sized organizations. Of the employee respondents, 65.93 per cent were women and 34.07 per cent were men. Among the leaders, 60 per cent were women and 40 per cent were men. The age of the employees was distributed almost evenly. However, the vast majority, 34.07 per cent, were between 27 and 37 years old. The majority of the employees, 37.36 per cent, had an educational level of upper secondary school or lower and 56 per cent of the leaders had an educational level of three years or less beyond upper secondary school.

Measures

We used a five-point Likert response scale ranging from one (strongly agree) to five (strongly disagree). Employee behaviour was measured with self-report categories in the questionnaire since the organizations in our sample did not want the leaders to analyse the behaviour of each single employee due to terms of anonymity. All items were translated from English into Norwegian with help from Dr. Oecon Bård Kuvaas and PhD Candidate Robert Buch.

Independent variables

The independent variables used in this study, was leadership attitude X/Y. We used 24 items that reflected the leaders' attitude towards a hard or a soft leadership style validated and previously used by Kopelman, Prottas and Falck (2010). Examples include "Most people will try to do as little work as possible", and "Employees' ideas often result in the development of useful suggestions". As we used the same scale for both X attitudes and Y attitudes, we had to reverse and recode the variables after collecting the data.

Depended variables

Within our research model we had five outcome variables measuring employee work behaviour. Turnover intention (TI) was measured using five already validated items (Kuvaas and Dysvik 2010; Kuvaas 2006a). Example items include "I often think about quitting my present job" and "I might quit my present job during the next twelve months". The measures of intrinsic motivation (IM) included six items that measured the employees' internal drive to perform the job assignments and has previously been used by Arnulf, Kuvaas and Dysvik (not published), Kuvaas and Dysvik (2009) and Kuvaas (2007). Example items include: "My job is so interesting that it is a motivation in itself" and "My job is meaningful". Knowledge sharing (KS) was measured using eight items that measured both sending –and receiving knowledge. Examples of such item are "I am sharing information that I get from my colleagues" and "If I am in need for specific knowledge, I ask my colleagues" (de Vries, van den Hooff and de Ridder, 2006). Work effort (WE) included five items that measured employees' self-reported work effort and was based on a six-item self-report scale on work performance

(Kuvaas, 2006b). Since this scale does not distinguish between effort and quality, Arnulf, Kuvaas and Dysvik (not published) later developed four more items, and then again separated five items to measure work effort and five items to measure work quality, where we only used the items for measuring work effort. Examples of items include “I usually don’t hesitate to put in extra effort when it is needed” and “I often expend more effort when things are busy at work”. The last depended variable was perceived trust (PT), and was measured by six items (Salamon and Robinson 2008). These items measured employees’ perceived trust towards their closest leader. Examples of such item are “My closest leader trusts his/hers employees” and “My closest leader shows through his/her behaviour that he/she trusts his/hers employees”.

Mediating variable

To measure employees’ perception of the ELMX/SLMX relationship, we used 19 items in total (Buch, Kuvaas and Dysvik 2011). Eight items were used to measure perceptions of SLMX. Such as for example “My relationship with my organization is based on mutual trust”. To reflect upon the employees’ economical exchange in the leader-member exchange relationship, we used 11 items such as for example “I watch very carefully what I get from my organization, relative to what I contribute”.

Control variables

The different control variables included for the employees were; age, gender and educational level. Whereas for the leaders, only gender and educational level was used as control variables. The educational level was measured by three levels; upper secondary school or lower, three years or less after upper secondary school and four years or more after upper secondary school.

Statistical Analysis

The statistical package of SPSS (PAWS 18) was used for our statistical data analysis. We tested construct validity to be sure that the different items measured what they were expected to measure (Hair et al. 2010), which is also important when testing for a mediating relationship between the latent variables (Mathieu and Taylor 2006). An exploratory principal component analysis with Promax retention was done on all multiple scale items. Further, we applied somewhat stringent rules of thumb as we only retained items with a strong loading of 0.50 or higher on the target construct (Nunnally and Bernstein 2007), a cross-loading of less than 0.35 (Kiffin-Petersen and Cordery 2003, cited in Kuvaas 2008), and a differential of minimum 0.20 between the factors (Van Dyne, Graham and Dienesch 1994, cited in Kuvaas 2008). This was done in order to find the items used in our final scale (Appendix 1 for leaders and Appendix 2 for employees).

In the regression analyses, we used the remaining four variables of employees' behaviour to test their relationship towards X/Y leader attitude. The control variables were included as independent variables in the first step, and in the second step we included the variables of X/Y attitude. We used the standardized regression coefficients in the second model, which included both control variables and X/Y variables, to determine the different relationships to the depended variables. The three-step procedure recommended by Baron and Kenny (1986), cited in Kuvaas (2006b) was used to test the hypotheses. Accordingly, the following conditions must be met to support a mediating relationship. First, the independent variable must be significantly associated with the mediator in the first equation. Second, the independent variable must be significantly associated with the dependent variable in the second equation. Finally, after the mediator is entered in the regression model, the relationship between the independent and dependent variables should either disappear (full mediation) or significantly diminish (partial mediation). A problem of multicollinearity can occur because the interaction terms might correlate with the main effects (Kuvaas 2006b). Therefore, we computed the interaction terms by centring the variables before we multiplied them with each other.

Results

Exploratory Factor Analysis

The principal component analysis (PCA) for the leader attitudes revealed that seven items that measured X leadership attitudes, and three items that measured Y leadership attitudes had to be removed from the scale. Three of these items had a cross-loading above 0.35, one item had a too low loading, and the remaining six items loaded on other undefined constructs. This operation lead to a nine item Y scale ($\alpha = .96$) and a five item X scale ($\alpha = .95$), (Appendix 1).

The PCA for the items on employee behaviour revealed that all the items on perceived trust loaded on SLMX, so we removed all the six items from further analysis. When we ran the PCA once more without perceived trust, we found that one of the ELMX items loaded on a not defined, separate construct. Also, two of the items measuring knowledge sharing had a cross-loading above 0.35 on another factor. Thus, these three items were removed from the final scale and were not included in further calculations. These operations lead to an eight-item SLMX scale; a ten-item ELMX scale; a five-item work effort scale; a six-item intrinsic motivation scale; a six-item knowledge sharing scale; and a five-item turnover intention scale (Appendix 2). As a Cronbach's alpha value of .7 or greater is considered as an acceptable reliability estimate in social science (Hair et al. 2010), all of our scales had an acceptable value as they ranged from .89 to .96. Cronbach's Alpha is presented in parentheses in Table 1.

Descriptive statistics

Scores of each variable were computed as the mean of the scores on each item. Mean, standard deviation and Pearson's Correlations for both leaders and employees can be found in Table 1.

Correlation Matrix

The coefficients in the correlation matrix indicate the linear strength of the relationship between any two metric variables (Hair et al. 2006). A closer investigation of the correlation matrix in this study reveals that there are few significant correlations.

Table 1
Descriptive statistics, Pearson's Correlations and Scale Reliabilities

Variables	N	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Sex Leader	91	.48	.50													
2 Education Leader	91	2.00	.75	-.09												
3 Sex Employees	91	.66	.48	.42**	.00											
4 Age Employees	91	2.67	1.14	.26*	.13	-.05										
5 Education Employees	91	1.91	.81	.13	.22*	.18	.14									
6 Theory X	91	1.51	.67	-.12	.26*	-.18	.06	.06	(.95)							
7 Theory Y	91	3.99	.91	.15	.19	.38**	.11	.25*	-.53**	(.96)						
8 ELMX	91	1.91	.95	.10	-.16	-.07	-.17	.11	.07	-.03	(.95)					
9 SLMX	91	3.68	.93	.09	.09	-.09	-.05	-.09	-.11	.05	-.50**	(.92)				
10 Intrinsic Motivation	91	3.58	.96	-.07	.27*	-.11	.33**	.02	.06	.03	-.41**	.48**	(.92)			
11 Work Effort	91	4.22	.95	.03	.14	.04	.10	-.07	-.02	.05	-.56**	.52**	.57**	(.94)		
12 Knowledge Sharing	91	3.93	.83	.08	.37**	.17	.16	.21*	.06	.18	-.54**	.40**	.48**	.62**	(.89)	
13 Turnover Intention	91	5.51	1.29	.20	.03	.18	-.30**	.18	-.08	.16	.33**	-.24*	-.43**	-.20	.05	(.91)

Note: Cronbach's Alpha is displayed in parantheses. N = 91. *p < 0.05 (2-tailed); **p < 0.01 (2-tailed).

Sex: Men = 0; Woman = 1. Education: Upper secondary school or lower = 1; Three years or less after upper secondary school = 2; Four year or more after upper secondary school = 3. Age: 16-26 years = 1; 27-37 years = 2; 38-48 years = 3; 49-59 years = 4; 60 years or older = 5.

However, the significant correlations are somewhat consistent with previous research (Shore et al. 2006; Kuvaas and Dysvik 2010). For example, there is a significant negative correlation between ELMX and SLMX ($r = -.50, p < 0.01$). Further, there is a strong negative correlation between ELMX and intrinsic motivation ($r = -.41, p < 0.01$), work effort ($r = -.56, p < 0.01$) and knowledge sharing ($r = -.54, p < 0.01$), and a strong positive correlation to turnover intention ($r = .33, p < 0.01$). SLMX had a strong positive correlation to intrinsic motivation ($r = .48, p < 0.01$), work effort ($r = .52, p < 0.01$) and knowledge sharing ($r = .40, p < 0.01$), and a strong negative correlation to turnover intention ($r = -.24, p < 0.01$). Another interesting finding is that employees' age has a significant correlation with employee intrinsic motivation ($r = .33, p < 0.001$) – and turnover intention ($r = -.30, p < 0.01$). Further, there is a positive correlation between employees' educational level and knowledge sharing among employees ($r = .21, p < 0.05$).

Leaders X/Y attitude had no significant correlations to SLMX/ELMX, or to any of the employee outcome variables. However, leaders' educational level correlated positively to both employees' intrinsic motivation ($r = .27, p < 0.05$) and employees' knowledge sharing ($r = .37, p < 0.01$). Thus, leaders' educational level seems to have a greater impact on employees' work behaviour than the attitude the leaders hold.

Regression analysis

The standardized regression coefficients (β) are reported in the regression analysis. They were chosen as they specify the relative impact on the dependent measure for each unit change in the independent variable (Hair et al. 2006). The coefficient of determination (R^2) is a measure of "how much of the variability is accounted for by the predictors" (Field 2009, 235). The adjusted R^2 gives the researcher an idea of how well the model could be generalized, and should preferably be the same value of or close to the R^2 . The F-ratio is an indicator of the overall fit of the regression model (Field 2009).

Recalling the model of this study, Hypothesis 1 predicted that Y leadership attitudes would be positively related to intrinsic motivation, work effort, knowledge sharing and perceived trust, and negatively related to turnover

intention. Hypothesis 2 predicted that Y leadership attitudes would be negatively related to intrinsic motivation, work effort, knowledge sharing and perceived trust, and positively related to turnover intention. As perceived trust loaded on SLMX, this measure was not included in the regression analysis. The result of the regression analysis that tested Hypotheses 1 and 2 are presented in Table 2. These results indicate that the remaining depended variables of employee work behaviour were not significantly related to Theory X or Theory Y as all of the beta-coefficient values had a significant value above 0.05. Accordingly, Hypothesis 1 and 2 are not supported. Further, the F-ratios in this regression analysis is quite low, and especially for work effort ($F = 0.65$, $p > 0.05$). This indicates that the regression model does not have an overall good fit, and that work effort has a non-significant effect on the model. Also, the rather large difference between R^2 and adjusted R^2 indicates that the model is not generalizable. However, this could be an effect of the low sample size and not the single variables used in the model.

Table 2: Regression analysis testing Hypothesis 1 and 2

Variables	IM	WE	KS	TI
Leaders' sex	.09	.08	.07	.05
Leaders' educational level	.27*	.18	.34**	.01
Employees' sex	-.12	.04	.12	.07
Employees' age	.33**	.12	.12	-.33**
Employees' educational level	-.06	-.14	.08	.17
Theory X	-.07	-.07	.00	.01
Theory Y	-.05	-.03	.03	.12
R^2	.18	.05	.19	.17
Adjusted R^2	.11	-.03	.13	.10
F	2.59*	.65	2.83**	2.43*

Note: Standardized regression coefficients are showed. IM = Intrinsic motivation; WE = Work effort; KS = Knowledge sharing; TI = Turnover Intention; * $p < 0.05$; ** $p < 0.001$.

Testing for Mediation

Recalling the three steps for mediation by Baron and Kenny (1986) cited in Kuvaas (2006b), the first criterion was that the independent variable must be significantly related to the mediator. Table 3 represents the results of regression analysis when testing for mediation. The results indicate that neither Theory X nor Theory Y had a significant relationship to ELMX ($\beta = 0.19$ and $\beta = 0.15$, $p > 0.05$). Regarding the relationship between Theory X and Theory Y and the mediating variable SLMX, the beta-coefficients were not on a significant level ($\beta = -0.16$ and $\beta = -0.00$, $p > 0.05$). Consequently, both the first and the second criteria by Baron and Kenny were not met and it was not necessary to further test for mediation. Even though some of the beta-coefficients are strong enough, the relationships are at an unacceptable level of significance. Therefore, Hypothesis 3 and 4 are not supported. Also, there is a somewhat large difference between the R^2 and the adjusted R^2 , and none of the F-values are at an acceptable level of significance.

Table 3: Regression analysis testing Hypothesis 3 and 4

Variables	ELMX	SLMX
Leaders' sex	.08	.17
Leaders' educational level	-.25	.17
Employees' sex	-.16	-.16
Employees' age	-.17	-.01
Employees' educational level	.16	-.10
Theory X	.19	-.16
Theory Y	.15	-.00
R^2	.12	.07
Adjusted R^2	.04	-.01
F	1.54	.94

Note: Standardized regression coefficients are showed. ELMX = Economical leader-member exchange; SLMX = Social leader-member exchange; * $p < 0.05$; ** $p < 0.001$.

Discussion

The main purpose of this study was to search for a positive relationship between “Y” leader attitudes and a negative relationship between “X” leader attitudes – and employee work behaviour. Further, we wanted to measure if these relationships could be mediated by SLMX and ELMX respectively. To our knowledge, little research has studied the implications leadership attitudes have on employees’ work behaviour (Hakimi, van Knippenberg and Giessner 2010). For this reason, we wanted to contribute to the field of research on McGregor’s Theory X and Y (Kopelman, Prottas and Falk 2010; McGregor 1960). Unfortunately, our research findings are characterized by the low response rate from both leaders and employees. Our findings imply that leaders’ X/Y attitude has no significant relationship to neither SLMX ($\beta = -.16$ and $\beta = -.00$ respectively, $p > 0.05$) nor ELMX ($\beta = .19$ and $\beta = .15$ respectively, $p > 0.05$), and to none of the employee work behaviour variables ($p > 0.05$). Although our research findings did not support any of our hypotheses, this may say something about the gap between attitudes and behaviour, and thus the difficulty for others to capture tacit attitudes for others than themselves.

Several researchers have discussed whether leadership is most related to a stable personality trait, or to behaviour (Baum and Locke 2004; Judge and Piccolo 2004; Judge et al. 2002; Powell, Butterfield and Parent 2002; Avolio, Howell and Sosik 1999; Meindl, Ehrlich and Dukerich 1985). Moreover, Dixon (1977), cited in Bond (1994), argues that personality traits are stable across all cultures, and that it is common to refer to personality traits when explaining others behaviour. Although, when people describe other peoples’ behaviour, they explain them out from personality traits rather taking other situational or contextual factors into consideration (Thaler and Sunstein 2009, Plous 1993, Stogdill 1948, cited in Northouse 2007).

To our knowledge, few researchers investigated the relationship between attitudes and behaviour. Attitudes can be both positive and negative, and can be defined as “...an interrelated set of propositions about an object or class of objects which are organized around cognitive, behavioural and affective dimensions” (Ehrlich 1973, 4, cited in Fishbein 2002, 3). It is found in several studies on prejudices and behaviour that people do not always act in terms of

what their attitude would predict (Fishbein 2002). In line with this, Pervin (1994) states that motives do not always reflect the behaviour, and in addition, the motives may be in conflict. Thus, he argues that it is too simple to refer to personality traits when explaining others behaviour. Ajzen and Fishbein (1977) found in their review and theoretical analysis that the relations between attitude and behaviour were weak and inconsistent, and thus studies that searched to predict behaviour with use of attitudes were characterised to have unsatisfactory results.

Thaler and Sunstein (2009) argue that people do not always behave in ways they know they should. Examples are when people eat too much cake, smoke cigarettes or drink too much alcohol. When people make wrong decisions with purpose, they are in a state Thaler and Sunstein called the “hot-state”. When being in a “cold-state”, people are more capable of doing the more rational and reasonable decisions. In addition to the problems people have when dealing with temptations, Asch (1955, 1951), cited in Huczynski and Buchanan (2007), and Milgram (1964) conducted laboratory experiments where they found evidence that people act in conformity to groups. Thus people can in certain situations behave on cross of what they desire and cognition tells them to do. Hence, there are many reasons why the gap between attitude and behaviour are problematic to measure.

It is noteworthy that none of the variables had a significant correlation with employees’ work effort. A recent cross-sectional field study, found evidence that work effort are significantly related to intrinsic motivation (Arnulf, Kuvaas and Dysvik, not published). Due to construct validity problems, it is likely to assume that the diverse results within this research field are due to the dissimilar ways of measuring work effort. Also, due to the high level of student laboratory samples within this field of research, these studies may be prone to error in relation to what results are found in real work life settings (Caldwell, Hayes and Long 2010; Hakimi, van Knippenberg and Giessner 2010; Kopelman, Prottas and Falk 2010; Judge and Piccolo 2004). However, in Judge and Piccolo’s (2004) meta-analysis, they found that employees tend to prefer considerate leaders, but perform better work effort for structuring leaders.

Interestingly, in this study we found that employees' age seems to have a significant relationship to employees' intrinsic motivation ($\beta = .33$, $p < 0.01$). There are reasons to believe that intrinsic motivation decreases as people get older and thus become bored by their job assignments. However, our findings imply that intrinsic motivation increases with age, which is also in line with previous findings (Eskildsen, Kristensen and Westlund 2003). A field study on intrinsic work motivation and job satisfaction conducted within the Nordic countries revealed evidence that the relationship between age and intrinsic work motivation, as well as between age and job satisfaction, were close to perfectly linear (ibid). Conversely, a study conducted in the United Kingdom found a U-shaped relationship between age and job satisfaction, where the lowest job satisfaction was at age 36 (Clark, Oswald and Warr 1996). It is interesting to note that age has no predictive validity for job performance even though age is positively related to intrinsic motivation (Schmidt and Hunter 1998).

Our findings also indicate that there is a significant negative relationship between age and turnover intention ($\beta = -.33$, $p < 0.01$). This is in line with previous research on age and turnover (Cotton and Tuttle 1986; Rhodes 1983, cited in Healy, Lechman and McDaniel 1995). Conversely, Healy, Lechman and McDaniel's (1995) meta-study found that the relationship between age and voluntary turnover was small or close to zero. On the other hand, a more recent meta-study reviewing meta-studies, found that age and voluntary turnover had a significant negative relationship (Ng and Feldman 2009). This meta-study also found that when the average organizational tenure was high, the negative relationship between age and turnover was stronger. There can be several reasons why age and turnover intention is negatively related. In Finegold, Mohrman and Spreitzer's (2002) large field study they found that younger employees had a strong focus on individual performance incentives and personal opportunities to develop technical skills. In this relation they also had a higher turnover intention than older employees. Another reason for the negative relationship between age and turnover intention, may be explained by the findings that older adults strive for high quality interpersonal relationships (Kanfer and Ackerman 2004). Hence they are found to be more willing to confront the colleague about problems, at the same time as they are less willing

to take part of the responsibility or forget the whole situation (Sorkin and Rook 2006). Younger employees, on the other hand, are found to be less focused on social exchange relationships, and tend to be more willing to change job than to deal with problems (Fung, Lai, and Ng 2001). Hence, as employees get older, they may inherent more experience and knowledge and thus become more secure on their own role within their workplace.

Both the correlation and regression analyses revealed that leaders' educational level seems to have a positive impact on employees' behaviour. We found a significant positive relationship between leaders' education level and both intrinsic motivation ($\beta = .33, p < 0.01$); and the level of knowledge sharing among employees ($\beta = .34, p < 0.01$). Leaders with higher education may distinguish themselves from leaders with lower education because they are generally more intrinsically motivated, initially explaining why they choose to get a higher education (Kuvaas 2006b). Consequently, highly educated leaders may be more prone to expect the same work engagement and motivation from their employees than what leaders with lower education will. This may imply that leaders with higher education are less biased because they are more intrinsically motivated. Leaders' educational level and their attitudes towards employees are possibly related due to changes in attitudes as a consequence of increased knowledge. This is in line with Argyris' (2002) theory of "double loop learning" where he argues that people can change behaviour and attitudes when they learn from previous errors or education. For this reason, our findings may indicate that X/Y attitudes are not a stable personality trait as McGregor (1960) assumes, but can be more related to leaders' level of education.

Limitations and Research Directions

In the present study there are several limitations that need to be addressed. The first limitation of this study is the cross-sectional design as the data was collected at one point in time due to time constrains. We are therefore not able to rule out the possibility of reverse causality or infer causal relationships. To replicate this, future studies should have a longitudinal design. Another limitation is that the study uses self-reported questionnaires for both leaders and employees. Cooper (2002) suggests that people are in general more likely to agree with different

statements, than to disagree with them. Further, the respondents could have misinterpreted the questions or answered in a socially desirable way. Thus, a concern regarding mono-method bias must be taken into consideration (Crampton and Wagner 1994). Our immediate thought was to avoid this problem by having both employee self-reporting and leader evaluation of employees work performance. However, due to the restrictions from Norsk Samfunnsvitenskapelig Datatjeneste and the fact that the organizations wanted to maintain a high level of anonymity, this was not possible. A third limitation is the low response rate. Hence our low sample size can have affected the results, and can be the main reason for why the hypotheses were not supported. Reasons for the low response rate could be that the respondents had heavy workloads, low motivation to answer such questionnaires or were absent from work. On the other hand, to increase generalizability the data was collected from six different organizations in Norway that do not operate in the same business sector. In this study 60 per cent of the leaders and 65.93 per cent of the employees were women, and future studies should therefore have more focus on a more even gender distribution in order to produce better generalized findings. Further, as this study did not control for leader nor employee tenure, future studies should replicate this.

In line with Kopelman, Prottas and Falck's (2010) suggestions for further studies we intended to conduct a study investigating leaders' attitudes. As our research did not find significant results, more studies are needed to explore leaders' attitudes in relation to leaders' behaviours in order to investigate if there is a relationship between these two constructs. Furthermore, it might be interesting to conduct a reciprocal study where both leaders and employees report their perception of leaders' attitudes, to further explore McGregor's assumptions. When it comes to Theory X and Y in relation to the theory of attribution error, it could be interesting to investigate whether employees tend to blame their leaders for weak employee behaviour, and at the same time take the credit themselves if they get high scores of employee behaviour. Hence, it could be interesting to see if Herzberg's (1966) hygiene and motivational factors still remain influential. Whereas employees do not reflect about what positive influence their typical "soft" leaders' have on them, employees in a typical

“hard” leadership relationship will assumingly be very much aware of the negative influence the leader has on employee behaviours.

Another suggestion for further research is to investigate whether McGregor’s assumptions about Theory X and Y will be mediated or moderated by the length of leader education. Moreover, Hsiu-Fen (2007) suggests future research to study how personal traits and organizational characteristics may moderate the relationships between knowledge facilitators and processes. Also, it can be interesting to further investigate more in depth whether the economical versus psychological direction of education has implications for organizational performance as Ferraro, Pfeffer and Sutton (2005) indicated in their previous research. Lastly, we hope this study can inspire other researchers to further investigate the field of organizational psychology.

Implications for practice

Although our assumption that leaders’ attitudes will have a significant impact on employee behaviour was not supported, we found that leaders’ educational level may influence employee intrinsic motivation and knowledge sharing. Thus, the research findings in this study may imply that training and education is vital to develop effective leaders. Another implication in this relation can be to focus on those candidates with high education when recruiting to leadership positions. Further, it can be helpful for managers to encourage training and development for employees to both give a motivational signal that they are invested in, and increase the overall competence within the company. High employee turnover is costly for the organization, and especially if the organization lose competent employees who are difficult to replace (Lai and Kapstad 2009; Lee and Bruvold 2003; Pfeffer and Cohen 1984).

As the results from our study indicated that younger employees had higher turnover intention than older employees, managers should have a focus on different developmental possibilities for these employees. Another implication for managers is the relationship between age and intrinsic motivation as this study indicated that younger employees had lower intrinsic motivation than older employees. Thus, having a focus on training and development for the employees can decrease their intention to leave their job and increase their

intrinsic motivation (Dysvik and Kuvaas 2008) as they feel more appreciated and invested in. This can consequently be a cost-saving strategy for the organization. On the other hand, this must be seen in light of the overall organizational strategy and their need of competence (Pfeffer and Sutton 2006). A problem for many organizations is that their internal HR practises are inconsistent (Kuvaas 2009) and thus not adjusted to the right contextual and situational factors (Plous 1993). Organizations should therefore ensure that their HR practises mutually strengthen each other, which then might increase employee general job satisfaction.

Conclusion

In this paper we intended to explore McGregor's assumptions of Theory X and Y. Our aim was to investigate whether the relationship between leaders' X/Y attitude would have a significant impact on employee work behaviour and if this relationship were mediated by an ELMX/SLMX relationship. Leaders and employees representing six different organizations in Norway, answered questionnaires with already validated items. Unfortunately, the results of this study are extensively characterized by the low sample size, and thus most of the results are not at an acceptably significance level. Therefore, none of our four hypotheses were supported. Interestingly, this implies that there is not a direct relationship between attitudes and behaviour; hence, it is difficult to measure peoples' attitudes.

However, we did find support that leaders' educational level had an impact on employees' knowledge sharing and intrinsic motivation. As a result, this study indicates that leaders' educational level might have a greater impact on employee work behaviour, than X/Y leader attitudes seem to have. In line with this, organizations should to some extent focus on those candidates with high education when recruiting to leadership positions and encourage both their managers and employees to take part in further training and education. In addition, managers should also be aware that employees' age has an impact on their intrinsic motivation and turnover intention. These assumptions and practical implications must be seen in light of the limitations of this study, and further research is needed within this field.

References

- Ajzen, Icek and Martin Fishbein. 1977. Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84 (5): 8 – 918.
- Argyris, Chris. 2002. Double-loop learning, teaching, and research. *Academy of Management Learning and Education*, 1 (2): 206 – 18.
- Argyris, Chris. 1998. Empowerment: the emperor's new clothes. *Harvard Business Review*, 76 (3): 98 – 105.
- Arnolds, C. A. and C. Boshoff. 2002. Compensation, esteem valence and job performance: An empirical assessment of Alderfer's ERG theory. *International Journal of Human Resource Management*, 13 (4): 697 – 719.
- Arnulf, Jan Ketil, Bård Kuvaas and Anders Dysvik. Not published. Exploring motivational mediators between transformational leadership and employee outcomes.
- Asch, Solomon E. 1955. Opinions and social pressure. *Scientific American*. 193 (5): 31 – 35. Cited in Huczynski and Buchanan 2007.
- Asch, Solomon E. 1951. Effects of group pressure upon the modification and distortion of judgements, in H. Guetzkow (ed.). *Groups, Leadership and Men*. New York: Carnegie Press. 177 – 190. Cited in Huczynski and Buchanan 2007.
- Avolio, Bruce J., Jane M. Howell and John J. Sosik. 1999. A funny thing happened on the way to the bottom line: Humor as a moderator of leadership style effects. *Academy of Management Journal*, 42 (2): 219 – 227.
- Baron, Reuben and David A. Kenny. 1986. The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51 (6): 1173 – 1182. Cited in Kuvaas 2006b.
- Baum, Robert J. and Edwin A. Locke. 2004. The relationship of entrepreneurial traits, skills, and motivation to subsequent venture growth. *Journal of applied psychology*, 89 (4): 587 – 598.
- Blau, P. M. 1964. *Exchange and power in social life*. New York: John Wiley.
- Bond, Michael Harris. 1994. Trait Theory and Cross-Cultural Studies of Person Perception. *Psychological Inquiry*, 5 (2): 114 – 168.

-
- Bratton, John and Jeffrey Gold. 2007. *Human resource management: theory and practice*. 4th ed. New York: Palgrave Macmillan.
- Brockner, Joel, Tom R. Tyler and Rochelle Cooper-Shneider. 1992. The influence of prior commitment to an institution on reactions to perceived unfairness: The higher they are, the harder they fall. *Administrative Science Quarterly*, 37: 241 – 261.
- Brower, Holly H., Scott W. Lester, M. Audrey Korsgaard and Brian R. Dineen. 2008. A closer look at trust between managers and subordinates: Understanding the effects of both trusting and being trusted on subordinate outcomes. *Journal of Management*, 35 (2): 327 – 347.
- Buch, Robert, Bård Kuvaas and Anders Dysvik. 2011. The measurement and outcomes of economic leader-member exchange relationships. Accepted for presentation at the Annual Meeting of the Academy of Management, San Antonio.
- Buch, Robert, Bård Kuvaas and Anders Dysvik. 2010. Dual support in contract workers' triangular employment relationships. *Journal of Vocational Behavior*, 77: 93 – 103.
- Caldwell, Cam, Linda Hayes and Do Tien Long. 2010. Leadership, trustworthiness, and ethical stewardship. *Journal of Business Ethics*, 96 (4): 497 – 512.
- Clark, Andrew, Andrew Oswald and Peter Warr. 1996. Is job satisfaction U-shaped in age? *Journal of Occupational and Organizational Psychology*, 69: 57 – 81.
- Combs, James, Yongmei Liu, Angela Hall and David Ketchen. 2006. How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology*, 59: 501 – 528.
- Cooper, Colin. 2002. *Individual differences*. 2nd ed. London: Arnold.
- Cotton John L. and Jeffrey M. Tuttle. 1986. Employee turnover: A meta-analysis and review with implications for research. *Academy of Management Review*, 11: 55 – 70.
- Crampton, Suzanne M. and John A. Wagner. 1994. Percept-percept inflation in micro organizational research: An investigation of prevalence and effect. *Journal of Applied Psychology*, 79: 67 – 76.

-
- Davenport Thomas and Laurence Prusak. 2000. *Working knowledge: How organizations manage what they know*. 2nd ed. Boston: Harvard Business School Press.
- Deci, Edward L., James P. Connell and Richard M. Ryan. 1989. Self-determination in a work organization. *Journal of Applied Psychology*, 74: 580 – 590.
- Deci, Edward. L., Richard M. Ryan and Richard Koestner. 1999. A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125: 627 – 668.
- Den Hartog, Deanne N. and Annebel H. B. De Hoogh. 2009. Empowering behaviour and leader fairness and integrity: Studying perceptions of ethical leader behaviour from a levels-of-analysis perspective. *European Journal of Work & Organizational Psychology*, 18 (2): 199 – 230.
- DeVoe, Sanford E. and Sheena S. Iyengar. 2004. Managers' theories of subordinates: A cross cultural examination of manager perceptions of motivation and appraisal of performance. *Organizational Behavior and Human Decision Processes*, 93 (1): 47– 61.
- De Vries, Reinout. E., Bart van den Hooff and Jan A. de Ridder. 2006. Explaining Knowledge Sharing: The Role of Team Communication Styles, Job Satisfaction, and Performance Beliefs. *Communication Research*, 33 (2): 115 – 135.
- Dirks, Kurt T. and Donald L. Ferrin. 2002. Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology*, 87 (4): 611 – 628.
- Dixon, R. M. W. 1977. Where have all the adjectives gone? *Studies in Language*, 1: 19 –80. Cited in Bond, Michael Harris 1994.
- Dunning, David. 2007. Self-Image Motives and Consumer Behavior: How Sacrosanct Self-Beliefs Sway Preferences in the Marketplace. *Journal of Consumer Psychology*, 17 (4): 237 – 249.
- Dysvik, Anders, Bård Kuvaas and Robert Buch. 2010. Trainee programme reactions and work performance: the moderating role of intrinsic motivation. *Human Resource Development International*, 13 (4): 409 – 423.

-
- Dysvik, Anders and Bård Kuvaas. 2008. The relationship between perceived training opportunities, work motivation and employee outcomes. *International Journal of Training and Development*, 12 (3): 138 – 157.
- Dysvik, Anders and Bård Kuvaas. 2011. Intrinsic motivation as a moderator on the relationship between perceived job autonomy and work performance. *European Journal of Work and Organizational Psychology*, 20 (3): 367 – 387.
- Eisenberger, Robert, Florence Stinglhamber, Christian Vandenberghe, Ivan L. Sucharski and Linda Rhoades. 2002. Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, 87 (3): 565 – 573.
- Eskildsen, Jacob K., Kai Kristensen and Anders H. Westlund. 2003. Work motivation and job satisfaction in the Nordic countries. *Employee Relations*, 26 (2): 122 – 136.
- Ehrlich, Howard J. 1973. *The social psychology of prejudice: A systematic theoretical review and propositional inventory of the American social psychological study of prejudice*. Oxford, England: John Wiley & Sons. Cited in Fishbein 2002.
- Ferraro, Fabrizio, Jeffrey Pfeffer and Robert I. Sutton. 2005. Economics Language and Assumptions: How Theories can become Self-fulfilling. *Academy of Management Review*, 30 (1): 8–24.
- Field, Andy. 2009. *Discovering Statistics using SPSS*. 3rd ed. London: Sage publications Ltd.
- Finegold, David, Susan Mohrman and Gretchen M. Spreitzer. 2002. Age effects on the predictors of technical workers' commitment and willingness to turnover. *Journal of Organizational Behavior*, 23: 655 – 674.
- Fiman, Byron G. 1973. An investigation of the relationships among supervisory attitudes, behaviors, and outputs: an examination of McGregor's Theory Y. *Personnel Psychology*, 26 (1): 95 – 105.
- Fishbein, Harold. 2002. *Peer prejudice and discrimination: the origins of prejudice*. 2nd ed. New Jersey: Lawrence Erlbaum Associates, Inc.
- Fisher, Cynthia D. 2010. Happiness at Work. *International Journal of Management Reviews*, 12 (4): 384 – 412.
-

Foss, Nicolai J., Dana B. Minbaeva, Torben Pedersen and Mia Reinholt. 2009.

Encouraging knowledge sharing among employees: How job design matters. *Human Resource Management*, 48 (6): 871 – 893.

Frazier, Lance M., Paul D. Johnson, Mark Gavin, Janaki Gooty and Bradley D. Snow. 2010. Organizational Justice, Trustworthiness, and Trust: A Multifoci Examination. *Group & Organization Management*, 35 (1): 39 – 76.

Fung, Helene H., Phillina Lai and Rita Ng. 2001. Age differences in social preferences among Taiwanese and Mainland Chinese: The role of perceived time. *Psychology and Aging*, 16: 351 – 356.

Gagné, Marylène. 2009. A Model of Knowledge-sharing Motivation. *Human Resource Management*, 48: 571 – 589.

Gagné, Marylène and Edward Deci. 2005. Self-determination theory and work Motivation. *Journal of Organizational Behavior*, 26: 331 – 362.

Gerstner, Charlotte R. and David V. Day. 1997. Meta-analytic review of leader member exchange theory: correlates and construct issues. *Journal of Applied Psychology*, 82: 827 – 844.

Graen, George B. and Mary Uhl-Bien. 1991. The transformation of professionals into self-managing and partially self-designing contributions: Toward a theory of leader-making. *Journal of Management Systems*, 3 (3): 33 – 48.

Grant, Adam M. 2008. Does intrinsic motivation fuel the prosocial Fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology*, 93 (1): 48 – 58.

Grant, Adam M. and John J. Sumant. 2009. Mission Possible? The Performance of Prosocially Motivated Employees Depends on Manager Trustworthiness. *Journal of Applied Psychology*, 94 (4): 927 – 944.

Griffeth, Rodger W., Peter W. Hom and Stefan Gaertner. 2000. A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26 (3): 463 – 488.

Hair, Joseph F. Jr., William C. Black, Barry J. Babin and Rolph E. Anderson. 2010. *Multivariate Data Analysis. A Global Perspective*. 7th ed. New Jersey: Pearson Educational, Inc., Upper Saddle River.

-
- Hair, Joseph F. Jr., William C. Black, Barry J. Babin, Rolph E. Anderson and Ronald L. Tatham. 2006. *Multivariate Data Analysis*. 6th ed. New Jersey: Pearson Educational, Inc., Upper Saddle River.
- Hakimi, Natalia, Daan van Knippenberg and Steffen Giessner. 2010. Leader Empowering Behaviour: The Leader's Perspective. *British Journal of Management*, 21: 701 – 716.
- Healy, Mark C., Michael Lechman and Michael A. McDaniel. 1995. Age and voluntary turnover: A quantitative review. *Personnel Psychology*, 48 (2): 335 – 345.
- Heath, Chip. 1999. On the Social Psychology of Agency Relationships: Lay Theories of Motivation Overemphasize Extrinsic Incentives. *Organizational Behaviour and Human Decision Processes*. 78 (1): 25 – 62.
- Heil, G., W. Bennis and D. C. Stephens. 2000. Douglas McGregor, Revisited: *Managing the Human Side of the Enterprise*. New York: John Wiley and Sons. Cited in Kopelman, Prottas and Falck 2010.
- Herzberg, Fredrick I. 1966. *Work and the nature of man*. Oxford, England: World.
- Hsiu-Fen, Lin. 2007. Knowledge sharing and firm innovation capability: an empirical study. *International Journal of Manpower*. 28 (3/4): 315 – 332.
- Huczynski, Andrzej A. and David A. Buchanan. 2007. *Organizational behaviour: an introductory text*. 6th ed. Harlow: Financial Times Prentice Hall.
- Humphrey, Stephen E., Jennifer D. Nahrgang and Frederick P. Morgeson. 2007. Integrating Motivational, Social, and Contextual Work Design Features: A Meta-Analytic Summary and Theoretical Extension of the Work Design Literature. *Journal of Applied Psychology*, 92 (5): 1332 – 1356.
- Judge, Timothy A., Joyce E. Bono, Remus Ilies and Megan Gerhardt. 2002. Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, 87 (4): 765 – 780.
- Judge, Timothy A. and Ronald F. Piccolo. 2004. Transformational and Transactional Leadership: A Meta-Analytic Test of Their Relative Validity. *Journal of Applied Psychology*, 89 (5): 755 – 768.
- Kanfer, Ruth and Phillip L. Ackerman. 2004. Aging, adult development, and work motivation. *Academy of Management Review*, 29: 440 – 458.

-
- Kiffin-Petersen, Sandra and John L. Cordery. 2003. Trust, individualism and job characteristics as predictors of employee preference for teamwork. *International Journal of Human Resource Management*. 14 (1): 93 – 116. Cited in Kuvaas 2008.
- Kooij, Dorient T. A., Paul G. W. Jansen, Josje S. E. Dikkers and Annet H. De Lange. 2010. The influence of age on the associations between HR practices and both affective commitment and job satisfaction: A meta-analysis. *Journal of Organizational Behavior*, 31 (8): 1111 – 1136.
- Kopelman, Richard E., David J. Prottas and David W. Falck. 2010. Construct validation of a Theory X/Y behavior scale. *Leadership & Organization Development Journal*, 31 (2): 120 – 135.
- Krishnan, Ranjani J., Joan L. Luft and Michael D. Shields. 2005. Effects of accounting-method choices on subjective performance-measure weighting decisions: Experimental evidence on precision and error covariance. *Accounting Review*, 80 (4): 1163 – 1192.
- Kuvaas, Bård. 2009. Lønnsomhet gjennom menneskelige ressurser. Evidensbasert HRM. Chapter 2. *Prestasjonsbasert belønning og motivasjon*. 2nd ed. Bergen: Fagbokforlaget.
- Kuvaas, Bård. 2008. An Exploration of How the Employee-Organization Relationship Affects the Linkage between Perception of developmental Human Resource Practices and Employee Outcomes. *Journal of Management Studies*, 45 (1): 1 – 25.
- Kuvaas, Bård. 2007. Different relationships between perceptions of developmental performance appraisal and work performance. *Personnel Review*, 36 (3): 378 – 397.
- Kuvaas, Bård. 2006a. Performance appraisal satisfaction and employee outcomes: Mediating and moderating roles of motivation. *The International Journal of Human Resource Management*, 17 (3): 504 – 522.
- Kuvaas, Bård. 2006b. Work performance, affective commitment, and work motivation: The role of pay administration and pay level. *Journal of Organizational Behavior*, 27 (3): 365 – 385.

-
- Kuvaas, Bård and Anders Dysvik. 2010. Does best practice HRM only work for intrinsically motivated employees? *International Journal of Human Resource Management*, 21 (13): 2339 – 2357.
- Kuvaas, Bård and Anders Dysvik. 2009. Perceived investment in employee development, intrinsic motivation and work performance. *Human Resource Management Journal*, 19 (3): 217 – 236.
- Kuvaas, Bård, Robert Buch and Anders Dysvik. Not published. Economic and social leader-member exchange and follower performance.
- Lai, Linda and Janne C. Kapstad. 2009. Perceived competence mobilization: an explorative study of predictors and impact on turnover intentions. *The International Journal of Human Resource Management*, 20 (9): 1985 –1998.
- Lawrence, Paul R. 2010. The key job design problem is still Taylorism. *Journal of Organizational Behavior*, 31: 412 – 421.
- Lee, Chay Hoon and Norman T. Bruvold. 2003. Creating value for employees: investment in employee development. *International Journal of Human Resource Management*, 14 (6): 981 – 1000.
- Lee, Pauline, Nicole Gillespie, Leon Mann and Alexander Wearing. 2010. Leadership and trust: Their effect on knowledge sharing and team performance. *Management Learning*, 41 (4): 473 – 491.
- Loi, Raymond, Yina Mao and Hang-yue Ngo. 2009. Linking Leader-Member Exchange and Employee Work Outcomes: The Mediating Role of Organizational Social and Economic Exchange. *Management and Organization Review*, 5 (3): 401 – 422.
- Malle, Bertram F. 2006. The actor-observer asymmetry in attribution: A (surprising) meta-analysis. *Psychological Bulletin*, 132 (6): 895 – 919.
- Mathieu, John E. and Scott E. Taylor. 2006. Clarifying conditions and decision points for meditational type inferences in organizational behavior. *Journal of Organizational Behavior*. 27: 1031 – 1056.
- Mayer, Rorger C. and Mark B. Gavin. 2005. Trust in management and performance: Who minds the shop while the employees watch the boss? *Academy of Management Journal*, 48: 874 – 888.

-
- McGregor, Douglas M. 1960. *The human side of enterprise*. New York: McGraw Hill.
- McNall, Laurel A. and Sylvia G. Roch. 2009. A social Exchange Model of Employee Reactions to Electronic Performance Monitoring. *Human Performance*, 22 (3): 204 – 224.
- Meindl, James R., Sanford B. Ehrlich and Janet M. Dukerich. 1985. The romance of leadership. *Administrative Science Quarterly*, 30: 78 – 102.
- Meyer, John P., David J. Stanley, Lynne Herscovitch and Laryssa Topolnytsky. 2002. Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61: 20 – 52.
- Milgram, Stanley. 1964. Group pressure and action against a person. *Journal of Abnormal and Social Psychology*, 69: 137-143.
- Miller, Dale T. and Rebecca K. Ratner. 1998. The disparity between the actual and assumed power of self-interest. *Journal of Personality and Social Psychology*, 74: 53 – 62.
- Moore, Don A. and Francis J. Flynn. 2008. The Case for Behavior Decision Research in Organizational Behavior. *Academy of Management Annals*, 2 (1): 399 – 431.
- Ng, Thomas W. H. and Daniel C. Feldman. 2009. Re-examining the relationship between age and voluntary turnover. *Journal of Vocational Behavior*, 74: 283 – 294.
- Nonaka, Ikujiro. 1994. A Dynamic Theory of Organizational Knowledge Creation. *Organization Science*, 5 (1): 14-37.
- Nonaka, Ikujiro and Hirotaka Takeuchi. 1995. *The Knowledge Creating Company*. New York: Oxford University Press.
- Northouse, Peter G. 2007. *Leadership. Theory and Practice*. California: Sage Publications, Inc.
- Nunnally, Jum C. and Ira H. Bernstein. 2007. *Psychometric theory*. 3rd ed. New York: McGraw-Hill.

-
- O'Reilley, Charles A. and Jeffrey Pfeffer. 2000. *Hidden value, How great companies achieve extraordinary results with ordinary people*. Chapter 4. Boston Massachusetts: Harvard Business School Press.
- Patall, Erika A., Harris Cooper and Jorgianne C. Robinson. 2008. The Effects of Choice on Intrinsic Motivation and Related Outcomes: A Meta-Analysis of Research Findings. *Psychological Bulletin*, 134 (2): 270 – 300.
- Pervin, Lawrence A. 1994. A Critical Analysis of Current Trait Theory. *Psychological Inquiry*, 5 (2): 103 – 113.
- Pfeffer, Jeffrey, Robert B. Cialdini, Benjamin Hanna and Kathleen Knopoff. 1998. Faith in Supervision and the Self-Enhancement Bias: Two Psychological Reasons Why Managers Don't Empower Workers. *Basic and Applied Social Psychology*, 20 (4): 313 – 321.
- Pfeffer, Jeffrey and Yinon Cohen. 1984. Determinants of internal labor markets in organizations. *Administrative Science Quarterly*, 29: 550-572.
- Pfeffer, Jeffrey and Christina T. Fong. 2005. Building organization theory from first principles: The self-enhanced motive and understanding power and influence. *Organization Science*, 16 (4): 372 – 388.
- Pfeffer, Jeffrey and Robert I. Sutton. 1999. Knowing "What" to Do Is Not Enough: Turning Knowledge into Action. *California Management Review*, 42 (1): 83 – 108.
- Pfeffer, Jeffrey and Robert I. Sutton. 2006. Hard facts, dangerous half-truths, and total nonsense: Profiting from evidence-based management. *California Management Review*, 48 (3): 77 – 100.
- Plous, Scott. 1993. *The Psychology of Judgement and Decision Making*. New York: McGraw-Hill, Inc.
- Powell, Gary N., D. Anthony Butterfield and Jane D. Parent. 2002. Gender and managerial stereotypes: Have the times changed? *Journal of Management*, 28 (2): 177 – 193.
- Pronin, Emily. 2007. Perceptions and misperceptions of bias in human judgment. *Trends in Cognitive Sciences*, 11 (1): 37 – 43.
- Pronin, Emily, Lee Ross and Thomas Gilovich. 2004. Objectivity in the eye of the beholder: Divergent perception of bias in self versus others. *Psychological Review*, 111 (3): 781 – 799.
-

-
- Rhodes, Susan R. 1983. Age-related differences in work attitudes and behavior: A review and conceptual analysis. *Psychological Bulletin*, 93: 328 – 367.
Cited in Healy, Lechman and McDaniel 1995
- Rousseau, Denise M., Sim B. Sitkin, Ronald S. Burt and Colin Camerer. 1998. Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23: 393 – 404.
- Salamon, Sabrina Deutsch and Sandra L. Robinson. 2008. Trust that binds: The impact of collective felt trust on organizational performance. *Journal of Applied Psychology*, 93 (3): 593 – 601.
- Schmidt, Frank L. and John E. Hunter. 1998. The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, 124 (2): 262 – 274.
- Shore, Lynn M., Lois E. Tetrick, Patricia Lynch and Kevin Barksdale. 2006. Social and economic exchange: Construct development and validation. *Journal of Applied Social Psychology*, 36 (4): 837 – 867.
- Sirota, David, Louis A. Mischkind and Michael I. Meltzer. 2005. *The Enthusiastic Employee. How Companies profit by Giving Workers What They Want*. Pearson Education, Inc. New Jersey: Upper Saddle River.
- Sorkin, Dara H., and Karen S. Rook. 2006. Dealing with negative social exchanges in later life: Coping responses, goals, and effectiveness. *Psychology and Aging*, 21 (4): 715 – 725.
- Stogdill, Ralph M. 1948. Personal Factors associated with leadership. *Journal of Psychology*, 25: 35 – 71. Cited in Northouse 2007.
- Sverke, Magnus, Johnny Hellgren and Katharina Näswall. 2002. No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7 (3): 242 – 264.
- Thaler, Richard and Cass R. Sunstein. 2009. *Nudge. Improving decisions about health, wealth and happiness*. 2nd ed. London: Penguin Group.
- Tsai, Wenpin. 2001. Knowledge transfer in intraorganizational networks: effects of network position and absorptive capacity on business innovation and performance. *Academy of Management Journal*, 44: 996 – 1004.

-
- Uhl-Bien, Mary, George B. Graen and Terri A. Scandura. 2000. Implications of leader-member exchange (LMX) for strategic human resource management systems: Relationships as social capital for competitive advantage. In G. R. Ferris (Ed.), *Research in personnel and human resources management*, 18: 137 – 185. Stamford, CT: JAI Press. Cited in Loi, Moa and Ngo 2009.
- Van Boven, Leaf, Margaret C. Campbell and Thomas Gilovich. 2010. Stigmatizing materialism: On stereotypes and impressions on materialistic and experiential pursuits. *Personality and Social Psychology Bulletin*, 36 (4): 551 – 563.
- Van Dyne, Linn, Jill W. Graham and Richard M. Dienesch. 1994. Organizational citizenship behavior: Construct redefinition, measurement, and validation. *Academy of Management Journal*. 37 (4): 765 – 802. Cited in Kuvaas 2008.
- Wong, Yui-Tim, Chi-Sum Wong, Hang-Yue Ngo and Hon-Kwong Lui. 2005. Different responses to job insecurity of Chinese workers in joint ventures and state-owned enterprises. *Human Relations*, 58 (11): 1391 – 1418.
- Yang, Jixia and Kevin W. Mossholder. 2010. Examining the effects of trust in leaders: A bases and-foci approach. *Leadership Quarterly*, 21 (1): 50 – 63.

Appendix 1

Principal Component Analysis for leader attitude with Promax Rotation:

Items	Y	X
WEY2: For de fleste mennesker er arbeid like naturlig som fritid og tidsfordriv	1.02	
WEY3: Mennesker liker generelt å arbeide	.96	
QY3 Ansatte har mye fantasi og kreativitet	.91	
QY2 De fleste ansatte kan komme med ideer som kan bidra til positiv utvikling av organisasjonen	.87	
WEY4: De fleste ansatte er villige til å gjøre en ekstra innsats utover det som er beskrevet i stillingsinstruksen	.85	
QY4: Ansatte kan ofte hjelpe en leder til å ta bedre avgjørelser eller å løse problemer	.83	
QY1: Ansattes ideer fører ofte til utvikling av nyttige forslag	.81	
QX3: Ansattes ideer er som oftest ikke nyttige for organisasjonen	.70	
WEY1: De fleste ansatte er flittige og hardt arbeidende	.63	
QX4: De fleste ansatte mangler evnene som skal til for å bidra til positiv organisasjonsutvikling		1.05
WEX2: Det ligger i menneskets natur at de ikke liker å jobbe		.98
TY3: De fleste ansatte er generelt pålitelige og troverdige		.94
TX2: De fleste ansatte kan man ikke stole på		.86
TX3: De fleste ansatte er ikke i stand til å kontrollere og motivere seg selv	-.33	.63

Factor loadings less than .30 are not shown; **bold loadings are included in the final scale.** WEY = Y attitude of Work Effort; QY = Y attitude of Quality; WEX = X attitude of Work Effort; QX = X attitude of Quality.

Appendix 2

Principal Component Analysis for employee behaviour with Promax Rotation:

Items	ELMX	SLMX	IM	WE	KS	TI
ELMX6: Jeg gjør sjelden eller aldri en tjeneste for min nærmeste leder uten å ha en klar forventning om at denne tjenesten vil gjengjeldes i løp av kort tid	.97					
ELMX3: Jeg er kun villig til å stå på ekstra for min nærmeste leder dersom jeg tror det øker min mulighet for å oppnå personlige fordeler som for eksempel mer attraktive arbeidsoppgaver eller en forfremmelse	.95					
ELMX10: Dersom jeg står på ekstra for min nærmeste leder det for selv å få noe konkret tilbake	.90					
ELMX5: Som regel forhandler jeg med min nærmeste leder om hva det er jeg skal få i gjengjeld for å gjøre en oppgave	.87					
ELMX8: Jeg er nøye med at jeg får noe konkret tilbake når jeg gjør noe ekstra for min nærmeste leder	.86					
ELMX4: Jeg er veldig nøye med at det er et samsvar mellom hva jeg gir og hva jeg får tilbake i min relasjon til min nærmeste leder	.86					
ELMX1: Skal jeg bidra med noe ekstra for min nærmeste leder skal jeg på forhånd vite hva jeg får tilbake	.77					
ELMX7: Dersom jeg skal bidra med noe ekstra for min nærmeste leder avveier jeg fordelene og ulempene ved å gjøre det	.76					
ELMX2: Skal jeg være sikker på å få noe tilbake for en tjeneste jeg har gjort for min nærmeste leder, må vi på forhånd bli enige om hva det er jeg skal få	.72	-.30				
ELMX11: Når jeg 'gir noe tilbake' til min nærmeste leder er det ikke nødvendigvis fordi jeg føler meg takknemlig eller fordi jeg føler jeg må, men fordi det kan ha negative konsekvenser for meg dersom jeg ikke gjør det	.61					

Items	ELMX	SLMX	IM	WE	KS	TI
SLMX1: Dersom jeg står på ekstra i dag er jeg temmelig sikker på at min nærmeste leder vil stille opp for meg hvis jeg har behov for det		.91				
SLMX2: Min nærmeste leder og jeg behøver ikke konkrete avtaler om tjenester og gjentjenester for at jeg skal føle meg sikker på at han eller hun vil gjengjelde mine tjenester		.89				
SLMX3: Relasjon til min nærmeste leder handler mye om gjensidig imøtekommenhet, noen ganger gir jeg mer enn jeg får og andre ganger får jeg mer enn jeg gir		.87				
SLMX4: Siden jeg stoler på at min nærmeste leder vil ta godt vare på meg som medarbeider, velger jeg å se på stort på det om han/hun ikke alltid gir meg den anerkjennelsen jeg mener jeg fortjener		.82				
SLMX6: Jeg opplever at min nærmeste leder har investert mye i meg		.80	.31			
SLMX5: Relasjonen til min nærmeste leder er basert på gjensidig tillit		.72		.33		
SLMX7: Jeg forsøker å bidra til å ivareta min nærmeste leders interesser fordi jeg stoler på at han eller hun vil ta godt vare på meg		.70				
SLMX8: Jeg tror at den innsatsen jeg legger ned i jobben i dag vil være fordelaktig for min relasjon til min nærmeste leder, også på noe lengre sikt		.61				
IM5: Jobben min er så interessant at den i seg selv er sterkt motiverende			.88			
IM1: Mine arbeidsoppgaver er i seg selv en viktig drivkraft i jobben min			.80			
IM6: Av og til blir jeg så inspirert av jobben min at jeg nesten glemmer ting rundt meg			.79			
IM4: Jobben min er veldig spennende			.78			
IM2: Det er gøy å jobbe med de arbeidsoppgavene jeg har			.71	.31		
IM3: Jeg føler at den jobben jeg gjør er meningsfull			.57			

Items	ELMX	SLMX	IM	WE	KS	TI
WE5: Jeg forsøker å jobbe så hardt som overhodet mulig				.91		
WE2: Jeg står ofte på litt ekstra i travle perioder				.90		
WE3: Jeg legger ofte inn ekstra innsats i jobben min				.90		
WE1: Jeg nøler sjeldent med å ta i et ekstra tak når det er behov for det				.88		
WE4: Jeg er svært opptatt av å gjøre en god innsats i jobben min				.79		
KS7: Jeg anser det som viktig at mine kollegaer vet hva jeg jobber med					.92	
KS3: Jeg informerer jevnlig mine kollegaer om hva jeg arbeider med					.79	
KS4: Når jeg har lært noe nytt sørger jeg for at mine kollegaer også lærer det					.74	
KS5: Jeg deler informasjon som jeg får med mine kollegaer					.74	
KS8: Når jeg vet at en kollega er flink til noe, ber jeg han/henne om å lære meg					.56	
KS1: Jeg liker å bli oppdatert på hva mine kollegaer vet/har kunnskap om					.51	
TI1: Jeg tenker ofte på å slutte i min nåværende jobb						.87
TI3: Jeg vil sannsynligvis lete aktivt etter en ny jobb det neste året						.83
TI5: Jeg vil trolig lete aktivt etter en ny jobb i løpet av de nærmeste 3 årene						.83
TI2: Jeg kan komme til å slutte i min nåværende jobb i løpet av året						.82
TI4: Jeg oppfatter mine framtidsutsikter i denne organisasjonen som dårlige						.81

Factor loadings less than .30 are not shown; **bold loadings are included in the final scale.** ELMX = Economic Leader-Member Exchange; SLMX = Social Leader-Member Exchange; IM = Intrinsic Motivation; WE = Work Effort; KS = Knowledge Sharing; TI = Turnover Intention.